

**224-01 MERRICK BLVD.**

**QUEENS, NEW YORK**

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# **Remedial Investigation Report**

**NYC VCP Site Number:**

**E-Designation Site Number: 12EH-N378Q**

**Prepared for:**

224-01 Merrick LLC

102-10 Metropolitan Ave Suite 200

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June 2012

# REMEDIAL INVESTIGATION REPORT

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## LIST OF ACRONYMS

<b>Acronym</b>	<b>Definition</b>
AOC	Area of Concern
CAMP	Community Air Monitoring Plan
COC	Contaminant of Concern
CPP	Citizen Participation Plan
CSM	Conceptual Site Model
DER-10	New York State Department of Environmental Conservation Technical Guide 10
FID	Flame Ionization Detector
GPS	Global Positioning System
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
IRM	Interim Remedial Measure
NAPL	Non-aqueous Phase Liquid
NYC VCP	New York City Voluntary Cleanup Program
NYC DOHMH	New York City Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
NYS DOH ELAP	New York State Department of Health Environmental Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PID	Photoionization Detector
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RIR	Remedial Investigation Report
SCO	Soil Cleanup Objective
SPEED	Searchable Property Environmental Electronic Database

## CERTIFICATION

I, James M. DeMartinis P.G., 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 224-01 Merrick Blvd Site, (NYC VCP Site No. 12EH-N378Q). 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.



James M. DeMartinis                      6/28/2012

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Qualified Environmental Professional

Date

Signature

## **EXECUTIVE SUMMARY**

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

### **Site Location and Current Usage**

The Site is located at 224-01 Merrick Boulevard in the Laurelton section of Queens, New York and is identified as Block 12963 and Lot 308 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 10,000-square feet and is bounded by residences to the north, Merrick Boulevard to the south, a commercial building to the east, and 224th Street to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is vacant and contains a 7,100 square foot building.

### **Summary of Proposed Redevelopment Plan**

A one story building with no basement, built in 1945 (now vacant), occupies 7,100 square foot of the property. This property has been designated with a Hazardous Materials “E” (E-219) as part of the Laurelton Rezoning Action (CEQR # 08DCP073Q).

The project consists of a 7,635 square foot retail building with a partial cellar. The existing building consists of a retail store and auto repair shop and will be converted into three retail stores while maintaining most of the existing structure. The following areas of the three retail spaces are as follows: 3,178 square feet for the proposed retail store number one, 2,563 square feet for the proposed retail store number two, and 1,894 square feet for the proposed retail store number three. The 1,500 square foot proposed cellar will accommodate the mechanical room. The proposed height of the building is 18-feet. The length of the street frontage is approximately 100-feet. There will be approximately 25 linear feet from the front of the finished building to the property line that will be a paved area for parking. The bottom of the cellar footing will be 10 feet below grade.

The proposed construction will require minor demolition and soil disturbance to accommodate the cellar. The soil in the footprint of the proposed cellar will be removed and properly disposed of.

### **Summary of Past Uses of Site and Areas of Concern**

The 1926 Sanborn Map shows the site as vacant. The building was constructed in 1945 and is shown on subsequent Sanborn Maps as it is today. The Sanborn Maps designate the building as auto sales and service. Occupants of the site included Geffner Motors (1945 and 1955); Laurel Motors (1965 and 1975); and R&S Strauss a/k/a Strauss Discount Auto (1985-2008).

There was one documented UST on the site. A 1,000 gallon waste oil storage tank was removed on February 1, 2003. A search of the NYSDEC spills database did not indicate any spills associated with this UST or for that matter the site itself.

The AOCs identified for this site include:

1. The area of the former 1,000 gallon waste oil UST.
2. The area where automobile servicing occurred (i.e. hydraulic lifts, drains, etc.).

### **Summary of the Work Performed under the Remedial Investigation**

224-01 Merrick LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Drilled 6 soil borings across the entire project Site, and collected 9 soil samples for chemical analysis from the soil borings to evaluate soil quality;
3. Installed 3 groundwater monitoring wells throughout the Site to establish groundwater flow direction and collected 3 groundwater samples for chemical analysis to evaluate groundwater quality;
4. Installed 3 soil vapor probes around Site perimeter and collected 3 samples for chemical analysis to evaluate soil vapor quality.

## Summary of Environmental Findings

1. Elevation of the property is approximately 25 feet mean sea level.
2. Depth to groundwater ranges from 19 to 21 feet at the Site.
3. Groundwater flow is generally from north to south beneath the Site.
4. Depth to bedrock is approximately 525 feet at the Site.
5. The stratigraphy of the site, from the surface down, consists of fine to medium grained sand with quartz pebbles. There is very little artificial fill present. Soil/fill samples collected during the RI indicated all constituents below Track 1 Soil Cleanup Objectives. No PCBs or pesticides were detected in any soil samples. Only one VOC, methylene chloride was detected in all nine soil samples and ranged from 8 to 13 ppb. A low level of TCE was detected in one deep (15 to 17 feet bgs) soil sample at concentration of 17 ppb. Similarly, very low levels of SVOCs were detected in one of the nine soil samples. Metals were detected in all soil samples at very low concentrations and were all below Track 1 UUSCOs.
6. PCBs and SVOCs were not detected in groundwater. One VOC, methylene chloride, was detected in the three groundwater samples to a maximum concentration of 3.5 ppb. These concentrations are below NYSDEC 6NYCRR Part 375 Groundwater Quality standards (GQS). Methylene chloride was also detected in the laboratory blank. Very low concentrations of several pesticides were detected in the groundwater samples. Aldrin (0.11 ppb) and endosulfan I (0.12ppb) exceeded GQS (0.12 ppb). Four dissolved metals including iron, manganese, mercury, and sodium were detected above GQS. Mercury was detected at .00108 ug/l (GQS is 0.0007 ug/l). Mercury was not detected above Track 1 UUSCOs in the 9 soil samples analyzed.
7. Low levels of petroleum related compounds were detected in soil vapor samples. Acetone was detected at 156 ug/m<sup>3</sup> (VP-1). Tetrachloroethene (a/k/a perchloroethylene, PCE) was detected in all samples at a maximum concentration of 406 ug/m<sup>3</sup> (VP-1) in undiluted samples. The highest accurate concentration of PCE was measured to be 257 ug/m<sup>3</sup>.

# REMEDIAL INVESTIGATION REPORT

## 1.0 SITE BACKGROUND

224-01 LLC has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate an approximate quarter-acre site located at 224-01 Merrick Boulevard in the Laurelton section of Queens, New York. Commercial use is proposed for the property. The RI work was performed between May and June 2012. This RIR summarizes 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).

## 1.1 SITE LOCATION AND CURRENT USAGE

The Site is located at 224-01 Merrick Boulevard in the Laurelton section of Queens, New York and is identified as Block 12963 and Lot 308 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 10,000-square feet and is bounded by residences to the north, Merrick Boulevard to the south, a commercial building to the east, and 224th Street to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is vacant and contains a 7,100 square foot building.

## 1.2 Proposed Redevelopment Plan

A one story building with no basement, built in 1945 (now vacant), occupies 7,100 square feet of the property. This property has been designated with a Hazardous Materials “E” (E-219) as part of the Laurelton Rezoning Action (CEQR # 08DCP073Q).

The project consists of 7,635 square foot retail building with a partial cellar. The existing building consists of a retail store and auto repair shop and will be converted into three retail stores while maintaining most of the existing structure. The following areas of the three retail spaces are as follows: 3,178 square feet for the proposed retail store number one, 2,563 square feet for the proposed retail store number two, and 1,894 square feet for the proposed retail store

number three. The 1,500 square foot proposed cellar will accommodate the mechanical room. The proposed height of the building is 18-feet. The length of the street frontage is approximately 100-feet. There will be approximately 25 linear feet from the front of the finished building to the property line that will be paved area for parking. The bottom of the cellar footing will be 10 feet below grade.

The proposed construction will require minor demolition and soil disturbance to accommodate the cellar. The soil in the footprint of the proposed cellar will be removed and properly disposed of.

Layout of the proposed site development is presented in Figure 3.

### **1.3 DESCRIPTION OF SURROUNDING PROPERTY**

The property is bordered to the north by a residence; to the south by Merrick Boulevard and a transmission repair facility; to the east by a restaurant; and to the west by 224<sup>th</sup> Street and a truck lot.

Also within a 500 ft. radius of the property there are several religious facilities, one preschool and 1 daycare:

- One Way Church of Christ 216-11 Merrick Boulevard, Jamaica, NY- 447 ft. to the west.
- Queens Church of the Firstborn 226-01 Merrick Boulevard, Laurelton, NY- 496 ft. to the southeast.
- Middletons Early Learning Center 226-02 Merrick Boulevard, Laurelton, NY-394 ft. to the west.
- Middletons DC First Grade 225-16 Merrick Boulevard, Laurelton, NY – 500 ft. to the west.

There are several other religious facilities just outside the 500 ft radius of the site:

- Lebanon Seventh Day Adventist Church Queens, New York, NY – 0.1 mi northeast.

- United Baptist Church of Truth 222-1 Merrick Boulevard, Springfield Gardens, NY 0.1 mi west.
- Evangel Temple 227-10 Merrick Boulevard, Laurelton, NY – 0.15 east.
- Linden Seventh Day Adventist & H. Linden Seventh Day School, 137-01 228th Street, Queens, New York, NY 0.3mi south.

Figure 4 shows the surrounding land usage.

## **2.0 SITE HISTORY**

### **2.1 PAST USES AND OWNERSHIP**

The 1926 Sanborn Map shows the site as vacant. The building was constructed in 1945 and is shown on subsequent Sanborn Maps as it is today. The Sanborn Maps designate the building as auto sales and service. Occupants of the site included Geffner Motors (1945 and 1955); Laurel Motors (1965 and 1975); and R&S Strauss a/k/a Strauss Discount Auto (1985-2008).

There was one documented UST on the site. A 1,000 gallon waste oil storage tank was removed on February 1, 2003. A search of the NYSDEC spills database did not indicate any spills associated with this UST or for that matter the site itself.

### **2.2 PREVIOUS INVESTIGATIONS**

A Phase I ESA was prepared by Middleton Environmental Inc. of Babylon, New York in February 2012 (Appendix A). There are no known subsurface investigation reports for the site.

### **2.3 SITE INSPECTION**

JRH was on-site three times to conduct activities associated with the RIR. There was no evidence of surficial contamination or activities that would cause such. These observations were consistent with the Phase I ESA prepared by Middleton.

### **2.4 AREAS OF CONCERN**

The AOCs identified for this site include:

1. The area of the former 1,000 gallon waste oil UST.
2. The area where automobile servicing occurred (i.e. hydraulic lifts, drains, etc.).

Phase 1 Report is presented in Appendix A. A map showing areas of concern is presented in Figure 5.

### **3.0 PROJECT MANAGEMENT**

#### **3.1 PROJECT ORGANIZATION**

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is

James M. DeMartinis with assistance from Heather Sonnenberg, Field Engineer and Patricia Zalak, Office Administrator.

#### **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.

#### **3.3 MATERIALS MANAGEMENT**

All material encountered during the RI was managed in accordance with applicable laws and regulations.

## **4.0 REMEDIAL INVESTIGATION ACTIVITIES**

224-01 Merrick LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Drilled 6 soil borings across the entire project Site, and collected 9 soil samples for chemical analysis from the soil borings to evaluate soil quality;
3. Installed 3 groundwater monitoring wells throughout the Site to establish groundwater flow direction and collected 3 groundwater samples for chemical analysis to evaluate groundwater quality;
4. Installed 3 soil vapor probes around Site perimeter and collected 3 samples for chemical analysis to evaluate soil vapor quality.

### **4.1 GEOPHYSICAL INVESTIGATION**

Due to the presence and footprint of the building, no geophysical surveys could be conducted.

### **4.2 BORINGS AND MONITORING WELLS**

#### **Drilling and Soil Logging**

Six soil borings were drilled both within the footprint of the existing building (to be renovated) and outside perimeter with the purpose of collecting soil samples for analysis. The soil boring locations are shown on Figure 5.

- B-1 was drilled through the existing concrete slab within the footprint of the proposed cellar;
- B-2 was drilled in the area where the UST that was previously removed is assumed to have been;
- B-3, B-4 and B-6 were drilled outside the footprint of the existing building; and
- B-5 was drilled in the area of the former service shop.

All borings were drilled using a track-mounted Geoprobe™ operated by Zebra Environmental Corp. of Lynbrook, New York. Geoprobe™ services were conducted in

accordance with the operation and sampling procedures outlined in the United States Environmental Protection Agency (EPA) Standard Operating Procedure SOP No. 2050. Non-disposable sampling equipment was cleaned using distilled water and Alconox detergent with a distilled water rinse prior to the collection of each sample.

Boring logs prepared by the project engineer are attached in Appendix B. These logs include PID readings and GPS coordinates. A map showing the location of soil borings and monitor wells is shown in Figure 5.

### **Groundwater Monitoring Well Construction**

Under JRH oversight, three monitoring wells were installed in borings drilled at the locations shown on Figure 5. The wells consist of 10-feet of two-inch diameter .020 slot pre-pack well screen and the appropriate length of 2-inch riser. The screen in each well was installed to bridge the water table at the time of drilling-ideally three feet above and seven feet below.

A hydrated bentonite seal was placed directly above the sand pack and the remainder of the annular space grouted with a cement/bentonite/soil cuttings mixture. The wells were finished at land surface with six-inch flush mounts set in concrete.

### **Water Level Measurement**

A designated measuring point was established on the top of each monitoring well casing and surveyed vertically by JRH to a common datum. Water levels in all monitoring wells were measured on June 5, 2012 and a groundwater flow elevation contour map was prepared for that measurement period.

## **4.3 SAMPLE COLLECTION AND CHEMICAL ANALYSIS**

Sampling performed as part of the field investigation was conducted for all Areas of Concern and also considered other means for bias of sampling based on professional judgment, area history, discolored soil, stressed vegetation, drainage patterns, field instrument measurements, odor, or other field indicators. All media including soil, groundwater and soil vapor have been sampled and evaluated in the RIR. Discrete (grab) samples have been used for final delineation of the nature and extent of contamination and to determine the impact of contaminants on public

health and the environment. The sampling performed and presented in this RIR provides sufficient basis for evaluation of remedial action alternatives, establishment of a qualitative human health exposure assessment, and selection of a final remedy.

### **Soil Sampling**

Soil samples were collected using a five-foot long Macrocore™ sampler with dedicated acetate liners advanced by the Geoprobe™. The Macrocore™ samples were visually characterized by a JRH engineer and field screened for the presence of volatile organic compound (VOCs) using a Mini Rae 2000 portable photoionization detector (PID). Based on these descriptions geologic soil-boring logs were prepared and are included in Appendix C.

At boring locations B-3, B-4 and B-6 soil samples were collected continuously from land surface to five feet below grade. At boring locations B-1, B-2 and B-5 soil samples were collected continuously from land surface to five feet below groundwater (20-feet below grade).

One sample was collected within the first two feet of soil borings B-3, B-4 and B-6. Two soil samples were collected for laboratory analysis in borings B-1, B-2 and B-5; one sample was collected within the first two feet and one sample was collected right above groundwater.

Borings B-1, B-5 and B-6 were drilled deeper for the purpose of monitoring well installation. Soil samples were collected continuously to the bottom of each monitoring well boring drilled to five feet below groundwater (approximately 25 feet below grade).

Soil samples were hand delivered to American Analytical Laboratories, Farmingdale, New York (NYSDOH ELAP #11418) for analysis. Soil samples were analyzed for TCL VOCs (EPA Method 8260C, rev. 2006), TCL SVOCs (EPA Method 8270D, rev. 2007), Pesticides (EPA Method 8081B, rev. 2000), PCBs (EPA Method 8082A, rev. 2000), and TAL Metals (EPA Method 6010C, rev. 2007).

Nine soil samples were collected for chemical analysis during this RI. Data on soil sample collection for chemical analyses, including dates of collection and sample depths, is reported in Tables 1-5. Figure 5 shows the location of samples collected in this investigation. Laboratories and analytical methods are shown below.

## **Groundwater Sampling**

The monitoring wells were purged and sampled by an experienced sampling crew on May 17, 2012. JRH collected groundwater samples from the monitoring wells using low-flow sampling methods. Prior to sampling, each well was purged a minimum of three casing volumes using a submersible centrifugal pump (Grundfos RediFlo2) with per-well dedicated polyethylene tubing set in the middle of the well screen. This is performed to ensure representative samples from the formation surrounding the wells and to eliminate standing water in the wells. Between sampling locations the pump was cleaned internally and externally with an Alconox and water solution, followed by a fresh water rinse.

Temperature, pH, dissolved oxygen, turbidity and specific conductivity measurements was collected and recorded after the removal of each casing volume. These data are presented in well sampling logs which are provided in Appendix D.

Groundwater samples were analyzed by American Analytical Laboratories, Farmingdale, New York (NYSDOH ELAP #11418) for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, Pesticides/PCBs by EPA Methods 8081/8082 and the TAL metals. Groundwater samples were analyzed as filtered/unfiltered samples for TAL metals.

Quality control (QA/QC) samples include one field blank, one trip blank, and one lab blank, QA/QC for chemical analytical program and assessment of the usability of the data will be provided by Lori Beyer, Laboratory Director of American Analytical.

Three groundwater samples were collected for chemical analysis during this RI. Groundwater sample collection data is reported on Tables 6-11. Sampling logs with information on purging and sampling of groundwater monitor wells are included in Appendix D. Figure 5 shows the location of groundwater sampling. Laboratories and analytical methods are shown below.

## **Soil Vapor Sampling**

The Geoprobe™ was used to drill three additional borings to install temporary soil vapor sampling points (Figure 5). The Geoprobe™ advanced a Macrocore™ to two feet below the proposed cellar depth at location VP-1 (12 ftbg) and two feet below the planned excavation at locations VP-2 and VP-3 (8 ftbg).

The temporary vapor points were installed using 1.5 –inch diameter rods and consist of six-inch diameter stainless steel implants attached to an expendable drive point. No water was used during the installation of the temporary probes. Teflon™ lined polyethylene tubing extended from the temporary implant to the surface. Number 2 sand was used in the boring to create a sampling zone one to two feet in length and a bentonite seal emplaced in the borehole above the sampling zone.

Vapor sampling was conducted following the installation of the vapor probes. Three implant volumes were purged prior to collecting the samples at a purge rate of 0.2 liters per minute. The vapor samples were collected using 6-liter capacity Summa™ canisters each fitted with a laboratory calibrated critical orifice flow regulation device sized to allow the collection of the soil gas samples so as not to exceed 0.2 liters per minute (to minimize outdoor air infiltration during sampling).

The vapor samples were collected over a four hour period and analyzed using the USEPA’s TO-15 gas chromatograph/mass spectrometer (GC/MS) methodology. The samples were sent via overnight courier to Chemtech of Mountainside, New Jersey (NYSDOH ELAP # 11376).

Three soil vapor probes were installed and three soil vapor samples were collected for chemical analysis during this RI. Soil vapor sampling locations are shown in Figure 5. Methodologies used for soil vapor assessment conform to the *NYS DOH Final Guidance on Soil Vapor Intrusion, October 2006*.

### Chemical Analysis

Chemical analytical work presented in this RIR has been performed in the following manner:

<b>Factor</b>	<b>Description</b>
Quality Assurance Officer	The chemical analytical quality assurance is directed by Lori Beyer.
Chemical Analytical Laboratory	Analytical laboratories used in the RI are NYS ELAP certified and were American Analytical Laboratories and Chemtech.
Chemical Analytical	Soil analytical methods:

Methods	<ul style="list-style-type: none"><li>• TAL Metals by EPA Method 6010C (rev. 2007);</li><li>• VOCs by EPA Method 8260C (rev. 2006);</li><li>• SVOCs by EPA Method 8270D (rev. 2007);</li><li>• Pesticides by EPA Method 8081B (rev. 2000);</li><li>• PCBs by EPA Method 8082A (rev. 2000);</li></ul> <p>Groundwater analytical methods:</p> <ul style="list-style-type: none"><li>• TAL Metals by EPA Method 6010C (rev. 2007);</li><li>• VOCs by EPA Method 8260C (rev. 2006);</li><li>• SVOCs by EPA Method 8270D (rev. 2007);</li><li>• Pesticides by EPA Method 8081B (rev. 2000);</li><li>• PCBs by EPA Method 8082A (rev. 2000);</li></ul> <p>Soil vapor analytical methods:</p> <ul style="list-style-type: none"><li>• VOCs by TO-15 VOC parameters.</li></ul>
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### Results of Chemical Analyses

Laboratory data for soil, groundwater and soil vapor are summarized in Tables 1-11, respectively. Laboratory data deliverables for all samples evaluated in this RIR are provided in digital form in Appendix E.

## **5.0 ENVIRONMENTAL EVALUATION**

### **5.1 GEOLOGICAL AND HYDROGEOLOGICAL CONDITIONS**

#### **Stratigraphy**

The geology underlying this site is simple. There is very little artificial fill present. The site is underlain by stratified brown, fine to medium grained sand indicative of glacial outwash deposits. The deepest borings were advanced to 25 feet below grade and did not penetrate this unit. JRH has other sites in the area that show these deposits extend to at least 50 feet below grade. The water table was encountered at approximately 20 feet below grade.

#### **Hydrogeology**

Water levels were measured on June 5, 2012. A map of groundwater level elevations with groundwater contours and inferred flow arrows is shown in Figure 5. Groundwater flow is from north to south.

### **5.2 SOIL CHEMISTRY**

- Figure 5 shows the location of the soil samples collected. No VOCs were detected above Track 1 Unrestricted Use Soil Cleanup Objectives (UUSCOs) in the nine soil samples collected. Only methylene chloride was detected in all nine soil samples and ranged from 8 to 13 ppb. Low concentration of TCE was detected in one deep (15 to 17 feet depth) soil sample at 17 ppb.
- Low levels of SVOCs were detected in one of the nine soil samples, however, at concentrations below Track 1 UUSCOs.
- No pesticides were detected in the nine soil samples.
- No PCBs were detected in the nine soil samples.
- Very low concentrations of metals were detected but all were below Track 1 UUSCOs.
- Based on these data there are no issues with respect to soil contamination at this site.

Data collected during the RI is sufficient to delineate the vertical and horizontal distribution of contaminants in soil/fill at the Site. A summary table of data for chemical analyses performed on soil samples is included in Tables 1-5.

### 5.3 GROUNDWATER CHEMISTRY

- One VOC, methylene chloride, was detected in the three groundwater samples to a maximum concentration of 3.5 ppb. However, detected concentrations were below NYSDEC 6NYCRR Part 375 Groundwater Quality standards (GQS) and methylene chloride was also detected in the laboratory blank. Therefore, methylene chloride detected in groundwater samples is likely a laboratory artifact.
- No SVOCs were detected in the three groundwater samples.
- No PCBs were detected in the three groundwater samples
- Very low concentrations of several pesticides were detected in the samples collected from MW-1 and MW-3, including slight exceedances of GQS for aldrin (0.11 ppb) and endosulfan I (0.029 ppb and 0.12ppb). All concentrations were less than 0.12 ug/l and reported as laboratory estimated (J).
- Five metals were detected above GQS in unfiltered samples - antimony (two samples), iron (three samples), manganese (three samples), mercury (one sample), and sodium (one sample).
- Four dissolved metals were detected above GQS in the filtered samples - iron, manganese, mercury, and sodium. Mercury was detected at .00108 ug/l (NYC TOGS GA standard 0.0007 ug/l) in the sample collected from MW-3. Mercury was not detected above Track 1 UUSCOs in the 9 soil samples analyzed.

Data collected during the RI is sufficient to delineate the distribution of contaminants in groundwater at the Site. The summary of data for chemical analyses performed on groundwater samples is included as Tables 6-10. Exceedence of applicable groundwater standards are shown.

#### **5.4 SOIL VAPOR CHEMISTRY**

Soil vapor detections were very low in all three samples. Low levels of petroleum related compounds were detected in soil vapor samples. Acetone was detected at 156 ug/m<sup>3</sup> in VP-1. Tetrachloroethene (a/k/a perchloroethylene, PCE) was detected at a maximum concentration of 406 ug/m<sup>3</sup> (VP-1) in an undiluted sample. The highest accurate concentration of PCE was measured to be 257 ug/m<sup>3</sup>. Data collected during the RI is sufficient to delineate the distribution of contaminants in soil vapor at the Site. A summary table of data for chemical analyses performed on soil vapor samples is included in Table 11.

#### **5.5 PRIOR ACTIVITY**

Based on an evaluation of the data and information from the RIR, disposal of significant amounts of hazardous waste is not suspected at this site.

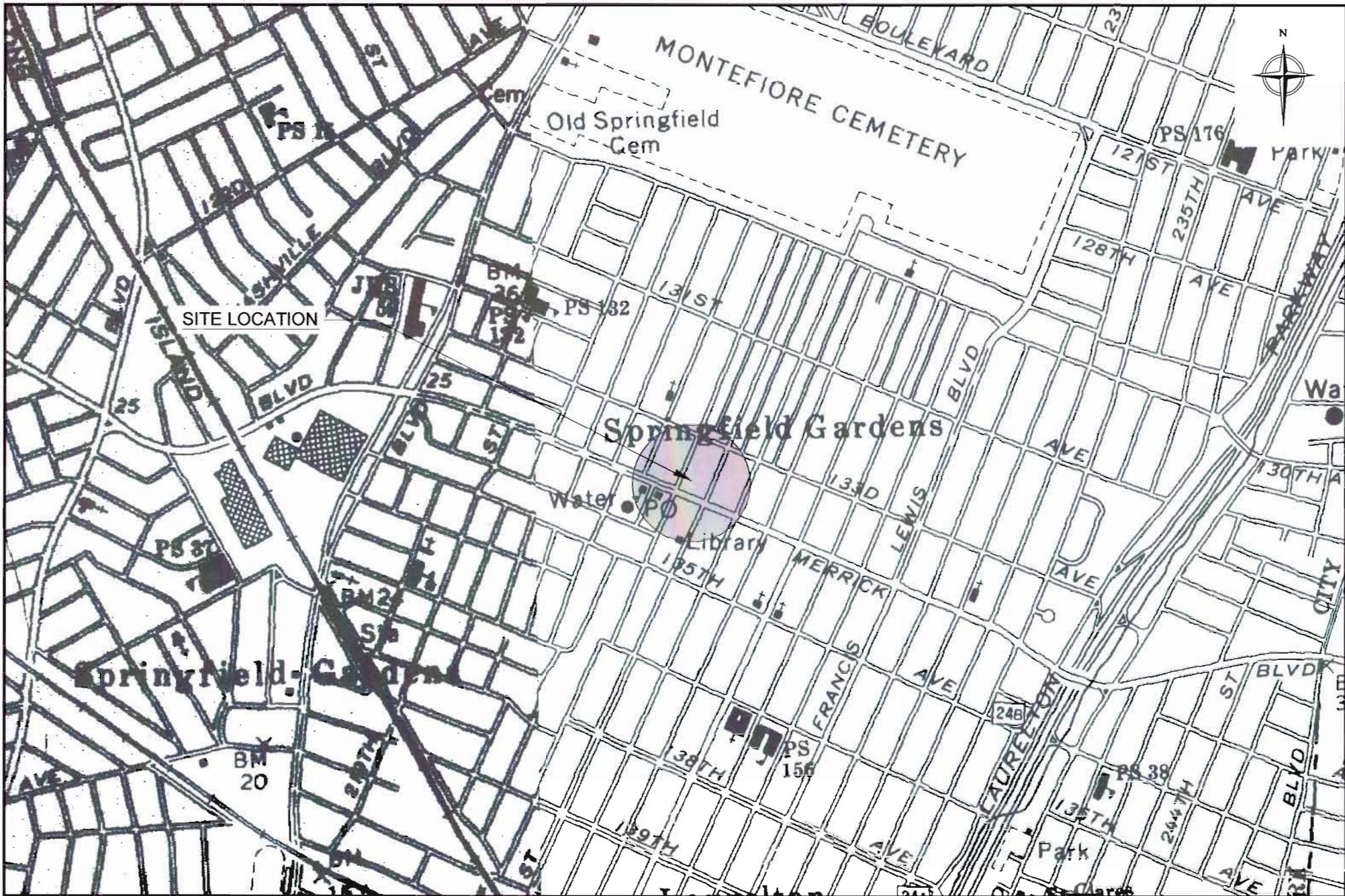
#### **5.6 IMPEDIMENTS TO REMEDIAL ACTION**

There are no known impediments to remedial action at this property.

### **Site-Specific Standards, Criteria and Guidance**

- 6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes
- 6 NYCRR Part 375 - Inactive Hazardous Waste Disposal Sites
- 6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)
- STARS #1 - Petroleum-Contaminated Soil Guidance Policy
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations
- Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (October 1994)
- Technical Guidance for Screening Contaminated Sediments (January 1999)
- NYSDOH Indoor Air Sampling & Analysis Guidance (August 8, 2001 or subsequent update)
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (draft October 2004 or subsequent final draft)
- DER Interim Strategy for Groundwater Remediation at Contaminated Sites in New York State
- 6 NYCRR Part 612 - Registration of Petroleum Storage Facilities (February 1992)
- 6 NYCRR Part 613 - Handling and Storage of Petroleum (February 1992)
- 6 NYCRR Part 614 - Standards for New and Substantially Modified Petroleum Storage Tanks (February 1992)
- 40 CFR Part 280 - Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks

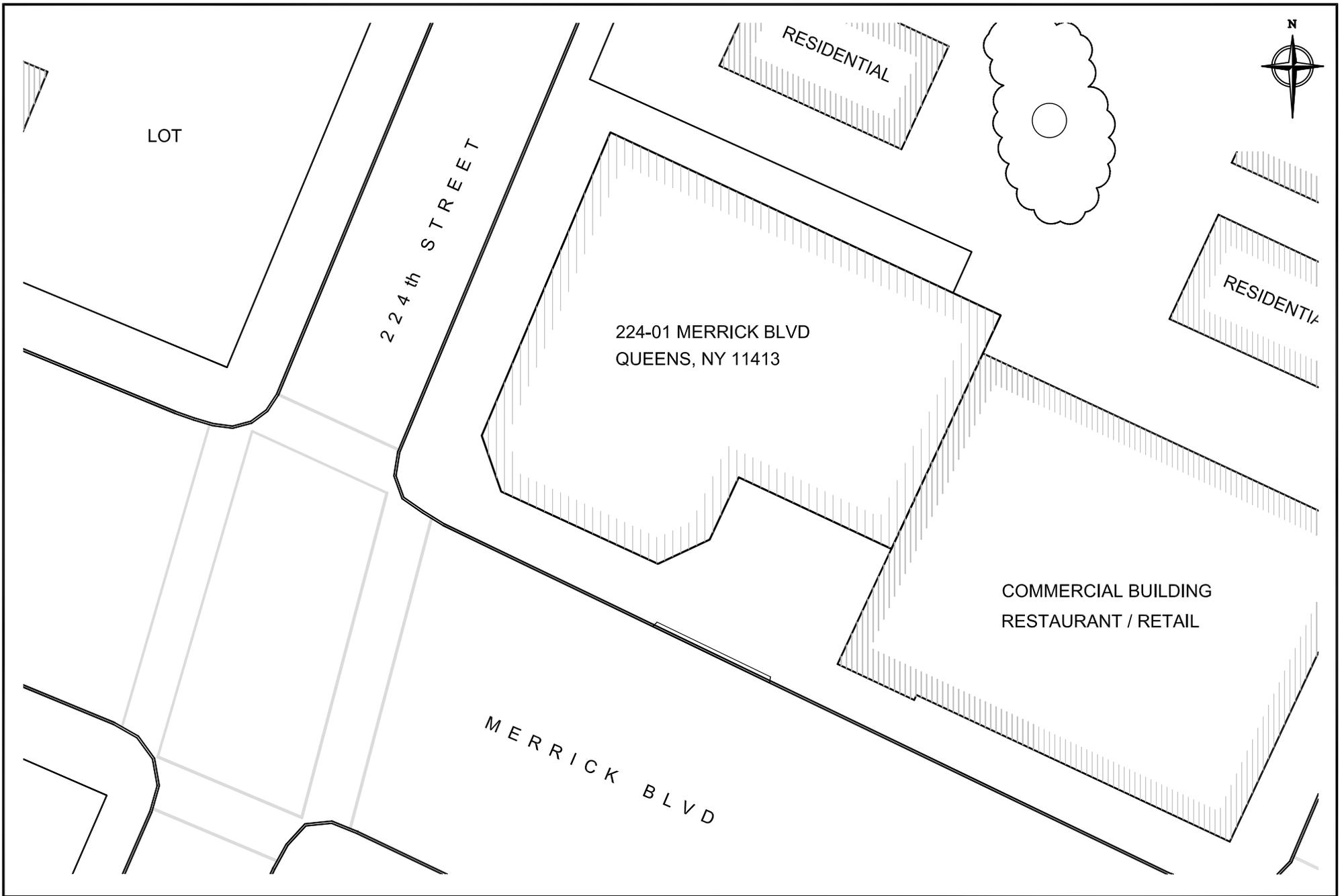
## Figures



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TITLE:  
**LOCATION MAP**  
 224-01 MERRICK BLVD  
 QUEENS, NEW YORK 11413

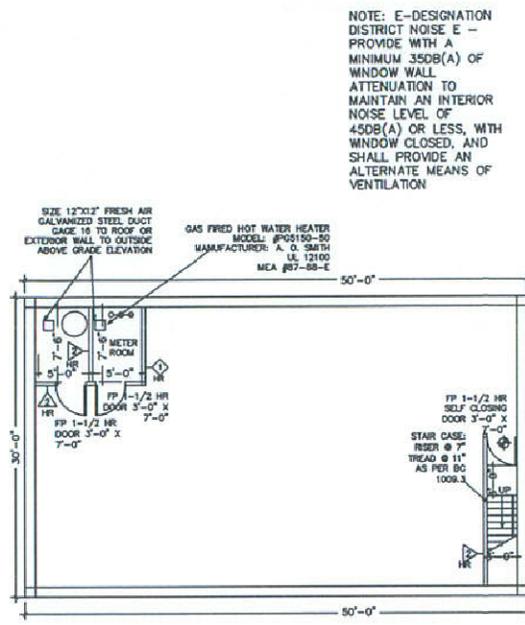
DWN: BJH	SCALE: 1" = 1000'	DATE: 5/30/2012	PROJECT NO.: KoptD 12-02
CHKD: JMD	APPD: JMD	REV.: -	NOTES: -
FIGURE NO.:			1



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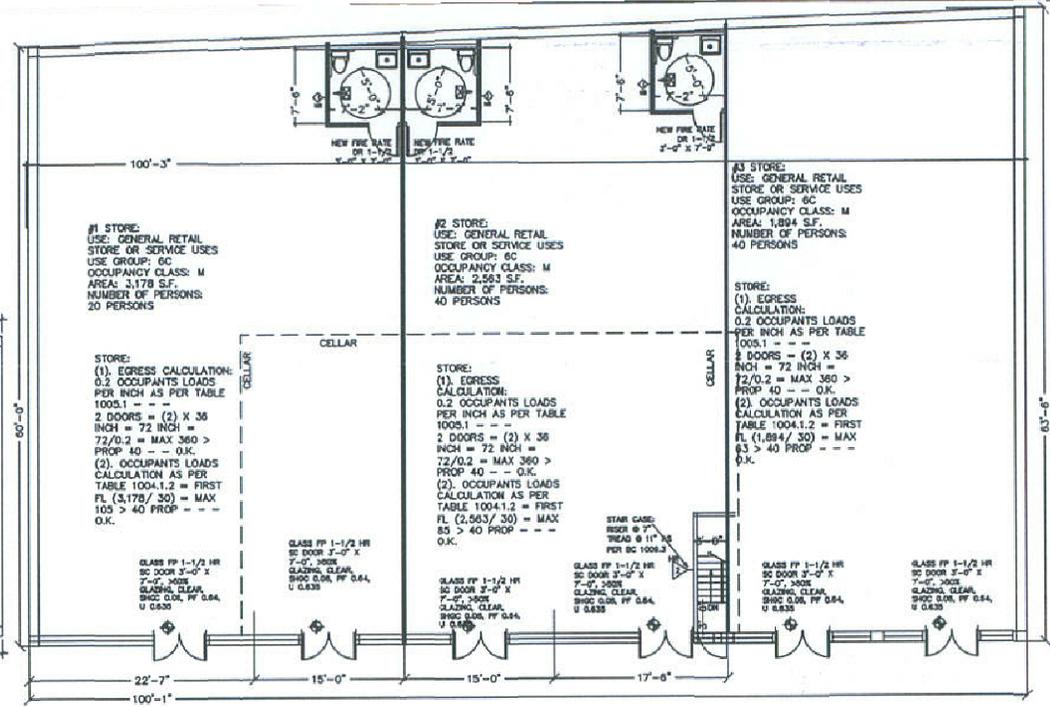
TITLE:  
**SITE PLAN**  
 224-01 MERRICK BLVD  
 QUEENS, NEW YORK 11413

DWN: BJH	SCALE: 1" = 30'	DATE: 5/31/2012	PROJECT NO.: KoptD 12-02
CHKD: JMD	APPD: JMD	REV.: -	NOTES: -
FIGURE NO.:			2



PROPOSED CELLAR PLAN  
SCALE: 3/16" = 1'-0"

NOTE: E-DESIGNATION DISTRICT NOISE E - PROVIDE WITH A MINIMUM 350B(A) OF WINDOW WALL ATTENUATION TO MAINTAIN AN INTERIOR NOISE LEVEL OF 45DB(A) OR LESS, WITH WINDOW CLOSED, AND SHALL PROVIDE AN ALTERNATE MEANS OF VENTILATION



PROPOSED FIRST FLOOR PLAN  
SCALE: 3/16" = 1'-0"

E-DESIGNATION DISTRICT NOISE E - PROVIDE WITH A MINIMUM 350B(A) OF WINDOW WALL ATTENUATION TO MAINTAIN AN INTERIOR NOISE LEVEL OF 45DB(A) OR LESS, WITH WINDOW CLOSED, GLASS WINDOW WITH METAL FRAME WITH THERMAL BREAK DOUBLE PANE GLASS, CLEAR SING GLAZ, U-F 0.84, U-FACTOR 0.43, I-P

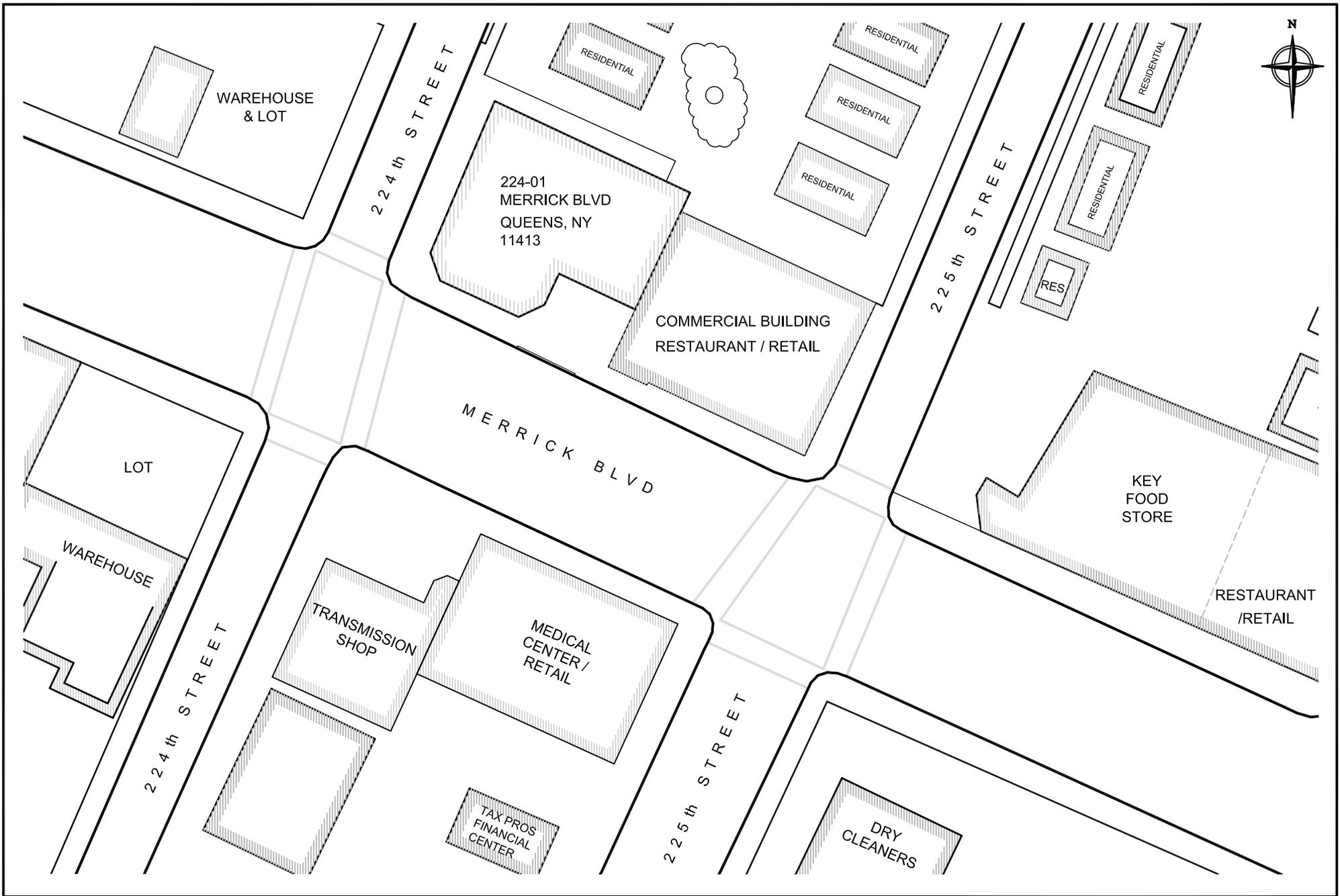
LEGEND

- LANATORY
- WATER CLOSET (W.C.)
- GLASS WINDOW
- DOOR
- NEW 1 HR PARTITION WALL
- NEW 2 HR PARTITION WALL
- EX WALL
- FAN SO ON
- EXIT SIGN & LIGHT
- R-WALK 180 COUNTER ROTATION AS PER ECODEV AND EX WALL

PREPARED BY:  
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TITLE:  
**REDEVELOPMENT PLAN**  
 224-01 MERRICK BLVD  
 QUEENS, NEW YORK 11413

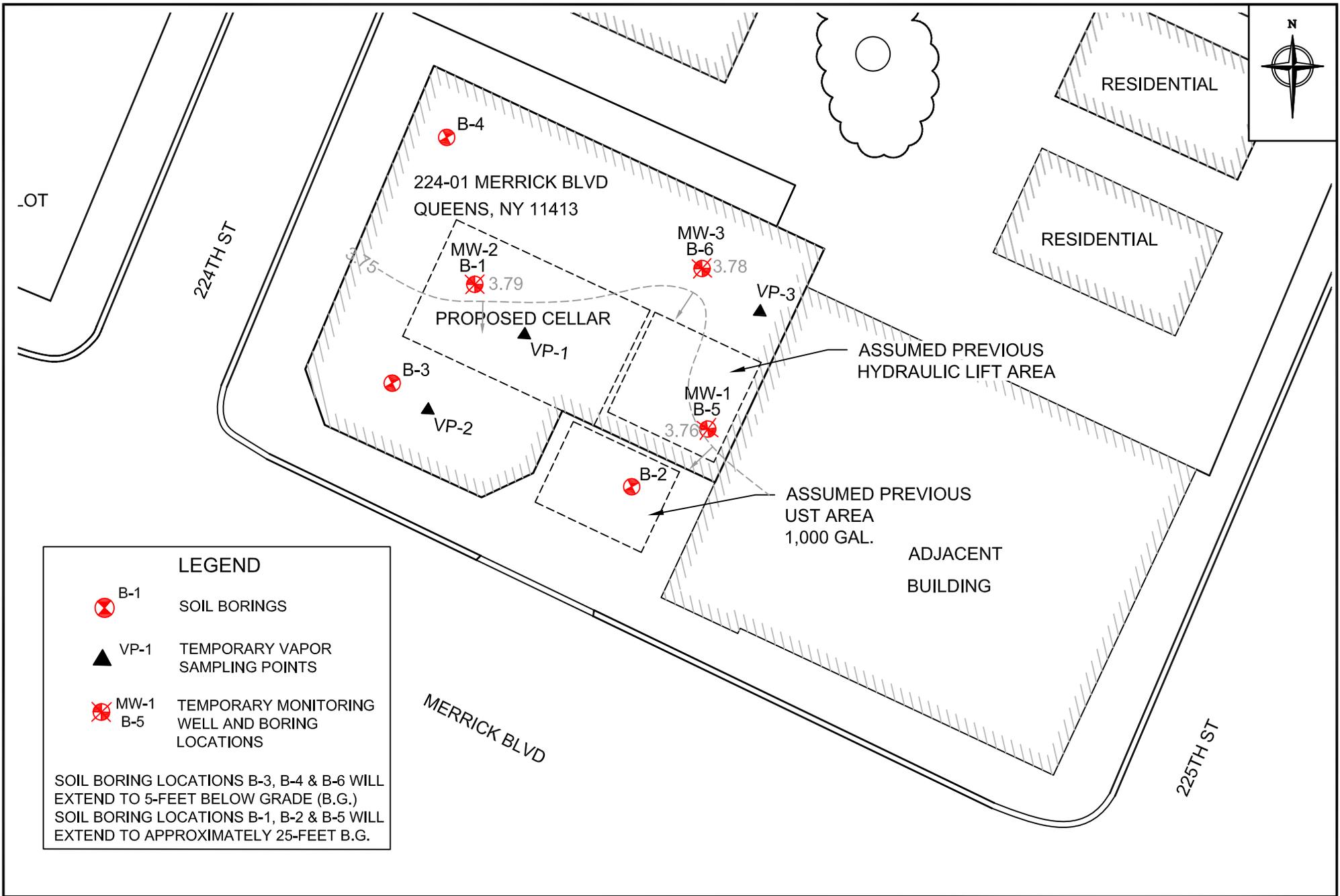
DWN: BJH	SCALE: NTS	DATE: 5/31/2012	PROJECT NO.: KoptD 12-02
CHKD: JMD	APPD: JMD	REV.: -	NOTES: -
FIGURE NO.:			3



PREPARED BY:  
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TITLE:  
**SURROUNDING PROPERTY USE**  
 224-01 MERRICK BLVD  
 QUEENS, NEW YORK 11413

DWN: BJH	SCALE: 1" = 60'	DATE: 5/31/2012	PROJECT NO.: KoptD 12-02
CHKD: JMD	APPD: JMD	REV.: -	NOTES: -
FIGURE NO.:			4



**LEGEND**

- B-1 SOIL BORINGS
- VP-1 TEMPORARY VAPOR SAMPLING POINTS
- MW-1 B-5 TEMPORARY MONITORING WELL AND BORING LOCATIONS

SOIL BORING LOCATIONS B-3, B-4 & B-6 WILL EXTEND TO 5-FEET BELOW GRADE (B.G.)  
SOIL BORING LOCATIONS B-1, B-2 & B-5 WILL EXTEND TO APPROXIMATELY 25-FEET B.G.

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TITLE: **LOCATION OF AOCs, SOIL BORINGS,  
WELLS, AND SOIL VAPOR SAMPLES WITH  
GROUNDWATER CONTOURS (JUNE 5, 2012)**  
224-01 MERRICK BLVD  
QUEENS, NEW YORK 11413

DWN: BJH	SCALE: 1:30	DATE: 4/10/2012	PROJECT NO.: KoptD 12-02
CHKD: JMD	APPD: JMD	REV.: -	NOTES: -
FIGURE NO.:			5

## Tables

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Volatile Organic Chemicals For Soils  
 EPA Method 8260  
 Table 1

<b>Client SampleID:</b>		<b>SCOs</b>	<b>B-2</b>	<b>B-2</b>	<b>B-5</b>	<b>B-5</b>	<b>B-3</b>	<b>B-1</b>	<b>B-1</b>	<b>B-4</b>	<b>B-6</b>
<b>Depth of Sample</b>		<b>Restricted</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>
<b>Sampling Date:</b>		<b>Residential</b>	<b>5/2/2012</b>								
<b>Analyte</b>	<b>Units</b>	<b>Track 2</b>									
1,1,1,2-Tetrachloroethane	PPB	NA	ND								
1,1,1-Trichloroethane	PPB	100000	ND								
1,1,2,2-Tetrachloroethane	PPB	NA	ND								
1,1,2-Trichloro-1,2,2-trifluoroethane	PPB	NA	ND								
1,1,2-Trichloroethane	PPB	NA	ND								
1,1-Dichloroethane	PPB	19000	ND								
1,1-Dichloroethene	PPB	100000	ND								
1,1-Dichloropropene	PPB	NA	ND								
1,2,3-Trichlorobenzene	PPB	NA	ND								
1,2,3-Trichloropropane	PPB	NA	ND								
1,2,4,5-Tetramethylbenzene	PPB	NA	ND								
1,2,4-Trichlorobenzene	PPB	NA	ND								
1,2,4-Trimethylbenzene	PPB	47000	ND								
1,2-Dibromo-3-chloropropane	PPB	NA	ND								
1,2-Dibromoethane	PPB	NA	ND								
1,2-Dichlorobenzene	PPB	100000	ND								
1,2-Dichloroethane	PPB	2300	ND								
1,2-Dichloropropane	PPB	NA	ND								
1,3,5-Trimethylbenzene	PPB	47000	ND								
1,3-Dichlorobenzene	PPB	17000	ND								
1,3-dichloropropane	PPB	NA	ND								
1,4-Dichlorobenzene	PPB	9800	ND								
1,4-Dioxane	PPB	9800	ND								
2,2-Dichloropropane	PPB	NA	ND								
2-Butanone	PPB	NA	ND								
2-Chloroethyl vinyl ether	PPB	NA	ND								
2-Chlorotoluene	PPB	NA	ND								
2-Hexanone	PPB	NA	ND								
2-Propanol	PPB	NA	ND								
4-Chlorotoluene	PPB	NA	ND								
4-Isopropyltoluene	PPB	NA	ND								

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Volatile Organic Chemicals For Soils  
 EPA Method 8260  
 Table 1

<b>Client SampleID:</b>		<b>SCOs</b>	<b>B-2</b>	<b>B-2</b>	<b>B-5</b>	<b>B-5</b>	<b>B-3</b>	<b>B-1</b>	<b>B-1</b>	<b>B-4</b>	<b>B-6</b>
<b>Depth of Sample</b>		<b>Restricted</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>
<b>Sampling Date:</b>		<b>Residential</b>	<b>5/2/2012</b>								
<b>Analyte</b>	<b>Units</b>	<b>Track 2</b>									
4-Methyl-2-pentanone	PPB	NA	ND								
Acetone	PPB	100000	ND								
Acrolein	PPB	NA	ND								
Acrylonitrile	PPB	NA	ND								
Benzene	PPB	2900	ND								
Bromobenzene	PPB	NA	ND								
Bromochloromethane	PPB	NA	ND								
Bromodichloromethane	PPB	NA	ND								
Bromoform	PPB	NA	ND								
Bromomethane	PPB	NA	ND								
Carbon disulfide	PPB	NA	ND								
Carbon tetrachloride	PPB	1400	ND								
Chlorobenzene	PPB	100000	ND								
Chlorodifluoromethane	PPB	NA	ND								
Chloroethane	PPB	NA	ND								
Chloroform	PPB	10000	ND								
Chloromethane	PPB	NA	ND								
cis-1,2-Dichloroethene	PPB	59000	ND								
cis-1,3-Dichloropropene	PPB	NA	ND								
Dibromochloromethane	PPB	NA	ND								
Dibromomethane	PPB	NA	ND								
Dichlorodifluoromethane	PPB	NA	ND								
Diisopropyl ether	PPB	NA	ND								
Ethanol	PPB	NA	ND								
Ethyl acetate	PPB	NA	ND								
Ethylbenzene	PPB	30000	ND								
Freon-114	PPB	NA	ND								
Hexachlorobutadiene	PPB	NA	ND								
Isopropyl acetate	PPB	NA	ND								
Isopropylbenzene	PPB	NA	ND								

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Volatile Organic Chemicals For Soils  
 EPA Method 8260  
 Table 1

Client SampleID:		SCOs	B-2	B-2	B-5	B-5	B-3	B-1	B-1	B-4	B-6
Depth of Sample		Restricted	0-2'	15-17'	0-2'	15-17'	0-2'	0-2'	15-17'	0-2'	0-2'
Sampling Date:		Residential	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012
Analyte	Units	Track 2									
m,p-Xylene	PPB	NA	ND								
Methyl Acetate	PPB	NA	ND								
Methyl tert-butyl ether	PPB	62000	ND								
Methylene chloride	PPB	51000	12B	13B	11B	13B	9.4B	9.2B	11B	10B	8B
n-Amyl acetate	PPB	NA	ND								
Naphthalene	PPB	100000	ND								
n-Butyl acetate	PPB	NA	ND								
n-Butylbenzene	PPB	100000	ND								
n-Propyl acetate	PPB	NA	ND								
n-Propylbenzene	PPB	100000	ND								
o-Xylene	PPB	100000	ND								
p-Diethylbenzene	PPB	NA	ND								
p-Ethyltoluene	PPB	NA	ND								
sec-Butylbenzene	PPB	100000	ND								
Styrene	PPB	NA	ND								
t-Butyl alcohol	PPB	NA	ND								
tert-Butylbenzene	PPB	100000	ND								
Tetrachloroethene	PPB	5500	ND	ND	ND	17	ND	ND	ND	ND	ND
Toluene	PPB	100000	ND								
trans-1,2-Dichloroethene	PPB	100000	ND								
trans-1,3-Dichloropropene	PPB	NA	ND								
Trichloroethene	PPB	10000	ND								
Trichlorofluoromethane	PPB	NA	ND								
Vinyl acetate	PPB	NA	ND								
Vinyl chloride	PPB	210	ND								

Notes:

ND - Not detected

Objectives as per NYSDEC Part 375-6.8(b)

J- Laboratory Estimated Concentration

B- Detected in Blank

NA- Not Available

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Semi Volatile Organic Chemicals (SVOCs) for Soils  
 EPA Method 8270 STARS  
 Table 2

Client SampleID:		SCOs	B-2	B-2	B-5	B-5	B-3	B-1	B-1	B-4	B-6
Depth of Sample		Restricted	0-2'	15-17'	0-2'	15-17'	0-2'	0-2'	15-17'	0-2'	0-2'
Sampling Date:		Residential	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012
Analyte	Units	Track 2									
1,2,4-Trichlorobenzene	PPB	NA	ND								
1,2-Dichlorobenzene	PPB	100000	ND								
1,3-Dichlorobenzene	PPB	17000	ND								
1,4-Dichlorobenzene	PPB	9800	ND								
2,4,5-Trichlorophenol	PPB	NA	ND								
2,4,6-Trichlorophenol	PPB	NA	ND								
2,4-Dichlorophenol	PPB	NA	ND								
2,4-Dimethylphenol	PPB	NA	ND								
2,4-Dinitrophenol	PPB	NA	ND								
2,4-Dinitrotoluene	PPB	NA	ND								
2,6-Dinitrotoluene	PPB	NA	ND								
2-Chloronaphthalene	PPB	NA	ND								
2-Chlorophenol	PPB	NA	ND								
2-Methylnaphthalene	PPB	NA	ND								
2-Methylphenol	PPB	100000	ND								
2-Nitroaniline	PPB	NA	ND								
2-Nitrophenol	PPB	NA	ND								
3,3'-Dichlorobenzidine	PPB	NA	ND								
3+4-Methylphenol	PPB	100000	ND								
3-Nitroaniline	PPB	NA	ND								
4,6-Dinitro-2-methylphenol	PPB	NA	ND								
4-Bromophenyl phenyl ether	PPB	NA	ND								
4-Chloro-3-methylphenol	PPB	NA	ND								
4-Chloroaniline	PPB	NA	ND								
4-Chlorophenyl phenyl ether	PPB	NA	ND								
4-Nitroaniline	PPB	NA	ND								
4-Nitrophenol	PPB	NA	ND								
Acenaphthene	PPB	100000	ND								
Acenaphthylene	PPB	100000	ND								
Acetophenone	PPB	NA	ND								
Aniline	PPB	NA	ND								
Anthracene	PPB	100000	ND								

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Semi Volatile Organic Chemicals (SVOCs) for Soils  
 EPA Method 8270 STARS  
 Table 2

Client SampleID:		SCOs	B-2	B-2	B-5	B-5	B-3	B-1	B-1	B-4	B-6
Depth of Sample		Restricted	0-2'	15-17'	0-2'	15-17'	0-2'	0-2'	15-17'	0-2'	0-2'
Sampling Date:		Residential	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012
Analyte	Units	Track 2									
Atrazine	PPB	NA	ND								
Azobenzene	PPB	NA	ND								
Benzaldehyde	PPB	NA	ND								
Benzidine	PPB	NA	ND								
Benzo(a)anthracene	PPB	1000	ND								
Benzo(a)pyrene	PPB	1000	ND	ND	28J	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	PPB	1000	ND								
Benzo(g,h,i)perylene	PPB	100000	ND	ND	71J	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	PPB	1000	ND								
Benzoic acid	PPB	NA	ND								
Benzyl alcohol	PPB	NA	ND								
Biphenyl	PPB	NA	ND								
Bis(2-chloroethoxy)methane	PPB	NA	ND								
Bis(2-chloroethyl)ether	PPB	NA	ND								
Bis(2-chloroisopropyl)ether	PPB	NA	ND								
Bis(2-ethylhexyl)phthalate	PPB	NA	ND	ND	890	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	PPB	NA	ND								
Caprolactam	PPB	NA	ND								
Carbazole	PPB	NA	ND								
Chrysene	PPB	1000	ND								
Dibenzo(a,h)anthracene	PPB	330	ND								
Dibenzofuran	PPB	14000	ND								
Diethyl phthalate	PPB	NA	ND								
Dimethyl phthalate	PPB	NA	ND								
Di-n-butyl phthalate	PPB	NA	ND								
Di-n-octyl phthalate	PPB	NA	ND								
Fluoranthene	PPB	100000	ND	28J							
Fluorene	PPB	100000	ND								
Hexachlorobenzene	PPB	NA	ND								
Hexachlorobutadiene	PPB	NA	ND								
Hexachlorocyclopentadiene	PPB	NA	ND								
Hexachloroethane	PPB	NA	ND								
Indeno(1,2,3-c,d)pyrene	PPB	500	ND	ND	37J	ND	ND	ND	ND	ND	ND

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Semi Volatile Organic Chemicals (SVOCs) for Soils  
 EPA Method 8270 STARS  
 Table 2

Client SampleID:		SCOs	B-2	B-2	B-5	B-5	B-3	B-1	B-1	B-4	B-6
Depth of Sample		Restricted	0-2'	15-17'	0-2'	15-17'	0-2'	0-2'	15-17'	0-2'	0-2'
Sampling Date:		Residential	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012
Analyte	Units	Track 2									
Isophorone	PPB	NA	ND								
Naphthalene	PPB	100000	ND								
Nitrobenzene	PPB	NA	ND								
N-Nitrosodimethylamine	PPB	NA	ND								
N-Nitrosodi-n-propylamine	PPB	NA	ND								
N-Nitrosodiphenylamine	PPB	NA	ND								
Parathion	PPB	NA	ND								
Pentachlorophenol	PPB	2400	ND								
Phenanthrene	PPB	100000	ND	ND	33J	ND	ND	ND	ND	ND	ND
Phenol	PPB	100000	ND								
Pyrene	PPB	100000	ND	ND	57	ND	ND	ND	ND	ND	ND
Pyridine	PPB	NA	ND								

Notes:

ND - Not detected

Objectives as per NYSDEC Part 375-6.8(b)

J- Laboratory Estimated Concentration

B- Detected in Blank

NA- Not Available

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Pesticides Method 8081  
 Table 3

<b>Client SampleID:</b>		<b>SCOs</b>	<b>B-2</b>	<b>B-2</b>	<b>B-5</b>	<b>B-5</b>	<b>B-3</b>	<b>B-1</b>	<b>B-1</b>	<b>B-4</b>	<b>B-6</b>
<b>Depth of Sample</b>		<b>Restricted</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>
<b>Sampling Date:</b>		<b>Residential</b>	<b>5/2/2012</b>								
<b>Analyte</b>	<b>Units</b>	<b>Track 2</b>									
4,4'-DDD	PPB	2600	ND								
4,4'-DDE	PPB	1800	ND								
4,4'-DDT	PPB	1700	ND								
Aldrin	PPB	19	ND								
alpha-BHC	PPB	97	ND								
beta-BHC	PPB	72	ND								
Chlordane	PPB	910	ND								
Chlorobenzilate	PPB	NA	ND								
DBCP	PPB	NA	ND								
delta-BHC	PPB	100000	ND								
Dieldrin	PPB	39	ND								
Endosulfan I	PPB	4800	ND								
Endosulfan II	PPB	4800	ND								
Endosulfan sulfate	PPB	4800	ND								
Endrin	PPB	2200	ND								
Endrin aldehyde	PPB	NA	ND								
Endrin ketone	PPB	NA	ND								
gamma-BHC	PPB	280	ND								
Heptachlor	PPB	420	ND								
Heptachlor epoxide	PPB	NA	ND								
Hexachlorobenzene	PPB	NA	ND								
Hexachlorocyclopentadiene	PPB	NA	ND								
Methoxychlor	PPB	NA	ND								
Toxaphene	PPB	NA	ND								

*Notes:*

*ND - Not detected*

*Objectives as per NYSDEC Part 375-6.8(b)*

*NA- Not Available*

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q  
 PCBs Method 8082  
 Table 4

<b>Client SampleID:</b>		<b>SCOs</b>	<b>B-2</b>	<b>B-2</b>	<b>B-5</b>	<b>B-5</b>	<b>B-3</b>	<b>B-1</b>	<b>B-1</b>	<b>B-4</b>	<b>B-6</b>
<b>Depth of Sample</b>		<b>Restricted</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>	<b>15-17'</b>	<b>0-2'</b>	<b>0-2'</b>
<b>Sampling Date:</b>		<b>Residential</b>	<b>5/2/2012</b>								
<b>Analyte</b>	<b>Units</b>	<b>Track 2</b>									
Aroclor 1016	PPB	1000	ND								
Aroclor 1221	PPB	1000	ND								
Aroclor 1232	PPB	1000	ND								
Aroclor 1242	PPB	1000	ND								
Aroclor 1248	PPB	1000	ND								
Aroclor 1254	PPB	1000	ND								
Aroclor 1260	PPB	1000	ND								
Aroclor 1262	PPB	1000	ND								
Aroclor 1268	PPB	1000	ND								

**Notes:**

*All results in ppb  
 ND - Not detected*

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

TAL Metals Analysis  
 Table 5

Client SampleID:		SCOs	B-2	B-2	B-5	B-5	B-3	B-1	B-1	B-4	B-6
Depth of Sample		Restricted	0-2'	15-17'	0-2'	15-17'	0-2'	0-2'	15-17'	0-2'	0-2'
Sampling Date:		Residential	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012	5/2/2012
Analyte	Units	Track 2									
Aluminum	PPM	NA	1480	1520	1770	1640	1840	1610	1670	2190	2460
Antimony	PPM	NA	ND								
Arsenic	PPM	16	0.682	0.507	1.45	1.14	0.735	0.452J	0.614	0.982	0.969
Barium	PPM	350	6.08	11.2	13.7	8.39	7.56	6.77	7.78	9.21	15
Beryllium	PPM	14	ND								
Cadmium	PPM	2.5	ND	ND	0.108J	ND	ND	ND	ND	ND	ND
Calcium	PPM	NA	222	281	2100	157	244	110	350	144	182
Chromium	PPM	36	4.52	8.08	7.24	9.22	5.18	3.98	4.16	8.1	6.16
Cobalt	PPM	NA	ND								
Copper	PPM	270	3.7	4.36	7.67	5.06	3.71	2.5	3.59	2.97	3.47
Iron	PPM	NA	3450	3240	11600	3830	3320	2630	2970	3390	3530
Lead	PPM	400	1.7	1.43	11.2	2	2.09	1.33	1.58	1.94	3.74
Magnesium	PPM	NA	582	597	650	445	761	590	690	861	613
Manganese	PPM	NA	74.8	104	105	41.1	107	92.1	82.9	134	106
Mercury	PPM	0.81	ND	ND	0.0103	ND	ND	ND	0.00533J	ND	0.00941
Nickel	PPM	140	7.2	7.39	5.57	6.04	9.23	6.85	6.79	7.89	8.02
Potassium	PPM	NA	249	434	344	355	285	218	315	420	221
Selenium	PPM	36	ND								
Silver	PPM	36	ND								
Sodium	PPM	NA	22.6	28.6	164	42.6	28	13	20.1	22.4	31
Thallium	PPM	NA	ND	0.371J	ND						
Vanadium	PPM	NA	5.45	4.87	7.7	9.12	5.77	3.77	4.31	6.7	6.44
Zinc	PPM	2200	6.32	6.7	24.8	11	8.06	5.79	7.76	8.62	9.78

**Notes:**

All results in ppm  
 ND - Not detected  
 NA- Not Available

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Volatile Organic Chemicals for Groundwater  
 EPA Method 8260  
 Table 6

Client SampleID:		NYS Groundwater Standards	MW-1	MW-2	MW-3	Trip Blank
Sampling Date:			5/17/2012	5/17/2012	5/17/2012	5/17/2012
Analyte	Units	Limits				
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	PPB	1	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.04	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	NR	ND	ND	ND	ND
1,4-Dioxane	PPB	3	ND	ND	ND	ND
2,2-Dichloropropane	PPB	1	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND
2-Chloroethyl vinyl ether	PPB	50*	ND	ND	ND	ND
2-Chlorotoluene	PPB	5	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND
2-Propanol	PPB	7	ND	ND	ND	ND
4-Chlorotoluene	PPB	5	ND	ND	ND	ND
4-Isopropyltoluene	PPB	5	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND
Acrolein	PPB	20	ND	ND	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND
Benzene	PPB	1	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Volatile Organic Chemicals for Groundwater  
 EPA Method 8260  
 Table 6

Client SampleID:		NYS Groundwater Standards	MW-1	MW-2	MW-3	Trip Blank
<b>Sampling Date:</b>			5/17/2012	5/17/2012	5/17/2012	5/17/2012
<b>Analyte</b>	<b>Units</b>	<b>Limits</b>				
Carbon disulfide	PPB	50*	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND
Chlorodifluoromethane	PPB	50*	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND
Chloroform	PPB	7	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND
cis-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND
cis-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND
Diisopropyl ether	PPB	50*	ND	ND	ND	ND
Ethanol	PPB	50*	ND	ND	ND	ND
Ethyl acetate	PPB	50*	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND
Freon-114	PPB	50*	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND
Isopropyl acetate	PPB	50*	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND
m,p-Xylene	PPB	5	ND	ND	ND	ND
Methyl Acetate	PPB	50*	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND
Methylene chloride	PPB	5	3B	2.7B	2.7B	3.5B
n-Amyl acetate	PPB	50*	ND	ND	ND	ND
Naphthalene	PPB	10	ND	ND	ND	ND
n-Butyl acetate	PPB	50*	ND	ND	ND	ND
n-Butylbenzene	PPB	5	ND	ND	ND	ND
n-Propyl acetate	PPB	50*	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND
sec-Butylbenzene	PPB	5	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND
t-Butyl alcohol	PPB	50*	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND
Tetrachloroethene	PPB	5	ND	ND	ND	ND
Toluene	PPB	5	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND

224-01 Merrick Blvd  
Queens NY  
OER# 12EH-N378Q

Volatile Organic Chemicals for Groundwater  
EPA Method 8260  
Table 6

<b>Client SampleID:</b>		<b>NYS Groundwater Standards</b>	<b>MW-1</b>	<b>MW-2</b>	<b>MW-3</b>	<b>Trip Blank</b>
<b>Sampling Date:</b>			<b>5/17/2012</b>	<b>5/17/2012</b>	<b>5/17/2012</b>	<b>5/17/2012</b>
<b>Analyte</b>	<b>Units</b>	<b>Limits</b>				
Trichloroethene	PPB	5	ND	ND	ND	ND
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND

*Notes:*

*ND - Not detected*

*\*- Guidance Value*

*B- Detected in Blank*

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Semi Volatile Organic Chemicals (SVOCs) for Groundwater  
 EPA Method 8270  
 Table 7

Client SampleID:		NYS Groundwater Standards	MW-1	MW-2	MW-3
<b>Sampling Date:</b>			5/17/2012	5/17/2012	5/17/2012
<b>Analyte</b>	<b>Units</b>	<b>Limits</b>			
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND
2,4,5-Trichlorophenol	PPB	NA	ND	ND	ND
2,4,6-Trichlorophenol	PPB	NA	ND	ND	ND
2,4-Dichlorophenol	PPB	5	ND	ND	ND
2,4-Dimethylphenol	PPB	50	ND	ND	ND
2,4-Dinitrophenol	PPB	10	ND	ND	ND
2,4-Dinitrotoluene	PPB	5	ND	ND	ND
2,6-Dinitrotoluene	PPB	5	ND	ND	ND
2-Chloronaphthalene	PPB	10	ND	ND	ND
2-Chlorophenol	PPB	NA	ND	ND	ND
2-Methylnaphthalene	PPB	NA	ND	ND	ND
2-Methylphenol	PPB	NA	ND	ND	ND
2-Nitroaniline	PPB	5	ND	ND	ND
2-Nitrophenol	PPB	NA	ND	ND	ND
3,3'-Dichlorobenzidine	PPB	5	ND	ND	ND
3+4-Methylphenol	PPB	1	ND	ND	ND
3-Nitroaniline	PPB	5	ND	ND	ND
4,6-Dinitro-2-methylphenol	PPB	NA	ND	ND	ND
4-Bromophenyl phenyl ether	PPB	NA	ND	ND	ND
4-Chloro-3-methylphenol	PPB	NA	ND	ND	ND
4-Chloroaniline	PPB	NA	ND	ND	ND
4-Chlorophenyl phenyl ether	PPB	NA	ND	ND	ND
4-Nitroaniline	PPB	5	ND	ND	ND
4-Nitrophenol	PPB	NA	ND	ND	ND
Acenaphthene	PPB	20	ND	ND	ND
Acenaphthylene	PPB	NA	ND	ND	ND
Acetophenone	PPB	NA	ND	ND	ND
Aniline	PPB	NA	ND	ND	ND
Anthracene	PPB	50	ND	ND	ND
Atrazine	PPB	NA	ND	ND	ND
Azobenzene	PPB	NA	ND	ND	ND
Benzaldehyde	PPB	NA	ND	ND	ND
Benzidine	PPB	NA	ND	ND	ND
Benzo(a)anthracene	PPB	0.002	ND	ND	ND
Benzo(a)pyrene	PPB	NA	ND	ND	ND
Benzo(b)fluoranthene	PPB	0.002	ND	ND	ND
Benzo(g,h,i)perylene	PPB	NA	ND	ND	ND
Benzo(k)fluoranthene	PPB	0.002	ND	ND	ND
Benzoic acid	PPB	NA	ND	ND	ND

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Semi Volatile Organic Chemicals (SVOCs) for Groundwater  
 EPA Method 8270  
 Table 7

Client SampleID:		NYS Groundwater Standards	MW-1	MW-2	MW-3
<b>Sampling Date:</b>			5/17/2012	5/17/2012	5/17/2012
<b>Analyte</b>	<b>Units</b>	<b>Limits</b>			
Benzyl alcohol	PPB	NA	ND	ND	ND
Biphenyl	PPB	NA	ND	ND	ND
Bis(2-chloroethoxy)methane	PPB	NA	ND	ND	ND
Bis(2-chloroethyl)ether	PPB	NA	ND	ND	ND
Bis(2-chloroisopropyl)ether	PPB	NA	ND	ND	ND
Bis(2-ethylhexyl)phthalate	PPB	5	ND	ND	ND
Butyl benzyl phthalate	PPB	NA	ND	ND	ND
Caprolactam	PPB	NA	ND	ND	ND
Carbazole	PPB	NA	ND	ND	ND
Chrysene	PPB	0.002	ND	ND	ND
Dibenzo(a,h)anthracene	PPB	NA	ND	ND	ND
Dibenzofuran	PPB	NA	ND	ND	ND
Diethyl phthalate	PPB	NA	ND	ND	ND
Dimethyl phthalate	PPB	NA	ND	ND	ND
Di-n-butyl phthalate	PPB	50	ND	ND	ND
Di-n-octyl phthalate	PPB	50	ND	ND	ND
Fluoranthene	PPB	50	ND	ND	ND
Fluorene	PPB	50	ND	ND	ND
Hexachlorobenzene	PPB	0.04	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND
Hexachlorocyclopentadiene	PPB	5	ND	ND	ND
Hexachloroethane	PPB	5	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	PPB	0.002	ND	ND	ND
Isophorone	PPB	50	ND	ND	ND
Naphthalene	PPB	10	ND	ND	ND
Nitrobenzene	PPB	0.4	ND	ND	ND
N-Nitrosodimethylamine	PPB	NA	ND	ND	ND
N-Nitrosodi-n-propylamine	PPB	NA	ND	ND	ND
N-Nitrosodiphenylamine	PPB	50	ND	ND	ND
Parathion	PPB	NA	ND	ND	ND
Pentachlorophenol	PPB	NA	ND	ND	ND
Phenanthrene	PPB	50	ND	ND	ND
Phenol	PPB	NA	ND	ND	ND
Pyrene	PPB	50	ND	ND	ND
Pyridine	PPB	50	ND	ND	ND

Notes:

ND - Not detected

\*- Guidance Value

224-01 Merrick Blvd  
Queens NY  
OER# 12EH-N378Q  
Pesticides (Method 8021)  
Table 8

Client SampleID:		NYS Groundwater Standards	MW-1	MW-2	MW-3
<b>Sampling Date:</b>			<b>5/17/2012</b>	<b>5/17/2012</b>	<b>5/17/2012</b>
<b>Analyte</b>	<b>Units</b>	<b>Limits</b>			
4,4'-DDD	PPB	0.3	ND	ND	ND
4,4'-DDE	PPB	0.2	ND	ND	ND
4,4'-DDT	PPB	0.2	ND	ND	ND
Aldrin	PPB	0.001	ND	ND	<b>0.11J</b>
alpha-BHC	PPB	0.01	ND	ND	ND
beta-BHC	PPB	0.04	ND	ND	ND
Chlordane	PPB	0.05	ND	ND	ND
Chlorobenzilate	PPB	NA	ND	ND	ND
DBCP	PPB	NA	ND	ND	ND
delta-BHC	PPB	0.04	ND	ND	ND
Dieldrin	PPB	0.004	ND	ND	ND
Endosulfan I	PPB	0.009	<b>0.029J</b>	ND	<b>0.12J</b>
Endosulfan II	PPB	0.009	ND	ND	ND
Endosulfan sulfate	PPB	0.009	ND	ND	ND
Endrin	PPB	ND	ND	ND	ND
Endrin aldehyde	PPB	5	ND	ND	ND
Endrin ketone	PPB	5	ND	ND	0.051J
gamma-BHC	PPB	0.05	ND	ND	ND
Heptachlor	PPB	0.04	ND	ND	ND
Heptachlor epoxide	PPB	0.03	0.043J	ND	ND
Hexachlorobenzene	PPB	0.04	ND	ND	ND
Hexachlorocyclopentadiene	PPB	5	ND	ND	ND
Methoxychlor	PPB	35	ND	ND	ND
Toxaphene	PPB	0.06	ND	ND	ND

*Notes:*

*ND - Not detected*

*J- Laboratory Estimated Concentration*

224-01 Merrick Blvd  
Queens NY  
OER# 12EH-N378Q

PCBs as AROCLORS- METHOD 8082  
Table 9

<b>Client SampleID:</b>		<b>NYS Groundwater Standards</b>	<b>MW-1</b>	<b>MW-2</b>	<b>MW-3</b>
<b>Sampling Date:</b>			<b>5/17/2012</b>	<b>5/17/2012</b>	<b>5/17/2012</b>
<b>Analyte</b>	<b>Units</b>	<b>Limits</b>			
Aroclor 1016	PPB	0.09	ND	ND	ND
Aroclor 1221	PPB	0.09	ND	ND	ND
Aroclor 1232	PPB	0.09	ND	ND	ND
Aroclor 1242	PPB	0.09	ND	ND	ND
Aroclor 1248	PPB	0.09	ND	ND	ND
Aroclor 1254	PPB	0.09	ND	ND	ND
Aroclor 1260	PPB	0.09	ND	ND	ND
Aroclor 1262	PPB	0.09	ND	ND	ND
Aroclor 1268	PPB	0.09	ND	ND	ND

*Notes:*

*ND - Not detected*

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

TAL Metals Analysis- Groundwater  
 Table 10

Client SampleID:		NYS Groundwater Standards	MW-1	MW-1	MW-2	MW-2	MW-3	MW-3
			Total	Dissolved	Total	Dissolved	Total	Dissolved
Sampling Date:			5/17/2012	5/17/2012	5/17/2012	5/17/2012	5/17/2012	5/17/2012
Analyte	Units	Limits						
Aluminum	PPM	NA	4	0.0382	0.658	0.0228	2.21	0.0278
Antimony	PPM	0.003	<b>0.0133J</b>	ND	<b>0.0109J</b>	ND	ND	ND
Arsenic	PPM	0.025	ND	ND	ND	ND	ND	ND
Barium	PPM	1	0.0797	0.0456	0.143	0.147	0.0412	0.0261
Beryllium	PPM	0.003	ND	ND	ND	ND	ND	ND
Cadmium	PPM	0.005	ND	ND	ND	ND	ND	ND
Calcium	PPM	NA	16.5	16.7	35.5	38.6	15.2	15.7
Chromium	PPM	0.05	0.0316	ND	0.00853J	ND	0.0194J	ND
Cobalt	PPM	NA	ND	ND	ND	ND	ND	ND
Copper	PPM	0.2	0.0245	ND	ND	ND	0.0101J	ND
Iron	PPM	0.3	<b>20.7</b>	<b>1.97</b>	<b>8.17</b>	<b>6.55</b>	<b>8.08</b>	<b>1.34</b>
Lead	PPM	0.025	0.00819J	ND	ND	ND	ND	ND
Magnesium	PPM	35	3.67	3.08	5.11	5.45	2.47	2.05
Manganese	PPM	0.3	<b>0.417</b>	<b>0.347</b>	<b>1.92</b>	<b>2.04</b>	<b>1.27</b>	<b>1.22</b>
Mercury	PPM	0.0007	ND	0.00025	ND	0.00027	<b>0.00155</b>	<b>0.00108</b>
Nickel	PPM	0.1	0.0262	0.00691J	0.0192J	0.0164J	0.0187J	0.00895J
Potassium	PPM	NA	3.39	2.98	7.04	6.95	2.7	1.99
Selenium	PPM	0.01	ND	ND	ND	ND	ND	ND
Silver	PPM	0.05	ND	ND	ND	ND	ND	ND
Sodium	PPM	20	4.5	4.8	<b>36.3</b>	<b>35.4</b>	5.78	6.2
Thallium	PPM	0.0005	ND	ND	ND	ND	ND	ND
Vanadium	PPM	NA	0.0124J	ND	ND	ND	0.0054J	ND
Zinc	PPM	2	0.0787	0.0207	0.0388	0.035	0.0533	0.0446

**Notes:**

All results in ppm  
 ND - Not detected  
 N/A- Not Applicable

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Vapor Sampling  
 Table 11

Sample ID	VP-1	VP-1DL	VP-2	VP-2DL	VP-3	VP-3DL
Lab Sample Number	D2545-01	D2545-01DL	D2545-02	D2545-02DL	D2545-03	D2545-03DL
Sampling Date	5/3/2012	5/3/2012	5/3/2012	5/3/2012	5/3/2012	5/3/2012
Matrix	AIR	AIR	AIR	AIR	AIR	AIR
Dilution Factor	1	10	1	10	1	10
Units	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3
COMPOUND						
1,1,1-Trichloroethane	0.22J	1.64U	0.16U	1.64U	0.22J	1.64U
1,1,2,2-Tetrachloroethane	ND	17.2U	1.72U	17.2U	1.72U	17.2U
1,1,2-Trichloroethane	ND	13.6U	1.36U	13.6U	1.36U	13.6U
1,1,2-Trichlorotrifluoroethane	ND	19.2U	1.92U	19.2U	1.92U	19.2U
1,1-Dichloroethane	ND	10.1U	1.01U	10.1U	1.01U	10.1U
1,1-Dichloroethene	ND	9.91U	0.99U	9.91U	0.99U	9.91U
1,2,4-Trichlorobenzene	ND	18.6U	1.86U	18.6U	1.86U	18.6U
1,2,4-Trimethylbenzene	10.3	7.37JD	12.3	8.85JD	9.83	7.87JD
1,2-Dibromoethane	ND	19.2U	1.92U	19.2U	1.92U	19.2U
1,2-Dichlorobenzene	ND	15U	1.5U	15U	1.5U	15U
1,2-Dichloroethane	ND	10.1U	1.01U	10.1U	1.01U	10.1U
1,2-Dichloropropane	ND	11.6U	1.16U	11.6U	1.16U	11.6U
1,3,5-Trimethylbenzene	3.24	12.3U	3.54	12.3U	3.05	12.3U
1,3-Butadiene	ND	5.53U	0.55U	5.53U	0.55U	5.53U
1,3-Dichlorobenzene	ND	15U	1.5U	15U	1.5U	15U
1,4-Dichlorobenzene	ND	15U	1.5U	15U	1.5U	15U
1,4-Dioxane	ND	9.01U	0.9U	9.01U	0.9U	9.01U
2,2,4-Trimethylpentane	6.07	11.7U	4.3	11.7U	5.6	11.7U
2-Butanone	11.8	7.67JD	6.19	4.72JD	6.78	5.31JD
2-Chlorotoluene	ND	12.9U	1.29U	12.9U	1.29U	12.9U
4-Ethyltoluene	6.39	12.3U	6.39	4.92JD	5.41	12.3U
4-Methyl-2-Pentanone	2.25	10.2U	1.52J	10.2U	2.09	10.2U
Acetone	116E	156D	73.6E	87.9D	97.4E	133D
Allyl Chloride	ND	7.83U	0.78U	7.83U	0.78U	7.83U
Benzene	2.81	7.99U	2.52	7.99U	2.94	7.99U
Bromodichloromethane	ND	16.8U	1.67U	16.8U	1.67U	16.8U
Bromoethene	ND	10.9U	1.09U	10.9U	1.09U	10.9U
Bromoform	ND	25.8U	2.58U	25.8U	2.58U	25.8U
Bromomethane	ND	9.71U	0.97U	9.71U	0.97U	9.71U
Carbon Disulfide	0.69J	7.79U	1.71	7.79U	0.72J	7.79U
Carbon Tetrachloride	0.31J	1.89U	0.19J	1.89U	0.25J	1.89U
Chlorobenzene	ND	11.5U	1.15U	11.5U	1.15U	11.5U
Chloroethane	ND	6.6U	0.66U	6.6U	0.66U	6.6U
Chloroform	1.17J	12.2U	4.35	12.2U	10.3	10.3JD
Chloromethane	0.39J	5.16U	0.21J	5.16U	0.52U	5.16U
cis-1,2-Dichloroethene	ND	9.91U	0.99U	9.91U	0.99U	9.91U
cis-1,3-Dichloropropene	ND	11.4U	1.13U	11.4U	1.13U	11.4U
Cyclohexane	0.96J	8.61U	1.14J	8.61U	1.38J	8.61U
Dibromochloromethane	ND	21.3U	2.13U	21.3U	2.13U	21.3U
Dichlorodifluoromethane	1.53J	12.4U	1.73J	12.4U	2.03J	12.4U
Dichlorotetrafluoroethane	ND	17.5U	1.75U	17.5U	1.75U	17.5U
Ethyl Benzene	10.4	6.95JD	9.99	6.95JD	9.99	6.95JD
Heptane	9.02	4.92JD	6.56	10.2U	7.38	4.1JD
Hexachloro-1,3-Butadiene	ND	26.7U	2.67U	26.7U	2.67U	26.7U

224-01 Merrick Blvd  
 Queens NY  
 OER# 12EH-N378Q

Vapor Sampling  
 Table 11

Sample ID	VP-1	VP-1DL	VP-2	VP-2DL	VP-3	VP-3DL
Lab Sample Number	D2545-01	D2545-01DL	D2545-02	D2545-02DL	D2545-03	D2545-03DL
Sampling Date	5/3/2012	5/3/2012	5/3/2012	5/3/2012	5/3/2012	5/3/2012
Matrix	AIR	AIR	AIR	AIR	AIR	AIR
Dilution Factor	1	10	1	10	1	10
Units	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3
COMPOUND						
Hexane	ND	8.81U	0.88U	8.81U	0.88U	8.81U
m/p-Xylene	34.3	23JD	33.4	23.5JD	32.1	23.5JD
Methyl Methacrylate	ND	10.2U	1.02U	10.2U	1.02U	10.2U
Methyl tert-Butyl Ether	ND	9.01U	0.9U	9.01U	0.9U	9.01U
Methylene Chloride	6.95	11.1JD	5.21	9.38JD	5.21	10.1JD
o-Xylene	10.9	8.25JD	10.9	8.25JD	9.99	8.25JD
Styrene	ND	10.6U	1.06U	10.6U	1.06U	10.6U
t-1,3-Dichloropropene	ND	11.4U	1.13U	11.4U	1.13U	11.4U
tert-Butyl alcohol	19.4	19.1D	12.4	11.8JD	17	17.3D
Tetrachloroethene	406E	250D	230E	176D	305E	257D
Tetrahydrofuran	2.06	7.37U	1.33J	7.37U	1.47J	7.37U
Toluene	45.2	26.8D	33.2	21.9D	35.4	24.9D
trans-1,2-Dichloroethene	ND	9.91U	0.99U	9.91U	0.99U	9.91U
Trichloroethene	0.48	1.61U	0.32J	1.61U	0.97	1.61U
Trichlorofluoromethane	1.07J	14U	1.18J	14U	1.35J	14U
Vinyl Chloride	ND	6.39U	0.64U	6.39U	0.64U	6.39U

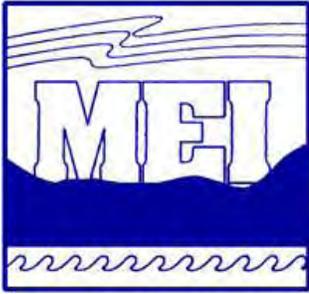
Total Concentration.                      709.91              521.16              464.18              364.17              573.86              508.58

**Qualifiers**

- ND - The compound was not detected at the indicated concentration.
- N - Presumptive Evidence of a Compound
- J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- \* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
- E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
- E (Inorganics) - The reported value is estimated because of the presence of interference.
- D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- \* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
- NR - Not analyzed

# Appendix A

## 2012-02 Middleton Environmental Phase I



# Middleton Environmental Inc.

Environmental Consultants and Engineers

50 Park Avenue, Babylon, NY 11702  
(631) 321-4300 • Fax (631) 321-4349  
middletonenvironmental.com

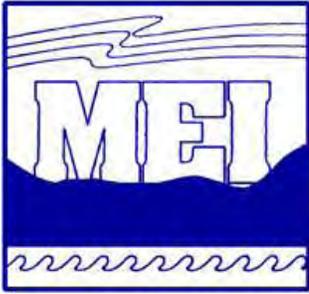
## Phase I Environmental Site Assessment Report MEI Project Number 12-123



Property located at 224-01 Merrick Boulevard in Jamaica, New York

February 16, 2012

Prepared for GCP Capital Group, LLC.



# Middleton Environmental Inc.

Environmental Consultants and Engineers

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February 16, 2012

Mr. Paul Greenbaum  
Partner  
GCP Capital Group, LLC.  
60 Cutter Mill Road  
Great Neck, NY 11021

**Re: Phase I Environmental Site Assessment Report**  
224-01 Merrick Boulevard in Jamaica, New York 11413  
MEI Project #: 12-123

In accordance with our agreement, Middleton Environmental Incorporated (MEI), has performed a Phase I Environmental Assessment of the above referenced property in accordance with ASTM E 1527-2005 Scope of Work. Please find a copy of the report enclosed.

We declare that to the best of our knowledge and belief, we meet the definition of Environmental professional as defined in §312.10 of 40 CFR and, we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Thank you for choosing MEI as your consultant for this project. If you have any questions, or if we can be of additional service, please contact us at 631 321 4300.

Respectfully submitted,

**Middleton Environmental Incorporated**

Prepared by: Donald J. Middleton Jr.  
President

Reviewed by: Donald J. Middleton Jr.  
President

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## 1.0 EXECUTIVE SUMMARY

At the request of GCP Capital Group, LLC., Middleton Environmental Incorporated (MEI) has performed a Phase I Environmental Site Assessment (ESA) of the property located at 224-01 Merrick Boulevard in Jamaica, New York, herein referred to as the Subject Property. The main objective of this ESA was to identify **recognized environmental conditions** in connection with the Subject Property, defined in ASTM Practice E 1527-05 as the presence or likely presence of any hazardous substances or petroleum products that indicate an existing release, a past release, or a material threat of a release. This ESA also includes a preliminary evaluation of certain potential environmental conditions that are outside the scope of ASTM Practice E 1527-05. This assessment has revealed no evidence of REC's in connection with the Subject Property.

The Subject Property includes a square-shaped parcel totaling approximately 0.23 acres. The Subject Property is currently improved with one (1) commercial building. The building is 7,100 square feet in size and has one (1) floor and no basement. The building is vacant and was formerly utilized as an auto parts store and small repair area. The building contains a main floor repair shop area and larger retail area. A review of the New York City Building Department property profile overview indicated that the building was constructed in 1945. The building and a concrete paved loading area on the north side of the building occupies the majority of the parcel with minimal areas of exposed grounds or landscaped areas bordered by municipal walkways and right-of-ways.

Below is the Assessment Summary Table presenting our recommended actions for the Subject Property. MEI's Findings and Opinions and Recommendations for further action or investigation (if any), are presented in Section 10.0.

<b>ASSESSMENT SUMMARY TABLE</b>			
<b>Assessment Component</b>	<b>Section(s)</b>	<b>Recommended Actions</b>	<b>Estimated Cost</b>
<b>Historical Review</b>	5.3, 5.4 & 5.5	No Further Action	
<b>Current Occupants / Operations</b>	3.3	No Further Action	
<b>Hazardous Substances / Petroleum Products</b>	7.2	No Further Action	
<b>Drains, Sumps &amp; Storm Water Drywells</b>	7.2	No Further Action	
<b>Storage Tanks</b>	7.2	No Further Action	
<b>PCBs</b>	7.2	Removal of three (3) out-of service hydraulic lifts	TDB
<b>Regulatory Agency / Database Review</b>	5.1	Deferred Action	TBD
<b>Asbestos Containing Materials</b>	9.1	Deferred Action	
<b>Lead Based Paint</b>	9.2	Deferred Action	
<b>Lead in Drinking Water</b>	9.3	No Further Action	
<b>Radon</b>	9.4	No Further Action	
<b>Mold</b>	9.5	No Further Action	
<b>Wetlands</b>	9.6	No Further Action	

## 2.0 INTRODUCTION

### 2.1 Purpose

MEI has performed a Phase I Environmental Site Assessment (Phase I ESA) of property located at 224-01 Merrick Boulevard in Jamaica, New York (Subject Property). The purpose of this Phase I Environmental Site Assessment (Phase I ESA) is to investigate and identify recognized environmental conditions associated with the Subject Property and/or surrounding property. Recognized environmental conditions, as defined in the ASTM Standard Practice E 1527-05, including the following:

*The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.*

For the purpose of this Phase I ESA, *recognized environmental conditions (REC's)*, may also include the presence or likely presence of other conditions as noted in the Scope of Services.

### 2.2 Scope of Services

This ESA was conducted utilizing a standard of good commercial and customary practice that was consistent with the ASTM Practice E 1527-05. Any significant scope-of-work additions, deletions or deviations to ASTM Practice E 1527-05 are noted below or in the corresponding sections of this report. The scope-of-work for this assessment included an evaluation of the following:

- Physical characteristics of the Subject Property through a review of referenced sources for topographic, geologic, soils and hydrologic data.
- Subject Property history through a review of referenced sources such as land deeds, fire insurance maps, city directories, aerial photographs, prior reports, and interviews.
- Current Subject Property conditions, including observations and interviews regarding the following: the presence or absence of hazardous substances or petroleum products; generation, treatment, storage, or disposal of hazardous, regulated, or biomedical waste; equipment that utilizes oils which potentially contain PCBs; and storage tanks (aboveground and underground).
- Usage of surrounding area properties and the likelihood for releases of hazardous substances and petroleum products (if known and/or suspected) to migrate onto the Subject Property.
- Information in referenced environmental agency databases and local environmental records, within specified minimum search distances.
- Past ownership through a review of available prior reports and local municipal file review.  
The scope-of-work also included consideration of the following potential environmental conditions that are outside the scope of ASTM Practice E 1527-05: asbestos-containing materials (ACM), lead-based paint (LBP), lead in drinking water, radon, mold, and wetlands.

## **2.3 Assumptions and Limitations**

There is a possibility that even with the proper application of these methodologies there may exist on the Subject Property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. MEI believes that the information obtained from the record review and the interviews concerning the Subject Property is reliable. However, MEI cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The methodologies of this assessment are not intended to produce all inclusive or comprehensive results, but rather to provide the User with information relating to the Subject Property.

The findings, opinions and conclusions of this report contain the limitations inherent in these methodologies that are referred to in ASTM E 1527-05. Specific limitations and exceptions to this ESA are set forth below:

Historical and environmental information pertaining to the Subject Property has been included in this report to the extent that such information is "reasonably ascertainable" as defined in the above-referenced standard practice and in accordance with the project specific timeframes.

MEI reviewed an environmental database search report. MEI's conclusions based on the search report are limited to the accuracy of that report. To the extent possible, MEI's field observations are used to verify the information or identify errors and inconsistencies in the search report regarding the listed facilities in the immediate vicinity of the Subject Property.

With respect to conditions outside the scope of the ASTM Standard, MEI's observations are limited to physical observations and a review of published data. Unless otherwise stated, no sampling for Asbestos Containing Materials, Lead Based Paint, Drinking Water, Radon, Mold or Wetlands was conducted.

## **2.4 Special Terms and Conditions**

This Phase I Environmental Site Assessment (the report) has been prepared to assist GCP Capital Group, LLC. in its underwriting of a proposed mortgage loan or financing on the Subject Property. This report can be relied upon by only the parties stated in the transmittal letter at the front of this report. MEI's liability to a purchaser wishing to use this report is limited to the cost of the report. Amendments to MEI's limitations as stated herein that may occur after issuance of the report are considered to be included in this report. Payment for the report is made by, and MEI's contract and report extends to GCP Capital Group, LLC. only, in accordance with MEI Terms and Condition and the MEI Scope of Work.

## **2.5 Data Gaps**

Any data gaps identified herein, as defined by ASTM Practice E 1527-05 § 3.2.20, are not considered to have significantly affected the ability to identify recognized environmental conditions in connection with the Subject Property and do not alter the conclusions of this report.

## **3.0 SITE DESCRIPTION**

### **3.1 Ownership and Location**

According to the Automated City Register Information System (ACRIS) operated by the New York City Department of Finance identified the Subject Property as Block 12963 Lot 308 and the property is owned by Business Kimstrauss Unitary LLC.

The property is located at 224-01 Merrick Boulevard in Jamaica, NY. MEI did not identify any prior owners or occupants of potential environmental concern in the property records obtained from the NYC Department of Finance.

### **3.2 Improvements**

The Subject Property includes a square-shaped parcel totaling approximately 0.23 acres. The Subject Property is currently improved with one (1) commercial building. The building is 7,100 square feet in size and has one (1) floor and no basement. The Subject Property is currently improved with one (1) commercial building. The building is 7,100 square feet in size and has one (1) floor and no basement. A review of the New York City Building Department property profile overview indicated that the building was constructed in 1945. The building and a concrete paved loading area on the north side of the building occupies the majority of the parcel with minimal areas of exposed grounds or landscaped areas bordered by municipal walkways and right-of-ways.

### **3.3 Current Use of the Subject Property**

At the time of inspection, the building on the Subject Property was vacant and was formerly utilized as an auto parts store and small repair area.

### 3.4 Services, Utilities and Roadways

**Street Address(es): 224-01 Merrick Boulevard**

**City and State: Jamaica, New York**

**County: Queens**

**Owner: Business Kimstrauss Unitary LLC**

**Property Size: 0.23 acres**

**Access Roadway to site: Merrick Boulevard to the west of the Subject Property**

**Site Use: One (1) single story commercial building**

**Occupants: None (the building is presently vacant)**

**Electricity Provider: Consolidated Edison**

**Natural Gas Provider: Consolidated Edison**

**Fuel Oil Provider: N/A**

**Potable Water: Municipal Water Supply**

**Sewer Services: Municipal Sewer System**

**Heating System: The building is presently heated by natural gas fired heating system and there were overhead duct heating units in the office areas and overhead heaters in the repair areas.**

### 3.5 Adjoining Properties

The current use of the adjoining properties is residential and commercial. The Subject Property borders are as follows:

North - The property is bordered to the north by a house.

South - The property is bordered to the south Merrick Boulevard and Merrick Boulevard and a transmission repair facility.

East - The property is bordered to the east by a restaurant.

West - The property is bordered to the west by 224th Street and a truck lot.

## 4.0 USER PROVIDED INFORMATION

### 4.1 Environmental Pre-Survey Questionnaire

Pursuant to ASTM E 1527-05, MEI requested the following site information from the User of this report and from the site contact. The following section summarizes information provided by GCP Capital Group, LLC. with regard to this Phase I Environmental Site Assessment.

ITEM	PROVIDED BY USER	NOT PROVIDED BY USER	DISCUSSED BELOW	DOES NOT APPLY
4.1 Environmental Pre-survey Questionnaire		X		
4.2 Title Records		X		
4.3 Environmental Liens or Activity and Use Limitation		X		
4.4 Specialized Knowledge		X		
4.5 Commonly Known or Reasonably Ascertainable Information		X		
4.6 Valuation Reduction for Environmental Issues		X		
4.7 Identification of Key Site Manager		X		
4.8 Reason for Performing Phase 1 ESA	X			
4.9 Prior Environmental Reports		X		

### 4.2 Title Records

Title record information associated with the Subject Property has not been provided to MEI by GCP Capital Group, LLC.. Land title records provide information on previous ownership of a property. Typically, deeds signifying transfer of a land parcel are recorded in county files and can be researched to determine the identity of past owners. A "chain of title" is a continuous record of ownership for a specific parcel. A 50-year chain of title search was not included in the scope of work for this assessment.

### 4.3 Environmental Liens or Activity and Use Limitation

The property owner/user/key site personnel did not report any Environmental Liens or Activity/Use Limitations on the site. An environmental lien search was not included in the scope of work of this assessment and therefore was not performed. However, if the findings of a lien search performed by any other party does reveal the presence of an environmental related lien on the subject property, this information should be forwarded to MEI for review, and any significant findings will be added to this assessment as an addendum to this report.

#### **4.4 Specialized Knowledge**

GCP Capital Group, LLC. provided no specialized knowledge that is material to recognized environmental conditions in connection with the Subject Property. MEI was not provided with or made aware of previous environmental assessments or other documentation that is material to recognized environmental conditions in connection with the Subject Property, except as presented in Section 4.3 of this report.

#### **4.5 Commonly Known or Reasonably Ascertainable Information**

GCP Capital Group, LLC. have provided no commonly known or reasonably ascertainable information within the local community about the Subject Property that is material to recognized environmental conditions in connection with the Subject Property.

#### **4.6 Valuation Reduction for Environmental Issues**

GCP Capital Group, LLC. have provided no information regarding valuation reduction for environmental issues in connection with the Subject Property.

#### **4.7 Identification of Key Site Manager**

GCP Capital Group, LLC. provided contact information for the Subject Property owner, manager and/or occupants. The Contact person for site access was Mr. David Koptiev.

#### **4.8 Reason for Performing Phase I ESA Report**

The purpose of this Phase I Environmental Site Assessment (ESA) was to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E-1527-05) in connection with the Subject Property. This ESA was also performed to permit the User to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "landowner liability protections," or "LLPs"). ASTM Standard E-1527-05 constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

#### **4.9 Prior Environmental Reports**

MEI did not review and previous Phase I ESA reports regarding the Subject Property.

## 5.0 RECORDS REVIEW

### 5.1 Standard Environmental Record Sources

Information from standard Federal and state environmental record sources was provided through FirstSearch Technology Corporation (FirstSearch). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. This integrated database also contains postal service data in order to enhance address matching. Records from one government source are compared to records from another to clarify any address ambiguities. The demographic and geographic information available provides assistance in identifying and managing risk. The accuracy of the geocoded locations is approximately +/-300 feet.

In some cases, location information supplied by the regulatory agencies is insufficient to allow the database companies to geocode facility locations. These facilities are listed under the unmappables section within the FirstSearch report. A review of the unmappable facilities indicated that none of these facilities are within the ASTM minimum search distance from the Site.

Regulatory information from the following database sources regarding possible recognized environmental conditions, within the ASTM minimum search distance from the Site, was reviewed. Specific facilities are discussed below if determined likely that a potential recognized environmental condition has resulted at the Site from the listed facilities (see appendix 12.5 for Environmental Database Report).

The following table provides a summary of the findings of the environmental database report. Specific properties identified within the database report are further discussed below.

<b>SUMMARY OF FEDERAL, STATE, AND TRIBAL AGENCY DATABASE FINDINGS</b>			
<b>Regulatory Database</b>	<b>Approximate Minimum Search Distance</b>	<b>Subject Property Listed</b>	<b>Off-site Listings Within Search Distance</b>
<b>Federal NPL Sites</b>	<b>1.0 mile</b>	<b>No</b>	<b>0</b>
<b>Federal Delisted NPL Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>
<b>Federal CERCLIS Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>
<b>Federal CERCLIS NFRAP Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>
<b>Federal RCRA CORRACTS Sites</b>	<b>1.0 mile</b>	<b>No</b>	<b>0</b>
<b>Federal RCRA Generators Sites</b>	<b>Property &amp; Adjoining</b>	<b>Yes</b>	<b>0</b>
<b>Federal RCRA Non-CORRACTS TSD Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>
<b>Federal Engineering / Institutional Control Sites</b>	<b>Property &amp; Adjoining</b>	<b>No</b>	<b>0</b>
<b>Federal ERNS Sites</b>	<b>Subject Property</b>	<b>No</b>	<b>0</b>
<b>State and Tribal equivalent NPL Sites</b>	<b>1.0 mile</b>	<b>No</b>	<b>0</b>
<b>State and Tribal equivalent CERCLIS Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>
<b>State and Tribal Leaking Storage Tank Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>13</b>
<b>State and Tribal Spills Sites</b>	<b>Subject Property</b>	<b>No</b>	<b>2</b>
<b>State and Tribal Landfill or Solid Waste Disposal Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>
<b>State and Tribal Registered Storage Tank Sites</b>	<b>Property &amp; Adjoining</b>	<b>Yes</b>	<b>1</b>
<b>State and Tribal Engineering / Institutional Control Sites</b>	<b>Property &amp; Adjoining</b>	<b>Yes</b>	<b>0</b>
<b>State and Tribal Voluntary Cleanup Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>
<b>State and Tribal Brownfield Sites</b>	<b>0.5 mile</b>	<b>No</b>	<b>0</b>

- ***Federal National Priority List (NPL) Sites***

The National Priorities List (NPL) is the Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program. The Subject Property is not listed as a Federal NPL site. No Federal NPL sites are located within a mile radius of the Subject Property.

- ***Federal Delisted National Priority List (NPL) Sites***

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. The Subject Property is not listed as a Federal Delisted NPL site. No Federal Delisted NPL sites are located within a mile radius of the Subject Property.

- ***Federal CERCLIS Sites***

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances. The Subject Property is not listed as a Federal CERCLIS site. No Federal CERCLIS sites are listed within a half mile radius of the Subject Property.

- ***Federal CERCLIS NFRAP Sites***

The CERCLIS No Further Remedial Action Planned (NFRAP) List is a compilation of sites that the EPA has investigated, and has determined that the facility does not pose a threat to human health or the environment. The Subject Property is not listed as a Federal CERCLIS-NFRAP site. There were no Federal CERCLIS NFRAP sites listed within a half mile radius of the Subject Property.

- ***Federal RCRA CORRACTS Sites***

RCRA Corrective Action Tracking System (CORRACTS) is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information regarding sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA. The RCRA-CORRACTS database identifies Transportation, Storage or Disposal (TSD), facilities that have conducted, or are currently conducting, corrective action(s) as regulated under RCRA. The Subject Property was not identified on the RCRA CORRACTS site list. There were no RCRA CORRACTS sites within a mile radius of the Subject Property.

- ***Federal RCRA Hazardous Waste Generators Sites***

Hazardous waste generators tracked under the Resource Conservation and Recovery Act (RCRA) are classified as either Large Quantity Generators (LQGs), Small Quantity Generators (SQGs), or Conditionally Exempt Small Quantity Generators (CESQGs). A RCRA-LQG is a facility that generates over 1,000 kilograms (Kg) of hazardous waste. A RCRA-SQG is a facility that generates between 100 Kg and 1,000 Kg of hazardous waste per month while a RCRA-CESQG generates less than 100 Kg of hazardous waste per month. The Subject Property is listed as a Federal RCRA Hazardous Waste Generator site (R&S Strauss). There were no RCRA violations noted for this facility. The property to the south of the Subject Property was also identified as a Federal RCRA Hazardous Waste Generator (Het Auto Repair). There were no RCRA violations noted for this facility.

- ***Federal RCRA non-CORRACTS TSD Sites***

RCRA non-CORRACTS Treatment, Storage and/or Disposal (TSD) sites are required to register hazardous waste activity under the Resource Conservation and Recovery Act (RCRA). The Subject Property is not listed as a Federal RCRA non-CORRACTS TSD site. The Subject Property is not listed as a Federal RCRA non-CORRACTS TSD Site. There were no Federal RCRA non-CORRACTS TSD sites within a mile radius of the Subject Property.

- ***Federal Engineering Control / Institutional Control Sites***

The completion of site cleanup activities may include the implementation of engineering controls or institutional controls as part of the response action. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. Neither the Subject Property nor any of the surrounding properties were listed as a Federal Engineering Control or Institutional Control Site.

- ***Federal Emergency Response Notification System (ERNS) Sites***

ERNS is a national database used to collect information regarding reported releases of petroleum products and/or hazardous substances. The database contains information from spill reports submitted to Federal agencies, including the EPA, the U.S. Coast Guard, the National Response Center, and the U.S. Department of Transportation. A review of this database was conducted in order to determine whether any spills or incidents involving releases of hazardous substances or petroleum products have occurred at the Subject Property. The Subject Property is not listed as a Federal ERNS site.

- ***State and Tribal equivalent NPL Sites***

State and Tribal equivalent NPL databases were searched for sites located within 1.0 mile of the Subject Property. The Subject Property is not listed as a State and Tribal equivalent NPL Site. There were no State and Tribal equivalent NPL Sites within a mile radius of the Subject Property.

- ***State and Tribal equivalent CERCLIS Sites***

State and Tribal equivalent CERCLIS databases were searched for sites located within 0.5 mile of the Subject Property. The Subject Property is not listed as a State and Tribal equivalent CERCLIS Site. There were no State and Tribal equivalent CERCLIS Sites within a half mile radius of the Subject Property.

- ***State and Tribal Leaking Storage Tank Sites***

Leaking Storage Tank Sites are properties where releases of hazardous substances or petroleum products from underground storage tanks (USTs) and/or aboveground storage tanks (ASTs) have been identified and reported to state, tribal, or local agencies.

The Subject Property is not listed as a State and Tribal Leaking Storage Tank site. However, 13 sites located within 0.5 mile of the Subject Property were identified as State and Tribal Leaking Storage Tank Sites. All of the 13 listed sites are located greater than 0.125 mile from the Subject Property and based on the distance from the Subject Property and the dense urban environment surrounding the Subject Property, these sites are considered unlikely to represent an existing release, past release or material threat of release of hazardous substances or petroleum products on the Subject Property.

- ***State and Tribal Spills Sites***

A review of the State and Tribal Spills database was conducted in order to determine whether any spills or incidents involving releases of hazardous substances or petroleum products have occurred at the Subject Property. The Subject Property is not listed as a State and Tribal Spills site.

- ***State and Tribal Landfill Sites and Solid Waste Disposal Sites***

The State and Tribal landfill and solid waste disposal site databases identify active or inactive landfill and transfer station facilities, as well as open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites. The Subject Property is not listed as a State and Tribal landfill and solid waste disposal site. There were no State and Tribal landfill and solid waste disposal sites within a half mile radius of the Subject Property.

- ***State and Tribal Registered Storage Tank Sites***

The Subject Property is listed as a State and Tribal Registered Storage Tank site. A review of the New York State Department of Environmental Conservation (NYSDEC), Underground Storage Tank database indicated that there was one (1) 1,000 gallon underground waste oil storage tank that was removed from the Subject Property on February 1, 2003. Although there was no tank report available for review, a review of the NYSDEC Spill Information Systems Database did not indicate the presence of any spill incidents pertaining to this removal project. The property to the south of the Subject Property (Het Auto Repair), was also identified as a State and Tribal Registered Storage Tank site due to the presence of gasoline and waste oil storage tanks on this property.

- ***State and Tribal Engineering Control / Institutional Control Sites***

The completion of site cleanup activities may include the implementation of engineering controls or institutional controls as part of the response action. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. The Subject Property was listed as a State Engineering Control or Institutional Control Site. A review of the New York City Building Department property profile overview indicated that the Subject Property has an E restriction of Hazmat/Noise. It is recommended that the property owner submit all documentation associated with this designation to the New York City Office of Environmental Remediation (NYCOER), in order to determine the requirements for addressing the E designation assigned to the Subject Property prior to any planned construction activities.

- ***State and Tribal Voluntary Cleanup Sites***

The Subject Property is not listed as a State and Tribal Voluntary Cleanup site. There were no State and Tribal Voluntary Cleanup Sites listed within 0.5 mile of the Subject Property.

- ***State and Tribal Brownfield Sites***

The Subject Property is not listed as a State and Tribal Brownfield site. There were no State and Tribal Voluntary Cleanup Sites listed within 0.5 mile of the Subject Property.

## 5.2 Local Regulatory Agency Records

Local municipal offices consulted during the completion of this assessment included the New York City Building Department, the New York City Department of Finance and the New York City Fire Department. MEI did not identify documented adverse environmental conditions, violations, or complaints associated with the Subject Property in the information provided by these agencies. Similarly, MEI did not identify records of spills or releases of hazardous substances or petroleum products having occurred at the Subject Property in the information provided by these agencies.

### New York City Building Department

MEI reviewed information listed in the online NYC Building Information System (BIS) provided by the New York City Building Department's website, <http://a810-bisweb.nyc.gov/bisweb/bsqpm01.jsp>. According to information viewed on the New York City Building Department's website, a variety of interior renovations, building improvements and system upgrades have occurred throughout its history, which is not uncommon for a property of this age and type. A review of the New York City Building Department property profile overview indicated that the building was constructed in 1945. Copies of the New York City Building Department records are presented in Appendix 12.4.

### New York City Department of Finance

MEI reviewed information provided by the New York City Department of Finance. Specific information provided by the New York City Department of Finance includes lot sizes and dimensions, building sizes, building zoning and use, and the approximate date of construction. The information provided by New York City Department of Finance did not identify any conditions or reported events that would indicate the presence of a recognized environmental condition in connection with the Subject Property. Copies of the New York City Department of Finance records are presented in Appendix 12.4.

### New York City Fire Department

MEI reviewed information provided by the New York City Fire Department (NYCFD). Specific information obtained from the NYCFD includes any active and/or voided storage tank permits for the Subject Property. A review of the NYCFD storage tank files indicated that there were no permits for any active storage tanks on the Subject Property. It should be noted that a Freedom of Information Request was submitted to the NYCFD in order to determine the presence of any past or "voided" tank accounts on file with the NYCFD. To date, no response has been received. Any information regarding past or "voided" accounts will be submitted upon receipt from the NYCFD.

### 5.3 Sanborn Fire Insurance Maps

Historical fire insurance maps depicting the Subject Property were reviewed and are summarized in the following table. Copies of the fire insurance maps are presented in Appendix 12.6.

<b>FIRE INSURANCE MAP SUMMARY</b>		
<b>Year</b>	<b>Issues Noted</b>	<b>Observations</b>
<b>1926</b>	<b>No</b>	<b>Subject Property:</b> The 1926 Sanborn Map shows the Subject Property as vacant land.
		<b>Surrounding Area:</b> The 1926 Sanborn Map shows the presence of vacant land on all sides of the Subject Property.
<b>1949</b>	<b>No</b>	<b>Subject Property:</b> The 1949 Sanborn Map shows the presence of the existing building on the Subject Property (auto sales and service facility).
		<b>Surrounding Area:</b> The 1949 Sanborn Map shows the presence of a house to the north of the Subject Property, vacant land to the south of the Subject Property, a retail building to the east of the Subject Property and a small commercial building to the west of the Subject Property.
<b>1982</b>	<b>No</b>	<b>Subject Property:</b> Conditions on the Subject Property appear to be similar to those depicted on the 1949 Sanborn Map.
		<b>Surrounding Area:</b> Conditions on the surrounding properties appear to be similar to those depicted on the 1949 Sanborn Map with the exception that a large commercial building has been constructed to the west of the Subject Property and a gasoline station has been constructed to the south of the Subject Property.
<b>1989</b>	<b>No</b>	<b>Subject Property:</b> Conditions on the Subject Property appear to be similar to those depicted on the 1982 Sanborn Map.
		<b>Surrounding Area:</b> Conditions on the surrounding properties appear to be similar to those depicted on the 1982 Sanborn Map.

## 5.4 Aerial Photographs

Historical aerial photographs may be used to evaluate changes in land use and to identify visible areas of potential environmental concern. A search for historical aerial photographs depicting the Subject Property and vicinity was conducted by researching available historical aerial photographs from [www.historicaerials.com](http://www.historicaerials.com) and other available resources. Aerial photographs depicting the Subject Property were reviewed and are summarized in the following table.

<b>AERIAL PHOTOGRAPH SUMMARY</b>		
<b>Year</b>	<b>Issues Noted</b>	<b>Observations</b>
<b>1951</b>	<b>No</b>	<b>Subject Property: The 1951 photograph shows the presence of the existing building on the Subject Property.</b>
		<b>Surrounding Area: The 1954 photograph shows the presence of commercial buildings to the south, east and west of the Subject Property and houses to the north of the Subject Property.</b>
<b>1966</b>	<b>No</b>	<b>Subject Property: Conditions on the Subject Property appear to be similar to those depicted on the 1954 photograph.</b>
		<b>Surrounding Area: Conditions on the surrounding properties appear to be similar to those depicted on the 1954 photograph.</b>
<b>1980</b>	<b>No</b>	<b>Subject Property: Conditions on the Subject Property appear to be similar to those depicted on the 1966 photograph.</b>
		<b>Surrounding Area: Conditions on the surrounding properties appear to be similar to those depicted on the 1966 photograph.</b>
<b>1996</b>	<b>No</b>	<b>Subject Property: Conditions on the Subject Property appear to be similar to those depicted on the 1980 photograph.</b>
		<b>Surrounding Area: Conditions on the surrounding properties appear to be similar to those depicted on the 1980 photograph.</b>
<b>2004</b>	<b>No</b>	<b>Subject Property: Conditions on the Subject Property appear to be similar to those depicted on the 1980 photograph.</b>
		<b>Surrounding Area: Conditions on the surrounding properties appear to be similar to those depicted on the 1980 photograph.</b>

## 5.5 City Directories

Street directories are commercial publications containing names and addresses, and in many cases, occupations of the occupants of a particular community. The directories may also contain information pertaining to business processes conducted within a community. A search for historical street directories was conducted by MEI and FirstSearch Technology Corporation (FirstSearch). Historical street directories were reviewed and are summarized in the following table. Copies of the street directories are presented in Appendix 12.6.

<b>Year</b>	<b>Occupants</b>
1935	No listing
1945	Geffner Motors
1955	Geffner Motors
1965	Laurel Motors
1975	Laurel Motors
1985	R&S Strauss
1992	R&S Strauss
1998	Strauss Discount Auto
2003	Strauss Discount Auto
2008	R&S Strauss

## **6.0 PHYSICAL SETTING**

### **6.1 Topography**

The Subject Property and vicinity characteristics listed below were analyzed utilizing a current USGS 7.5 Minute Topographic Map. This information is useful in determining the grade and topography of the Subject Property. The Subject Property is located at an elevation of approximately 25 feet above mean sea level (msl). The topography of the Subject Property is relatively flat and there were no slopes, depressions or rolling hills observed on the Subject Property and slopes on the Subject Property range from 0 to 3 percent. The Subject Property has been graded for commercial usage.

### **6.2 Geology and Soils**

No bedrock outcroppings were observed at the Subject Property. Near-surface geology in heavily developed areas such as the Subject Property and vicinity is considered "urban land" and is characterized by a non-homogeneous distribution of soil and fill types. Excavation and backfilling for building foundations, utility conduits, subway systems and other construction results in a varied subsurface profile. In this setting, estimation of local subsurface parameters such as permeability, moisture content, and organic fraction is not feasible without site-specific testing data.

### **6.3 Hydrogeology and Hydrology**

No natural surface water bodies were identified on or adjacent to the Subject Property. The nearest surface water body is Brookville Park Creek.

Local groundwater gradient is expected to follow surface topography; therefore, groundwater flow near the Subject Property is expected to flow to the southeast. Groundwater depths and flow gradients are best evaluated by a subsurface investigation involving the installation of at least three groundwater monitoring wells and precise measurements of hydrostatic pressure. Monitoring wells were not observed on the Subject Property.

## **7.0 SUBJECT PROPERTY RECONNAISSANCE**

The Subject Property reconnaissance was conducted by Mr. Donald J. Middleton Jr. President of MEI on February 4, 2012. Mr. Middleton was accompanied by and interviewed the potential purchaser.

### **7.1 Methodology and Limited Conditions**

The Subject Property reconnaissance consisted of visual and/or physical observations of the Subject Property and improvements, adjoining properties as viewed from the Subject Property boundaries, and the surrounding area based on visual observations made from adjacent public thoroughfares. Building exteriors were observed along the perimeter from the ground, unless described otherwise. The entire building was accessible during the site inspection.

### **7.2 Physical Observations**

#### **Underground Storage Tanks**

MEI did not observe any fill ports or vent pipes for any underground storage tanks on the Subject Property. A review of the New York City Fire Department (NYCFD), storage tank files did not indicate the presence of any registered underground storage tanks at the Subject Property. However, a review of the New York State Department of Environmental Conservation (NYSDEC), Underground Storage Tank database indicated that there was one (1) 1,000 gallon underground waste oil storage tank that was removed from the Subject Property on February 1, 2003. Although there was no tank report available for review, a review of the NYSDEC Spill Information Systems Database did not indicate the presence of any spill incidents pertaining to this removal project. A review of available Sanborn Fire Insurance Maps did not indicate the presence of any buried tanks on the Subject Property.

#### **Aboveground Storage Tanks**

MEI did not observe any aboveground storage tanks on the Subject Property.

#### **Hazardous Substances and Petroleum Products**

MEI did not observe the presence of any hazardous substances or petroleum products on the Subject Property.

#### **Non-Hazardous Substances and Petroleum Products**

MEI did not observe any non-hazardous substances or petroleum products at the Subject Property.

### Unidentified Substances Containers

MEI did not observe any unidentified substances containers at the Subject Property.

### Drains or Storm Water Drywells

MEI observed the presence of three (3) floor drains inside the building that did not show any signs of chemical or petroleum staining. It was reported that these drains lead to the municipal sewer system and not to an on-site cesspool or drywell. There were no storm water drywells observed on the Subject Property.

### Polychlorinated Biphenyls (PCB's)

Polychlorinated biphenyls (PCBs) are a chemical component of many dielectric fluids, heat transfer fluids, hydraulic fluids, lubricating oils, paints, or coatings manufactured prior to July 2, 1979 before being banned by Congress. Equipment that may potentially contain PCBs includes electrical equipment such as transformers or capacitors or hydraulically operated equipment, such as elevators, compaction equipment, or manufacturing equipment. MEI observed three (3) out-of-service hydraulic lifts inside the repair shop area. It was reported that the building is to be demolished in the near future. It is recommended that as part of any planned demolition or renovation activities that these lifts be properly removed and disposed.

### Stains or Corrosion

MEI did not observe any signs of staining or corrosion at the Subject Property.

### Odors

MEI did not observe any strong, pungent or noxious odors at the Subject Property.

### Pools of Liquid

MEI did not observe any pools of liquid at the Subject Property.

### Stressed Vegetation

MEI did not observe any stressed vegetation at the Subject Property.

### Stained Soil or Pavement

MEI did not observe any stained soil or pavement at the Subject Property.

### Wells

MEI did not observe any irrigation wells or groundwater monitoring wells at the Subject Property.

### Sumps, Pits, Ponds or Lagoons

MEI did not observe any sumps, pits, ponds or lagoons at the Subject Property.

### Waste Water

MEI did not observe any improper disposal of waste water into drains, ditches or streams at the Subject Property.

### Solid Wastes Disposal

All solid wastes generated on-site are carted away by a licensed waste hauler to an approved solid waste facility and are not disposed at on-site.

## **8.0 INTERVIEWS**

### **8.1 Interview With Property Owner and/or Property Manager**

The potential purchaser was interviewed during the site reconnaissance on February 4, 2012. The potential purchaser did not indicate the presence of any environmental liens or was unaware of any contamination concerns regarding the Subject Property.

## **9.0 CONDITIONS OUTSIDE THE SCOPE OF ASTM PRACTICE E 1527-05**

### **9.1 Asbestos Containing Material (ACM)**

Asbestos is a term used to describe a group of six naturally occurring crystalline fiber minerals. Asbestos has excellent thermal stability, a high degree of tensile strength, and has been used extensively in the textile, insulation, and building industries, particularly as a component in fireproofing, decorative coatings, insulation materials, and as reinforcement for plaster binders in building products. Asbestos-containing building materials are generally classified as friable or non-friable. Friable ACM are those which can be crumbled, pulverized, or reduced to powder by hand pressure, or by normal use or maintenance can be expected to emit asbestos fibers into the air. Non-friable ACM is a potential concern if it is damaged by maintenance work, demolition, or other activities, at which time it may be considered friable.

It should be noted that the limited visual screening survey conducted under the scope of work for this assessment does not constitute a full asbestos inspection, in which all areas of the building would have been thoroughly surveyed and sampled. MEI did not observe any signs of ACM on any of the overhead heating units or any of the overhead pipes inside the building. MEI did not observe any signs of ACM spray-on fireproofing inside the building. However, MEI observed the presence of ACM floor tiles in the retail area. It is recommended that a sample of these tiles be analyzed for asbestos content prior to any planned renovation or demolition activities.

### **9.2 Lead Based Paint (LBP)**

Use of lead in household paint was banned by the U.S. Environmental Protection Agency (EPA) effective January 1, 1978. The EPA and the U.S. Department of Housing and Urban Development (HUD) consider lead-based paint as containing a lead concentration equal to or greater than 1.0 milligram per square centimeter (mg/cm<sup>2</sup>) or 0.5% lead by weight, as defined by Title X of the 1992 Housing and Community Development Act.

MEI observed that the painted surfaces inside the building were in fair condition. However, there were signs of peeling and flaking paint observed in the retail areas and it is recommended that any area where peeling or flaking paint is encountered be repaired and repainted.

### **9.3 Lead in Drinking Water**

Lead has historically been used in pipes, solder, and brass fixtures used in water distribution systems and building plumbing systems. In 1986, the USEPA banned the use of lead at concentrations exceeding 0.2% lead in solder and 8% lead in other plumbing materials. Lead in drinking water results primarily from corrosion of lead containing materials in service lines or from corrosion of lead containing materials in building plumbing such as lead solder, brass, bronze, and other lead containing alloys. The USEPA Action Level for lead in public drinking water supplies is 0.015 parts per million (ppm) or 0.015 milligrams per liter (mg/L). MEI did not observe any brass fixtures or lead fixtures at the Subject Property.

The New York City Department of Environmental Protection Water Supply Division provides potable water to the building. Potable drinking water used in the system is obtained from groundwater wells and various lakes and reservoirs located in the Upstate New York area (Croton Reservoir). Based upon information supplied from the USEPA's Safe Drinking Water Information System (SDWIS), there is no indication that lead in drinking water is a concern at the Subject Property. In accordance with the scope of work for this assessment, MEI did not conduct lead-in-drinking water sampling at the Subject Property.

## 9.4 Radon

Radon is a colorless, odorless, radioactive gas. Radon comes from the natural decay of uranium that is found in nearly all soils. Radon typically moves through the ground and into building through cracks and openings in the foundation. The USEPA has developed a "Map of Radon Zones" indicating the levels of radon concentrations from testing and aerial surveys conducted in all counties in New York State. The U.S. Environmental Protection Agency's Map of Radon Zones identified the Subject Property as a radon zone Level 3. Level 3 signifies that the average predicted radon level indoors is less than 2 pico-Curies per liter and this is the lowest level in the state. This level compares favorably with the EPA action level of 4.0 pico-Curies per liter as the guideline (it should be noted that current radon information and EPA Action Levels are designated for residential spaces only. Commercial and industrial facilities are not subject to EPA's Action Level of 4 pico-Curies per liter as the guideline and definitive information concerning radon gas in an individual building can only be obtained through long term testing).

## 9.5 Mold

Molds are a class of fungi, and have been found to cause a variety of health problems in humans, including allergic, toxicological, and infectious responses. Molds are decomposers of organic materials, and thrive in humid environments. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations of mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation and carpeting often play host to such growth.

As part of this assessment, MEI performed a limited visual inspection for the conspicuous presence of mold. MEI observed the accessible interior areas of the Subject Property structure(s), including interior walls and ceilings of the building for the presence of conspicuous mold or observed water intrusion or accumulation. This evaluation did not include a review of pipe chases or areas behind enclosed walls and ceilings. MEI did not observe conspicuous visual or olfactory indications of the presence of mold inside the building. However, there were signs of water damaged ceiling tiles in the retail areas. It is recommended that any area where water damage is observed be repaired in order to prevent any potential mold concerns.

## 9.6 Wetlands

MEI reviewed available information regarding wetlands on the Subject Property, including National Wetlands Inventory online GIS mapping. MEI additionally made general site observations for readily observable potential wetland characteristics. MEI did not observe surface water bodies or any evidence of potential wetlands on or adjacent to the Subject Property.

## 10.0 FINDINGS, OPINIONS AND RECOMMENDATIONS

MEI has performed this Phase I Environmental Site Assessment of the Subject Property in conformance with the scope and limitations of ASTM Standard E 1527-05. This assessment has not identified evidence of recognized environmental conditions (RECs) in connection with the Subject Property.

The site reconnaissance, interviews and review of records have not found the presence or possible presence of hazardous substances or petroleum related products that could indicate an existing release, past release or significant threat of a release into structures on the property, into ground, groundwater or surface water.

However, MEI observed three (3) out-of-service hydraulic lifts inside the repair shop area. It was reported that the building is to be demolished in the near future. It is recommended that as part of any planned demolition or renovation activities that these lifts be properly removed and disposed.

Conditions outside of ASTM E 1527-05 that were identified in connection with the Subject Property were that MEI observed the presence of ACM floor tiles in the retail area. It is recommended that a sample of these tiles be analyzed for asbestos content prior to any planned renovation or demolition activities. Furthermore, MEI signs of peeling and flaking paint and water damaged ceilings in the retail areas. It is recommended that any area where peeling or flaking paint and water damage is encountered be repaired and repainted.

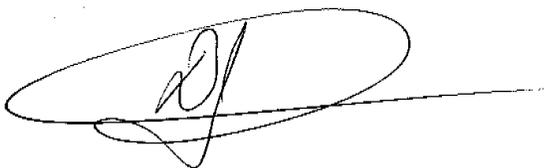
Lastly, A review of the New York City Building Department property profile overview indicated that the Subject Property has an E restriction of Hazmat/Noise. It is recommended that the property owner submit all documentation associated with this designation to the New York City Office of Environmental Remediation (NYCOER), in order to determine the requirements for addressing the E designation assigned to the Subject Property prior to any planned construction activities.

It is the opinion of MEI that no further testing (subsurface or otherwise), is warranted on the Subject Property.

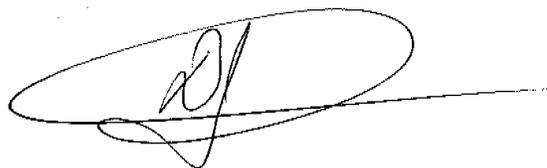
## 11.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

This Phase I Environmental Site Assessment (ESA) Report documents the research methodology used by qualified environmental professionals of MEI to identify recognized environmental conditions using the scope and limitations of ASTM Standard E 1527-05.

### **Middleton Environmental Incorporated**



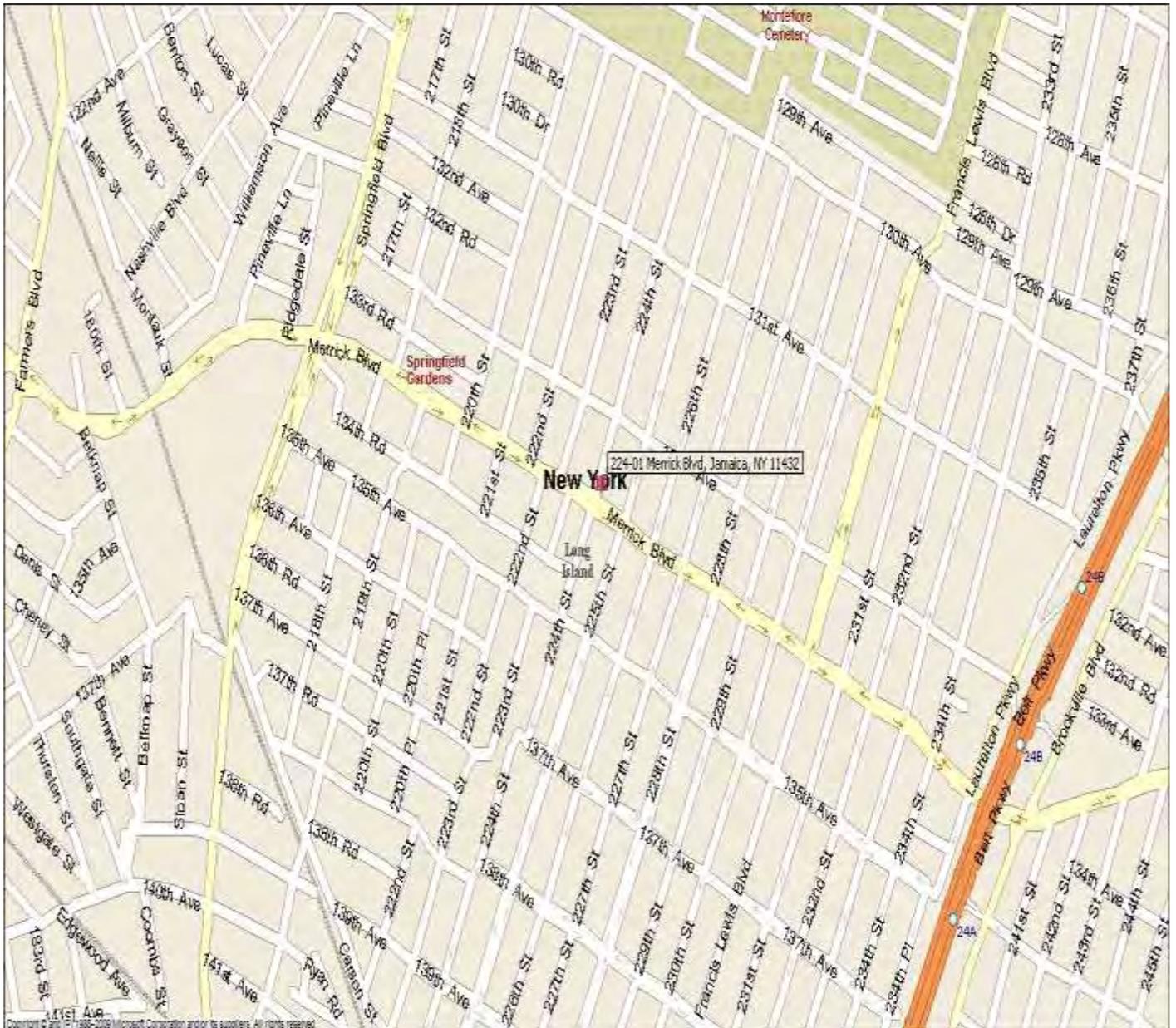
Prepared by: Donald J. Middleton Jr.  
President



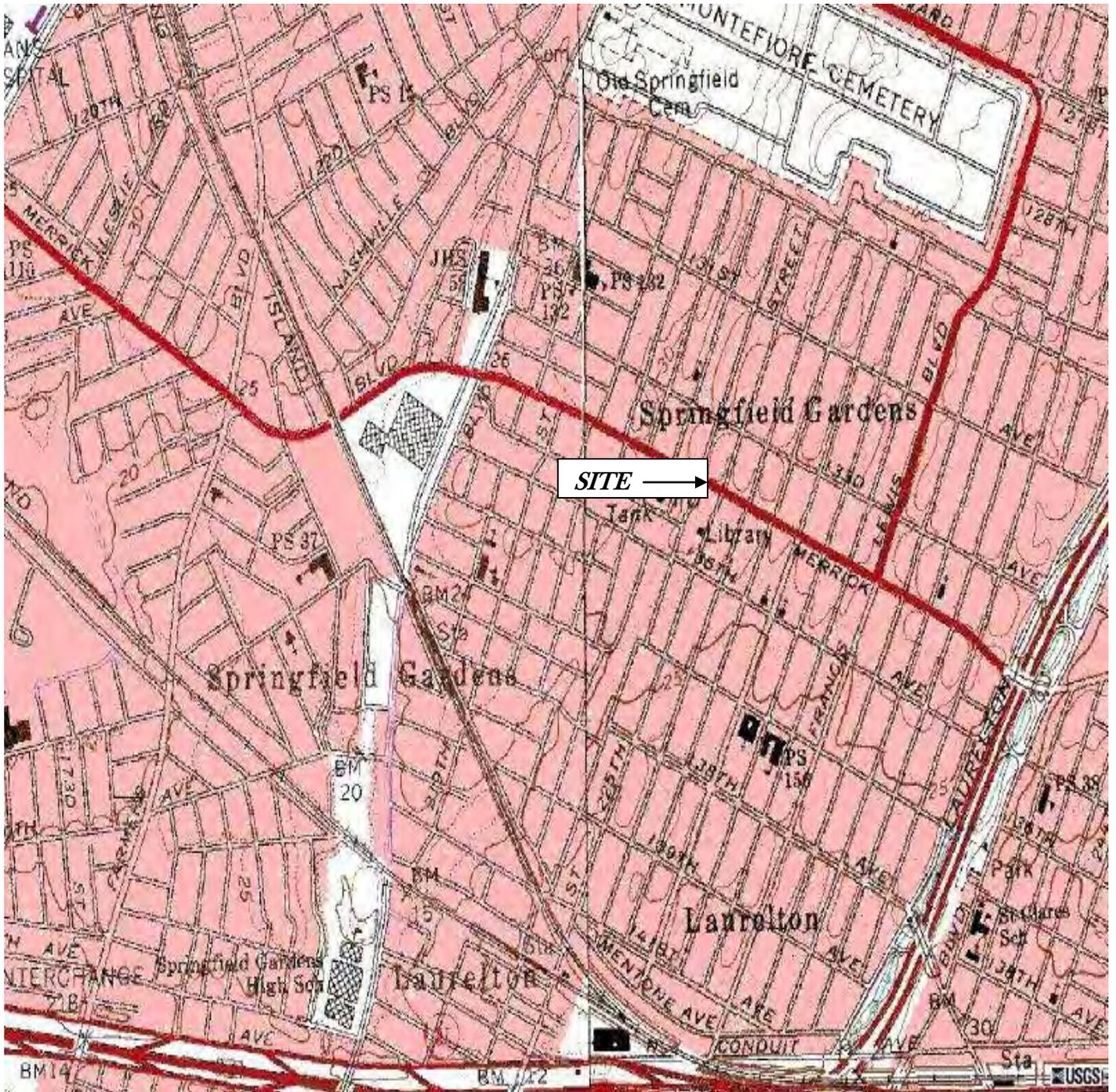
Reviewed by: Donald J. Middleton Jr.  
President

## 12.0 APPENDIX

### 12.1. Site Map



## 12.2 USGS Topographic Map



## 12.3 Site Photographs



**FORMER RETAIL AREA**



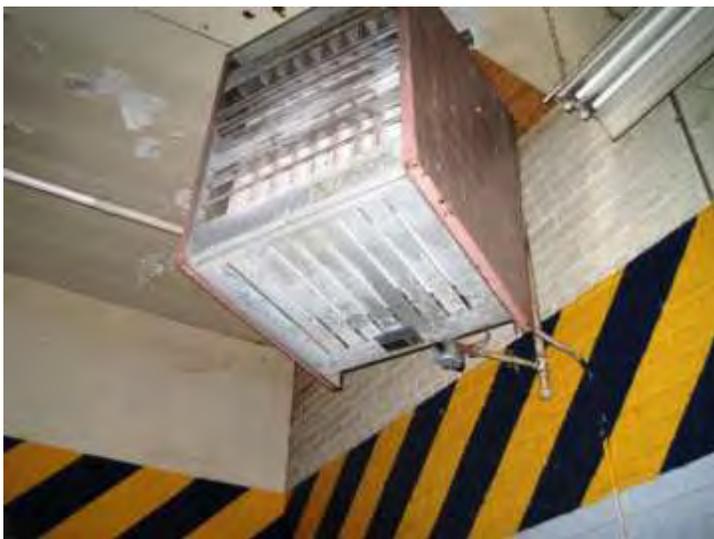
**WATER DAMAGED CEILING**



**HYDRAULIC LIFTS**



**FLOOR DRAIN IN SHOP AREA**



**OVERHEAD HEATING UNIT**



**FLOOR DRAIN IN RETAIL AREA**

## 12.3 Site Photographs (Borders)

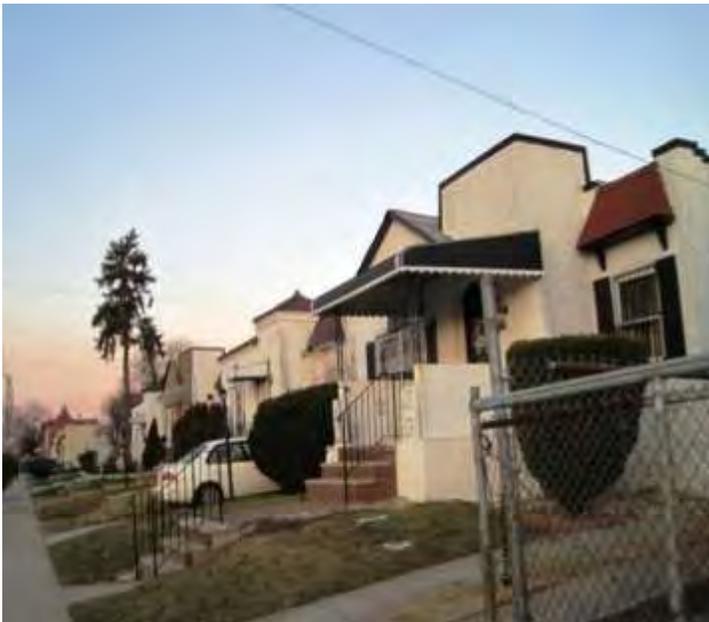
The current use of the adjoining properties is residential and commercial. The Subject Property borders are as follows:

North - The property is bordered to the north by a house.

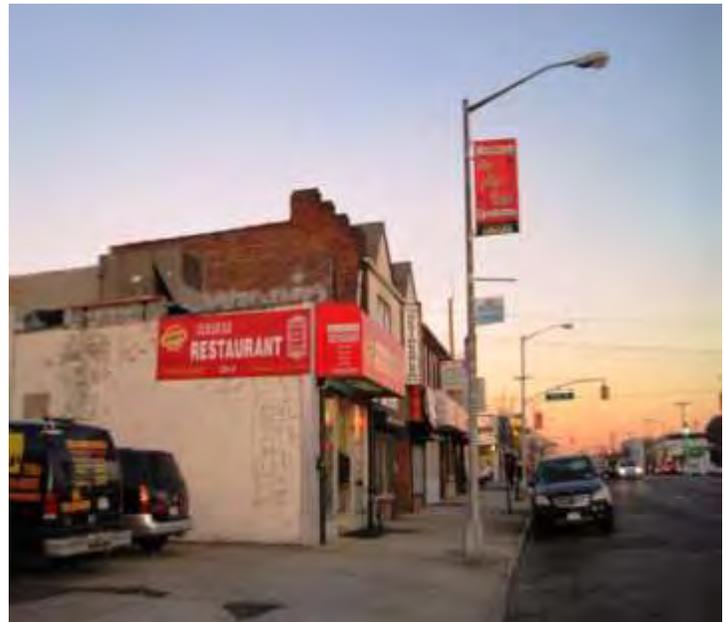
South - The property is bordered to the south Merrick Boulevard and Merrick Boulevard and a transmission repair facility.

East - The property is bordered to the east by a restaurant.

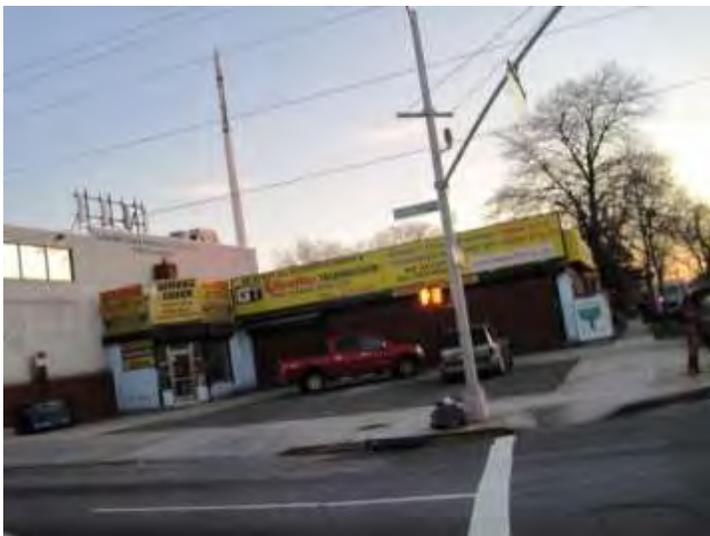
West - The property is bordered to the west by 224th Street and a truck lot.



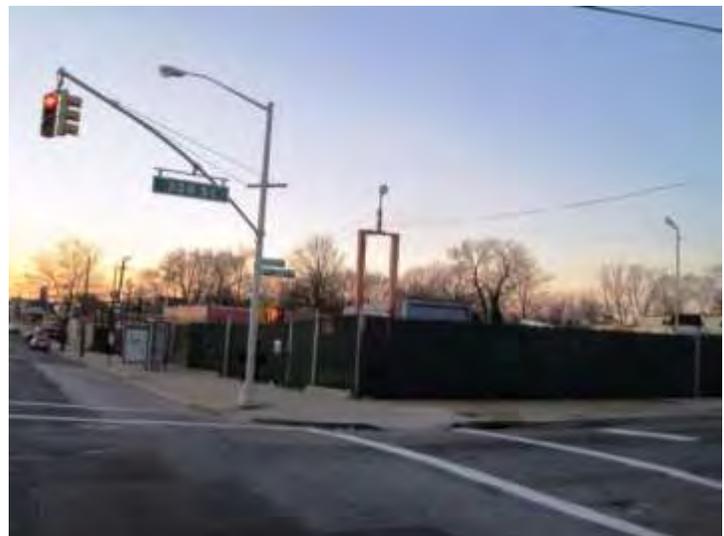
**BORDER TO THE NORTH**



**BORDER TO THE EAST**



**BORDER TO THE EAST**



**BORDER TO THE WEST**

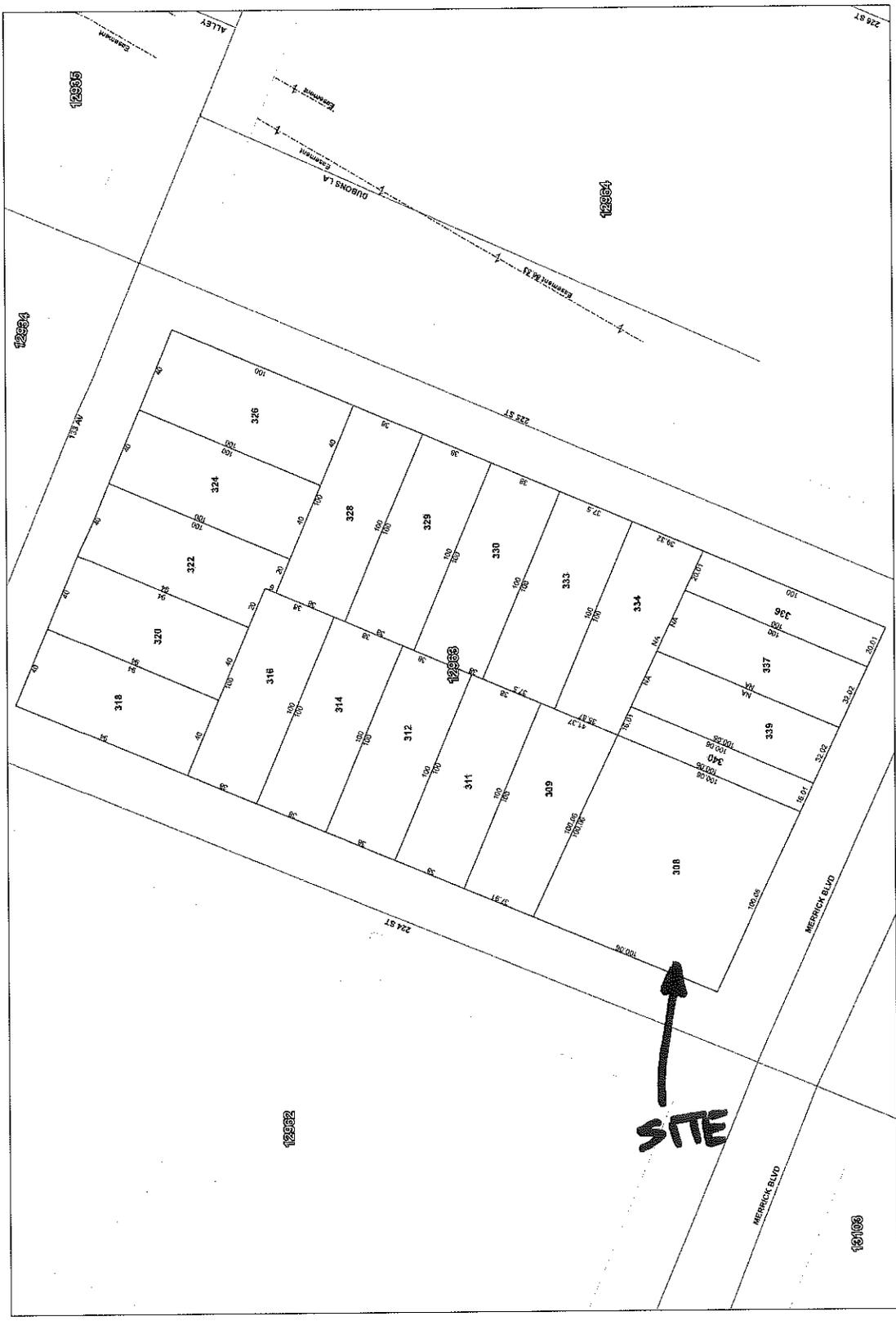
12.4 Department of Finance or Assessment Information  
and/or local Fire and Building Department Information



**FINANCE**  
**NEW YORK**  
**COMMISSIONER**

**NYC Digital Tax Map**  
 Effective Date : 12/05/2008 09:46:22  
 End Date : Current  
 Queens Block: 12963

- Legend**
- Streets
  - Miscellaneous Text
  - Possession Hooks
  - Boundary Lines
  - Lot Face Possession Hooks
  - Regular
  - Underwater
  - tax Lot Polygon
  - Condo Number
  - tax Block Polygon



# Property Detail Report

For Property Located At



CoreLogic

RealQuest Professional

**22401 MERRICK BLVD, JAMAICA, NY 11413-2024**

### Owner Information:

Owner Name: BUSINESS KIMSTRAUSS UNITARY  
Mailing Address: 22401 MERRICK BLVD, JAMAICA NY 11413-2024 C014  
Phone Number: Vesting Codes: // TR

### Location Information:

Legal Description:  
County: QUEENS, NY APN: 12963-0308  
Census Tract / Block: 630.00 / 2 Alternate APN:  
Township-Range-Sect: Subdivision:  
Legal Book/Page: Map Reference: 54-06-16 / 6927-D1  
Legal Lot: 308 Tract #:  
Legal Block: 12963 School District: 3620580  
Market Area: Munic/Township: LAURELTON  
Neighbor Code:

### Owner Transfer Information:

Recording/Sale Date: / Deed Type:  
Sale Price: 1st Mtg Document #:  
Document #:

### Last Market Sale Information:

Recording/Sale Date: 01/03/2006 / 12/13/2005 1st Mtg Amount/Type: /  
Sale Price: \$1,487,000 1st Mtg Int. Rate/Type: /  
Sale Type: 1st Mtg Document #: /  
Document #: 2258 2nd Mtg Amount/Type: /  
Deed Type: DEED (REG) 2nd Mtg Int. Rate/Type: /  
Transfer Document #: Price Per SqFt: \$209.44  
New Construction: Multi/Split Sale:  
Title Company:  
Lender:

Seller Name: SBCG STRAUSS LLC

### Prior Sale Information:

Prior Rec/Sale Date: 11/07/1988 / 10/28/1988 Prior Lender:  
Prior Sale Price: \$400,000 Prior 1st Mtg Amt/Type: /  
Prior Doc Number: 2710-569 Prior 1st Mtg Rate/Type: /  
Prior Deed Type: DEED (REG)

### Property Characteristics:

Year Built / Eff:	1932 /	Total Rooms/Offices:	Garage Area:
Gross Area:	7,100	Total Restrooms:	Garage Capacity:
Building Area:	7,100	Roof Type:	Parking Spaces:
Tot Adj Area:		Roof Material:	Heat Type:
Above Grade:	6,800	Construction:	Air Cond:
# of Stories:	1.00	Foundation:	Pool:
Other Improvements:		Exterior wall:	Quality:
		Basement Area:	Condition:

### Site Information:

Zoning:	R5D	Acres:	0.23	County Use:	STORE MISCELLANEOUS (K9)
Flood Zone:	X	Lot Area:	10,000	State Use:	
Flood Panel:	3604970068B	Lot Width/Depth:	100 x 100	Site Influence:	CORNER
Flood Panel Date:	05/21/2001	Commercial Units:	1	Sewer Type:	
Land Use:	STORE BUILDING	Building Class:	K9	Water Type:	

### Tax Information:

Total Value:	\$314,100	Assessed Year:	2011	Property Tax:	\$30,908.92
Land Value:	\$117,000	Improved %:	63%	Tax Area:	4
Improvement Value:	\$197,100	Tax Year:	2011	Tax Exemption:	
Total Taxable Value:	\$314,100				



[CLICK HERE TO SIGN UP FOR BUILDINGS NEWS](#)

NYC Department of Buildings  
Property Profile Overview

224-01 MERRICK BOULEVARD  
MERRICK BOULEVARD 224-01 - 224-09

QUEENS 11413  
Health Area : 3531  
Census Tract : 630  
Community Board : 413  
Buildings on Lot : 1

BIN# 4279311  
Tax Block : 12963  
Tax Lot : 308  
Condo : NO  
Vacant : NO

[View DCP Addresses...](#) [Browse Block](#)

[View Zoning Documents](#)

[View Challenge Results](#)

[View Certificates of Occupancy](#)

Cross Street(s): 224 STREET, 225 STREET

DOB Special Place Name:

DOB Building Remarks:

Landmark Status:

Local Law: NO

SRO Restricted: NO

UB Restricted: NO

Little 'E' Restricted: HAZMAT/NOISE

Legal Adult Use: NO

Additional BINs for Building: NONE

Special Status: N/A

Loft Law: NO

TA Restricted: NO

Grandfathered Sign: NO

City Owned: NO

Special District: UNKNOWN

This property is not located in an area that may be affected by Tidal Wetlands, Freshwater Wetlands, or Coastal Erosion Hazard Area. [Click here for more information](#)

Department of Finance Building Classification: K9-STORE BUILDING

Please Note: The Department of Finance's building classification information shows a building's tax status, which may not be the same as the legal use of the structure. To determine the legal use of a structure, research the records of the Department of Buildings.

	Total	Open
Complaints	0	0
<a href="#">Violations-DOB</a>	2	1
Violations-ECB (DOB)	0	0
Jobs/Filings	0	
<a href="#">ARA / LAA Jobs</a>	1	
Total Jobs	1	
Actions	21	

[Elevator Records](#)

[Electrical Applications](#)

[Permits In-Process / Issued](#)

[Illuminated Signs Annual Permits](#)

[Plumbing Inspections](#)

[Open Plumbing Jobs / Work Types](#)

[Facades](#)

[Marquee Annual Permits](#)

[Boiler Records](#)

[DEP Boiler Information](#)

[Crane Information](#)

[After Hours Variance Permits](#)

OR Enter Action Type:

OR Select from List:

Select...

AND

If you have any questions please review these [Frequently Asked Questions](#), the [Glossary](#), or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.

DEPARTMENT OF HOUSING AND BUILDINGS  
BOROUGH OF QUEENS, CITY OF NEW YORK

01520

No. 82523  
Date 6/30/52

CERTIFICATE OF OCCUPANCY

(Standard form adopted by the Board of Standards and Appeals and issued pursuant to Section 646 of the New York Charter, and Sections C.26-181.0 to C.26-187.0 inclusive Administrative Code 2.1.3.1. to 2.1.3.7. Building Code.)

This certificate supersedes C. O. No. 34484

To the owner or owners of the building or premises:

THIS CERTIFIES that the ~~new~~ <sup>EX</sup> ~~altered~~ <sup>XX</sup> ~~existing~~ <sup>XX</sup> building premises located at 224-01 to 09 Merrick Blvd., REC. 224 St.

Block 12963 Lot 308

conforms substantially to the approved plans and specifications, and to the requirements of the building code and all other laws and ordinances, and of the rules and regulations of the Board of Standards and Appeals, applicable to a building of its class and kind at the time the permit was issued; and CERTIFIES FURTHER that, any provisions of Section 646F of the New York Charter have been complied with as certified by a report of the Fire Commissioner to the Borough Superintendent.

N.B. of Alt. No. — <sup>XX</sup> Alt. 2522/49 Construction classification — Non-fire  
Occupancy classification — <sup>XX</sup> Commercial Height 1 stories, 17 feet  
Date of completion — 4/30/52 Located in Business Use District  
D Area 1 Height Zone at time of issuance of permit

This certificate is issued subject to the limitations hereinafter specified and to the following resolutions of the Board of Standards and Appeals: (Calendar numbers to be inserted here)

PERMISSIBLE USE AND OCCUPANCY

STORY	LIVE LOADS Lbs. per Sq. Ft.	PERSONS ACCOMMODATED			USE
		MALE	FEMALE	TOTAL	
Cellar	On Gr.				Boiler Room
1					Auto Show Room, Auto Repairs & Parking for more than five (5) Motor Vehicles, (No fee to be charged)
					Fire Department certification June 23, 1952.
					All in accordance with Board of Standards & Appeals - BY 136 A.5, limiting repairs to hand tools & excluding anvils & forges, also gasoline shall be for accessory use only.
					Plot - 100' X 160'

*John T. Kelly*  
Borough Superintendent



[CLICK HERE TO SIGN UP FOR BUILDINGS NEWS](#)

NYC Department of Buildings  
Actions

Page: 2

Premises: 224-01 MERRICK BOULEVARD QUEENS

BIN: 4279311 Block: 12963 Lot: 308

NUMBER	TYPE	FILE DATE
MIS 5186-45	MISCELLANEOUS	00/00/1945
MIS 5883-45	MISCELLANEOUS	00/00/1945
MIS 13649-46ES	MISCELLANEOUS	00/00/1946
NB 51-45	NEW BUILDING	00/00/1945
PR 32-33-58		00/00/1933
PR 3032-52		00/00/1952
PR 31-58		00/00/1958
PR 1647-84		00/00/1984
PR 1647-84		00/00/1984
Q 34038(NB51-45)		00/00/1945

[Previous](#)

[Next](#)

Enter Action Type:

Or Select from List:

If you have any questions please review these [Frequently Asked Questions](#), the [Glossary](#), or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.

## 12.5 Environmental Database Report and Regulatory Agency Documentation

# *FirstSearch Technology Corporation*

## **Environmental FirstSearch™ Report**

Target Property:

**224-01 MERRICK BLVD**

**SPRINGFIELD GARDENS NY 11413**

Job Number: 12-123

### **PREPARED FOR:**

Middleton Environmental Inc.

50 Park Avenue

Babylon, NY 11702

02-06-12



*Tel: (781) 551-0470*

*Fax: (781) 551-0471*

# *Environmental FirstSearch*

## *Search Summary Report*

**Target Site:** 224-01 MERRICK BLVD  
 SPRINGFIELD GARDENS NY 11413

### FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	10-25-11	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	10-25-11	0.50	0	0	0	0	-	0	0
CERCLIS	Y	09-30-11	0.50	0	0	0	0	-	0	0
NFRAP	Y	09-30-11	0.50	0	0	0	0	-	0	0
RCRA COR ACT	Y	01-10-12	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	01-10-12	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	01-10-12	0.25	0	4	0	-	-	1	5
Federal Brownfield	Y	12-01-11	0.50	0	0	0	0	-	0	0
ERNS	Y	01-11-12	0.12	0	1	-	-	-	0	1
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	2	2
State/Tribal Sites	Y	01-10-12	1.00	0	0	0	0	0	0	0
State Spills 90	Y	01-10-12	0.12	0	3	-	-	-	1	4
State Spills 80	Y	11-02-10	0.25	0	0	1	-	-	0	1
State/Tribal SWL	Y	02-01-11	0.50	0	0	0	0	-	4	4
State/Tribal LUST	Y	01-10-12	0.50	0	0	3	10	-	0	13
State/Tribal UST/AST	Y	01-10-12	0.25	0	7	4	-	-	0	11
State/Tribal EC	Y	01-10-12	0.50	0	0	0	0	-	0	0
State/Tribal IC	Y	01-10-12	0.25	1	5	4	-	-	0	10
State/Tribal VCP	Y	01-10-12	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	01-10-12	0.50	0	0	0	0	-	0	0
Federal IC/EC	Y	11-01-11	0.50	0	0	0	0	-	0	0
- TOTALS -				1	20	12	10	0	8	51

### Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

### Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSearch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch  
Site Information Report***

**Request Date:** 02-06-12  
**Requestor Name:** Amy M. DePietto  
**Standard:** AAI

**Search Type:** COORD  
**Job Number:** 12-123  
**Filtered Report**

**Target Site:** 224-01 MERRICK BLVD  
 SPRINGFIELD GARDENS NY 11413

*Demographics*

<b>Sites:</b> 51	<b>Non-Geocoded:</b> 8	<b>Population:</b> NA
<b>Radon:</b> OF THE 9 HOMES TESTED, THE AVG. PCI/L LEVEL WAS .7		

*Site Location*

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
<b>Longitude:</b>	-73.745408	-73:44:43	<b>Easting:</b>	606029.281
<b>Latitude:</b>	40.677856	40:40:40	<b>Northing:</b>	4503542.413
<b>Elevation:</b>	32		<b>Zone:</b>	18

*Comment*

<b>Comment:</b>
-----------------

*Additional Requests/Services*

<b>Adjacent ZIP Codes:</b> 1 Mile(s)	<b>Services:</b>
--------------------------------------	------------------

<u>ZIP Code</u>	<u>City Name</u>	<u>ST</u>	<u>Dist/Dir</u>	<u>Sel</u>	<u>Requested?</u>	<u>Date</u>
11422	ROSEDALE	NY	0.49 SE	Y	Fire Insurance Maps	No
11411	CAMBRIA HEIGHTS	NY	0.72 NE	N	Aerial Photographs	No
11412	SAINT ALBANS	NY	0.71 NW	N	Historical Topos	No
11434	JAMAICA	NY	0.57 SW	N	City Directories	Yes 02-06-12
11580	VALLEY STREAM	NY	0.97 SE	N	Title Search/Env Liens	No
					Municipal Reports	No
					Online Topos	No

## Environmental FirstSearch Sites Summary Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

**TOTAL:** 51                    **GEOCODED:** 43                    **NON GEOCODED:** 8                    **SELECTED:** 7

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
5	ERNS	R and S STRAUSS 167851/FIXED FACILITY	S R and STRAUSS STORE 2 LAURELTON NY 11413	0.02 SE	0	N/A
<i>1</i>	<i>INSTCONTRO</i>	<i>E DESIGNATION SITE E-219-1136</i>	<i>12963 QUEENS NY 11413</i>	<i>0.00 --</i>	<i>N/A</i>	<i>1</i>
2	INSTCONTRO	E DESIGNATION SITE E-219-1135	12962 QUEENS NY 11413	0.01 NW	N/A	N/A
3	INSTCONTRO	E DESIGNATION SITE E-219-1143	13103 QUEENS NY 11413	0.01 SW	N/A	N/A
4	INSTCONTRO	E DESIGNATION SITE E-219-1144	13105 QUEENS NY 11413	0.01 SW	N/A	N/A
8	INSTCONTRO	E DESIGNATION SITE E-219-1142	13102 QUEENS NY 11413	0.05 NW	N/A	N/A
11	INSTCONTRO	E DESIGNATION SITE E-219-1141	13100 QUEENS NY 11413	0.09 NW	N/A	N/A
16	INSTCONTRO	E DESIGNATION SITE E-219-1134	12960 QUEENS NY 11413	0.14 NW	N/A	N/A
17	INSTCONTRO	E DESIGNATION SITE E-219-1140	13098 QUEENS NY 11413	0.17 NW	N/A	N/A
19	INSTCONTRO	E DESIGNATION SITE E-219-1133-B	12958 QUEENS NY 11413	0.21 NW	N/A	N/A
22	INSTCONTRO	E DESIGNATION SITE E-219-1133	12958 QUEENS NY 11413	0.23 NW	N/A	N/A
<i>18</i>	<i>LUST</i>	<i>MOBIL S/S 8903511/ACTIVE</i>	<i>228 MERRICK BLVD LAURELTON NY 11413</i>	<i>0.20 SE</i>	<i>- 7</i>	<i>3</i>
18	LUST	MOBIL S/S 9007891/CLOSED	228-20 MERRICK BLVD NEW YORK NY 11413	0.20 SE	- 7	N/A
20	LUST	131-34 227TH STREET 9311499/CLOSED	131-34 227TH ST QUEENS NY 11413	0.22 NE	+ 2	N/A
24	LUST	133-25 128TH ST. 8706572/CLOSED	133-25 218TH ST QUEENS NY 11413	0.30 NW	+ 4	N/A
25	LUST	TANK FAILURE,QUEENS 8602744/CLOSED	131-39 FRANCIS LEWIS BLVD QUEENS NY 11413	0.40 SE	+ 1	N/A
26	LUST	136-25 218TH ST./MARTIN D 8705942/CLOSED	136-25 218TH ST QUEENS NY 11413	0.41 SW	- 3	N/A
27	LUST	J-CAP INCORPORATED 0111119/CLOSED	231-35 MERRICK BLVD QUEENS NY 11413	0.42 SE	- 5	N/A
28	LUST	135-02 SPRINGFIELD GARDEN 8503980/CLOSED	135-02 SPRINGFIELD BLVD SPRINGFIELD GA NY 11413	0.47 NW	- 3	N/A
28	LUST	NYNEX/135-02 SPRINGFIELD 8800057/CLOSED	135-02 SPRINGFIELD BLVD QUEENS NY 11413	0.47 NW	- 3	N/A
28	LUST	135-02 SPRINGFIELD BLVD 8708034/CLOSED	135-02 SPRINGFIELD BLVD QUEENS NY 11413	0.47 NW	- 3	N/A

## Environmental FirstSearch Sites Summary Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

**TOTAL:** 51                      **GEOCODED:** 43                      **NON GEOCODED:** 8                      **SELECTED:** 7

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
28	LUST	135-02 SPRINGFIELD BLVD 9102087/CLOSED	135-02 SPRINGFIELD BLVD QUEENS NY 11413	0.47 NW	- 3	N/A
29	LUST	COMMERCIAL PROPERTY - MISC 0503427/HISTORIC-ACTIVE	232-17 MERRICK BLVD QUEENS NY 11413	0.47 SE	- 2	5
30	LUST	PRIVATE HOME 9702599/CLOSED	138-47 227TH ST QUEENS NY 11413	0.50 SW	- 28	N/A
5	RCRAGN	HET AUTO REPAIR NYR000108217/SGN	224-02 MERRICK BLVD LAURELTON NY 11413	0.02 SE	0	7
5	RCRAGN	R and S STRAUSS STORE 416 NYD986984631/VGN	224-01 MERRICK BLVD QUEENS NY 11413	0.02 SE	0	9
9	RCRAGN	DAISEY FRESH DRIVE IN CLEANERS NYD981486194/SGN	225-06 MERRICK BLVD SPRINGFIELD GA NY 11413	0.06 SE	0	N/A
12	RCRAGN	NYCDEP WELL STATION 56 NYR000074690/SGN	134-15 222ND ST SPRINGFIELD GA NY 11413	0.11 NW	- 22	N/A
	RCRAGN	E-PACK EXPRESS CORP NYR000170936/SGN	145 226TH ST QUEENS NY 11413	NON GC	N/A	N/A
10	SPILLS	EMS STATION (FUTURE) 0408491/ACTIVE	222-15 MERRICK BLVD SPRINGFIELD GA NY 11413	0.07 NW	- 18	N/A
12	SPILLS	TANK STATION 29 0712681/CLOSED	134-15 222ND ST QUEENS NY 11413	0.11 NW	- 22	N/A
13	SPILLS	222ND ST/134THAVE/MERRICK 9205352/CLOSED	222ND ST QUEENS NY 11413	0.11 NW	- 16	N/A
	SPILLS	LIRR 9205771/CLOSED	225TH ST SUBSTATION QUEENS NY 11413	NON GC	N/A	N/A
18	SPILLS80	MOBIL S/S 8903511/ACTIVE	228-20 MERRICK BLVD JAMAICA NY 11413	0.20 SE	- 7	N/A
	SWL	NELSON S AUTO SALVAGE INC NYSW-0611-0675/ACTIVE	122 MONTAUK ST SPRINGFIELD GA NY 11413	NON GC	N/A	N/A
	SWL	NYCDOS SPRINGFIELD BLVD.(IDLEW 2-41YA3/INACTIVE	SPRINGFIELD BLVD. IDLEWILD SPRINGFIELD GA NY 11413	NON GC	N/A	N/A
	SWL	VILLAGE MOTOR CARS INC NYSW-0611-0678/INACTIVE	185 MERRICK BLVD QUEENS NY 11413	NON GC	N/A	N/A
	SWL	C and K AUTOMOTIVE INC NYSW-0611-0673/INACTIVE	12222 MONTAUK ST SPRINGFIELD GA NY	NON GC	N/A	N/A
	TRIBALLAND	BUREAU OF INDIAN AFFAIRS CONTA BIA-11413	UNKNOWN NY 11413	NON GC	N/A	N/A
	TRIBALLAND	BUREAU OF INDIAN AFFAIRS CONTA BIA-11422	UNKNOWN NY 11422	NON GC	N/A	N/A
6	UST	AUTO REPAIR SHOP (HET AUTO REP PBS2-607937/UNREGULATED	224 MERRICK BLVD QUEENS NY 11413	0.02 NE	- 2	11

## *Environmental FirstSearch Sites Summary Report*

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

**TOTAL:** 51                      **GEOCODED:** 43                      **NON GEOCODED:** 8                      **SELECTED:** 7

<b>Map ID</b>	<b>DB Type</b>	<b>Site Name/ID/Status</b>	<b>Address</b>	<b>Dist/Dir</b>	<b>ElevDiff</b>	<b>Page No.</b>
5	UST	STRAUSS DISCOUNT AUTO PBS2-608424/UNREGULATED	224 MERRICK BLVD QUEENS NY 11413	0.02 SE	0	15
7	UST	TANNOR GARAGE PBS2-269832/UNREGULATED	223-18 MERRICK BLVD JAMAICA NY 11413	0.03 NW	- 5	N/A
9	UST	MOHAMED DARHAN PBS2-359513/ACTIVE	225-01 MERRICK BLVD LAURELTON NY 11413	0.06 SE	0	N/A
10	UST	EMS BAT 54 - SPRINGFIELD GARDE PBS2-269794/ACTIVE	222-15 MERRICK BLVD JAMAICA NY 11413	0.07 NW	- 18	N/A
12	UST	NYC DEP GROUNDWATER CBS2-000120/ACTIVE	134-15 222ND ST SPRINGFIELD GA NY 11413	0.11 NW	- 22	N/A
14	UST	SOCIAL CONCERN COMMITTEE PBS2-401358/UNREGULATED	226-18 MERRICK BLVD LAURELTON NY 11413	0.11 SE	- 12	N/A
15	UST	221-06 MERRICK BLVD. ASSOCIATE PBS2-508667/UNREGULATED	221-18 MERRICK BLVD JAMAICA NY 11413	0.13 NW	- 13	N/A
18	UST	MOBIL R/S 11023 PBS2-157201/ACTIVE	228-20 MERRICK BLVD LAURELTON NY 11413	0.20 SE	- 7	N/A
21	UST	DUNCAN BROTHERS SERVICE STATIO PBS2-600329/ACTIVE	219 MERRICK BLVD LAURELTON NY 11413	0.23 NW	- 5	N/A
23	UST	LOWLAND REALTY CORP PBS2-236616/ACTIVE	136-16 222ND ST QUEENS NY 11413	0.25 SW	- 22	N/A

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

INSTCONTROL

**SEARCH ID:** 37      **DIST/DIR:** 0.00 --      **ELEVATION:**      **MAP ID:** 1

**NAME:** E DESIGNATION SITE  
**ADDRESS:** 12963  
NY  
QUEENS  
**CONTACT:**  
**SOURCE:** NYDCP

**REV:** 10/5/11  
**ID1:** E-219-1136  
**ID2:** 08DCP073Q  
**STATUS:**  
**PHONE:**

**SITE INFORMATION**

**E NUMBER:** E-219  
**CEQR NUMBER:** 08DCP073Q  
**ULURP NUMBER:** 080462ZMQ  
**ZONING MAP:** 19A 19B 19C 19D  
**EFFECTIVE DATE:** 9/4/2008  
**LOT REMEDIATION DATE:**  
**DESCRIPTION:** Hazardous Materials\* Phase I and Phase II Testing Protocol, Window Wall Attenuation and Alternate Ventilation  
**TAX BLOCK:** 12963  
**TAX LOTS:** 308

## Environmental FirstSearch Site Detail Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

### LUST

**SEARCH ID:** 30      **DIST/DIR:** 0.20 SE      **ELEVATION:** 25      **MAP ID:** 18

<p><b>NAME:</b> MOBIL S/S <b>ADDRESS:</b> 228 MERRICK BLVD LAURELTON NY QUEENS <b>CONTACT:</b> <b>SOURCE:</b> NY DEC</p>	<p><b>REV:</b> 1/10/12 <b>ID1:</b> 8903511 <b>ID2:</b> 295150 <b>STATUS:</b> ACTIVE <b>PHONE:</b></p>
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**SITE INFORMATION**

**SPILL DATE:** 7/7/1989      **DATE REPORTED:** 7/7/1989  
**CLOSED DATE:**      **INSP DATE:**

**MATERIAL SPILLED:** GASOLINE      **AMOUNT SPILLED:** 0 G  
**MATERIAL CLASS:** PETROLEUM      **AMOUNT RECOVERED:** 0 G

**CAUSE OF SPILL:** TANK FAILURE  
**WATERBODY AFFECTED:**  
**SOURCE OF SPILL:** GASOLINE STATION  
**REPORTED BY:** RESPONSIBLE PARTY  
**CALLER REMARKS:** FOUND FREE PRODUCT IN ONE OF THE MONITORING WELLS, SUSPECTS RANDOM DRILLING.

**REGION:**  
**UST TRUST?** YES

**SPILL INVESTIGATOR:** RHFILKIN  
**SPILL CONTACT:**  
**TELEPHONE:**

**SPILLER:** EXXONMOBIL CORPORATION  
MIKE MEOLA  
**ADDRESS:** 3225 GALLOS RD-2A  
FAIRFAX, VA 22037-

**TELEPHONE:**

**REPORTED BY:** RESPONSIBLE PARTY

**LAST DEC UPDATE:** 9/19/2007  
**CLEAN UP MEET STANDARDS?** NO  
**PENALTY RECOMMENDED?** NO

**DEC REMARKS:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was FILKINS This spill site has been transferred from DEC Sigona to Remedial Bureau B, on August 4, 2003. This spill site has been consolidated under Spill No. 8903511. Reassigned from sullivan to sigona on 10/27/00 DEC s comments regarding a Revised Subsurface Investigation Work Plan from Roux Associates to install off-site groundwater monitoring wells, dated April 11, 2003. Based on the results of our site visit on March 13, 2003, and evaluation of the proposal by Roux Associates, the DEC accepts ExxonMobil s Work Plan and Schedule to further evaluate the off-site contamination at this location. Exxon-Mobil must now complete the implementation of the Work Plan according to the proposed schedule. The results of this investigation must be compiled into a Subsurface Investigation Report prepared in accordance with Section No. 3, paragraph 3.14 of the Division of Environmental Remediation s Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 2002. A complete Remedial Investigation Report must be submitted for DEC review and approval according to the proposed implementation scheduled.

**THERE MAYBE MORE DEC REMARKS AVAILBLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION**

- Continued on next page -

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

LUST

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<b>SEARCH ID:</b> 30	<b>DIST/DIR:</b> 0.20 SE	<b>ELEVATION:</b> 25	<b>MAP ID:</b> 18
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**NAME:** MOBIL S/S  
**ADDRESS:** 228 MERRICK BLVD  
LAURELTON NY  
QUEENS  
**CONTACT:**  
**SOURCE:** NY DEC

**REV:** 1/10/12  
**ID1:** 8903511  
**ID2:** 295150  
**STATUS:** ACTIVE  
**PHONE:**

## Environmental FirstSearch Site Detail Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

### LUST

**SEARCH ID:** 27      **DIST/DIR:** 0.47 SE      **ELEVATION:** 30      **MAP ID:** 29

<p><b>NAME:</b> COMMERCIAL PROPERTY - MISC <b>ADDRESS:</b> 232-17 MERRICK BLVD QUEENS NY 11413 QUEENS <b>CONTACT:</b> <b>SOURCE:</b></p>	<p><b>REV:</b> 8/13/07 <b>ID1:</b> 0503427 <b>ID2:</b> 348035 <b>STATUS:</b> HISTORIC-ACTIVE <b>PHONE:</b></p>
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**SITE INFORMATION**

<b>SPILL DATE:</b> 6/21/2005	<b>DATE REPORTED:</b> 6/21/2005
<b>CLOSED DATE:</b> 12:00:00 AM	<b>INSP DATE:</b> 12:00:00 AM

<b>MATERIAL SPILLED:</b> UNKNOWN PETROLEUM	<b>AMOUNT SPILLED:</b> 0 G
<b>MATERIAL CLASS:</b> PETROLEUM	<b>AMOUNT RECOVERED:</b> 0 G

**CAUSE OF SPILL:** TANK FAILURE  
**WATERBODY AFFECTED:**  
**SOURCE OF SPILL:** COMMERCIAL/INDUSTRIAL  
**REPORTED BY:** OTHER  
**CALLER REMARKS:** START CALLERREMARK - 0503427 FOUND MATERIAL 23FT. BELOW GROUND SURFACE DURING A SUBSURFACE INVESTIGATION. A SHEEN WAS FOUND IN THE WELL ON THE PROPERTY. GROUNDWATER WAS AFFECTED. UNKNOWN WHO IS DOING CLEAN UP. END CALLERREMARK - 0503427

**REGION:** 2  
**UST TRUST?** NO

**SPILL INVESTIGATOR:** kkchanda  
**SPILL CONTACT:** CAROLINE CANDALFO  
**TELEPHONE:** (631) 293-4992

**SPILLER:** UNKNOWN  
 UNKNOWN NAME

**ADDRESS:**  
 , ZZ

**TELEPHONE:**

**REPORTED BY:** OTHER

**LAST DEC UPDATE:** 9/14/2007  
**CLEAN UP MEET STANDARDS?** NO  
**PENALTY RECOMMENDED?** NO

**DEC REMARKS:**  
 Start DECRemark - 0503427 6/22/05-Vought-Called Caroline Cadolfo and contamination is fuel oil. Fuel oil UST abandoned in place (2000-gallon) UST. No information available on property owner. Advanced working for potential purchaser. Spill referred to daytime duty officer DEC Rahman to send out soil contamination letter. 06/22/05 SR// CSL was sent to Jae Kim Mun 3309 160th Street Flushing, NY 11358  
 6/22/05-Vought-Received call from Caroline Cadolfo that she had owners info. Vought returned call and left message. 07/26/05.. SR. Property owner s attorney has been provided with spill report as per his request. He will follow up with DEC regarding the clean up. 10.07.05 SR//I called Mr. Samuel s Office, (212)967-1112 who is the lawyer for the property owner. His secretary will inform him about the department s concern. 12/20/05-Sharif// Case was transferred to Koon Tang for reassignment since ground water is affected and free product found below the ground. 1/13/2006 - Feng - File reviewed by Feng: 1) this site has two problem: a) the abandoned UST, and b) the dry cleaning laundromat onsite 2) Advanced Cleanup Technologies (ACT) has done the phase II investigation. 4 groundwater samples were taken. Groundwater was encountered at 22 bg. Found (fuel oil problem) FP (0.01 ) in the well near the abandoned UST, PID reading 611 ppm. Found < 50 ppb Perc (Tetrachloroethene) in other 3 groundwater samples. 3) ACT proposed to a) to remove the UST, b) to delineate soil/groundwater contamination associated with on-site dry cleaning operations. 2/7/2006 - Feng - The site is within the Jamaica drinking water wells buffer zone (1/2 mile radius). 02/09/06: This spill transferred from R.Feng to S.Kraszewski.

- Continued on next page -

## Environmental FirstSearch Site Detail Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

### LUST

**SEARCH ID:** 27      **DIST/DIR:** 0.47 SE      **ELEVATION:** 30      **MAP ID:** 29

**NAME:** COMMERCIAL PROPERTY - MISC  
**ADDRESS:** 232-17 MERRICK BLVD  
QUEENS NY 11413  
QUEENS  
**CONTACT:**  
**SOURCE:**

**REV:** 8/13/07  
**ID1:** 0503427  
**ID2:** 348035  
**STATUS:** HISTORIC-ACTIVE  
**PHONE:**

02/21/06: S.Kraszewski called Samuel Ahne, attorney for RP, Jae Kim Mun. I requested an update for the current site condition and current consultant who is doing the work. Apparently, Advanced Clean-up Tech. is no longer performing work for this site. He said to give him a couple of days to find out then he would fax what he turns up. Expect info. by Friday, Feb 24. - SK 04/17/06: Elizabeth Kim, a new attorney for the RP called. She was aware that I had spoken with Mr. Ahne back in February. She wanted to know what I had requested of him. I told her I need an update on what I going on at this site. She is Emailing me some documents, due by Friday, April 21. - SK 04/21/06: SK spoke with E. Kim, attorney for the RP. I told her that I recieved the documents, which basically add up to a bid contract summary from Berninger Environmental. It appears that these docments where not recieved by the Department, which they never had to be in the first place. I said that the first thing I need from Berninger is an Investigative Work Plan for review. I asked her also to keep me updated on dates and timelines, also to have her pass on my contact info to the project manager at Berninger. - SK 04/26/06: Recieved an Email from Walter Berninger from Berninger Environmental. He is requesting guidance on how to proceed with the site. Basically, he needs to know what work the DEC is requiring at this point. SK called Walter (631-589-6521) to find out what he knows about the spill. Berninger Env. performed some investigative services last fall but the documentation never reached DEC. Also, he was aware that ACT performed a Phase I/II investigation but the owner can produce the documents. SK suggested to exchange documentation and after reviewing it discuss what steps to take next. Walter was told that more than likely a subsurface delineation will have to be performed but until we each receive the missing reports no action will be requested. - SK 05/08/06: Reviewed UST Investigation Report submitted by Berninger Environmental, Inc. on October 7, 2005. Four perimeter soil borings were advanced all the way to GW. The report finds no VOC or SVOC exceedences in the soil subsurface surrounding the UST and concludes that any impacts to the soil are directly beneath the UST. One soil boring was converted to a temporary GW well where significant 2 fuel impacts were seen on the water table. Berninger recommends removal of the UST and any impacted soil beneath the tank and a GW remediation plan should be prepared. - SK 05/11/06: Called Elizabeth Kim, attorney for the RP. She said they have received a revised estimate from Beninger Environmental and she needs to go over the changes with her client, today at 4:30. She will forward an Email this afternoon or tomorrow indicating whether or not the RP signed the bid agreement and what ever else may have transpired. - SK 06/02/06: SK received Email from Walter Berninger, at Berninger Environmental to inform me that they have been retained by the RP to perform the investigative work to delineate GW contamination. The Email states that they plan to start next week on June 6. However, I have received no work plan. SK replied with an Email explaining that a work plna must be submitted to my attention for review and approval/modification before any investigative work starts. This work plan must include a site plan with appropriate symbols and labels, proposed boring and MW locations, historic boring locations, etc. SK spoke with Walter in the afternoon, he said he anticipates that the work plan should be finished within two weeks, by mid-June. He also noted that three temporary MWs will be installed to assess GW flow direction. - SK 07/10/06: Called Walter Berninger (631-589-6521) to ask about the status of the work plan. He told me that a revised quotation was sent to the RP and Elizabeth Kim, attorney for approval on June 8, 2006. Kim told Walter that her client is out of the country but would return within a week. It is now a month later and no reponse. Will contact the attorney, E. Kim. Spoke with Elizabeth Kim (718-423-3200), asked why there is a delay for accepting Berninger s quote. Ms Kim explained that the price quote doubled compared to the original. I asked for a copy of each quote. Staff will contact Walter Berninger to discuss the situation. Called Walter, left message to call back. - SK 07/11/06: Walter Berninger called back to discuss his client s situation. I told him that the RP was concered with the increase in price. I told him to stress to the client that the contamination is within an active Jamaica Water Supply well buffer zone, and this investigation must determine the extent of the subsurface impact. I noted that I am requiring both VOC and SVOC testing because a previous investigation showed impacts from both types of volatiles. Despite that the culprit happens to be a fuel oil tank, VOCs must be part of the lab analysis. He said he will talk with his client and hopefully get back to me by the end of this week. - SK 07/24/06: Called Elizabeth Kim (718-423-3200), attorney for the RP. I reiterated in brief what Walter Berninger and I talked about. Everything that he is asking for in his quote is necessary for this investigation. She just wanted to make sure that the items on the list were appropriate and not unnecessary. She will meet with her client this week. Walter should be preparing a work plan by 07/28. - SK 08/24/06: Walter Berninger (walth optonline.net) emailed me to announce that Berninger Environmental has been officially retained to perform investigation work for this site. He will submit a work plan within a weeks time for my review. - SK 09/18/06: Reviewed Groundwater Investigation Work Plan submitted by Berniner Environmental, dated August 31, 2006. The plan involves the advancement of three MWs to first establish GW flow direction, a prerequisite for the MW network to delineate subsurface contamination. SK called Walter Berninger (631-589-6521). I asked him to place all three MWs within the parking aread between Perr-fect Cleaners and Merrick Blvd, and also that a two-inch MW should be advanced in the vicinity of TW-04, in the event they encounter free product they could use the well as a recovery point. Sent out approval email with the above-mentioned comments. Report and letter uploaded into eDocs. - SK 09/19/06: Received a call from E.Kim to inform me that with the current property transaction in progress the buyers do no approve of Berninger Environmental performing any remedial investigation/work whatsoever. Another consultant must be retained to perform the work. I told her that it doesn t matter who does it, as long as it gets done properly. Also, I told Kim that I expect no great delay in the implementation of this investigation work. - SK 11/09/06: Reassigned from Stephen Kraszewski to Chanda. (Chanda) 12/26/06: Kartik Chanda of DEC reviewed all papers and documents regarding this spill case. Chanda found, on 09/18/06, DEC approved the work plan along with several requests. 12/27/06: Chanda sent the Work Plan approval letter to RP(Ms.susan Lee) and email to Elizabeth Kim (attorney), Walter Berninger (Consultant), requiring that an Investigation Work Report be submitted to DEC for review by 02/26/07. 01/04/07: The letter was undeliverable to the address 37-11 Browne street, Suite 1-c, Flushing, NY11354. 01/05/07: Chanda resent the work plan approval letter to Ms.Susan Lee and Jae Kim Mun (RP) by certified mail. 4/16/07: Chanda called to Consultant and attorney to get investigation work report regarding this spill case. Attorney said that they will be submitted the investigation report as soon as possible. 6/8/07: Chanda sent an email to Ms. Kim (attorney) and cc: to Berninger Environmental, requiring that an investigation report and current property owner name, addresses with telephone number. Based upon Ms. Kim email, the

- Continued on next page -

**Environmental FirstSearch  
Site Detail Report**

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

LUST

**SEARCH ID:** 27      **DIST/DIR:** 0.47 SE      **ELEVATION:** 30      **MAP ID:** 29

**NAME:** COMMERCIAL PROPERTY - MISC

**REV:** 8/13/07

**ADDRESS:** 232-17 MERRICK BLVD

**ID1:** 0503427

QUEENS NY 11413

**ID2:** 348035

QUEENS

**STATUS:** HISTORIC-ACTIVE

**CONTACT:**

**PHONE:**

**SOURCE:**

new owner names: Mi Yong Yi and Min J. Kim aka Min j. Cho, and their attorney, Ms. Yu Mi Hong, Esq., Phone number: (718)482-8062, email: yumihongesq hotmail.com 6/11/07: Chanda sent an email to new attorney (Ms. Hong) regarding this spill case on 6/8/07, requiring that current the site status, new owner names and new owners address with phone number. On 6/11/07, Chanda received an email from Ms. Hong( attorney). She sent the new owner name and phone number. New owner: Mrs. Yi ( Mi Yong Yi), Phone: (718) 525-7487 and The address is the business (property) address: Purr-Fect Cleaners 232-17 Merrick Blvd. Springfield Gardens NY 11413 A new attorney: Ms. Yu Mi Hong, Esq. Address: 38-29, 150 Street Flushing, NY 11354 Ph.: (718) 961-0012. Email: yumihongesq hotmail.com 6/13/07: Chanda sent a letter to Mrs. Yi, and her attorney (Ms. Hong)and cc ing to Berninger Environmental, Inc., requiring that an investigation report be submitted to DEC for review by July 30, 2007. 7/16/07: Chanda received an email with attached a time extension letter from a new consultant. The new consultant name and address are followed: Casey K Oh Principal Environmental Scientist and Engineering ODELPHI Environmental, Inc. 227 Grand Ave, Suite B, Palisades Park, NJ 07650 Ph.:201-302-9900 fax:201-302-9933 email:caseyoh odelpi.com 7/17/07: DEC approved time extension request to submit an investigation summary report. Therefore, an investigation summary report be submitted to DEC for review by September 10, 2007. 9/11/07: Chanda called Mr. Casey K. Oh, ODELPHI Environmental Inc., to get updated information and schedule to submit an investigation summary report regarding this spill case and left message. 9/14/07: Chanda received an email from Casey K. Oh regarding a couple of weeks time extension to submit the investigation report due to dillers scheduling. On 9/14/07, Chanda approves the time extension request, therefore, an investigation summary report must be submitted to DEC for review by October 9, 2007. END DECRemark - 0503427

**THERE MAYBE MORE DEC REMARKS AVIALBLE, PLEASE CONTACT THE NY DEC (518) 402-9549 FOR FURTHER INFORMATION**

**Environmental FirstSearch  
Site Detail Report**

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

RCRAGN

**SEARCH ID:** 2      **DIST/DIR:** 0.02 SE      **ELEVATION:** 32      **MAP ID:** 5

<b>NAME:</b> HET AUTO REPAIR	<b>REV:</b> 6/6/06
<b>ADDRESS:</b> 224-02 MERRICK BLVD	<b>ID1:</b> NYR000108217
LAURELTON NY 11413	<b>ID2:</b>
QUEENS	<b>STATUS:</b> SGN
<b>CONTACT:</b> ROLAND FISHER	<b>PHONE:</b> 6312493150
<b>SOURCE:</b> EPA	

**SITE INFORMATION**

**CONTACT INFORMATION:** ROLAND FISHER  
45 EXECUTIVE DR  
PLAINVIEW NY 11803

**PHONE:** 6312493150

**UNIVERSE INFORMATION:**

**GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)**

<b>GPRA PERMIT:</b>	N - NO
<b>GPRA POST CLOSURE:</b>	N - NO
<b>GPRA CA:</b>	N - NO
<b>GPRA COMPLIANCE MONITORING and ENFORCEMENT:</b>	N - NO

**SUBJECT TO CORRECTIVE ACTION (SUBJCA)**

<b>SUBJCA:</b>	N - NO
<b>SUBJCA TSD 3004:</b>	N - NO
<b>SUBJCA NON TSD:</b>	N - NO

<b>SIGNIFICANT NON-COMPLIANCE(SNC):</b>	N - NO
<b>BEGINNING OF THE YEAR SNC:</b>	N - NO
<b>PERMIT WORKLOAD:</b>	----
<b>CLOSURE WORKLOAD:</b>	----
<b>POST CLOSURE WORKLOAD:</b>	----
<b>PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:</b>	----
<b>CORRECTIVE ACTION WORKLOAD:</b>	N - NO
<b>GENERATOR STATUS:</b>	SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000
<b>KG/MONTH OF HAZARDOUS WASTE</b>	

**NAIC INFORMATION**

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

**HAZARDOUS WASTE INFORMATION:**

Ignitable waste

## Environmental FirstSearch Site Detail Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

RCRAGN

**SEARCH ID:** 4      **DIST/DIR:** 0.02 SE      **ELEVATION:** 32      **MAP ID:** 5

<p><b>NAME:</b> R and S STRAUSS STORE 416 <b>ADDRESS:</b> 224-01 MERRICK BLVD QUEENS NY 11413 <b>CONTACT:</b> JAIMI LARA <b>SOURCE:</b> EPA</p>	<p><b>REV:</b> 6/6/06 <b>ID1:</b> NYD986984631 <b>ID2:</b> <b>STATUS:</b> VGN <b>PHONE:</b> 9086868200</p>
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**SITE INFORMATION**

**CONTACT INFORMATION:** JAIMI LARA  
1835 BURNET AVE  
UNION NJ 07083

**PHONE:** 9086868200

**UNIVERSE INFORMATION:**

**GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)**

**GPRA PERMIT:** N - NO  
**GPRA POST CLOSURE:** N - NO  
**GPRA CA:** N - NO  
**GPRA COMPLIANCE MONITORING and ENFORCEMENT:** N - NO

**SUBJECT TO CORRECTIVE ACTION (SUBJCA)**

**SUBJCA:** N - NO  
**SUBJCA TSD 3004:** N - NO  
**SUBJCA NON TSD:** N - NO

**SIGNIFICANT NON-COMPLIANCE(SNC):** N - NO  
**BEGINNING OF THE YEAR SNC:** N - NO  
**PERMIT WORKLOAD:** ----  
**CLOSURE WORKLOAD:** ----  
**POST CLOSURE WORKLOAD:** ----  
**PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:** ----  
**CORRECTIVE ACTION WORKLOAD:** N - NO

**GENERATOR STATUS:** CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZA

**NAIC INFORMATION**

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

**HAZARDOUS WASTE INFORMATION:**

The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane X001

The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a to

- Continued on next page -

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

RCRAGN

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<b>SEARCH ID:</b> 4	<b>DIST/DIR:</b> 0.02 SE	<b>ELEVATION:</b> 32	<b>MAP ID:</b> 5
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**NAME:** R and S STRAUSS STORE 416  
**ADDRESS:** 224-01 MERRICK BLVD  
QUEENS NY 11413  
**CONTACT:** JAIMI LARA  
**SOURCE:** EPA

**REV:** 6/6/06  
**ID1:** NYD986984631  
**ID2:**  
**STATUS:** VGN  
**PHONE:** 9086868200

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Lead  
Ignitable waste  
The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, b

**Environmental FirstSearch  
Site Detail Report**

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

UST

**SEARCH ID:** 11      **DIST/DIR:** 0.02 NE      **ELEVATION:** 30      **MAP ID:** 6

**NAME:** AUTO REPAIR SHOP (HET AUTO REPAIR)  
**ADDRESS:** 224 MERRICK BLVD  
LAURELTON NY 11413  
QUEENS  
**CONTACT:**  
**SOURCE:** NY DEC

**REV:** 1/10/12  
**ID1:** PBS2-607937  
**ID2:**  
**STATUS:** UNREGULATED  
**PHONE:**

**PETROLEUM BULK STORAGE FACILITY INFORMATION**

**SITE STATUS:** UNREGULATED  
**EXPIRATION DATE:** N/A

**CONTACT INFORMATION**

**COMPANY NAME:** AS AGENT JAME J. POWER  
**CONTACT :**

45 EXECUTIVE DRIVE  
PLAINVIEW,NY, 11803

(516) 576-0434

**COMPANY NAME:** AS AGENT JAME J. POWER  
**CONTACT :**

,NN,

(718) 276-7548

**COMPANY NAME:** AUTO REPAIR SHOP (HET AUTO REPAIR)  
**CONTACT :**

,NN,

(718) 276-7548

**TANK INFORMATION**

**TANK NUMBER:** 01      **TANK ID:** 63885  
**TANKS STATUS:** CLOSED - IN PLACE      **INSTALL DATE:**  
**CAPACITY(GAL):** 550      **DATE OF TEST:**  
**NEXT TEST:**      **CLOSED DATE:**  
**REGISTERED:** YES      **TANK TYPE:** STEEL/CARBON STEEL  
**TANK LOCATION:** UNDERGROUND, VAULTED, WITH ACCESS

**TANK NUMBER:** 02      **TANK ID:** 63886  
**TANKS STATUS:** CLOSED - IN PLACE      **INSTALL DATE:**  
**CAPACITY(GAL):** 550      **DATE OF TEST:**  
**NEXT TEST:**      **CLOSED DATE:**  
**REGISTERED:** YES      **TANK TYPE:** STEEL/CARBON STEEL  
**TANK LOCATION:** UNDERGROUND, VAULTED, WITH ACCESS

- Continued on next page -

## Environmental FirstSearch Site Detail Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

### UST

**SEARCH ID:** 11      **DIST/DIR:** 0.02 NE      **ELEVATION:** 30      **MAP ID:** 6

<b>NAME:</b> AUTO REPAIR SHOP (HET AUTO REPAIR)	<b>REV:</b> 1/10/12
<b>ADDRESS:</b> 224 MERRICK BLVD	<b>ID1:</b> PBS2-607937
LAURELTON NY 11413	<b>ID2:</b>
QUEENS	<b>STATUS:</b> UNREGULATED
<b>CONTACT:</b>	<b>PHONE:</b>
<b>SOURCE:</b> NY DEC	

<b>TANK NUMBER:</b>	03	<b>TANK ID:</b>	63887
<b>TANKS STATUS:</b>	CLOSED - IN PLACE	<b>INSTALL DATE:</b>	
<b>CAPACITY(GAL):</b>	550	<b>DATE OF TEST:</b>	
<b>NEXT TEST:</b>		<b>CLOSED DATE:</b>	
<b>REGISTERED:</b>	YES	<b>TANK TYPE:</b>	STEEL/CARBON STEEL
<b>TANK LOCATION:</b>	UNDERGROUND, VAULTED, WITH ACCESS		

<b>TANK NUMBER:</b>	04	<b>TANK ID:</b>	63888
<b>TANKS STATUS:</b>	CLOSED - IN PLACE	<b>INSTALL DATE:</b>	
<b>CAPACITY(GAL):</b>	550	<b>DATE OF TEST:</b>	
<b>NEXT TEST:</b>		<b>CLOSED DATE:</b>	
<b>REGISTERED:</b>	YES	<b>TANK TYPE:</b>	STEEL/CARBON STEEL
<b>TANK LOCATION:</b>	UNDERGROUND, VAULTED, WITH ACCESS		

**HISTORIC TANK INFORMATION FROM 2007**

<b><u>TANK NUMBER:</u></b>	01	<b>TANK STATUS:</b>	CLOSED - IN PLACE
<b>ACTIVE STATUS:</b>	INACTIVE	<b>INSTALLED:</b>	
<b>CLOSED:</b>		<b>TANK CAPACITY:</b>	550 GALLONS
<b>PRODUCT:</b>	EMPTY		

<b>TANK TYPE:</b>	STEEL/CARBON STEEL/IRON
<b>TANK LOCATION:</b>	UNDERGROUND
<b>INTERNAL PROTECTION:</b>	NONE
<b>EXTERNAL PROTECTION:</b>	NONE
<b>EXTERNAL PROTECTION 2:</b>	

<b>PIPE TYPE:</b>	STEEL/CARBON STEEL/IRON
<b>PIPE LOCATION:</b>	UNDERGROUND/ON-GROUND
<b>EXTERNAL PROTECTION:</b>	NONE
<b>EXTERNAL PROTECTION 2:</b>	

<b>SECONDARY CONTAINMENT:</b>	NONE
<b>SECONDARY CONTAINMENT 2:</b>	
<b>LEAK DETECTION:</b>	NONE
<b>LEAK DETECTION 2:</b>	

<b>OVERFILL PROTECTION:</b>	NONE
<b>OVERFILL PROTECTION 2:</b>	
<b>DISPENSER:</b>	
<b>SPILL PREVENTION:</b>	
<b>DATE TESTED:</b>	
<b>NEXT TEST:</b>	
<b>TEST METHOD:</b>	TESTING NOT REQUIRED

<b><u>TANK NUMBER:</u></b>	02	<b>TANK STATUS:</b>	CLOSED - IN PLACE
<b>ACTIVE STATUS:</b>	INACTIVE	<b>INSTALLED:</b>	
<b>CLOSED:</b>		<b>TANK CAPACITY:</b>	550 GALLONS
<b>PRODUCT:</b>	EMPTY		

- Continued on next page -

## Environmental FirstSearch Site Detail Report

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

UST

**SEARCH ID:** 11      **DIST/DIR:** 0.02 NE      **ELEVATION:** 30      **MAP ID:** 6

<p><b>NAME:</b> AUTO REPAIR SHOP (HET AUTO REPAIR) <b>ADDRESS:</b> 224 MERRICK BLVD LAURELTON NY 11413 QUEENS <b>CONTACT:</b> <b>SOURCE:</b> NY DEC</p>	<p><b>REV:</b> 1/10/12 <b>ID1:</b> PBS2-607937 <b>ID2:</b> <b>STATUS:</b> UNREGULATED <b>PHONE:</b></p>
---	---

**TANK TYPE:** STEEL/CARBON STEEL/IRON  
**TANK LOCATION:** UNDERGROUND  
**INTERNAL PROTECTION:** NONE  
**EXTERNAL PROTECTION:** NONE  
**EXTERNAL PROTECTION 2:**

**PIPE TYPE:** STEEL/CARBON STEEL/IRON  
**PIPE LOCATION:** UNDERGROUND/ON-GROUND  
**EXTERNAL PROTECTION:** NONE  
**EXTERNAL PROTECTION 2:**

**SECONDARY CONTAINMENT:** NONE  
**SECONDARY CONTAINMENT 2:**  
**LEAK DETECTION:** NONE  
**LEAK DETECTION 2:**

**OVERFILL PROTECTION:** NONE  
**OVERFILL PROTECTION 2:**  
**DISPENSER:**  
**SPILL PREVENTION:**  
**DATE TESTED:**  
**NEXT TEST:**  
**TEST METHOD:** TESTING NOT REQUIRED

<b><u>TANK NUMBER:</u></b> 03	<b>TANK STATUS:</b> CLOSED - IN PLACE
<b>ACTIVE STATUS:</b> INACTIVE	<b>INSTALLED:</b>
<b>CLOSED:</b>	<b>TANK CAPACITY:</b> 550 GALLONS
<b>PRODUCT:</b> EMPTY	

**TANK TYPE:** STEEL/CARBON STEEL/IRON  
**TANK LOCATION:** UNDERGROUND  
**INTERNAL PROTECTION:** NONE  
**EXTERNAL PROTECTION:** NONE  
**EXTERNAL PROTECTION 2:**

**PIPE TYPE:** STEEL/CARBON STEEL/IRON  
**PIPE LOCATION:** UNDERGROUND/ON-GROUND  
**EXTERNAL PROTECTION:** NONE  
**EXTERNAL PROTECTION 2:**

**SECONDARY CONTAINMENT:** NONE  
**SECONDARY CONTAINMENT 2:**  
**LEAK DETECTION:** NONE  
**LEAK DETECTION 2:**

**OVERFILL PROTECTION:** NONE  
**OVERFILL PROTECTION 2:**  
**DISPENSER:**  
**SPILL PREVENTION:**  
**DATE TESTED:**  
**NEXT TEST:**  
**TEST METHOD:** TESTING NOT REQUIRED

- Continued on next page -

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

UST

**SEARCH ID:** 11      **DIST/DIR:** 0.02 NE      **ELEVATION:** 30      **MAP ID:** 6

<p><b>NAME:</b> AUTO REPAIR SHOP (HET AUTO REPAIR) <b>ADDRESS:</b> 224 MERRICK BLVD LAURELTON NY 11413 QUEENS <b>CONTACT:</b> <b>SOURCE:</b> NY DEC</p>	<p><b>REV:</b> 1/10/12 <b>ID1:</b> PBS2-607937 <b>ID2:</b> <b>STATUS:</b> UNREGULATED <b>PHONE:</b></p>
---	---

<b>TANK NUMBER:</b>	04	<b>TANK STATUS:</b>	CLOSED - IN PLACE
<b>ACTIVE STATUS:</b>	INACTIVE	<b>INSTALLED:</b>	
<b>CLOSED:</b>		<b>TANK CAPACITY:</b>	550 GALLONS
<b>PRODUCT:</b>	EMPTY		
<b>TANK TYPE:</b>	STEEL/CARBON STEEL/IRON		
<b>TANK LOCATION:</b>	UNDERGROUND		
<b>INTERNAL PROTECTION:</b>	NONE		
<b>EXTERNAL PROTECTION:</b>	NONE		
<b>EXTERNAL PROTECTION 2:</b>			
<b>PIPE TYPE:</b>	STEEL/CARBON STEEL/IRON		
<b>PIPE LOCATION:</b>	UNDERGROUND/ON-GROUND		
<b>EXTERNAL PROTECTION:</b>	NONE		
<b>EXTERNAL PROTECTION 2:</b>			
<b>SECONDARY CONTAINMENT:</b>	NONE		
<b>SECONDARY CONTAINMENT 2:</b>			
<b>LEAK DETECTION:</b>	NONE		
<b>LEAK DETECTION 2:</b>			
<b>OVERFILL PROTECTION:</b>	NONE		
<b>OVERFILL PROTECTION 2:</b>			
<b>DISPENSER:</b>			
<b>SPILL PREVENTION:</b>			
<b>DATE TESTED:</b>			
<b>NEXT TEST:</b>			
<b>TEST METHOD:</b>	TESTING NOT REQUIRED		

**Environmental FirstSearch  
Site Detail Report**

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

UST

**SEARCH ID:** 19      **DIST/DIR:** 0.02 SE      **ELEVATION:** 32      **MAP ID:** 5

**NAME:** STRAUSS DISCOUNT AUTO  
**ADDRESS:** 224 MERRICK BLVD  
LAURELTON NY 11413  
QUEENS  
**CONTACT:**  
**SOURCE:** NY DEC

**REV:** 1/10/12  
**ID1:** PBS2-608424  
**ID2:**  
**STATUS:** UNREGULATED  
**PHONE:**

**PETROLEUM BULK STORAGE FACILITY INFORMATION**

**SITE STATUS:** UNREGULATED  
**EXPIRATION DATE:** N/A

**CONTACT INFORMATION**

**COMPANY NAME:** TSA ENVIRONMENTAL  
**CONTACT :** JOSEPH GALLEY  
  
153 EAST MAIN STREET  
ROCKAWAY,NJ, 07866  
  
(973) 983-6520

**COMPANY NAME:** STRAUSS DISCOUNT AUTO  
**CONTACT :**  
  
9A BRICK PLANT ROAD  
SOUTH RIVER,NJ, 08882  
  
(732) 390-9000

**COMPANY NAME:** STRAUSS DISCOUNT AUTO  
**CONTACT :** BILL BELINOWICZ  
  
,NN,  
  
(732) 390-9000

**COMPANY NAME:** STRAUSS DISCOUNT AUTO  
**CONTACT :** STRAUSS DISCOUNT AUTO  
  
,NY,  
  
(718) 385-1864

**TANK INFORMATION**

**TANK NUMBER:** 001      **TANK ID:** 65151  
**TANKS STATUS:** CLOSED - REMOVED      **INSTALL DATE:**  
**CAPACITY(GAL):** 1000      **DATE OF TEST:**  
**NEXT TEST:**      **CLOSED DATE:** 2/1/2003  
**REGISTERED:** YES      **TANK TYPE:** STEEL/CARBON STEEL

- Continued on next page -

**Environmental FirstSearch**  
**Site Detail Report**

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

UST

**SEARCH ID:** 19      **DIST/DIR:** 0.02 SE      **ELEVATION:** 32      **MAP ID:** 5

<b>NAME:</b>	STRAUSS DISCOUNT AUTO	<b>REV:</b>	1/10/12
<b>ADDRESS:</b>	224 MERRICK BLVD	<b>ID1:</b>	PBS2-608424
	LAURELTON NY 11413	<b>ID2:</b>	
	QUEENS	<b>STATUS:</b>	UNREGULATED
<b>CONTACT:</b>		<b>PHONE:</b>	
<b>SOURCE:</b>	NY DEC		

**TANK LOCATION:** UNDERGROUND, VAULTED, WITH ACCESS

**HISTORIC TANK INFORMATION FROM 2007**

<b><u>TANK NUMBER:</u></b>	001	<b>TANK STATUS:</b>	CLOSED - REMOVED
<b>ACTIVE STATUS:</b>	INACTIVE	<b>INSTALLED:</b>	
<b>CLOSED:</b>	2/1/2003	<b>TANK CAPACITY:</b>	1000 GALLONS
<b>PRODUCT:</b>	WASTE OIL/USED OIL		

<b>TANK TYPE:</b>	STEEL/CARBON STEEL/IRON
<b>TANK LOCATION:</b>	UNDERGROUND
<b>INTERNAL PROTECTION:</b>	NONE
<b>EXTERNAL PROTECTION:</b>	NONE
<b>EXTERNAL PROTECTION 2:</b>	

<b>PIPE TYPE:</b>	STEEL/CARBON STEEL/IRON
<b>PIPE LOCATION:</b>	UNDERGROUND/ON-GROUND
<b>EXTERNAL PROTECTION:</b>	NONE
<b>EXTERNAL PROTECTION 2:</b>	

<b>SECONDARY CONTAINMENT:</b>	NONE
<b>SECONDARY CONTAINMENT 2:</b>	
<b>LEAK DETECTION:</b>	NONE
<b>LEAK DETECTION 2:</b>	

<b>OVERFILL PROTECTION:</b>	NONE
<b>OVERFILL PROTECTION 2:</b>	

<b>DISPENSER:</b>	
<b>SPILL PREVENTION:</b>	
<b>DATE TESTED:</b>	
<b>NEXT TEST:</b>	
<b>TEST METHOD:</b>	TESTING NOT REQUIRED

***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**Target Property:** 224-01 MERRICK BLVD  
SPRINGFIELD GARDENS NY 11413

**JOB:** 12-123

<b>Street Name</b>	<b>Dist/Dir</b>	<b>Street Name</b>	<b>Dist/Dir</b>
133rd Ave	0.10 NE		
133rd Rd	0.20 NW		
134th Rd	0.06 SW		
135th Ave	0.11 SW		
136th Ave	0.19 SW		
137th Ave	0.23 SW		
220th Pl	0.21 SW		
220th St	0.19 NW		
221st St	0.14 NW		
222nd St	0.07 NW		
223rd St	0.03 NW		
224th St	0.01 NE		
225th St	0.05 SE		
226th St	0.10 SE		
227th St	0.15 SE		
228th St	0.20 SE		
229th St	0.25 SE		
Dubons Ln	0.08 NE		
Merrick Blvd	0.01 NE		

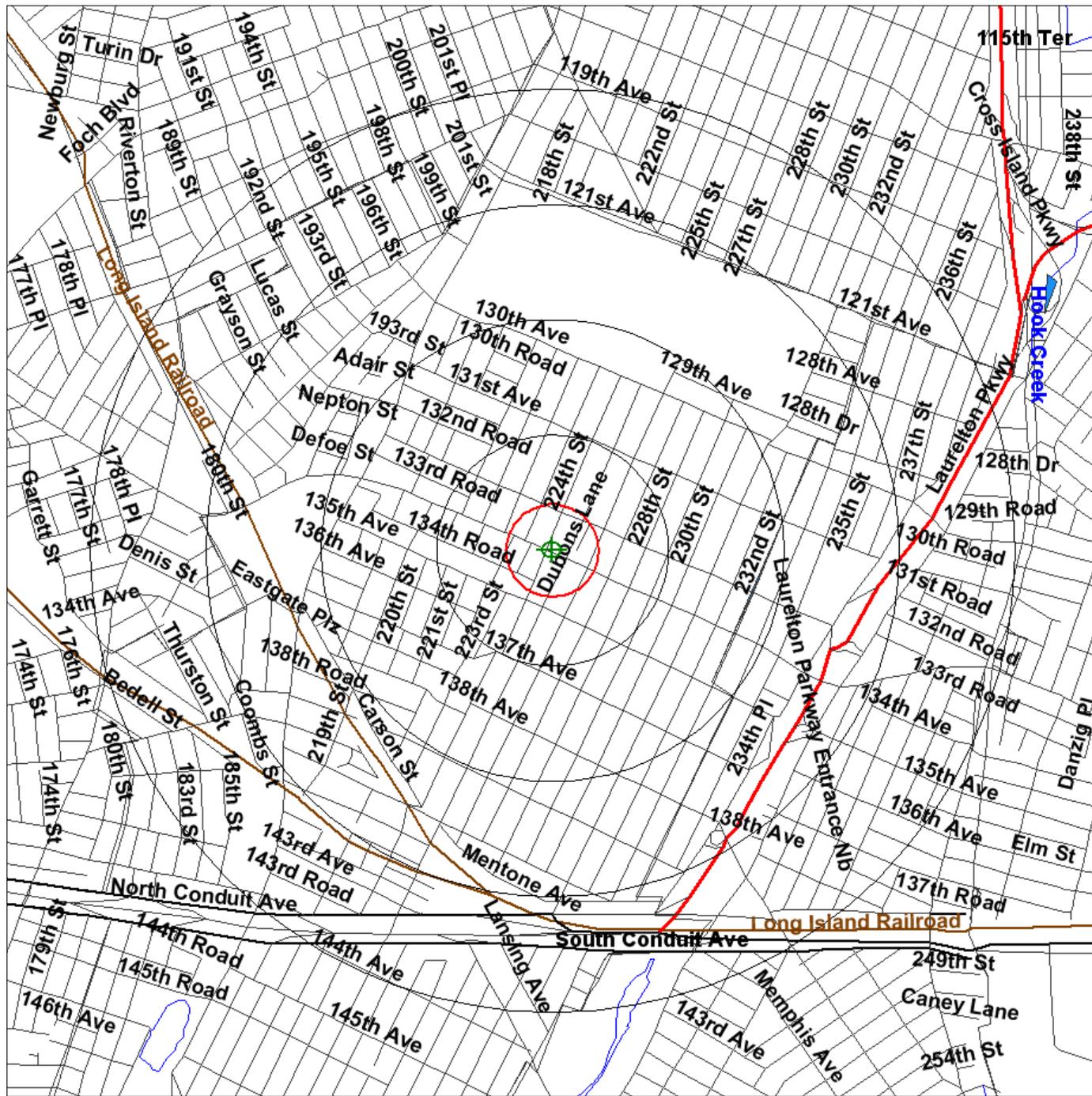


# Environmental FirstSearch

1 Mile Radius  
AAI: NPL, RCACOR, STATE

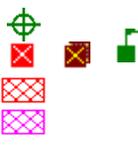


## 224-01 MERRICK BLVD, SPRINGFIELD GARDENS NY 11413



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 40.677856 Longitude: -73.745408) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....
- Triballand.....
- Railroads .....
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





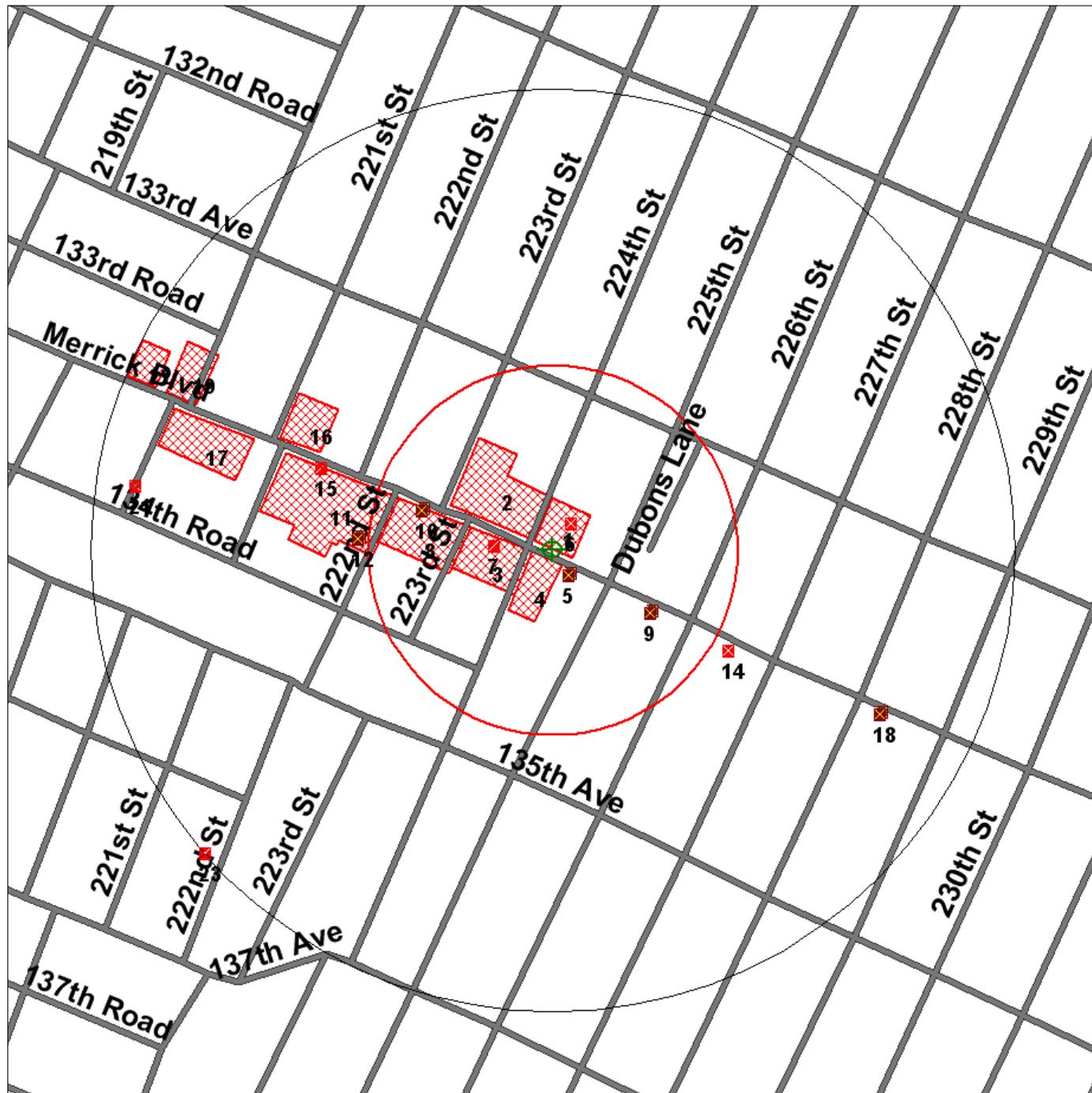


# Environmental FirstSearch

.25 Mile Radius  
AAI: RCRA GEN, UST, SPILLS80

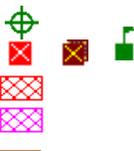


**224-01 MERRICK BLVD, SPRINGFIELD GARDENS NY 11413**



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 40.677856 Longitude: -73.745408) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....
- Triballand.....
- Railroads .....
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



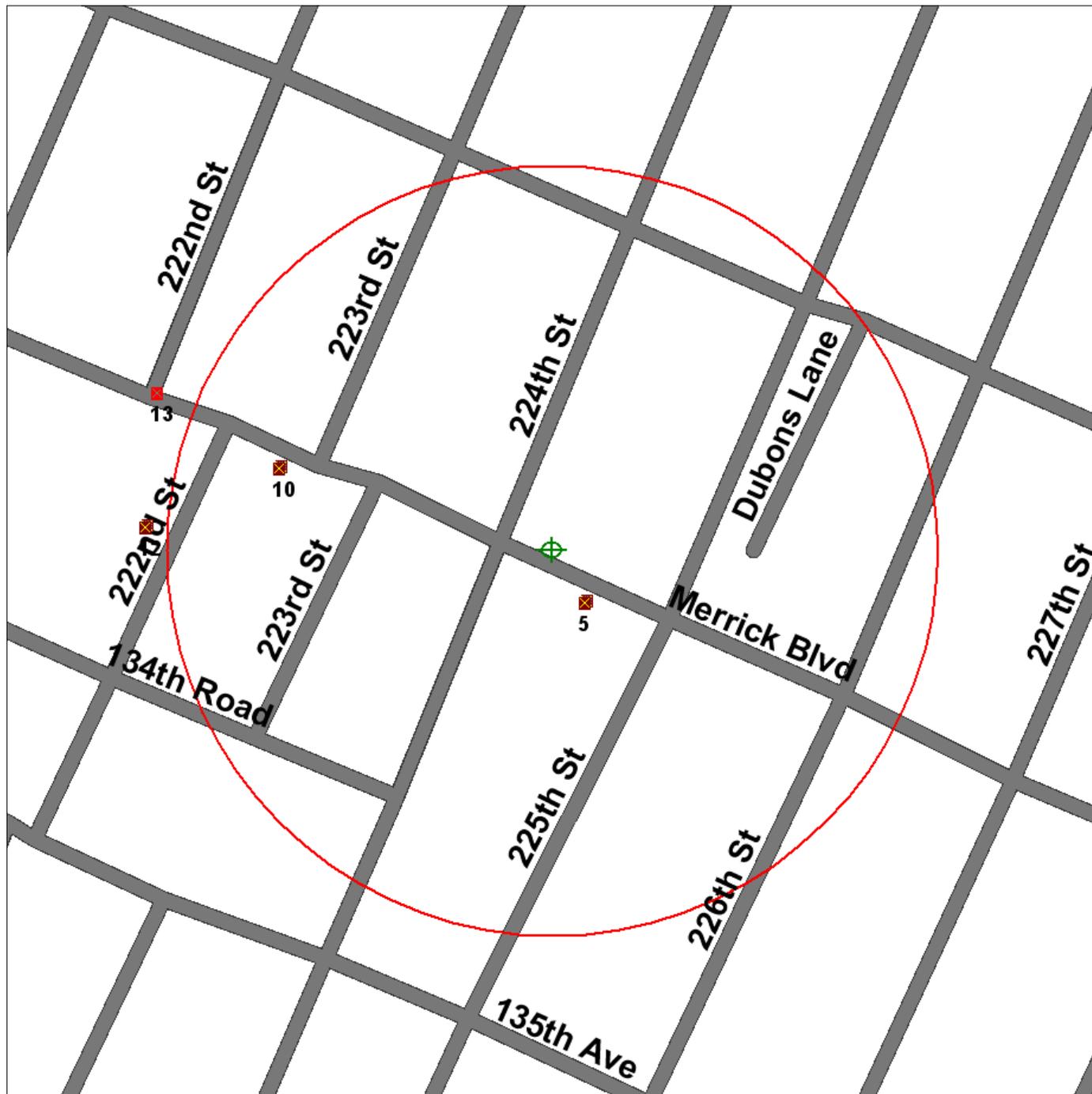


# Environmental FirstSearch

.12 Mile Radius  
AAI: SPILLS90, ERNS

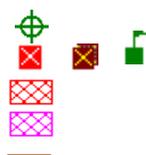


**224-01 MERRICK BLVD, SPRINGFIELD GARDENS NY 11413**



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 40.677856 Longitude: -73.745408) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....
- Triballand.....
- Railroads .....
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius









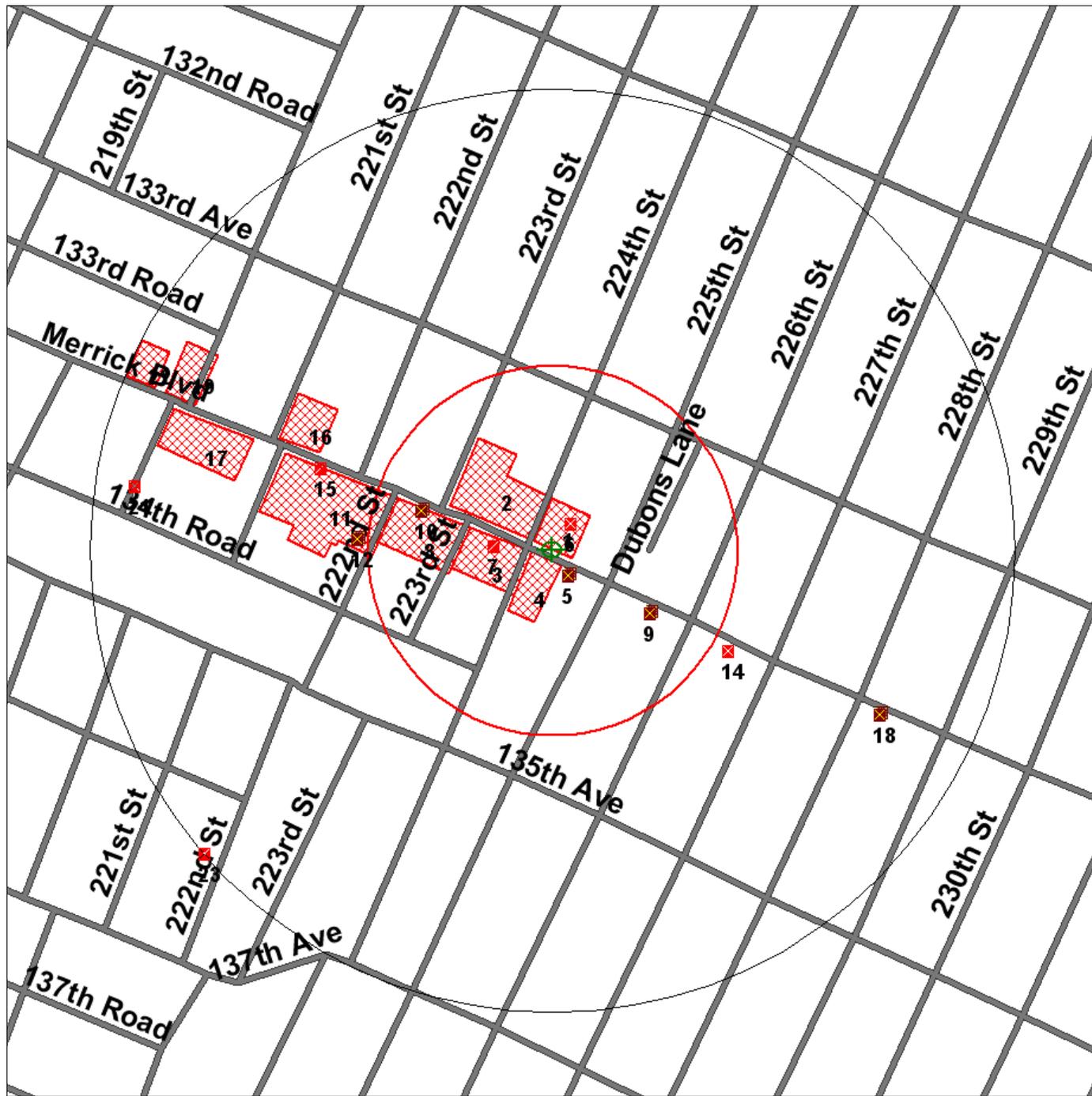
# Environmental FirstSearch

.25 Mile Radius

ASTM Map: RC RAGEN, ERNS, UST, FED IC/EC, METH LABS

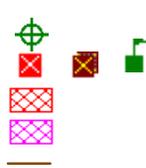


## 224-01 MERRICK BLVD, SPRINGFIELD GARDENS NY 11413



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 40.677856 Longitude: -73.745408) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....
- Triballand.....
- Railroads .....
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



12.6 Historical Research Documentation  
(Fire Insurance Maps, City Directory Information, aerial photographs, etc.)



## CITY DIRECTORY REVIEW

Report Date: February 7, 2012  
Client Job Number: 12-123  
FirstSearch Index Number: 297915  
Site Address(es): 224-01/09 Merrick Blvd  
Springfield Gardens, NY 11413

A search was conducted for the subject area noted above to identify any Historical City Directory coverage/tenant information maintained at national repositories, local city/town libraries and/or various public sources.

The following information is the result of the search:

YEAR / SOURCE	CLOSEST LOWER ADDRESS LISTINGS	SUBJECT ADDRESS(ES)	CLOSEST UPPER ADDRESS LISTINGS
2008/Cole Directory	(See Attachments)	(See Attachments)	(See Attachments)
2003/Cole Directory	(See Attachments)	(See Attachments)	(See Attachments)
1998/Cole Directory	(See Attachments)	(See Attachments)	(See Attachments)
1992/Cole Directory	(See Attachments)	(See Attachments)	(See Attachments)

**Notes:** No further coverage available

Company Name	Address	City	State	Country
ABC Corporation	123 Main St	New York	NY	USA
DEF Limited	456 Park Ave	Los Angeles	CA	USA
GHI Inc	789 Broadway	Chicago	IL	USA
JKL Co	101 Wall St	San Francisco	CA	USA
MNO Corp	202 Market St	Philadelphia	PA	USA
PQR Ltd	303 State St	Washington	DC	USA
STU Inc	404 Union St	Boston	MA	USA
VWX Co	505 Canal St	San Antonio	TX	USA
YZA Corp	606 Elm St	Portland	OR	USA
BCD Ltd	707 Pine St	Seattle	WA	USA
EFG Inc	808 Oak St	Denver	CO	USA
HIJ Co	909 Maple St	Phoenix	AZ	USA
KLM Corp	1010 Cedar St	San Diego	CA	USA
NOP Ltd	1111 Birch St	Dallas	TX	USA
QRS Inc	1212 Spruce St	San Jose	CA	USA
TUV Co	1313 Fir St	San Francisco	CA	USA
WXY Corp	1414 Redwood St	San Francisco	CA	USA
ZAB Ltd	1515 Cypress St	San Francisco	CA	USA
ACD Inc	1616 Juniper St	San Francisco	CA	USA
EFG Co	1717 Willow St	San Francisco	CA	USA
HIJ Corp	1818 Sycamore St	San Francisco	CA	USA
KLM Ltd	1919 Chestnut St	San Francisco	CA	USA
NOP Inc	2020 Walnut St	San Francisco	CA	USA
QRS Co	2121 Olive St	San Francisco	CA	USA
STU Corp	2222 Elm St	San Francisco	CA	USA
VWX Ltd	2323 Maple St	San Francisco	CA	USA
YZA Inc	2424 Pine St	San Francisco	CA	USA
BCD Co	2525 Cedar St	San Francisco	CA	USA
EFG Corp	2626 Birch St	San Francisco	CA	USA
HIJ Ltd	2727 Spruce St	San Francisco	CA	USA
KLM Inc	2828 Fir St	San Francisco	CA	USA
NOP Co	2929 Redwood St	San Francisco	CA	USA
QRS Corp	3030 Cypress St	San Francisco	CA	USA
STU Ltd	3131 Juniper St	San Francisco	CA	USA
VWX Inc	3232 Willow St	San Francisco	CA	USA
YZA Co	3333 Sycamore St	San Francisco	CA	USA
BCD Corp	3434 Chestnut St	San Francisco	CA	USA
EFG Ltd	3535 Walnut St	San Francisco	CA	USA
HIJ Inc	3636 Olive St	San Francisco	CA	USA
KLM Co	3737 Elm St	San Francisco	CA	USA
NOP Corp	3838 Maple St	San Francisco	CA	USA
QRS Ltd	3939 Pine St	San Francisco	CA	USA
STU Inc	4040 Cedar St	San Francisco	CA	USA
VWX Co	4141 Birch St	San Francisco	CA	USA
YZA Corp	4242 Spruce St	San Francisco	CA	USA
BCD Ltd	4343 Fir St	San Francisco	CA	USA
EFG Inc	4444 Redwood St	San Francisco	CA	USA
HIJ Co	4545 Cypress St	San Francisco	CA	USA
KLM Corp	4646 Juniper St	San Francisco	CA	USA
NOP Ltd	4747 Willow St	San Francisco	CA	USA
QRS Inc	4848 Sycamore St	San Francisco	CA	USA
STU Co	4949 Chestnut St	San Francisco	CA	USA
VWX Corp	5050 Walnut St	San Francisco	CA	USA
YZA Ltd	5151 Olive St	San Francisco	CA	USA
BCD Inc	5252 Elm St	San Francisco	CA	USA
EFG Co	5353 Maple St	San Francisco	CA	USA
HIJ Corp	5454 Pine St	San Francisco	CA	USA
KLM Ltd	5555 Cedar St	San Francisco	CA	USA
NOP Inc	5656 Birch St	San Francisco	CA	USA
QRS Co	5757 Spruce St	San Francisco	CA	USA
STU Corp	5858 Fir St	San Francisco	CA	USA
VWX Ltd	5959 Redwood St	San Francisco	CA	USA
YZA Inc	6060 Cypress St	San Francisco	CA	USA
BCD Co	6161 Juniper St	San Francisco	CA	USA
EFG Corp	6262 Willow St	San Francisco	CA	USA
HIJ Ltd	6363 Sycamore St	San Francisco	CA	USA
KLM Inc	6464 Chestnut St	San Francisco	CA	USA
NOP Co	6565 Walnut St	San Francisco	CA	USA
QRS Corp	6666 Olive St	San Francisco	CA	USA
STU Ltd	6767 Elm St	San Francisco	CA	USA
VWX Inc	6868 Maple St	San Francisco	CA	USA
YZA Co	6969 Pine St	San Francisco	CA	USA
BCD Corp	7070 Cedar St	San Francisco	CA	USA
EFG Ltd	7171 Birch St	San Francisco	CA	USA
HIJ Inc	7272 Spruce St	San Francisco	CA	USA
KLM Co	7373 Fir St	San Francisco	CA	USA
NOP Corp	7474 Redwood St	San Francisco	CA	USA
QRS Ltd	7575 Cypress St	San Francisco	CA	USA
STU Inc	7676 Juniper St	San Francisco	CA	USA
VWX Co	7777 Willow St	San Francisco	CA	USA
YZA Corp	7878 Sycamore St	San Francisco	CA	USA
BCD Ltd	7979 Chestnut St	San Francisco	CA	USA
EFG Inc	8080 Walnut St	San Francisco	CA	USA
HIJ Co	8181 Olive St	San Francisco	CA	USA
KLM Corp	8282 Elm St	San Francisco	CA	USA
NOP Ltd	8383 Maple St	San Francisco	CA	USA
QRS Inc	8484 Pine St	San Francisco	CA	USA
STU Co	8585 Cedar St	San Francisco	CA	USA
VWX Corp	8686 Birch St	San Francisco	CA	USA
YZA Ltd	8787 Spruce St	San Francisco	CA	USA
BCD Inc	8888 Fir St	San Francisco	CA	USA
EFG Co	8989 Redwood St	San Francisco	CA	USA
HIJ Corp	9090 Cypress St	San Francisco	CA	USA
KLM Ltd	9191 Juniper St	San Francisco	CA	USA
NOP Inc	9292 Willow St	San Francisco	CA	USA
QRS Co	9393 Sycamore St	San Francisco	CA	USA
STU Corp	9494 Chestnut St	San Francisco	CA	USA
VWX Ltd	9595 Walnut St	San Francisco	CA	USA
YZA Inc	9696 Olive St	San Francisco	CA	USA
BCD Co	9797 Elm St	San Francisco	CA	USA
EFG Corp	9898 Maple St	San Francisco	CA	USA
HIJ Ltd	9999 Pine St	San Francisco	CA	USA

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COLES

Vertical text on the left side of the page, likely a list of names or addresses, partially obscured by a large, dark, circular graphic.

Table with multiple columns containing alphanumeric codes and text. Includes a section header 'WARRICK BLVD' and various entries with associated numbers.

Table with multiple columns containing alphanumeric codes and text, continuing the list of entries from the previous table.

1985

MERRICK BLVD (AV) (RD)

SPRINGFIELD ZIP CODE 11434 SE # 114-00 TO 134-99

AREA CODE 718

- Andrews A 528-7874
Beaufort Glorine 978-1897
Boyd Lajos 527-0291
Brown Marie 527-5314
Clark C 712-7287
Daniels Roddy 276-5540
Galloway Juanita E 527-6103
Henderson Ruby 712-8772
Holiday Connie 723-7591
James Chennie 723-7206
Johnson Dorothy 528-8217
Jones C 276-6516
Kessler Lincoln 528-2705
Miller D 528-3760
Moore Clarence 723-9023
Mungo M 528-4696
Neely L 527-0657
Norman Ernestine 712-4230
Oglesby Grace C 978-6024
Pitman K 723-1801
Richie Raymond 525-5610
Rives Ulysses 978-8708
Robinson L 525-3467
Sewell Kwame 527-8856
Simpson Doreen 978-4947
Smith F 712-6605
Smith James 712-4901
Stallworth Shirley M 481-9327
Thornhill M 712-3989
Towles Adelaide 528-3699
White J 712-3952
Williamson Christine 527-7053
Woodfork Pennie 723-0286
Wright Theodore 528-2145
Young F 978-3028
Bernard Auto Collision 528-8949
Skip's Auto Body Inc 525-9331
Skip's Auto Body Inc 528-8224

MERRICK BLVD (AV) (RD)

SPRINGFIELD ZIP CODE 11434 HSE # 114-00 TO 134-99

129TH AV 129-01

- 129-01 Lewans Auto Collision Inc 525-5066
129-02 Polar Bear Tours Inc 525-8193
129-04 Windsor Motors 525-8070
129-05 Grove's Auto Electric 527-2779
129-21 Graham Chemical Corp 527-2277
129-26 Yates Liquors 276-4813
129-32 Ray James used cars 527-0483

130TH AV 130-01

- 130-07 Big Mama's Inc 276-3100
130-07 C & B Auto Repr Inc 527-2176
130-20 Negrene Meat Mkt 978-7122
130-28 All State Inc 723-1234
130-28 Original Auto Reprs 723-2539
130-28 Queens Japanese Cars 341-2995
130-29 ECT Leasing Inc 527-3700
130-29 Excalibur Auto Works Inc 525-3355
130-29 King Bear Auto Svce 525-1107
130-29 King Bear Auto Svce 525-9000
130-29 King Bear Auto Svce Center 527-3700
130-29 Miltra Assocs Inc 527-4985
130-29 Top Notch Transmissions Inc 341-1058
130-35 Best Homecraft Co 527-5777
130-35 T S S Department Stores 276-6000
130-39 Springfield Power Test 723-0767

130-50 130TH RD

FARMERS BLVD 131-01

- 131-02 White John L 525-0546
131-04 N.Y. Fried Chicken 525-3801
131-07 Kausar Svce Ste 525-8544
131-12 Nazkhan Repairable Cars 525-8732
131-15 Lumber Headquarters-- Queens Stores-- Call 276-7200
131-21 Corkhill William J Co Inc screens & storm sash 528-7413
131-31 Springfield Lumbr Inc 527-6400
131-31 Wolsky Harry Inc stair baliders 527-6400
131-31B Hinz Co 723-8574
131-34 Hart T 276-3253
131-40 Reid Eddis 525-2205

BELKNAP 132-01

- 132-05 United Parcel Svce 276-3088
132-20 Apex 276-3400
132-20 Esquire Shoe Polish 276-3400
132-20 Evangeline Dyes 276-3400
132-20 Knorark Inc 276-3400
132-20 Lady Esquire Instant Shoe Color 276-3400
132-20 Odell Inc 276-3400
132-20 Tintex Fabric Dyes 276-3400
132-20 Trol 276-3400
132-20 Ty-D-Bol 276-3400

180TH 133-01

L I R R 134-01

- 134-31 Roth's Auto Wrecking Inc 525-6300
134-31 Roth's Foreign Auto Salvage Inc 525-1200

ZIP CODE 11413 HSE # 135-00 TO 232-99

MONTAUK 185-01

- 185-11 R J Y 525-8811
185-11 Williams Willie 723-9739
185-21 Blg's Auto Body 527-2316
185-27 Beary L B 525-8468

PINEVILLE AV 186-01

- 186-11 Helena's Beauty 978-9900

MERRICK BLVD (AV) (RD)

SPRINGFIELD ZIP CODE 11413 HSE # 135-00 TO 232-99

- 216-02 National Westminster Bank USA-- Branches-- Springfield Gardens 978-8900
216-03 O & J Holding Co Inc 712-9466
216-11 One Way Church Of Christ 525-4260

217TH 217-01

- 217-03 Grand Larry 276-4813
217-03 LG Plumbing Inc 276-4813
217-09 ANO Auto Parts Plus Inc 525-8767
217-12 Weston Robert 527-4105
217-14 Dependable Automatic Transmissions 712-9686
217-15 Stan's Auto Body 525-4532
217-21 Great Air Assocs Inc Warehouse 656-6930

218TH 218-01

- 218-01 Amerford International Corp air cargo 528-0800
218-10 United States Government-- Postal Service-- Main And Branch Post Offices-- Jamaica-- Springfield Gardens Station 528-4192

218-20 Townsend Kenneth R 528-2958

- 218-20 Vickers Greg 525-2420
218-22 Ford D 723-8657
218-22 Howell Ethel 723-3175
218-22 Mike's Meat Mkt 528-2987
218-24 Camelot Beauty Salon 723-7274
218-26 JM & G Social Inc 276-9557
218-28A New China Take Out Restaurant 978-0335

219TH 219-01

- 219-05 Brother & Sister Hair Salon 525-8379
219-05 Brother's & Sisters Hair Salon 525-9013
219-07 Wasen Beck Transit Corp 525-8033
219-07 Woods Nathaniel 712-7547
219-14 Nickerson Nursery Supl Corp 525-5000
219-14 Nickerson Wm J Christmas trees 525-5000
219-17 Ephesus Baptist Church 276-2299
219-21 Ruby's Restrn 978-3904
219-23 F & B Car Svce 528-8136
219-23 Timmons B 712-9020
219-23A Bus Stop 712-0190
219-25 Duncan Brothers Svce Center 525-0681

220TH 220-01

- 220-02 Laurelton Car Wash Inc 978-4404
220-05 Atlee Y 341-0236
220-05 Bebbs Decorators 527-5736
220-05 Elmore Heien L Mrs 341-2157
220-07 Calhoun Willie 341-2652
220-13 Hodges E 525-2261
220-13 Negro Benevolent Soc Of The Dept Of Sanitation Inc 978-4126
220-17 Blue Star Auto Body Inc 525-7070
220-20 F J Washington Inc 528-5740
220-24 Craftsmen Electric Co Inc 276-5556
220-24 Profile Electric Inc 723-9400
220-26 Edward Hunter's Grocery 341-0956
220-26 Michel L 528-2307
220-28 Beauvais Bertha 528-0810
220-28 Stubbs Janice 712-2718
220-30 Toomers Liquors 527-1562

221ST 221-01

- 221-11 Pro Foreign Auto Parts 978-4000
221-11 Pro Parts Inc 978-4500
221-18 Kennedy Electl Supl Corp 527-5600

MERRICK BLVD (AV) (RD)

SPRINGFIELD ZIP CODE 11413 HSE # 135-00 TO 232-99

- 222-16 Christopher Robin Acadmy College Preparatory 525-1330
222-16 Christopher Robin Elem & High Schl 525-1330
222-16 Christopher Robin Thuring Schl 525-1330
222-16 Don G C G Tutoring Cntr 525-1330
222-16 Reading & Arithmetic Improvement Cntr 525-1330

223RD 223-01

- 223-01 SN Tannor Inc 276-5200
223-01 Victory Church Of Christ 528-8310
223-05 Church's Fried Chicken 528-1984

224TH 224-01

- 224-01 & S Strauss Assoc 276-5656
224-02 Drive Line Motors Inc 276-7548
224-02 Drive Line Motors Inc 525-9890
224-10 Dah Tung Corp 527-7863
224-11 Laurel Magazines 527-2036
224-13 Ambrose Geraldine 978-5015
224-13 Gerry's Hair Weaving Studio 276-9606
224-14 Federation Of Laurelton Block Association 528-4151
224-15 Brooks Erald 276-2271
224-17 M & S Mechanical 723-3172
224-17 Williams Maxine 712-6755
224-18 JH Electronics 525-1252
224-18 JH Electronics 978-9748
224-19 Ferraro Eric 712-3520
224-19 King Kenroy 525-1246
224-19 Laurelton Senior Sportsman Club Inc 525-0394
224-20 Comfort-Transit Co Inc 528-8178
224-21 Beckford Valma 481-8718
224-21 Boyd WR 276-0291
224-22 Andy Home Apnlc Repr 528-4299
224-22 Dah Tung Kitchen 978-3496

LAURELTON 225TH 225-01

- 225-01 Key Food Store 723-7366
225-06 Daisy Fresh Drive-In Cleaners 525-2020
225-10 Walker Michael 276-1193
225-12 D & D Shipping Co 712-9627
225-12 Dean's Overseas Shippers Inc 525-3375
225-14 Byrne & Sons pmbng 528-5076
225-14 Geter A Williams 341-1674
225-14 Island Insulation Corp 528-5076
225-14 Jem Travel Rail & Bus Agency 723-8000
225-14 Reid's Sewer Svce 520-5076
225-16 Berner Bernard Inc 527-5000
225-16 Middleton's Day Care And First Grade 712-4845
225-18 Somuels V M 527-1622
225-20 Graver Sign Co 520-5344
225-23 Bess Video Inc 978-9268
225-23 Neighborhood Housing Svcs O N Y Inc Laurelton Div 978-6378

226TH 226-01

- 226-02 Federation Of Laurelton Youth 528-8450
226-04 NY City Of-- Social Svcs Dept Of-- General Social Service-- GSS Ofc Q8/13 712-0103
226-05 Razzmatazz Laundromat 481-9616
226-06 Merrick West Indian Bakery 528-9540
226-08 Beauty Hut 525-9416
226-08A Pugh Roy 528-5014
226-09 Rainbow Tropical Ice Cream & Deli 527-1953

1975

MERRICK BLVD (AV) (RD) MERRICK BLVD (AV) (RD) MERRICK BLVD (AV) (RD) MERRICK P'VD (AV) (RD)

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LAURELTON

LAURELTON

ZIP CODE 11413  
HSE # 135-00 TO 232-99

MORITAU 185-01

- 185-06 Wood's Co LA 8-2836
- 185-21 Walcott Svc Sta 525-9505
- 185-21 Walcott's Svc Sta LA 7-2316
- 185-22 Wilson Ernest 525-7315
- 185-25 Roberts Goether B Jr 276-7713

SPRINGFIELD 186-01

- 186-11 Helena's Beauty Box 978-0990
- 186-15 Fine Leon Indry LA 8-3340
- 186-15 Grand Drapery Svc LA 8-3340
- 186-15 Grand Laundry & Cleaners LA 8-3340
- 186-45 Glenn Motors Inc 525-7504
- 186-45 Glenn Motors Inc 526-285-6672
- 186-45 Glenn Motors Inc what parts 525-7272

RIDGEOALE AV 188-01

- 188-03 Blue Star Auto Body 525-9666

SPRINGFIELD BLVD 216-01

- 216-01 Dowdy & Sons Svc Sta 525-9476
- 216-02 National Bank Of North America Main Office 528-2600
- 216-02 National Bank Of North America Branches 528-8900
- 216-11 Remland & Moskowitz Svc Dept 527-5454

217TH 217-01

- 217-03 Grand Larry d 276-2220
- 217-03 L Plumbing Inc 276-2220
- 217-09 Atlas Pump Rep Co 525-8888
- 217-14 Atlas Pump Rep Co 525-8888
- 217-14 Dependable Automatic Transmissions LA 5-9558
- 217-15 Blue Star Auto Body Inc 525-7070

218TH 218-01

- 218-01 Amerford Air Cargo 528-0800
- 218-01 Amerford International Corp 528-0800
- 218-01 Ginsberg Lawrence's customs broker 656-6124
- 218-01 Lawrence Forwarding Corp 656-6124
- 218-09 Craftsman Hwry Inc LA 8-1579
- 218-08 F & A Auto Sales used cars LA 8-7810
- 218-20 Ben's Quality Cleaners 525-9095
- 218-22 Cleghorn N 723-5711
- 218-22 Flood D 723-8652
- 218-22 Mike's Meat Mkt 528-2987
- 218-24 Camelot Beauty Salon 723-7274
- 218-28A Cap Car Svc 525-9734
- 218-28B Cap Car Svc 527-5213
- 218-30 John's Tavern 525-9773

219TH 219-01

- 219-03 P & J Dry Cleaning Co 723-7810
- 219-05 The Hub Svc Sta LA 8-3484
- 219-07 Ben's Auto 978-2638
- 219-07 Smith Emmit 978-0297
- 219-14 Nickerson Wm J Christy trees LA 5-5000
- 219-14 Nickerson's Christmas 525-5000
- 219-15 Today's Grocer 723-6513
- 219-17 Covington W W Rev 276-2299
- 219-23 Allen Gloria 527-2574
- 219-23 Diken Rita Exterminating Co 529-3902
- 219-23 Felton C 528-0982
- 219-23 Jamerican Tv & Radio Reps 528-0989
- 219-25 Siam Auto Svc Sta 525-9455

220TH 220-01

- 220-01 Goz Ben glass drs LA 5-0630
- 220-01 Laurelton Glass Wks LA 5-0630
- 220-02 Laurelton Car Wash Inc 978-4404
- 220-08 Bebb's Decorators 527-5736
- 220-05 Elmore Helen L Mrs 341-2157
- 220-13 Beckford Charles 528-0381
- 220-13 Berkeley S 528-5242
- 220-13 Negro Benevolent Soc Of The Dept Of Sanitation Inc 978-4126
- 220-13 Walker Richard 276-4322
- 220-17K & G Auto Body 341-3678
- 220-20B & B Auto Body 978-1266
- 220-24 Muhammad's Temple Of Islam 71 527-4291
- 220-26 Hodge's Food Store 978-0792
- 220-28 Williams Samuel 528-6797
- 220-30 Wallace & Wallace Inc tin store 527-1562

221ST 221-01

- 221-11 Calamis Enterprises 978-4500
- 221-18 Continental Davis Imported Tires LA 8-0021
- 221-18 Davis Tire Svc Inc sho LA 8-0021
- 221-18 Moon Jim 528-0591
- 221-18 Metzeler Imported Tires 528-0591

222ND 222-01

- 222-01 Taylor Funeral Homes Inc LA 7-7777
- 222-01 Taylor Wm H funeral dir LA 7-7777

223RD 223-01

- 223-01 Laurel Motors Inc used cars LA 7-2003
- 223-04 United States Government Post Office Dept Branch Post Office LA B-4192
- 223-09 Tanbro Svc Sta Inc 527-8675
- 223-10 M & D Auto Body Shop Inc 978-2576
- 223-14 Corona Auto Sales 276-9814
- 223-14 St Albans Svc Sta 276-9814

224TH 224-01

- 224-01 Chrysler-Litton LA B-2407
- 224-01 Laurel Motors Inc LA B-2407
- 224-01 Laurel Motors Inc Parts Dept LA B-7257
- 224-01 Laurel Motors Inc Svc Dept LA B-7474
- 224-01 Laurel Motors Inc parts dept LA B-7257
- 224-01 Laurel Motors Inc Svc Dept LA B-7474
- 224-01 Zippy-Rent-A-Car-Rentl Offices-Litton LA B-2407
- 224-02 Drive Line Motors Inc 276-7548
- 224-02 Drive Line Motors Inc 525-9890
- 224-13 Burstein Karen Senator b 528-4118
- 224-13 Federation Of Laurelton Block Assn 528-4151
- 224-13 N Y City Of Social Svcs Dept Of Senior Centers Div Of Laurelton-Roseade 527-7577
- 224-13 Scheuer James H Congressman b 528-0275
- 224-13 Tramontano Josephine b 528-0124
- 224-14 Chapman & Chapman Inc 528-4175
- 224-14 Chapman & Chapman Inc 525-2100
- 224-18 Uni-Call Research Inc 723-5800
- 224-19 Leads Mark K. atty LA 5-1641
- 224-19 Leads Of Laurelton rlist & apprs LA 5-3424
- 224-19 National Federation Of Real Estate Boards Inc 723-1055
- 224-19 New York State Federation Of Real Estate Boards Inc 723-1055
- 224-19 Queens County Federation Of Real Estate Boards Inc 723-1055
- 224-20 Howard Photo Studio LA B-1944
- 224-21 Iwanawich T 276-0286
- 224-21 Ward P 341-2077
- 224-22 Looon's Garden 525-9766
- 224-22 Looon's Garden Restrm 978-4282

LAURELTON

225TH 225-01

- 225-01 Nabred Supermarket Inc 723-7366
- 225-03 Nabred Supermarket LA 5-9751
- 225-06 Daisy Fresh D'Vein Cleaners LA 5-9491
- 225-10 N Y City Of Mayors Ofc Neighborhood Services Ofc Of Laurelton 978-5900
- 225-12 Laurelton Community Volunteer Ambulance Corp 525-9089
- 225-14 Byrne & Sons 525-0680
- 225-14 Byrne & Sons 525-0676
- 225-14 Professional Property Insprctrs Inc 525-1755
- 225-14 Reid's Sewer Svc LA B-5076
- 225-15 Berner Bernards ins LA 7-5000
- 225-16 Kury Max Inc ins LA 7-5000
- 225-18 Merrick Telvsn & Marine Radio LA 8-1022
- 225-19 Ankler's Upholstery 525-7295
- 225-20 Skilling's Emilio 525-6853
- 225-22 Morales Andrea 276-6494
- 225-22 Rite Auto Sales 525-8824
- 225-25 Tesch Robt C dntsl LA 5-0122
- 225-25 Weststock Harris D atty 527-7800

226TH 226-01

- 226-01 Robinson's Candy Store 527-1573
- 226-04 Custom Communications Inc 978-6222
- 226-04 Laurelton Const Corp 528-3613
- 226-04 Laurelton Electric Inc 528-4568
- 226-04A Kronnikoff & Sont pimbrs LA 8-9709
- 226-05 R & M Laundromat 276-5891
- 226-05A H Miller Constr Corp 978-2305
- 226-07 Samuels Tailor Shop LA 8-5588
- 226-08 Berkoff Realty Inc 525-2261
- 226-10 Merrick Fish & Chips Inc 978-5183
- 226-13 Phillips Keith A DOS 723-3519
- 226-15 Esther's Beauty Salon 525-8747
- 226-17 Kennedy King Democratic Club Inc 528-9225
- 226-18 Hub Aluminum Engrg Corp 723-4342
- 226-19 Valley Auto School 978-7900
- 226-21 Preferred Packing Svc Inc kasher mts 341-2922

227TH 227-01

- 227-03 227 Cof Svc 525-9568
- 227-08 Brennan & Bushner attys LA 7-4300
- 227-08 Brennan Wm T atty LA 7-4300

AREA CODE 212

- 228-07 Ace Window & Door Co Inc LA B-0570
- 228-07 Beckner Jn F11-1855
- 228-07 Morris David venetr bids LA 8-0570
- 228-09 North Herbert W 528-9313
- 228-09 North Herbert W atty 527-1007
- 228-09 Norval Realty Corp 527-1007
- 228-09 W R K Electric Corp 723-5092
- 228-11 Raymond Crespo Meat Mkt 276-3675
- 228-13 Toetle's Hairstylist 525-9459
- 228-15 29th A D Regular Democratic Club 341-1250
- 228-19 Helen & Sam's Stationery 525-9273
- 228-20 Laurelton Bus Co Inc LA 7-2220
- 228-20 Laurelton Bus Co Inc LA B-1254
- 228-20 Laurelton Svc Sta LA 5-9547
- 228-23 Esquire French Dry Cleaners LA B-0181
- 228-23 Esquire French Tailors LA B-0181

229TH 229-01

- 229-02 Daley Home Appliances Co LA 5-0611
- 229-02 Daley Servicenter LA 5-0611
- 229-02 Dubner Ben B podiatrist ofc LA B-7472
- 229-03 Woolworth F W Co No 1990 LA 8-3759
- 229-04 White's Realty 723-0663
- 229-06 The Halpin AR 6-9868
- 229-07 Circle Purchasing Co 978-4400
- 229-07 Circle-Stanmar Inc 978-4400
- 229-07 Dial-A-Brand Inc 978-4400
- 229-07 Dial-A-Brand Inc 978-4546
- 229-10 Esquire Color Labs Inc 525-1408
- 229-11 Amer-Tropical deli 525-9032
- 229-12 De-More Travel Agency Inc 978-3100
- 229-13 George's Meat 528-1500
- 229-14 Cardinal Teen Toy 342-0696
- 229-15 The Comco Organization Inc 342-0696
- 229-16 Harry's Fish Mkt LA 8-3949
- 229-20 Everything Store 525-9236
- 229-23 Rael Pharmacy LA B-6180

230TH 230-01

- 230-01 Stanley's Juvenile Furn & Toy Shop LA 8-4412
- 230-03 Pearson's Realty 276-6600
- 230-05 Donaki's Boutique 341-0101
- 230-06 D'Amico Svc Sta 525-0800
- 230-11 Prospect Decorators 723-9700
- 230-12 Craft Master Design Inc 341-1681
- 230-13 Fair Star Bake Shop Inc LA 5-9465
- 230-14 Buxton Mkt 527-1660
- 230-14 Universal Development & Realization Corp 527-1660
- 230-14 Williams Chester ins 527-8950
- 230-15 Levy V Repairs 978-5636
- 230-15 Levy's Television Repair Center 978-5634
- 230-16 Betty Trvall Dance Studio 276-2493
- 230-21 The Hub Svc Sta F11-4510
- 230-22 Ridgewood Savings Bank Laurelton Ofc 821-4600
- 230-23 Orlando Bakery LA 7-3313
- 230-23 Orlando Andrea bkry LA 7-3313
- 230-27 Busy Bee Luncheonet 525-9671

FRANCIS LEWIS BLVD-231ST 231-01

- 231-01 Mansley Leslie b LA B-4555
- 231-01 Martin Paint & Home Decorating Centers-Branches-Call LA 5-9269
- 231-01 Mebab N MD LA B-8171
- 231-04 Laurelton Small Animal Clinic 341-2555
- 231-06 Judy's International restrnt 525-2800
- 231-07 Judy's International Inc 525-9608
- 231-07 Dial Drugs LA 7-0988
- 231-08 A C C Contractors 528-8909
- 231-08 Goodies Boutique Inc 341-4066
- 231-09 C & J Furniture Svc 276-6900
- 231-09 Pannino's Strv Hlth 525-9566
- 231-10 Wong's Chow Mein Store LA B-8180
- 231-11 Casual Department Store Call LA 5-8330
- 231-11 Casual Dept Store Call LA 5-8330
- 231-12 Clarence K Allen Agency 723-7219
- 231-12 Clarence K Allen Real Estate 723-7260
- 231-14 Clover Delicatessn LA B-9420
- 231-14 Stemann Helmut dictsn LA B-9420
- 231-16 Young's Florist Inc 978-6819
- 231-18 Weber Sidney S b 528-8909
- 231-19 Nathan Pollock Ofc & Industrial Equip 527-2960
- 231-20 Stewart Wine & Liquor Corp LA B-4800
- 231-22 Hoparty's Tavern 525-9311
- 231-26 Avco Financial Services Of New York Inc Queens Offices-Call 276-1400
- 231-26 United Barber & Beauty Supls 978-8959

232-02 Douglas Som Affiliates Agency Inc 527-6666

- 232-04 Hairstyling By Faye 723-8200
- 232-08 Zimnick's Language Shop 528-2345
- 232-05 Zimnick's Shoe Rep 528-2245
- 232-06A Dillane Corp LA 5-0225
- 232-07 Baulkoff Gift Shop 527-3848
- 232-07 Harmon Sallie E b 527-3848
- 232-07 Ray's Letter Svc 527-3848
- 232-08 B C C Custom Buill Furniture & Interior Decrting 341-3667
- 232-09 Weiss B Harvey optmtrist ofc LA B-1913
- 232-09 Weiss Harvey Optmtrist ofc LA B-1913
- 232-09 Weiss Wm H optmtrist ofc LA B-1913
- 232-11 Clause-McMillan 978-1394
- 232-14 Damker's Pharmacy 528-7821
- 232-14 Damker's Pharmacy prescrip dept LA B-7788
- 232-14 Williams At 528-0081
- 232-16 Wong Tong F LA 7-2721
- 232-17 Burr-Fect Cleaners Of Laurelton 525-9626
- 232-18 Ouis L LA B-5774
- 232-18 Hughes James P 341-0044
- 232-18 Stillas Petros 527-4544
- 232-20 Laurelton Bicycle & Carriage Shop LA B-6888

233RD 233-01

- 233-01 Parkway Diner 525-7022
- 233-01 Parkway Diner 525-9311
- 233-02 Gerry Owen Inn The 525-9559
- 233-06 Croftal Realty Co LA B-8707
- 233-06 Frazier Leon F LA 7-7774
- 233-06 Frazier Leon F ins LA B-8007
- 233-06 G W G Trucking Inc 341-0956
- 233-06 Malestic Transport Svcs Inc 723-2318
- 233-06 N Y Patient Aids Inc 978-3313
- 233-06A G & O Stationery 528-6822
- 233-08 Merrick Plastics Enterprises 723-7774
- 233-10 Levine Murray Woodworking Co 276-273
- 233-12 Laurelton Grocy Distribtrs LA 5-0566
- 233-12 Sara's Louis b LA 5-0566
- 233-14 Laurelton Realty LA B-3227
- 233-14 Wallen Lorraine LA 7-3124
- 233-16 A/B Constr Co 978-850
- 233-16 Behrendt Travel Svc Inc 516 775-288
- 233-16 Behrendt Wm J inst & ins 516 775-288
- 233-16 Borg Charles J Agency 528-130
- 233-16 Donat Distribtrs 525-212
- 233-16 Workman's Benefit Fund 528-130
- 233-22 White L Ltho Inc 978-108

234TH 234-01

- 234-02 Chestnut & Chestnut Inc 525-961
- 234-04 Twin Pond Bakery 528-861
- 234-07 Factory Cover Co 527-367
- 234-07 General Mnt 527-367
- 234-07 General Mnt Factory Inc 527-367
- 234-08 & C L Mills Inc 276-947
- 234-16 Kokco's Barber Shop 525-9588
- 234-18 Ritz Fashion By Anita 525-209
- 234-20 Maja Cleaners & Dyers 978-934
- 234-22 A-Vee Svc Sta Inc No 2 525-951
- 234-22 A-Vee Svc Sta #2 341-104
- 234-35 House Of Carpets 527-900

ROSEDALE

BROOKVILLE BLVD 240-01

- 240-01 Caristo Consty Corp 341-049
- 240-04 Valerio Beer & Soda Distribtr Inc LA B-113
- 240-04 Valerio's Twenty-Four Hour Ice Svc Inc LA B-113
- 240-10 Dairy Joy 525-928
- 240-10 Dairy Joy 525-928

241ST 241-00

- 241-02 Garden Mkt Inc 527-236

242ND 242-01

- 242-02 A-Z Svc Sta LA 5-965

243RD 243-01

- 243-04 Rose's Superette Inc LA B-552
- 243-06 Emerald Bar 525-913
- 243-07 Cross Island Inn Diner Restrm 276-582
- 243-08 Stevens Hair Stylists LA B-578
- 243-10 Liggett-Resall Drug Store LA B-506
- 243-10 Parkway Pharmacy LA B-506
- 243-10 Parkway Surgical Svcs LA B-506
- 243-10 Rexall Drug Store LA B-506
- 243-12 Nevele Constr Co Inc 978-230
- 243-18 Brown Martin DOS 525-181
- 243-28 Custom Auto Glass Co 525-482
- 243-29 Adams Rents 341-12
- 243-47 Hyman's Plumbing & Heating 978-8959

ERRICK BLVD (AV) (RD) SPRINGFIELD

MERRICK BLVD (AV) (RD) SPRINGFIELD

MERRICK BLVD (AV) (RD) SPRINGFIELD

MERRICK BLVD (AV) RD SPRINGFIELD

118th AV 11801
Frontiers Svce Sta AR 6-9856
Carmen Cleaners Inc LAUR 8-2428
Morris Medford W AR 6-0546
Hinsbour Betty Mrs File 1-4542
Higgins Stalney LAUR 5-9292
Henderson Walter D File 1-3125
Simons Leroy AR 6-5273
Beeson Custom Lamps LA 5-9313
Pick Quick MPick Corp LA 5-9636

128-01 Causeway Svce Sta LAUR 8-0287
128-01 Causeway Svce Sta LA B-0283
128-01 H&P Automatic Transmissions LA B-0287
128-01 H&P Automatic Transmissions LAUR 8-4769
128-10 Dee Motors Auto Paintings & Body Shop LA 5-0050
128-10 Dee Motors Inc FI 1-1010
128-10 Dee Motors Inc LA 5-1200
128-13 Springfield Dr FI 1-2092
128-13 Springfield Dr LAUR 5-9478

AREA CODE 212

217-15 All Signs LAUR 8-4340
218th AV 21801
218-01 Chevrolet Reid Inc LA B-8000
218-04 Franklin C G Inc - barter A1 LAUR 8-1579
218-04 Franklin's Motor Store A1 LAUR 8-1579
218-08 F&G Auto Sales Co used cars LA 8-7810
218-20 Mck's Coin Shop LA 7-1602
218-20 Scarpelli M C toys LAUR 7-1602
218-22 John's Meat Mkt LAUR 8-2987
218-22 Moge Craft Remodeling LA B-0365
218-24 Service City Inc LA 7-6000
218-30 John's Tavern LAUR 5-9771

224-01 Laurel Motors Inc LAUR 8-2407
224-01 Laurel Car Rental Inc LA B-2407
224-02 Drive Line Motors Inc LA 6-7548
224-02 Drive Line Motors Inc LA 5-9890
224-10 Sparer Murray H ally
224-10 Stephen Brokerage Co LAUR 5-4979
224-11 Monteione Francisco D LA B-1790
224-13 Laureiten Hrdwr & Paint Co LAUR 8-7418
224-13 Tramontano Francine 527-7863
224-14 Laureilton Bazel Bakery Inc. LA 5-9570
224-15 Petrowski Paul 723-2986
224-16 Vic's Hobby Shop FI 1-0784
224-17 Fernandez Mario AR 6-2759
224-19 Leeds Mark K ally LAUR 5-1641
224-19 Murdock Edw LAUR 5-0311
224-20 Howard Photo Studio LAUR 8-1944
224-21 Silver Murray AR 6-1740
224-22 Wong's Garden Inc ally LAUR 5-9766

129th AV 12901
Thorne's Luncheonet LA 5-9508
Beauty Box LA 5-9765
Dodds Geo W mt mkt LA 8-1919
Seaglin Liquor Shop Inc LA 8-2043
Nu-Way Cleaners & Dyers LAUR 8-6841
Cento X-Ray Co AR 6-3440
Cohen B surrol suppl. AR 6-3000
Lisso Scientific Co AR 6-3000
US Hosp Supl Corp AR 6-3000

129-04 525-9686
129-15 525-9686
129-21 Graham Cheml Corp LAUR 7-2277
129-21 Merrick Labs Inc LAUR 7-2277
129-24 Tava's Luncheonet 525-9894
129-26 Ben's Liquors LAUR 8-1260
129-26 Taylor Ernest M AR 6-3222
129-32 G&S Motors Inc LAUR 7-0483
129-32 Stock Heiman used cars LAUR 7-0483

218th AV 21801

219-02 Long John Indscp gardn LAUR 5-8180
219-02 Long's Nursery LAUR 5-8180
219-03 Cederberg Walter chair rent LA 5-5550
219-03 Cederberg Walter chair rent LA 5-5550
219-03 Triangle Chair Svcs LA 5-5550
219-05 Tibaldi Silvio E LAUR 8-3684
219-07 Davis A LAUR 8-7534
219-07 Nemo's Pharmacy LAUR 8-3140
219-13 Laurel Tobacco & Candy Co FI 1-1149
219-14 Nickerson Wm J christmas trees LAUR 5-5000
219-14 Nickerson's Nursery LAUR 5-5000
219-15 Bob's Delicatess LAUR 8-8612
219-15 Seekamp Richd delicatess LAUR 8-8612
219-17 Cardinal Teen Tot LA B-1448
219-19 Wash Rite Laundromat LA 8-3232
219-20 Taylor Chas LA 8-6526
219-20 Witters Chas Jr LA 8-2030
219-21 Oshman Jack LAUR 5-9306
219-21 Sprague Leonard T 723-1810
219-23 Foley T LA 8-6897
219-23 Lee Yook Foak LA 7-2320
219-25 Laurel Super Svce Sta LAUR 5-9565
219-26 Springfield Mason & Bldg Materials LA 8-6616

LAURELTON

225th AV 22501
225-03 Kwikway Quality Mkt Inc LA 5-9751
225-06 Drisy Fresh Home In Cleaners LAUR 5-9491
225-10 Balle R H cncr contr LAUR 8-3613
225-12 Peter Pan Beauty Salon LAUR 5-9574
225-14 Byrne & Sons plmbg LA 5-6600
225-14 Byrne & Sons plmbg LAUR 8-5076
225-14 Halvorsen Hans LAUR 7-9452
225-14 Reid's Sewer Svcs LA B-5076
225-16 Balle Wm G LAUR 8-7131
225-16 Berner Bernard ins LAUR 7-5000
225-16 Kitz Max ins LAUR 7-5000
225-16 Kurz Max Inc ins LAUR 7-5000
225-16 Schneider E ins LA B-6328
225-16 Schneider Eugene LAUR 8-6328
225-18 Merrick Televisn & Marine Radio LAUR 8-1022
225-19 Hoffman & De Santis upholstery LAUR 7-8144
225-19 Regent Decorators LAUR 7-8144
225-20 Adams Elitz Mrs LAUR 8-4941
225-22 Bob's Discount Auto Accesories AR 6-9715
225-22 Drankoulas Dean AR 6-3377
225-23 Elton Plumbing Sml Corp LA 8-1060
225-25 Tesch Robt C onst LAUR 5-0122

PARK PL 10801
Scott Andrew J LAUR 7-0196
Frank's Auto Body LA 5-9444
Allen Florence B -ri est&ms LAUR 7-2800
Allied Rf Est Bd Inc LAUR 7-2800
Durrain Jas W tax constnt AR 6-7484
Holmes-Alien Travel Agency Inc LAUR 7-2800
Holmes J J Franklin b LAUR 7-2800
Irby Irene 723-2757
Reilly Anna Lee LA 7-0391
Shaw Leona AR 6-3361
Toomer Earl H LA 7-7656
Eibeler Joe LAUR 8-2062
Locust Tite Genl Contracty Co LAUR 8-9323
Schattberg Else C Mrs LAUR 5-9900
Schattberg Henry contr LAUR 8-9323
Simon L Mrs DB LAUR 5-9902
Merrill Roger L 723-3050

130th AV 13001

130-07 Diamond Automv Reul Inc LA B-6900
130-07 Diamond Motor Sales & Svce Co - Main office & show room LAUR 8-6900
130-07 Diamond Motor Sales & Svce Co Parts & Svce LAUR 8-6900
130-07 Diamond-Rambler Inc LA 8-6900
130-07 Rambler-Diamond LAUR 8-6900
130-29 Idewild Motors Inc LAUR 7-3700
130-29 Idewild Motors Inc svce dept File 1-1848
130-35 Best Housecraft Co LA 7-5777
130-35 Duncan & Colton jewelry FI 1-4479
130-35 Mandell Irving b LAUR 5-6630
130-35 Middle Ist Meats FI 1-0347
130-35 Times Square Store Corp FI 1-4000
130-35 Times Square Stores candy dept LA 8-8177
130-35 Weidenholz Chas bkry FI 1-2661
130-39 L&M Svce Sta FI 1-1353
130-39 U-Haul Trailers File 1-1353
130-50 Carrots Hamburger Drive-In LA 5-9277

220th AV 22001

220-01 Goz Ben glass dir-D9 LAUR 5-0630
220-01 Laurelton Glass Wks LA 5-0630
220-05 Glen Field Farms AR 6-7800
220-05 McDonough Kathleen AR 7-2451
220-07 Menendez Frank AR 6-0341
220-07 Ourakian Peter grocry LAUR 5-1323
220-09 Empire Auto Svcl Co Inc LAUR 8-6606
220-09 Negron Juan 276-4357
220-09 Rios Emma File 3-4529
220-11 Bern Bob milnry LA 8-3185
220-11 Klees Frank LAUR 5-2625
220-11 Mad Frank J LAUR 8-2550
220-13 Gubitos Rocco P LA 7-4479
220-13 Joe's Prime Meat Mkt LAUR 8-1852
220-17 Emili's Service Station LAUR 5-0770
220-20 Shanley Jas Inc contr LA 7-1986
220-22 Vitro Sportsr LAUR 7-7757
220-24 Oranges John b LA B-9021
220-24 Scott Cleaners & Dyers LAUR 8-9021
220-24 Scott Ruyd & Sons Cleanng LA B-9021
220-26 Maccaull's Delicatess FI 1-1230
220-28 B J Candy & Pretzels FI 1-4538
220-30 Luerssen Louis Mrs LA B-7788
220-30 Luerssen & Son svcs Hqrs A1 LAUR 8-1235

226th AV 22601

226-01 Charlie's Tavern AD LAUR 5-9819
226-02 Twelfth Ad Dentonic Club FI 1-2709
226-03 Joe's Place Luncheonet AR 6-9717
226-04A Krutznifer & Sons plmbrs LAUR 8-9709
226-05 Lottie's Lindet LA 5-5751
226-05A Detowich Abe b LAUR 8-4248
226-07 Samuels Tailor Shop LAUR 8-5588
226-08A Castle Sales Co LA 7-7777
226-08B Turnpewer Castle Sales Co LA 7-7777
226-09 Riviera Restran LAUR 5-9571
226-10 Carbo Air Conditioning LA B-2210
226-10 Carbo Carb & Coke Co Inc LA B-2210
226-10 Carbo Fuel Oil Co LA B-2210
226-11 Lome Max M ally LAUR 8-6800
226-11 Schwartz Sylvia (sv) LA B-6800
226-13 Rosen Kosher Del. LA 5-9813
226-13 Rosen's Kosher Delicatess 528-1011-1
226-18 Cornacoff Svcs Colse AR 6-8100
226-18 Gottesman Jon S AR 6-5500
226-18 Epic Agnes Ltd AR 6-5500
226-18 Exact The Amies AR 6-5500
226-18 Food Fair Stores Dist Dt AR 6-1360
226-18 Minute Dept AR 6-1333
226-18 Intermittent Life Ins Co of Bufffals AR 6-5500
226-18 Kinsh Layton N ins AR 6-5500
226-18 Laurelton Church of Commerce AR 6-5900
226-18 Laurelton Community Volunteer Ambulance Corp 525-9000
226-18 Policy Tying Svcs AR 6-5678
226-18 Wild & Co busns AR 6-5678
226-19 Wonder Klenn LA 5-9378

130th AV 13001
Booth Ed Const Co Inc HO 5-4179
Booth Ed Const Co Inc HO 5-4179
Booth Ed Const Co Inc LA 7-7070
Booth Ed Home Improvements Inc LA 7-7070
Thornton Marilyn LA 5-9746

FARMERS BLVD 13101

131-02 BBS Auto Svce LAUR 5-9339
131-07 Acquate Svce Slat Inc LAUR 5-9334
131-21 Cockhill Wm J Co LA 8-7413
131-31 Springfield Lumber Inc LAUR 7-6400
131-31 Wolsey Harry Inc stair bldgs LAUR 7-6400
131-31A Swan Laundry JB LAUR 5-8791
131-31B Premet Co AR 6-5323
131-32 Williams Willie 276-6425
131-34 Skylark Bar & Grill LAUR 5-9614
131-35 Villa Rosa LA 5-9414

222nd AV 22201

222-18 Davis Tite Svce Inc shp LA B-2008
222-22 Boars Head Tavern AR 6-9798
222-01 Murray Walter P Funeral Home LAUR 8-7322
222-01 Tator-Murray Funeral Home LAUR 8-7322
222-01 Walter Murray P Funeral Home LAUR 8-7322
222-04 Davis Tite Svce Inc shp LA B-0021
222-15 Isaac Thos svce sta 525-9492
222-15 Jackpot Svce Sta Inc 525-9492
222-16 Academy of Lyndrk LY 5-1330
222-16 Academy of Springfield Gardens LA 5-1330
222-16 Arithmetical Reading Sch LA 5-1330
222-16 Christopher Robin Academy of Springfield Gardens LA 5-1330
222-16 Christopher Robin College Prep Tutoring Sch LA 5-1330
222-16 Christopher Robin Elem & High Sch LA 5-1330
222-16 Christopher Robin Tutoring Sch LA 5-1330
222-16 Donus Geo B LA 5-1330
222-16 Mathematics Tutoring Cntr LA 5-1330
222-16 Reading & Arithmetic Improvement Cntr LA 5-1330
222-16 Springfield Gardens College Preparatory Tutoring Sch LA 5-1330
225-18 Schultz T 723-3820

227th AV 22701

227-01 Laurel Shops diy gds J7 LAUR 5-9401
227-02 Caronni's Pizzeria AR 6-6824
227-03 Time Enterprises Inc FI 1-1020
227-07 Good Food Stores LA 5-1515
227-07 Preferred Packing Svcs Inc FI 1-2422
227-08 Brennan & Daubner attys LA 7-4300
227-08 Brennan Wm T ally LA 7-4300
227-08 Dunstone Thos P ally LA 7-4300
227-08 Johnson Lawrence H ins hqrs LA 7-8800
227-08 Mentone Realty Co LA 7-8800
227-08 O'Neill Jas J ally hqrs LA 7-8800
227-08 O'Neill Johnson Assoc ins hqrs LA 7-8800
227-10 Emerson Theatre FI 1-4433
227-12 House of Madison LAUR 7-1300
227-12 Wagwood Studios LAUR 7-1300
227-13 Jackson W W ally 723-1839
227-15 South Shore Jobbing Co LA B-7606
227-15 Zitzerman's Lumber Co LA B-7506
227-18 Mr Murray's Beauty Salon LAUR 7-3213
227-18 Murray's Beauty Salon (Ar) 7-3213
227-23 Marder's Pharmacy LAUR 5-9506
227-23 Marder's Pharmacy LAUR 8-9506

BAISLEY BLVD 12201
James Auto Svce Sta AR 6-9877
James Auto Svce Sta 723-2486
Sant's Svce Sta LA 5-9296
Rogers Drug Co LA B-1000
Rogers Drug Co AR 6-4000

BELKNAP 13201

132-20 Esquire Shoe Polish AR 6-340
132-20 Evanofme Dyes Inc AR 6-3400
132-20 Instant Shoe Coloring AR 6-3400
132-20 Knomark Inc AR 6-3400

223rd AV 22301

223-01 Laurel Motors Inc used cars LAUR 7-2003
223-04 U S Govt Post Office Dept - Branch Post Offices - Spfld Grds D9 LAUR 8-4397
223-04 Tanbro Svce Sta Inc LAUR 7-8675
223-10 John & Bob's Svce Sta LA 5-9213

228th AV 22801

228-01 Denmark Harold DOS ofc LAUR 8-7222
228-01 Furniture Svcs ally LA 9-1126
228-04 Bells Mia Restan LA 5-9824
228-05 Romeo's Barber Shop LA 5-9824
228-07 Ace Window & Door Co Inc AR 6-9789
228-07 Window & Door Co Inc LAUR 8-0576
228-07 Rechner Jos File 1-1655

SUNBURY RD 12301
Corrie L C brbr shp LA 5-8868
Colavita Pasquale LA 8-4898
M & Sons prod AR 6-6434
Quilliam Paik L AR 6-6952
Jamaica Carburetor & Generator Co LAUR 7-0379
Jamaica Carburetor & Generator Co LA B-9589
Quilliam Roland LAUR 7-0379
Skin's Auto Body Inc AR 6-9764
Skin's Auto Body Inc LA 5-9331

180th AV 18001

180-06 Woodcraft Co LAUR 8-2836
185-11 Unheeda Car Broker Corp 723-2936
185-21 Paris Auto Body LAUR 7-2316
185-22 Charles Wissal Cresspool Co Inc FI 9-0002
185-22 Wissal Gus Co - scavngs LA B-0466
185-22 Wissal Frank & Co Inc scavngs LAUR 8-0466
185-22 Wissel's A Sun - scavngs LAUR 8-0466
185-25 Associated Auto Radiator Shop AR 6-3666
185-25 Associated Auto Radiator Shop JA 6-2666
185-25 Kinell's Auto Radiator Shop JA 6-2666
185-31 Wissel Wm LAUR 5-5876

224th AV 22401

224-01 Chrysler-Litln LAUR 8-2407

229th AV 22901

229-01 Perry John E ally LAUR 8-3357
229-11 Bklyn Thermometer Co Inc FI 1-2040
229-11 Teichert Engrng Co FI 1-2040
229-12 Amherman Ben D FI 1-4768

125th AV 12501
JC Svce 525-9041
Frank's Carburetors 525-9429
Mademoiselle Beauty Salon LAUR 5-9534
Roxanne Modes Inc LA B-7586
Tuff's Const Corp LA 5-1734
Embassy Furn Svcs LA 8-9233
Madison Furn Refinishers LAUR 8-9239
Yeavabe Irving - staltary LAUR 5-9754
Interboro Floor Covering Co D6 LAUR 8-0456
Berman's Food Cntr LA 8-9318
Helen of Troy Tavern LA 5-9562

MONTAUK 18601

186-06 Woodcraft Co LAUR 8-2836
185-11 Unheeda Car Broker Corp 723-2936
185-21 Paris Auto Body LAUR 7-2316
185-22 Charles Wissal Cresspool Co Inc FI 9-0002
185-22 Wissal Gus Co - scavngs LA B-0466
185-22 Wissal Frank & Co Inc scavngs LAUR 8-0466
185-22 Wissel's A Sun - scavngs LAUR 8-0466
185-25 Associated Auto Radiator Shop AR 6-3666
185-25 Associated Auto Radiator Shop JA 6-2666
185-25 Kinell's Auto Radiator Shop JA 6-2666
185-31 Wissel Wm LAUR 5-5876

126th AV 12601
Drew Wines & Liquor 528-7689
Mazette Restran LAUR 5-9557
Stephens Barb Shop LAUR 5-9840
Garden Mkt - frts vgs A1 LAUR 8-2111
R & L Quality Foods AR 6-4848
George's Luncheonet LA 5-9857
Jay-Vee Svce Sta AR 6-1934
Johnson Robt collision FI 1-1087
Gamble Dani mts & colln LAUR 7-7116
Edward's Cleaners LAUR 5-9400
Springfield Beauty Salon AR 6-6769
Schneider D D Pharmacy 528-2191

PINEVILLE AV 18001

186-09 Denny Olga Mrs LAUR 5-0181
186-11 Goldstein Morris hqrs LAUR 7-2500
186-11 Town Realty Co LAUR 7-2500
186-16 Pine Leon indry LAUR 8-3340
186-15 Grand Cleaners & Lndrers LA 8-3340
186-15 Grand Cleaners & Cleaners LA 8-3340
186-29 Merrick Auto Glass & Locks LA 5-4720
186-29 Merrick Svce Cntr LA 5-4720
186-29 Merrick Svce Sta LA 5-9687
186-45 Glenn Motors Inc LA 5-7500
186-45 Glenn Motors Inc LA 5-9402

127th AV 12701
Automatic Heating Co LA B-7598
Mac Mah Automatic Heating Corp LA B-7598
Mablan Chas F plmbr LA B-7598
McCarthy Jos A plmbr LA B-7598
Dennis Luncheonet LA 5-9455
Adehardi Const Corp LA 7-0700
Friedberg Jacob blwr LA 7-8700
Luca Metal Craft Co Inc LA 7-8700
Matie Beauti Rama LA 5-9858
Bob's Fish & Chis AR 6-9737
Ward Cash C MO AR 6-3122
Diamond Private Cab Co LA 5-9500
Red Seal Laundry Svce LAUR 8-2801
Ward's Tavern LA 5-9486
Burl Deppendorf Inc LA 7-0468
Max's Dnry & Delicatess LAUR 8-0724

RIDGEDALE AV 18801

188-03 Porta Kom Communists 276-0606
188-03 Springfield Collision Inc 525-9493
188-03 Springfield Collision Inc 723-1187
188-03 Stop-Blaze Prod Inc 276-0606

SPRINGFIELD BLVD 21601

216-02 Meadow Brook Natl Bank The 216-0200
216-08 Knight Kap Bar & Grill 216-0609
216-11 Detrans Jos R MD LA B-2100
216-11 Drayce Maurice F DMD ofc LAUR 8-2080

1955

MERRICK BLVD (AV) (RD) SPRINGFIELD

MERRICK BLVD (AV) (RD) SPRINGFIELD

MERRICK BLVD (AV) (RD) LAURELTON

MERRICK BLVD LAUREL

Table listing businesses on Merrick Blvd (Av) (Rd) Springfield, including addresses, phone numbers, and business names.

Table listing businesses on Merrick Blvd (Av) (Rd) Springfield, including addresses, phone numbers, and business names.

Table listing businesses on Merrick Blvd (Av) (Rd) Laurelton, including addresses, phone numbers, and business names.

Table listing businesses on Merrick Blvd Laurelton, including addresses, phone numbers, and business names.

PLS

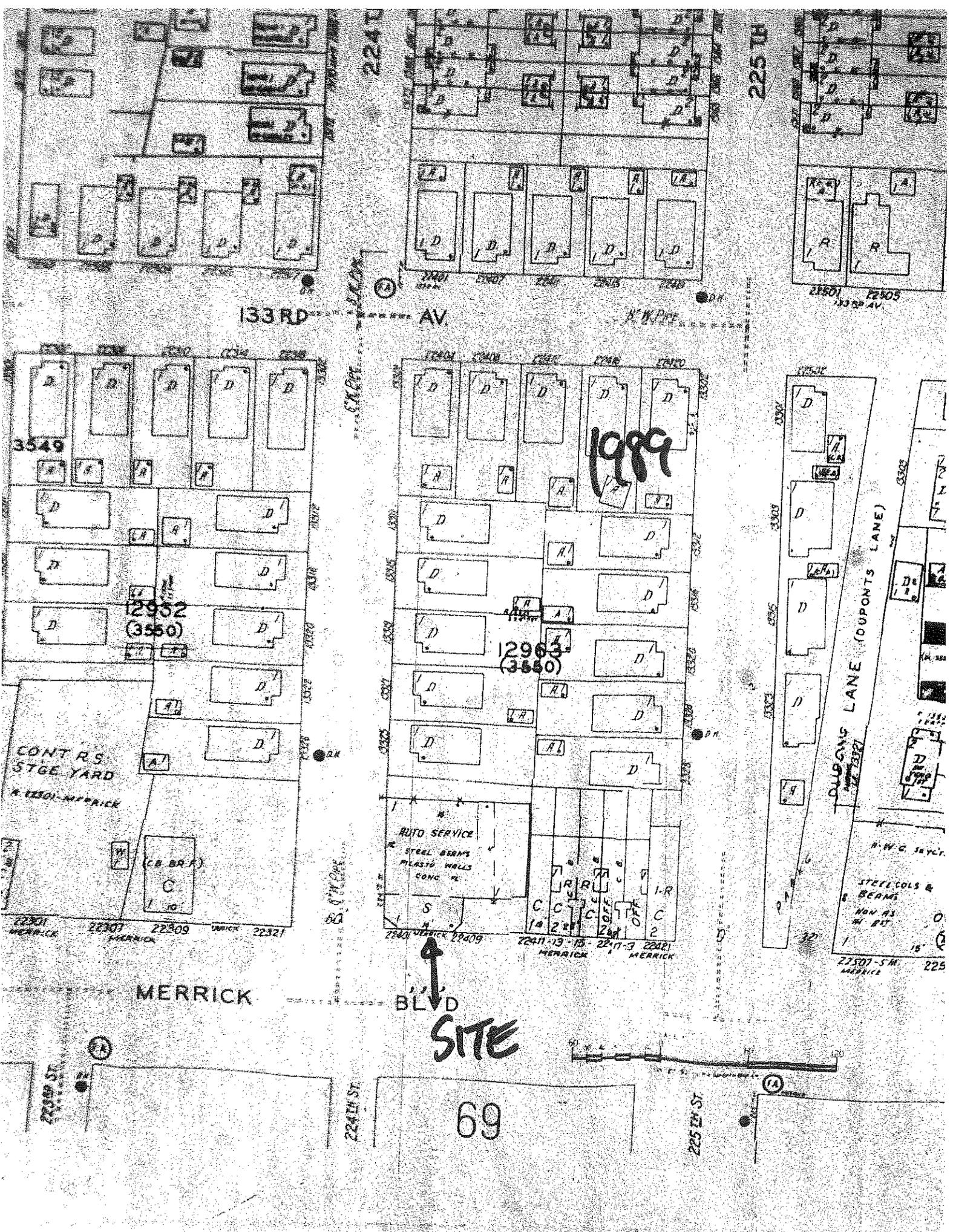
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133 RD

AV

225 TH

224 TH

1989

3549

12952  
(3550)

12963  
(3580)

CONTR S  
STGE YARD

AUTO SERVICE

STEEL BEAMS

PLASTO WALLS

CONC FL

DUGGINS LANE (POUPONTS LANE)

MERRICK

BLVD

SITE

69

223RD ST

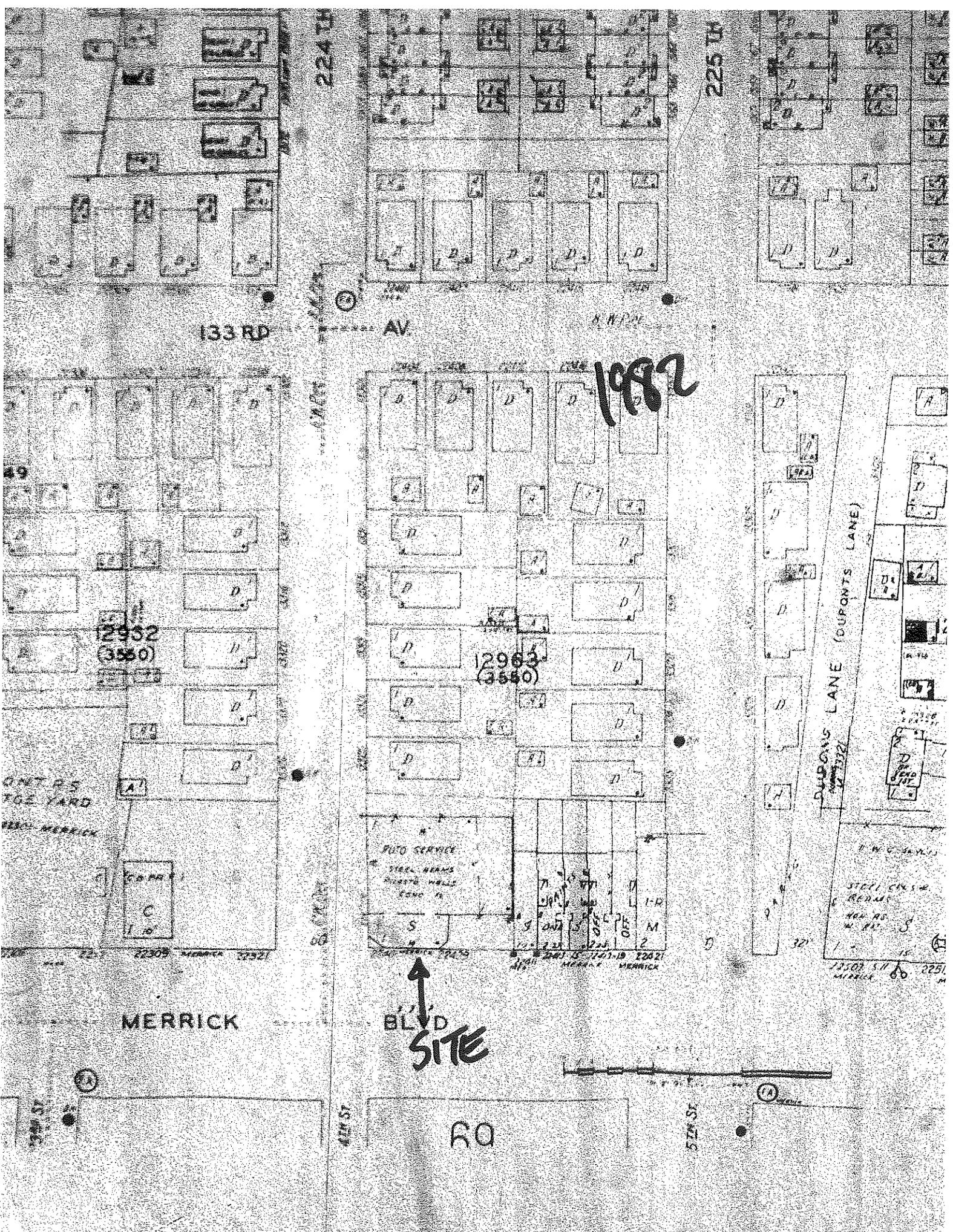
224TH ST

225TH ST

STEEL COLS &  
BEAMS  
NOW AS  
W. B.T.

22507 - 5th  
MERRICK

225



133 RD

224 TH

225 TH

AV

1982

12952  
(3550)

12963  
(3550)

ONT RS  
YGE YARD

MERRICK

C

AUTO SERVICE  
STEEL BEAMS  
STEEL CHS W  
REINFC

L-R  
M  
2

DUPONS LANE (DUPONTS LANE)

STEEL CHS W  
REINFC  
400 RS  
M RR

MERRICK

BLVD  
SITE

RD

524 ST

1A



57 LAURELTON  
(80-118) 54

0

131 ST RD.

3505

3505

3505

3549

3550

355

ST.

223 RD.

ST.

224 TH

ST.

225 RD.

ST.

226 TH

1426

133 RD AV.

3549

3550

3550

3548  
(3546)

3550

DUPONT'S LANE PRIVATE RD.

MERRICK BL (RD.)

Scale 60 Ft. to One Inch

SITE

56

AD

# Appendix B

## 2012-03 JRH Health and Safety Plan

**Health and Safety Plan  
For  
Property Located at  
224-01 Merrick Boulevard  
Queens, New York**

**OER # 12EH-N378Q  
March 2012**

**Prepared by  
J.R. Holzmacher P.E., LLC  
Consulting Engineers  
300 Wheeler Road, Suite 402, Hauppauge, NY 11788**

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## 1.0 INTRODUCTION

This section of the Health and Safety Plan (HASP) document defines general applicability and general responsibilities with respect to compliance with Health and Safety programs. This plan has been prepared for excavation/remediation activities to be conducted to determine if subsurface contamination is present. Soil sampling activities are estimated to occur during the excavation period for the proposed new building and sub-grade parking structures at the site.

### 1.1 Scope and Applicability of the Site Health and Safety Plan

The purpose of this HASP is to define the requirements and designate protocols to be followed during the excavation/remediation activities at the site. Applicability extends to all government employees, contractors, subcontractors, and visitors.

All personnel on site, contractors and subcontractors included, shall be informed of the site emergency response procedures and any potential fire, explosion, health, or safety hazards of the operation. This HASP summarizes those hazards in Table 3.1 and defines protective measures planned for the site.

This plan must be reviewed and an agreement to comply with the requirements must be signed by all personnel prior to entering the exclusion zone or contamination reduction zone.

During development of this plan, consideration was given to current safety standards as defined by the Environmental Protection Agency (EPA)/Occupational Health and Safety Administration (OSHA)/National Institute of Occupational Safety and Health (NIOSH), health effects and standards for known contaminants, and procedures designed to account for the potential for exposure to unknown substances. Specifically, the following reference sources have been consulted:

- OSHA 29 CFR 1910.120 and EPA 40 CFR 311
- USEPA, Office of Emergency and Remedial Response, Emergency Response Team, Standard Operating Safety Guides
- NIOSH/OSHA/USCG/EPA Occupational Health and Safety Guidelines
- American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values

### 1.2 Visitors

There will be no outside visitors allowed on the site during excavation/remediation activities. Outside visitors are defined as those not directly involved with construction and sampling activities.

## **2.0 KEY PERSONNEL/IDENTIFICATION OF HEALTH AND SAFETY**

### **2.1 Key Personnel**

The following personnel and organizations are critical to the excavation/remediation efforts at the site estimated to occur during the excavation activities identified in Figure 1.1 – Construction Activities Schedule. The organizational structure will be reviewed and updated periodically by the site supervisor.

Excavation/Construction Team Representatives:

1. J.R. Holzmacher P.E., LLC
2. Zebra Environmental

**TO BE DETERMINED**

### **2.2 Site Specific Health and Safety Personnel**

The Site Health and Safety Officer (SHSO) has responsibility for ensuring that the provisions of this HASP are adequate and implemented in the field. Changing field conditions may require decisions to be made concerning adequate protection programs. The SHSO is also responsible for conducting site inspections on a regular basis in order to ensure the effectiveness of this plan.

The SHSO at the site with respect to Phase II investigation activities is:

J.R. Holzmacher P.E., LLC  
Heather V. Sonnenberg  
Project Engineer

Designated alternates include:

James DeMartinis  
Senior Hydrogeologist

**TO BE DETERMINED**

### **2.3 Organizational Responsibility**

1. The SHSO of the site will conduct site inspections throughout the project making sure the Health and Safety Plan is followed. His main concern is the personal protection of the workers.

### 3.0 TASK SAFETY AND HEALTH RISK ANALYSIS

#### 3.1 Historical Overview of Site

The subject property, 224-01 Merrick Boulevard, is a 10,000 square foot parcel located on the northeast corner of the intersection of Merrick Boulevard and 224<sup>th</sup> Street in Springfield Gardens, New York. A one story building with no basement, built in 1945 (now vacant), occupies 7,100 of the property. This property has been designated with a Hazardous Materials “E” (E-219) as part of the Laurelton Rezoning Action (CEQR # 08DCP073Q).

Based on available Sanborn Maps from 1929 to 1949, the property was designated as an auto sales and service facility later auto parts sales and service. It was most recently occupied by R & L Strauss. There was an underground 1,000 gallon waste oil tank that was removed without incident in 2003.

#### 3.2 Task-by-Task Risk Analysis

The evaluation of hazards is based upon the knowledge of the site background presented in Section 3.1 above, and anticipated risks posed by the specific tasks to be performed.

The following subsections describe each task/operation in terms of the specific hazards associated with it. In addition, the protective measures to be implemented during completion of those tasks are also identified.

Table 3.1 provides a summary of task analysis and chemical hazards potentially encountered at the Site.

TABLE 3.1 TASK ANALYSIS POTENTIAL CHEMICAL HAZARDS OF CONCERN			
Contaminant	PEL/TLV	LEL (%)	IDLH
<b>VOCs</b>			
Benzene	1/0.5ppm	1.2	500 ppm
Toluene	200/50 ppm	1.1	500 ppm
Xylenes	100/100 ppm	~1	900 ppm
Ethyl benzene	100/100ppm	0.8	800 ppm
MTBE	NE/50ppm	NE	NE
Diesel Fuel	NE/100mg/m <sup>3</sup>		Ca (exhaust)
Gasoline	NE/300	1.4	Ca

Lead	0.05/0.05 mg/m <sup>3</sup>	NA	100 mg/m <sup>3</sup>
PCBs	0.5-1 mg/m <sup>3</sup>	NA	5 mg/m <sup>3</sup>
PAHs	0.2 mg/m <sup>3</sup>	NA	1750 mg/m <sup>3</sup>
Pesticides	Variable	NA	NA
Arsenic	0.01 mg/m <sup>3</sup>	NA	5 mg/m <sup>3</sup>
Mercury	0.025 mg/m <sup>3</sup>	NA	10 mg/m <sup>3</sup>

NE – not established

Ca - Cancer

Notes:

1. TLV = Threshold Limit Value
2. IDLH = Immediately Dangerous to Life and Health

### 3.3 Physical Hazards -Soil Sampling and Excavation

#### 3.3.1 Hazard Identification and Prevention

- Safety related work practices would be used to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts. Overhead power lines, buried cables and electrical equipment used on site all pose a danger of shock or electrocution if workers contact or sever them during field operations.
- New York State law requires that a utility mark out to be performed at a site at least 72 hours prior to starting any subsurface work. The tank removal contractor will contact New York City One Call (1-800-272-4480) to request a mark out of underground utilities in the proposed excavation and drilling areas. Work will not begin until the required utility clearances have been completed.
- Public utilities typically do not mark-out utility lines that are located on private property. Therefore, JRH will exercise due diligence and try to identify the location of any private utilities at the site. A private utility contractor will clear on-site subsurface disturbance locations for utilities prior to the commencement of any such work. JRH will also use as-built drawings for the area being investigated, perform a line locating survey, and identify a no-dig/drill zone and hand dig if there is insufficient data to determine the location of utility lines.
- Care must be taken to ensure loose clothing does not get tangled in any moving equipment while borings are being drilled.
- There may be slip or trip hazards associated with rough, slippery or elevated work surfaces at the site. The sampling sites could contain a number of slip, trip and fall

hazards for site workers, such as: holes, pits, or ditches; excavation faces and slippery surfaces (steep grades, uneven grades, snow and ice and sharp objects).

- Drilling or excavating is dangerous during electrical storms. All field activity must terminate when thunderstorms are evident. Extreme heat and cold, ice and heavy rain can produce unsafe conditions for drilling work. Such conditions, when present, will be evaluated on a case-by-case basis to determine if work shall terminate.
- The use of an excavator and other equipment that are gasoline or fuel powered presents the possibility of encountering fire and explosion hazards.
- Plants and animals that are known to be hazardous to humans may affect work that takes place. Spiders, bees, wasps, hornets, ticks, poison oak and poison ivy are only some of the hazards that may be encountered. Individuals who may potentially be exposed to these hazards should be made aware of their existence and instructed in their identification. Emergencies resulting from contact with a natural hazard should be handled through the normal medical emergency channels. Individuals who are sensitive to these types of "natural" hazards should indicate their susceptibility to the SHSO.
- Work on-site will involve the use of heavy construction equipment such as an excavator. The unprotected exposure of site workers to this noise during field activities can result in noise induced hearing loss. The SHSO will monitor the noise exposure for the initial trip and determine whether noise protection is warranted for each of the team members. The SHSO will ensure that either ear muffs or disposable foam earplugs are made available to all personnel and are used by the personnel in the immediate vicinity of the field operation as required.

### **3.4 Chemical Hazards**

#### **3.4.1 General Description**

There is potential low-level VOC and SVOC contamination because the site was formerly occupied by an auto repair shop. The current building was constructed in 1945 and has been used for auto parts sales and service. The building is being renovated and a small cellar will be added during the renovation.

Potential chemical hazards below the building slab are evaluated below. It is anticipated that petroleum compounds and dust could be of concern. The potential for exposure to vapors, contaminated dusts, and contaminated soil/groundwater is of utmost concern.

### 3.4.2 Potential Chemical Health Hazards

#### *Benzene*

Exposure to benzene above the Permissible Exposure Limit (PEL) may produce skin irritation with potential for redness, blistering and burning. Overexposure may also result in irritation of the mucous membranes for the upper respiratory tract, nose and mouth causing difficulty breathing and possible pulmonary edema. Symptoms of exposure include headache, confusion, dizziness and tightening of the leg muscles. The OSHA PEL for benzene is 1 ppm. The American Conference of Governmental Industrial Hygienists recommends a Threshold Limit Value (TLV) of 0.5 ppm for benzene based on classification as a confirmed human carcinogen.

#### *Toluene*

Exposure to the vapors of toluene above the Permissible Exposure Limit (PEL) may produce irritation of the mucous membranes of the upper respiratory tract, nose and mouth. Overexposure may also result in depression of the central nervous system. Symptoms of such exposure include drowsiness, headache, fatigue and intoxicated behavior. The PEL for toluene is 200 ppm. The American Conference of Governmental Industrial Hygienists (ACGIH) recommends a Threshold Limit Value (TLV) of 50 ppm for toluene due to effects on the central nervous system.

#### *Xylene*

Xylene is a flammable, colorless liquid with an OSHA PEL of 100 ppm. Inhalation of xylene vapors above the PEL may result in motor activity changes, headaches, dizziness, drowsiness and intoxicated behavior. Inhalation can also cause nose, throat and respiratory tract irritation, causing difficulty in breathing and possible pulmonary edema on high exposure. Xylene vapors are also irritating to the eye and potential redness, blistering and serious burning of the skin. Xylene can pass through intact skin to cause systemic effects, including narcosis. The ACGIH recommends a TLV of 100 ppm for xylene due to irritant effects.

#### *Methyl Tertiary-Butyl Ether (MTBE)*

Methyl tertiary-butyl ether is a chemical compound that is manufactured by the chemical reaction of methanol and isobutylene. MTBE is almost exclusively used as a fuel additive in motor gasoline. It is one of a group of chemicals commonly known as "oxygenates" because they raise the oxygen content of gasoline. At room temperature, MTBE is a volatile, flammable and colorless liquid that dissolves rather easily in water.

The majority of the human health-related research conducted to date on MTBE has focused on effects associated with the inhalation of the chemical. When research animals inhaled high concentrations of MTBE, some developed cancers or experienced other non-cancerous health effects. OSHA has not established a PEL or MTBE. The ACGIH has established a TLV of 50 ppm based on its effects on the kidney and reproductive system and gives it an A3 carcinogenicity rating. This means that it is a known animal carcinogen with unknown significance to humans.

### **Lead**

The effects of lead exposure are long-term in nature. Early signs of lead poisoning include fatigue, headache, uneasy stomach, metallic taste and irritability. Later signs include memory loss, nausea, muscle/joint pains, stomachaches, weight loss and kidney problems.

Lead dust can be inhaled. Particles of lead can be swallowed if lead gets on clothing, hands or beard or into food or drinks. There will be no eating, drinking or smoking in the work area (the tunnels and access rooms). It will also be important to wash your hands and face before eating, drinking, or smoking outside of the work area.

### **PCBs**

Polychlorinated biphenyls are mixtures of up to 209 individual chlorinated compounds (known as congeners). There are no known natural sources of PCBs. PCBs are either oily liquids or solids that are colorless to light yellow. Some PCBs can exist as a vapor in air. PCBs have no known smell or taste. Many commercial PCB mixtures are known in the U.S. by the trade name Aroclor. Exposure to PCBs causes eye irritation, chloracne and liver toxicity. Arochlor 1254 is a known animal carcinogen that may or may not cause cancer in humans. PCBs are readily absorbed through the skin. The OSHA PEL ranges from 0.5-1 mg/m<sup>3</sup>. The ACGIH has also set TLVs between 0.5-1 mg/m<sup>3</sup> based on its irritant effects and its ability to cause chloracne and liver damage.

### **Polycyclic Aromatic Hydrocarbons (PAHS or SVOCs)-**

PAHs are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances such as tobacco or charbroiled meat. PAHs are regulated based on effects of respiratory tract and skin irritation as well as eye irritation and nervous system disturbances. Acute exposures cause difficulty in breathing, skin/eye irritation and burns.

The Occupational Safety and Health Administration (OSHA) have set a limit of 0.2 milligrams of PAHs per cubic meter of air (0.2 mg/m<sup>3</sup>). The OSHA

Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is 5 mg/m<sup>3</sup> averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed 0.1 mg/m<sup>3</sup> for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

### **Pesticides**

A pesticide is a substance or mixture of substances intended to prevent, destroy, repel or mitigate any pest. The health effects of pesticides depend on the type of pesticide. Some such as organophosphates and carbamates, affect the nervous system. Others may irritate the skin or eyes. Other may affect the hormone or endocrine system in the body. EPA human health risk assessments for many pesticides are available at <http://cfpub.epa.gov/oppref/rereg/status.cfm>.

### **Arsenic**

Arsenic is a naturally occurring element combined with oxygen, chlorine and sulfur to form inorganic arsenic compounds. Overexposure to arsenic may cause vomiting, ulceration of the nasal septum, hoarse voice, sore throat, numbness in extremities, respiratory irritation, and skin/eye irritation. The EPA has set limits on the amount of arsenic that industrial sources can release to the environment and has restricted or cancelled many of the uses of arsenic in pesticides. EPA has set a limit of 0.01 parts per million (ppm) for arsenic in drinking water.

The Occupational Safety and Health Administration (OSHA) have set a permissible exposure limit (PEL) of 10 micrograms of arsenic per cubic meter of workplace air (10 µg/m<sup>3</sup>) for 8 hour shifts and 40 hour work weeks.

### **Mercury**

Mercury occurs naturally in the environment and exists in several forms. Overexposure may cause headache, drowsiness or insomnia, weakness, and pink skin on hands and feet. OSHA regulates levels of mercury in the workplace. It has set limits of 0.1 milligrams of mercury per cubic meter of air (mg/m<sup>3</sup>) for organic mercury and 0.05 mg/m<sup>3</sup> for metallic mercury vapor in workplace air to protect workers during an 8-hour shift and a 40-hour workweek. NIOSH recommends that the amount of metallic mercury vapor in workplace air be limited to an average level of 0.05 mg/m<sup>3</sup> during a 10-hour work shift.

### **3.4.3 First Aid**

If soil comes in contact with the eyes immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Contact lenses

*224-01 Merrick Blvd.  
Queens, NY 11413  
OER # 12EH-N378Q*

should not be worn but can be protected by safety glasses/goggles. If lead contaminated soil comes in contact with the skin, wash the skin with soap and water prior to leaving the site. If a person breathes in large amounts of dust, move the exposed person to fresh air at once. If contaminated soil has been swallowed, get medical attention immediately (NIOSH, 1987).

#### **4.0 PERSONNEL TRAINING REQUIREMENTS**

Consistent with OSHA 29 CFR 1910.120 regulation covering Hazardous Waste Operations and Emergency Response, all site personnel are required to be trained in accordance with the standard. At a minimum, all personnel are required to be trained to recognize the hazards on-site, the provisions of this HASP, and the responsible personnel. The SHSO at the site pre-entry briefing(s) or periodic site briefings will discuss this plan.

## 5.0 PERSONNEL PROTECTIVE EQUIPMENT TO BE USED

This section describes the general requirements of the EPA designated Levels of Protection (A through D), and the specific levels of protection required for each task at the Site.

### 5.1 Levels of Protection

Personnel will wear the appropriate protective equipment when response activities involve known or suspected atmospheric contamination, vapors, gases, or particulates may be generated by site activities, or when direct contact with skin-affecting substances may occur. Full facepiece respirators protect lungs, gastrointestinal tract, and eyes against airborne toxicants. Chemical-resistant clothing protects the skin from contact with skin-destructive and absorbable chemicals.

The specific levels of protection and necessary components for each have been divided into four categories according to the degrees of protection afforded:

- Level A: Should be worn when the highest level of respiratory, skin, and eye protection is needed.
- Level B: Should be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection. Level B is the primary level of choice when encountering unknown environments.
- Level C: Should be worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is needed.
- Level D: Should be worn only as a work uniform and not in any area with respiratory or skin hazards. It provides minimal protection against chemical hazards.

Modifications of these levels are permitted, and routinely employed during site work activities to maximize efficiency. For example, Level C respiratory protection and Level D skin protection may be required for a given task. Likewise the type of chemical protective ensemble (i.e., material, format) will depend upon contaminants and degrees of contact.

The Level of Protection selected is based upon the following:

- Type and measured concentration of the chemical substance in the ambient atmosphere and its toxicity.
- Potential for exposure to substances in air, liquids, or other direct contact with material due to work being done.
- Knowledge of chemicals on-site along with properties such as toxicity, route of exposure, and contaminant matrix.

In situations where the type of chemical, concentration, and possibilities of contact are not known, the appropriate Level of Protection must be selected based on professional experience and judgment until the hazards can be better identified.

## 5.2 Level D Personnel Protective Equipment:

- Disposable Tyvek<sup>R</sup> coveralls (as needed)
- Disposable Nitrile Exam gloves (as needed)
- Disposable Tyvek<sup>R</sup> booties (as needed)
- Steel-tipped work boots
- Safety glasses
- Hard hat
- 3M N95 Dust Masks with Exhalation Valves (if needed)

## 5.3 Reassessment of Protection Program

The Level of Protection provided by PPE selection shall be upgraded or downgraded based upon changes in site conditions or investigation findings. When a significant change occurs, the hazards should be reassessed. Some indicators of the need for reassessment are:

- Commencement of a new work phase.
- Change in job tasks during a work phase.
- Change of season/weather
- When temperature extremes or individual medical considerations limit the effectiveness of PPE.
- Change in work scope, which affects the degree of contact with contaminants.

## 5.4 Work Mission Duration

Before the workers actually begin work in their PPE ensembles, the anticipated duration of the work mission will be established. Several factors limit mission length, including:

- Air supply consumption (SCBA use)-**Not Applicable.**
- Suit/Ensemble permeation and penetration rates for chemicals-**Not Applicable.**
- Ambient temperature and weather conditions (heat stress/cold stress).
- Capacity of personnel to work in PPE.

## 5.5 Personal Protective Equipment Recommended for Site

The following specific clothing materials are recommended for the site:

### A. Soil Sampling – Level D

Site activities will require PPE as follows: hardhat, disposable Tyvek<sup>R</sup> coveralls (if needed), disposable Tyvek<sup>R</sup> booties (if needed), safety glasses and chemical resistant gloves. Particulate respirator-3M N95 Dust Masks with exhalation valves will be available.

## 5.6 SOP for Personal Protective Equipment

Proper inspection of PPE features several sequences of inspection depending upon specific articles of PPE and it's frequency of use. The different levels of inspection are as follows:

- Inspection and operation testing of equipment received from the factory or distributor.
- Inspection of equipment as it is issued to workers.
- Inspection after use or training and prior to maintenance.
- Periodic inspection of stored equipment.
- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise.
- The primary inspection of the PPE in use for activities at the Site will occur prior to immediate use and will be conducted by the user. This ensures that the specific device or article has been checked-out by the user and that the user is familiar with its use.

**TABLE 5.1**  
**SAMPLE PPE INSPECTION CHECKLIST**

### CLOTHING

Before use:

- Determine that the clothing material is correct for the specified task at hand.
- Visually inspect for:
  - Imperfect seams
  - Non-uniform coatings
  - Tears
  - Malfunctioning closures
- Hold up to light and check for pinholes.
- Flex product:
  - Observe for cracks
  - Observe for other signs of shelf deterioration
- If the product has been used previously, inspect inside and out for signs of chemical attack:
  - Discoloration
  - Swelling
  - Stiffness

During the work task:

- Evidence of chemical attack such as discoloration, swelling, stiffening, and softening. Keep in mind, however, that chemical permeation can occur without any visible effects.
- Closure failure.
- Tears.
- Punctures.
- Seam Discontinuities.

### **GLOVES**

Before use:

- Visually inspect for:
  - Imperfect seams
  - Tears
  - Non-uniform coating
  - Pressurize glove with air; listen for pinhole leaks.

## **5.7 Specific Levels of Protection Planned for the Site**

The following levels of protection will be utilized during activities at the Site:

- Level D

## 6.0 FREQUENCY AND TYPES OF AIR MONITORING/SAMPLING

This section explains the general concepts of an air-monitoring program and specifies the surveillance activities that will take place during project completion at the Site.

The purpose of air monitoring is to identify and quantify airborne contaminants in order to verify and determine the level of worker protection needed. Initial screening for identification is often qualitative, i.e., the contaminant, or the class to which it belongs, is demonstrated to be present, but the determination of its concentration (quantification) must await subsequent testing. Two principal approaches are available for identifying and/or quantifying airborne contaminants:

- The on-site use of direct-reading instruments.
- Laboratory analysis of air samples obtained by a gas-sampling bag, collection media (i.e., filter, sorbent) and/or wet-contaminant collection methods.

### 6.1 Direct-Reading Monitoring Instruments

Unlike air sampling devices, which are used to collect samples for subsequent analysis in a laboratory, direct-reading instruments provide information at the time of sampling, enabling rapid decision-making. Data obtained from the real-time monitors are used to assure proper selection of personnel protection equipment, engineering controls, and work practices. Overall, the instruments provide the user the capability to determine if site personnel are being exposed to concentrations that exceed exposure limits or action levels for specific hazardous materials.

Of significant importance, especially during initial entries, is the potential for IDLH conditions or oxygen deficient atmospheres. Real-time monitors can be useful in identifying any IDLH conditions, toxic levels of airborne contaminants, flammable atmospheres, or radioactive hazards. Periodic monitoring of conditions is critical, especially, as exposures may have increased since initial monitoring or if new site activities have commenced.

### 6.2 Site Air Monitoring and Sampling Program

#### A. Air Monitoring Instruments

- **Organic Vapor Monitoring**

Instrument :Photoionization Detector (PID) with for use during all intrusive activities (10.6 Ev lamp).

Instrument: Detector Tubes – for measuring benzene and vinyl chloride concentrations.

Monitoring for organic vapors will be conducted in the breathing zone of employees using a PID during intrusive activities. Refer to Table 6.1 for total volatile organic vapor and benzene action levels.

• **Combustible Gas Monitoring**

Instrument: Combustible Gas Indicator (CGI)/ Oxygen Meter

Continuous air monitoring with a CGI/Oxygen meter will be conducted in areas where flammable vapors or gases are suspected. All work activities must stop where the monitor indicates the concentration of flammable vapors exceeds ten percent of the lower flammable limit (LEL) at a location with a potential ignition source. The area must be ventilated to reduce the concentration to below ten percent of the LEL.

• **Dust Monitoring**

Instrument: TSI DustTrak Model 8520 (or equivalent)

Continuous dust monitoring during all site activities will be conducted. Dust mitigation must be employed should readings exceed 10 mg/m<sup>3</sup>.

• **Calibration and Record keeping**

Equipment used will be calibrated in accordance with the manufacturers' specifications. The PID and CGI will be calibration checked before and after use under approximately the same conditions at which the instrument will be used. Calibration information will be kept in the field notebook or instrument log. The date, time, location, instrument serial number, calibration gas and concentration, will be noted.

**B. Action Levels**

TABLE 6.1		
SITE AIR MONITORING AND SAMPLING PROGRAM SUMMARY		
Instrument	Action Level	Action
PID (10.6 ev)	<u>Continuous</u> readings to 9ppm	Remain in level D PPE.
PID	<u>Continuous</u> reading of 10 to 100 ppm above background	Level D PPE but screen with Drager detection tube for benzene. If benzene detected >1 ppm upgrade to Level C and wear an organic vapor (OV) cartridge/air-purifying respirator (APR). Investigate source.
PID	<u>Continuous</u> reading over 100 ppm background	<u>Stop Work.</u> Reevaluate work conditions and procedures, Contact SHSO prior to continuing for authorization.
Drager Tubes:	1- 10 ppm	Upgrade PPE to level C with OV/APR.

Benzene		
Drager Tubes: Benzene	>10 ppm	<u>Stop Work</u> . Reevaluate work conditions and procedures. Contact SHSO prior to continuing for authorization.
Combustible Gas Indicator	<u>Continuous reading</u> of 0% to 1% lower explosive level (LEL).	Remain in level D PPE. If no benzene present, assume source is methane. Continuously monitoring LEL.
Combustible Gas Indicator	<u>Continuous</u> reading of 1% to 10% LEL	Level D unless benzene is present. Investigate source and ventilate, if possible. SHSO may require upgrade to Level C PPE.
Combustible Gas Indicator	<u>Continuous</u> reading > 10% LEL	<u>Stop Work</u> . Evacuate work area and ventilate source of combustible gas, if possible, Contact SHSO prior to continuing for authorization.
Dust Monitor	<u>Continuous</u> reading >10.0 mg/m <sup>3</sup>	Suppress by spraying the dusty area with water.

Notes: PEL = Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit  
 REL = National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limit  
 TLV = American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value

**C. Reporting Format**

- Air Monitoring Log

**6.3 Site Ambient Air Sampling**

**A. Sampling Criteria**

A site ambient air sampling program will be considered if the following criteria are met:

1. Meteorological conditions
2. Health and safety observations
3. Particulate levels are two to three times above background.
4. Site specific activities
5. Site activity increases airborne contaminant(s) exposure potential.

## 7.0 SITE CONTROL MEASURES

The following section defines measures and procedures for maintaining site control. Site control is an essential component in the implementation of the site health and safety program.

### 7.1 Buddy System

During all Level B, C or D activities or when some conditions present a risk to personnel, the implementation of a buddy system is recommended if not mandatory. A buddy system requires at least two (2) people to work as a team, each looking out for each other. Table 8.1 lists those tasks, which require a buddy system and any additional site control requirements.

TABLE 7.1	
PERSONNEL REQUIREMENTS	
Task	Control Measures
Soil Sampling	Line of sight, buddy system

### 7.2 Site Communications Plan

Successful communications between field teams and personnel in the support zone is essential. The following communications systems will be available during activities at the Site.

- Hand Signals
- Direct Vocal Communication
- For hand signal communications, the following definitions will apply during activities at the Site:

TABLE 7.2	
HAND SIGNAL DEFINITIONS	
Signal	Definition
Hands clutching throat	Out of air/cannot breath
Hands on top of head	Need assistance
Thumbs up	OK/I am all right/I understand
Thumbs down	No/Negative
Arms waving upright	Send backup support
Grip partners wrist	Exit area immediately

### 7.3 Work Zone Definition

The three general work zones established at the Site are the Exclusion Zone, Contamination Reduction Zone, and Support Zone. One of the basic elements of effective site soil remediation activities is the delineation of work zones. The purpose of establishing work zones is to:

- Reduce the accidental spread of hazardous substances by workers or equipment from the contaminated areas to the clean areas;
- Confine work activities to the appropriate areas, thereby minimizing the likelihood of accidental exposures;
- Facilitate the location and evacuation of personnel in case of an emergency; and
- Prevent unauthorized personnel from entering controlled areas.

Although a site may be divided into as many zones as necessary to ensure minimal employee exposure to hazardous substances, this plan uses the three most frequently identified zones in similar projects. These zones are the Exclusion Zone, the Decontamination Zone, and the Support Zone (sometimes referred to by others as the “clean zone”). Movement of personnel and equipment between these zones should be minimized and restricted to specific access control points to minimize the spreading of contamination, if encountered.

### **7.3.1 Exclusion Zone**

The Exclusion Zone is the area where contamination is either known or expected to occur and where the greatest potential for exposure exists. No contamination is actually known to exist on this site. Therefore, the following protective measures will be taken in the Exclusion Zone.

Unprotected onlookers will be restricted from suspicious pre-screened soils requiring sampling such that they are 25 feet upwind or 50 feet downwind of excavation or drilling activities.

Those conducting activities and sampling in the Exclusion Zone will wear the applicable Personal Protective Equipment (PPE). The actions to be taken and PPE to be worn in the Exclusion Zone if VOCs are determined with the PID to be above background are described in Section 6 and Table 6.1.

### **7.3.2 Decontamination Zone**

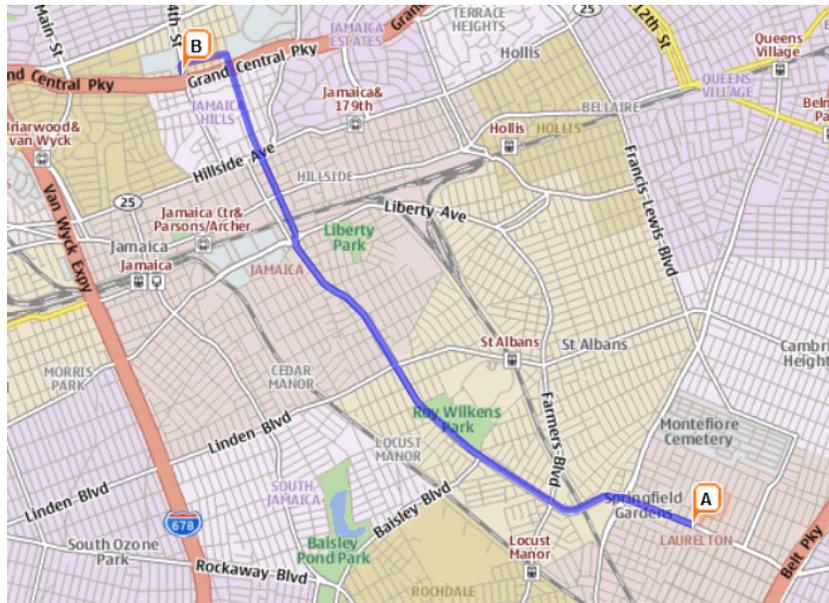
A Decontamination Zone will be established between the Exclusion Zone and the Support Zone, and will include the personnel, equipment and supplies that are needed to decontaminate equipment and personnel. The size will be selected by the SHSO to be sufficient to conduct the necessary decontamination activities. Personnel and equipment in the Exclusion Zone must pass through this zone before leaving or entering the Support Zone. This zone should always be established and maintained upwind of the Exclusion Zone.

### **7.3.3 Support Zone**

The Support Zone will surround the Decontamination Zone and the Exclusion Zone. Break areas, operational direction and support facilities will be located in this area. Eating, smoking and drinking will be allowed only in this area.

### **7.4 Nearest Medical Assistance**

Figure 7.1 shows a map of the route to the Flushing Hospital Medical Center (718-670-5000), which is the nearest hospital that can provide emergency care for individuals who may experience an injury or exposure on site. The route to the hospital will be verified by the SHSO, and will be familiar to all site personnel.



**FIGURE 7.1**

**Directions**

**Distance**

**224-01 Merrick Blvd, Queens, NY 11413**

1. Head toward 224th St on Merrick Blvd. Go for 3.1 mi/5.0 km.
2. Bear **L** onto 168th St. Go for 1.2 mi/1.9 km.
3. Turn **L** onto 82nd Rd. Go for 0.3 mi/442 m.
4. Turn **L** onto 164th St. Go for 216 ft/66 m.
5. Your destination on 164th St is on the right. The trip takes 4.6 mi/7.5 km and 18 mins.

**82-68 164th St, Jamaica, NY 11432**

**Total Est. Time: 18 mins, Distance: 4.3 miles**

**Start:**

**Start at 224-01 MERRICK BLVD, QUEENS New York**

**End:**

**QUEENS HOSPITAL CENTER  
(718) 883-3000  
82-68 164th Street, NY 11432**

## 7.5 Safe Work Practices

Table 7.3 provides a list of standing orders for the Exclusion Zone.

Table 7.4 provides a list of standing orders for the Decontamination Zone.

## 7.6 Emergency Alarm Procedures

The warning signals described in Section 9.4 “Evacuation Routes and Procedures,” will be deployed in the event of an emergency. Communication signals will also be used according to Section 7.2.

**TABLE 7.3  
STANDING ORDERS FOR EXCLUSION ZONE**

- No smoking, eating, or drinking in this zone.
- No horseplay.
- No matches or lighters in this zone.
- Check-in on entrance to this zone.
- Check-out on exit from this zone.
- Implement the communications system.
- Line of sight must be in position.
- Wear the appropriate level of protection as defined in the HASP.

**TABLE 7.4  
STANDING ORDERS FOR CONTAMINATION REDUCTION ZONE**

- No smoking, eating, or drinking in this zone.
- No horseplay.
- No matches or lighters in this zone.
- Wear the appropriate level of protection.

## 8.0 DECONTAMINATION PLAN

Consistent with the levels of protection required, the decontamination table(s) provides a step-by-step representation of the personnel decontamination process. These procedures should be modified to suit site conditions and protective ensembles in use.

### 8.1 Standard Operating Procedures

Decontamination involves the orderly controlled removal of contaminants. Standard decontamination sequences are presented in Table 8.1. All site personnel should minimize contact with contaminants in order to minimize the need for extensive decontamination. Personnel shall clean on-site as much gross contamination from clothing and equipment, as possible.

### 8.2 Levels of Decontamination Protection Required for Personnel

The levels of protection required for personnel assisting with decontamination will be Level D. The SHSO is responsible for monitoring decontamination procedures and determining their effectiveness.

### 8.3 Equipment Decontamination

Sampling equipment will be dedicated to each sample as practicable. Appendix A is the decontamination protocol for equipment. After on-site decontamination, non-disposable materials, such as gloves and booties, will be placed in plastic bags and for proper disposal off site.

### 8.4 Disposition of Decontamination Wastes

Contaminated disposable materials will be left in a secured condition on-site.

TABLE 8.1	
LEVEL D DECONTAMINATION STEPS	
Step 1	Remove outer garments (i.e., coveralls) and boots
Step 2	Remove gloves
Step 3	Wash hands and face

## 9.0 EMERGENCY RESPONSE/CONTINGENCY PLAN

This section describes contingencies and emergency planning procedures to be implemented at the Site. This plan is compatible with local, state and federal disaster and emergency management plans, as appropriate.

### 9.1 Pre-Emergency Planning

During the site briefing held periodically/daily, all employees will be trained in and reminded of provisions of the emergency response plan, communication systems, and evacuation routes. Table 9.1 identifies potential hazards associated with site activities, along with the available emergency prevention/control equipment and its location. The plan will be reviewed and revised, if necessary, on a regular basis by the SHSO. This will ensure that the plan is adequate and consistent with prevailing site conditions.

TABLE 9.1		
EMERGENCY RECOGNITION/CONTROL MEASURES		
HAZARD	PREVENTION/CONTROL	LOCATION
Fire/Explosion	Fire Extinguisher	Site Trailer and Heavy Equipmt. mounted
Spill	Sorbent Materials	Not Applicable
Air Release	Evacuation Routes	Not Applicable

### 9.2 Personnel Roles and Lines of Authority

The Site Supervisor has primary responsibility for responding to and correcting emergency situations. This includes taking appropriate measures to ensure the safety of site personnel and the public. Possible actions may involve evacuation of personnel from the site area, and evacuation of adjacent residents. He/she is additionally responsible for ensuring that corrective measures have been implemented, appropriate authorities notified and follow-up reports completed. The SHSO may be called upon to act on the behalf of the site supervisor, and will direct responses to any medical emergency. The individual contractor organizations are responsible for assisting the project manager in his/her mission within the parameters of their scope of work.

The Site Supervisor is: Heather Sonnenberg of JRH.

### 9.3 Emergency Recognition/Prevention

Table 3.1 provides a listing of chemical and physical hazards on-site. Additional potential hazards associated with site activities are listed in Table 9.1, along with the available emergency prevention/control equipment and its location. Personnel will be familiar with techniques of hazard recognition from preassignment training and site-

specific briefings. The SHSO is responsible for ensuring that prevention devices and equipment are available to personnel.

#### 9.4 Evacuation Routes/Procedures

In the event of an emergency which necessitates an evacuation of the site, the following alarm procedures will be implemented:

- Insure that a predetermined location is identified off-site in case of an emergency, so that all personnel can be accounted for.
- Personnel will be expected to proceed to the closest site exit with their buddy, and mobilize to the safe distance area associated with the evacuation route. Personnel will remain at that area until the re-entry alarm is sounded or an authorized individual provides further instructions.

#### 9.5 Emergency Contact/Notification System

The following list provides names and telephone numbers for emergency contact personnel. In the event of a medical emergency, personnel will take direction from the SHSO and notify the appropriate emergency organization(s). In the event of a fire or spill, the site supervisor will notify the appropriate local, state and federal agencies.

TABLE 9.2		
List of Emergency Contacts		
Organization	Contact	Telephone
Police	NYCPD	911
Fire	NYCFD	911
Hospital	Flushing Hospital Medical Ctr.	718-670-5000
EPA Emergency Response Team		800-424-8802
NYSDEC	Spill Hotline	800-457-7362
National Response Center		800-424-8802
Center for Disease Control		404-488-4100
Chemtrec		800-424-9555

#### 9.6 Emergency Medical Treatment Procedures

Any person who becomes ill or injured in the Exclusion Zone must be decontaminated to the maximum extent possible. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket.) First aid should be administered while awaiting an ambulance or paramedics. All injuries and illnesses must immediately be reported to the Site Supervisor.

Any person being transported to a clinic or hospital for treatment should take with them information on the chemical(s) they have been exposed to at the site. This information is included in Table 3.1.

Any vehicle used to transport contaminated personnel will be treated and cleaned as necessary.

## 9.7 Fires or Explosion

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival, the project manager or designated alternate will advise the fire commander of the location, nature, and identification of the hazardous materials on site.

If it is safe to do so, site personnel may:

- Use fire fighting equipment available on site to control or extinguish the fire; and,
- Remove or isolate flammable or other hazardous materials, which may contribute to the fire.

## 9.8 Spill or Leaks

In the event of a spill or a leak from excavation or drilling equipment, including containers, site personnel will:

- Inform their supervisor immediately;
- Locate the source of the spillage and stop the flow if it can be done safely; and,
- Begin containment and recovery of the spilled materials.

## 9.9 Emergency Equipment/Facilities

The following emergency equipment/facilities will be utilized on-site.

<b>List of Emergency Equipment/Facilities</b>	<b>Storage Location</b>
First Aid Kit	Support Zone
Fire Extinguisher	Support Zone
Spill Kits	Support Zone
Berm Materials	Support Zone
Eye Wash	Support Zone
Real Time Air Equipment	Exclusion Zone

## 10.0 REFERENCES

1. *Aldrich Chemical Book*, RTECS
2. *American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values*
3. *Chemical Protective Clothing Performance Index Book*, Forsburg
4. *Dangerous Properties of Industrial Materials*, SAX and Lewis
5. *Emergency Response Guide Book*, DOT P 5800.5, 1990
6. *EPA 40 CFR 311 Health and Safety Regulations*
7. *EPA/Office of Emergency and Remedial Response/Environmental Response Team Standard Operating Safety Guide*
8. *Extremely Hazardous Substances*, EPA, Noyes
9. *Guide to Occupational Exposure Values – 1992*
10. *Guidelines for the Selection of Chemical Protective Clothing*, Little
11. *Handbook of Toxic and Hazardous Chemicals and Carcinogens*, Sittig, np (Noyes)
12. *Hazardous Chemicals Data Book*, G. Weiss, ndc (Noyes)
13. *Hazardous Chemicals Desk Reference*
14. *NIOSH/OSHA/USCG/EPA Occupational Health and Safety Guidelines*
15. *OHMTADS Database*
16. *OSHA 29 CFR 1910.120 Health and Safety Regulations*
17. *The Merck Index, an Encyclopedia of Chemicals, Drugs, and Biologicals*, Merck & Co., Inc.
18. *Threshold Limit Values and Biological Exposure Indices*, ACGIH, 1991-1992
19. *V.S.L.G. Chris Man*

*224-01 Merrick Blvd.  
Queens, NY 11413  
OER # 12EH-N378Q*

**APPENDIX A**

**EQUIPMENT CLEANING AND  
DECONTAMINATION PROCEDURES**

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## APPENDIX A

### STANDARD OPERATING PROCEDURES

#### EQUIPMENT CLEANING AND DECONTAMINATION PROCEDURES

##### Summary

Equipment, tools, materials, etc. used in the excavation/remediation and collection of samples at the site must be properly prepared and cleaned/decontaminated during and after each sampling event. The degree of cleaning/decontamination will be dependent upon site conditions and the nature and type of contamination, if present, the intent and goal(s) of the remediation, and data quality objectives, as well as other site-specific requirements. The importance of this action must be impressed upon the sampling team and those assisting the team, such as a backhoe or drill rig operator.

##### Procedure

#### 1. Heavy Equipment Decontamination

All equipment, tools and materials associated with sampling events must be cleaned or decontaminated prior to usage. Items such as drill rigs, auger flights, trackhoes, and backhoes all present potential sources of contamination to environmental samples. Therefore, all heavy equipment utilized at a site must undergo the following decontamination procedures:

- the equipment will first be high pressure, hot washed or steam-cleaned with potable water; and,
- the equipment will be rinsed thoroughly with potable water.

Contain, collect and dispose of all decontamination fluids in accordance with site/project-specific requirements. The bucket of trackhoes and backhoes may be cleaned over the excavation allowing high pressure decontamination washwater to return to the excavation.

#### 2. Cleaning of Field Sampling Equipment

All equipment and tools used to collect samples for chemical analyses, including spatulas, spoons, scoops, trowels, split-spoons, augers, etc. will be decontaminated using the following procedures:

- non-phosphate detergent wash;
- potable water or distilled/deionized water rinse; and
- air or oven-dry.

If the equipment, listed above, is to be stored for future use, allow to dry and then wrap in aluminum foil (shiny-side out) or seal in plastic bags. Collect or dispose of all decontamination fluids in accordance with site/project-specific requirements.

### **3. Personal Clothing Decontamination**

All footwear worn in and around a contamination area will be washed down using soap and water to remove any soil or oily residue remnants. If disposable gloves, booties or suits (such as Tyvek® suits) are worn, these suits or booties are to be removed and disposed of in a designated 55-gallon drum on site for future disposal. Any other clothing that comes in contact with contaminated soil should not be worn more than 24-hours and should be washed prior to wearing again.

## **APPENDIX B**

### **MSDSs**



# MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards

## **PART I** *What is the material and what do I need to know in an emergency?*

### 1. PRODUCT IDENTIFICATION

<u>TRADE NAME (AS LABELED):</u>	<b>MERCURY</b>
<u>CHEMICAL NAME/CLASS:</u>	Mercury; Element
<u>SYNONYMS:</u>	Colloidal Mercury, Quick Silver; Liquid Silver; NCI-C60399; Hydrargyrum
<u>PRODUCT USE:</u>	Variety of industrial, analytical, and research applications.
<u>SUPPLIER/MANUFACTURER'S NAME:</u>	<b>BETHLEHEM APPARATUS COMPANY</b>
<u>ADDRESS:</u>	890 Front Street Hellertown, PA 18055
<u>EMERGENCY PHONE:</u>	610-838-7034
<u>BUSINESS PHONE:</u>	610-838-7034
<u>DATE OF PREPARATION:</u>	May 20, 1997
<u>DATE OF REVISION:</u>	May 2, 2000

### 2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	%w/w	EXPOSURE LIMITS IN AIR					
			ACGIH-TLV		OSHA-PEL		IDLH mg/m <sup>3</sup>	OTHER mg/m <sup>3</sup>
			TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>	TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>		
Mercury Exposure limits are for Mercury, Inorganic Compounds	7439-97-6	100	0.025, (skin) A4 (Not Classifiable as a Human Carcinogen)	NE	Mercury Vapor: 0.5, Skin; (Vacated 1989 PEL)	0.1 (ceiling) Non-alkyl Mercury Compounds: 0.1 Ceiling, skin (Vacated 1989 PEL)	10	NIOSH REL: STEL = 0.1 (ceiling, skin) DFG MAKs: TWA = 0.1 PEAK = 10•MAK 30 min., momentary value Carcinogen: EPA-D; IARC-3, TLV-A4

NE = Not Established.

See Section 16 for Definitions of Terms Used.

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-1998 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

### 3. HAZARD IDENTIFICATION

**EMERGENCY OVERVIEW:** Mercury is a silver-white, odorless, heavy liquid. Mercury is highly toxic, irritating, and causes sensitization and neurological symptoms. The primary health hazard associated with overexposure to this product is the potential for irritation of skin, eyes, or other contaminated tissues. Mercury causes severe, adverse health effects after chronic exposure to low vapor levels; emergency response efforts must be directed to removal of all traces of this product. Mercury is not flammable, and is relatively stable (though it can react with many metals to form amalgams). Emergency responders must wear the personal protective equipment suitable for the situation to which they are responding.

**SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE:** The most significant routes of occupational over-exposure are inhalation and contact with skin and eyes. The symptoms of over-exposure to Mercury, via route of exposure, are as follows:

**INHALATION:** Long-term exposures to Mercury vapors present a severe health hazard. When inhaled, Mercury will be rapidly distributed throughout the body. During this time, Mercury will cross the blood-brain barrier, and become oxidized to the Hg(II) oxidation state. The oxidized species of Mercury cannot cross the blood-brain barrier and thus accumulates in the brain. Mercury in other organs is removed slowly from the body via the kidneys. The average half-time for clearance of Mercury for different parts of the human body is as follows: lung: 1.7 days; head: 21 days; kidney region: 64 days; chest: 43 days; whole body: 58 days.

Long-term inhalation over-exposures can lead to the development of a wide variety of symptoms, including the following: excessive salivation, gingivitis, anorexia, chills, fever, cardiac abnormalities, anemia, digestive problems, abdominal pains, frequent urination, an inability to urinate, diarrhea, peripheral neuropathy (numbness, weakness, or burning sensations in the hands or feet), tremors (especially in the hands, fingers, eyelids, lips, cheeks, tongue, or legs), alteration of tendon reflexes, slurred speech, visual disturbances, and deafness. Allergic reactions (i.e. breathing difficulty) may also occur in sensitive individuals.

The principal target organ associated with chronic Mercury exposures via inhalation is the central nervous system. Such exposures lead to the development of "Erethism". This syndrome consists of subtle or dramatic changes in behavior and personality: depression, fearfulness, restlessness, irritability, timidity, and indecision. These psychic and behavioral characteristics are often accompanied by insomnia, drowsiness, headache, and fatigue. In advanced cases, memory loss, hallucinations, and mental deterioration may occur.

Another, less common, syndrome associated with Mercury over-exposure is "Acrodynia". Symptoms of this syndrome include a pink color to the extremities, apathy, fever, kidney problems, sensitivity to light, generalized edema, and a painful scaling of the skin of the hands and feet. Other symptoms of chronic over-exposure to Mercury can include loosening of the teeth, inflammation of the mucous membranes, a dark blue line appearing along gingival margins, abnormal blushing, excessive sweating, and rashes. Reproductive effects, sexual disorders, and impotence may also develop in the event of Mercury over-exposure.

Short-term over-exposures to high concentrations of mercury vapors can lead to breathing difficulty, coughing, acute, chemical pneumonia, and pulmonary edema (a potentially fatal accumulation of fluid in the lungs). Depending on the concentration of over-exposure, cardiac abnormalities, damage to the kidney, liver or nerves and effects on the brain may occur.

If this product is heated, and exposure to Mercury fumes occurs, "Metal Fume Fever" may develop. This syndrome is a flu-like illness which occurs when metal oxides below 1.5 microns in size are inhaled. Symptoms of this syndrome may develop 4-12 hours after exposure and begin with the onset of thirst, metallic taste in the mouth, and symptoms of Mercury poisoning as described above. All symptoms generally subside within 24-36 hours after the over-exposure ends.

**CONTACT WITH SKIN or EYES:** Mercury can be irritating to contaminated skin and eyes. Symptoms of skin exposure can include redness, dry skin, and pain. Prolonged contact may lead to ulceration of the skin. Allergic reactions (i.e. rashes, welts) may occur in sensitive individuals. Dermatitis (redness and inflammation of the skin) may occur after repeated skin exposures. Symptoms of eye exposure can include redness, pain, and watery eyes. A symptom of Mercury exposure is discoloration of the lens of the eyes.

#### HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

<b>HEALTH</b>	(BLUE)	3
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<b>FLAMMABILITY</b>	(RED)	0
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<b>REACTIVITY</b>	(YELLOW)	0
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**PROTECTIVE EQUIPMENT** | X

EYES	RESPIRATORY	HANDS	BODY
	See Section 8		See Section 8

For a variety of applications involving elemental Mercury.

**See Section 16 for Definition of Ratings**

## 5. HAZARD IDENTIFICATION (Continued)

**SKIN ABSORPTION:** Skin absorption is a significant route of potential over-exposure to Mercury. Currently, no quantitative estimates of the rate of penetration are available. Symptoms of such over-exposure would include redness and irritation of the contaminated area, as well as the development of symptoms described for "Inhalation".

**INGESTION:** Ingestion is not anticipated to be a significant route of occupational over-exposure. If Mercury is swallowed, symptoms of such over-exposure can include metallic taste in mouth, nausea, vomiting, central nervous system effects, and damage to the kidneys. Metallic mercury is not usually absorbed sufficiently from the gastrointestinal tract to induce an acute, toxic response. Damage to the tissues of the mouth, throat, esophagus, and other tissues of the digestive system may occur. Ingestion may be fatal, due to effects on gastrointestinal system and kidneys.

**INJECTION:** Injection is not anticipated to be a significant route of over-exposure for this product. If Mercury is injected (i.e. through abrasions and lacerations of the skin), local redness and pain will occur. Other symptoms of such exposure can include the development of embolisms (Mercury blocking a vein or artery), malaise, chest pain, and difficulty in breathing.

**HEALTH EFFECTS OR RISKS FROM EXPOSURE:** An Explanation in **Lay Terms**. The most severe health effects associated with Mercury exposure are related to long-term exposures to vapors. In the event of over-exposure, the following symptoms may be observed:

**ACUTE:** Mercury can be irritating to contaminated skin and eyes. Short-term over-exposures to high concentrations of mercury vapors can lead to breathing difficulty, coughing, acute, and potentially fatal lung disorders. Depending on the concentration of inhalation over-exposure, heart problems, damage to the kidney, liver or nerves and effects on the brain may occur.

**CHRONIC:** Long-term over-exposure can lead to a wide range of adverse health effects. Anyone using Mercury must pay attention to personality changes, weight loss, skin or gum discolorations, stomach pains, and other signs of Mercury over-exposure. Gradually developing syndromes ("Erethism" and "Acrodynia") are indicative of potentially severe health problems. Mercury can cause the development of allergic reactions (i.e. dermatitis, rashes, breathing difficulty) upon prolonged or repeated exposures. Refer to Section 11 (Toxicology Information) for additional data.

**TARGET ORGANS:** ACUTE: Skin, eyes, respiratory system, central nervous system, brain. CHRONIC: Skin, respiratory system, central nervous system, brain, blood system, kidneys, and reproductive system.

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## PART II *What should I do if a hazardous situation occurs?*

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### 4. FIRST-AID MEASURES

Contaminated individuals must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of label and MSDS to health professional with victim.

**SKIN EXPOSURE:** If Mercury contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. The contaminated individual must seek immediate medical attention.

**EYE EXPOSURE:** If Mercury contaminates the eyes, open the victim's eyes while under gently running water. Use sufficient force to open eyelids. Have the contaminated individual "roll" eyes. Minimum flushing is for 15 minutes. The contaminated individual must seek immediate medical attention.

**INHALATION:** If Mercury vapors are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers. The contaminated individual must seek immediate medical attention.

**INGESTION:** If Mercury is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, induce vomiting. Have victim rinse mouth with water, or drink several cupfuls of water, if conscious. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Preexisting respiratory problems, dermatitis, central nervous system disorders, kidney problems, and liver dysfunctions can be aggravated by exposure to this product.

**RECOMMENDATIONS TO PHYSICIANS:** Treatment for Mercury over-exposure must be given. The following treatment protocol for ingestion of Mercury is from Clinical Toxicology of Commercial Products (5th Edition, 1984).

1. As soon as possible, have patient drink milk or slurry of activated charcoal to help precipitate mercury in the stomach.
2. Gastric lavage with tap water, milk, or 2-5% solution of sodium bicarbonate, unless spontaneous vomiting is intense and productive,
3. Administer through the lavage tube 0.5-1.0 oz. of sodium or magnesium sulfate in 6-8 oz. of water (unless spontaneous purging has already begun) and a slurry of activated charcoal.
4. Administer BAL (Dimercaprol; 3 mg/kg or 0.3 mL/10 kg) intramuscularly as a 10% solution in oil. If given within three hours after ingestion, severe renal damage may be prevented. Collect urine before and after BAL therapy for mercury analysis.
5. Demulcents (i.e. milk of magnesia, starch, bismuth subcarbonate) and analgesic drugs may be useful and necessary.

## 4. FIRST AID MEASURES (continued)

### RECOMMENDATIONS TO PHYSICIANS (continued):

6. Because the BAL-Mercury Complex excreted in bile may be partly resorbed in the bowel, it is probably useful to administer activated charcoal every few hours, starting as soon as vomiting subsides.
7. Treat shock by correcting dehydration and electrolyte imbalances. If renal insufficiency develops, treat for acute renal failure.
8. The maintenance of an adequate nutritional status may be troublesome if gastrointestinal disorders becomes severe or persistent.
9. If toxic signs or symptoms recur after an apparent recovery, another course of chelation therapy is warranted. BAL is still appropriate, but a trial with D-Penicillamine or N-acetyl-D,L-penicillamine may be preferable. Either penicillamine compound is given by mouth, usually on an empty stomach, in a dose of 250 mg (4 times daily for adults; 3 times daily in children; 5-10 days). Penicillamine should be withheld until mercury is cleared out of the bowels. A chelating agent should be used until the urine-mercury level falls below 50µg/24 hours.

**Laboratory Analysis:** Determination of β<sub>2</sub>-Microglobulins has been recommended as a useful test for renal function. Electroencephalographic changes may be correlated closely with the clinical state. Analysis of the blood, hair, urine, or feces can be done to determine the level of Mercury exposure. Mercury deposits in the body can be observed in X-Rays.

## 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** Not flammable.

**AUTOIGNITION TEMPERATURE:** Not applicable.

**FLAMMABLE LIMITS (in air by volume, %):** Lower (LEL): Not applicable.  
Upper (UEL): Not applicable.

### FIRE EXTINGUISHING MATERIALS:

**Water Spray:** YES

**Carbon Dioxide:** YES

**Foam:** YES

**Dry Chemical:** YES

**Halon:** YES

**Other:** Any "ABC" Class.

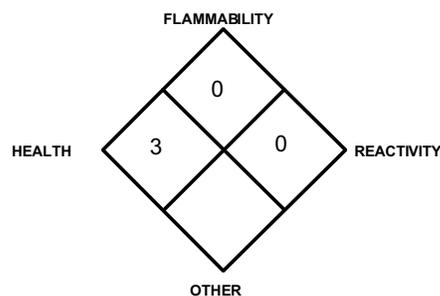
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Mercury vapors and mercury oxides generated during fires involving this product are toxic; additionally, this element can be irritating to contaminated tissue. Therefore, this product presents a severe health hazard to firefighters. Mercury is not flammable, and is relatively stable (though it can react with many metals to form amalgams).

**Explosion Sensitivity to Mechanical Impact:** Not sensitive.

**Explosion Sensitivity to Static Discharge:** Not sensitive.

**SPECIAL FIRE-FIGHTING PROCEDURES:** Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move fire-exposed containers if it can be done without risk to firefighters. Apply cooling water to sides of containers that are exposed to flame until well after fire is out. Decontaminate all equipment thoroughly after the conclusion of fire-fighting activities. If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

### NFPA RATING



**See Section 16 for  
Definition of Ratings**

## 6. ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK RESPONSE:** Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a Mercury release, clear the affected area, protect people, and respond with trained personnel. In the event of a release under 1 pound of Mercury, the minimum Personal Protective Equipment should be **Level C: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard-hat, and Air-Purifying Respirator with cartridge appropriate for Mercury. Level B, which includes Self-Contained Breathing Apparatus, must be worn if the amount of Mercury released is over 1 pound or when the concentration of oxygen in atmospheres is less than 19.5% or unknown.** If necessary, dike area of release with suitable absorbent materials. There are a variety of methods which can be used to clean-up Mercury spills. Use a commercially-available Mercury Spill Kit for small spills. A suction pump with aspirator can also be used during clean-up operations. For larger releases, a Mercury vacuum can be used. Calcium polysulfide or excess sulfur can also be used for clean-up. Mercury can migrate into cracks and other difficult-to-clean areas; calcium polysulfide and sulfur can be sprinkled effectively into these areas. Decontaminate the area thoroughly. The area should be inspected visually and with colorimetric tubes for Mercury to ensure all traces of Mercury have been removed prior to re-occupation by non-emergency personnel. Decontaminate all equipment used in response thoroughly. If such equipment cannot be adequately decontaminated, it must be discarded with other spill residue. Place all spill residue in an appropriate container, seal immediately, and label appropriately. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and regulations of Canada and its Provinces. (see Section 13, Disposal Considerations).

## **PART III** *How can I prevent hazardous situations from occurring?*

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### **7. HANDLING and STORAGE**

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting Mercury ON YOU or IN YOU. Wash thoroughly after handling this product. Avoid breathing vapors or spays of this product. Do not eat or drink while handling this product. Remove contaminated clothing immediately. Report all Mercury releases promptly. Clean-up all releases of this product immediately. Supervisors and other responsible personnel must be aware of personality changes, weight loss, or other signs of Mercury over-exposure in employees using this product; these symptoms can develop gradually and are indicative of potentially severe health effects related to Mercury contamination.

STORAGE AND HANDLING PRACTICES: All employees who handle this material should be trained to handle it safely. Use in a well-ventilated location. Open containers slowly on a stable surface. Drums, flask, and bottles of this product must be properly labeled. Empty containers may contain residual amounts of Mercury; therefore, empty containers should be handled with care. Store drums, flasks, and bottles in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Material should be stored in secondary containers or in a diked area, as appropriate. Keep drums, flasks, and bottles tightly closed when not in use. Storage areas should be made of fire-resistant materials. If appropriate, post warning signs in storage and use areas. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment thoroughly before maintenance begins.

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### **8. EXPOSURE CONTROLS - PERSONAL PROTECTION**

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided in Section 2 (Composition and Information on Ingredients), if applicable. Ensure eyewash/safety shower stations are available near areas where this product is used.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below exposure limits listed in Section 2 (Composition and Information on Ingredients), if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) or equivalent U.S. State standards, and Canadian CSA Standard Z94.4-93. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998). The following respirator selection guidelines from NIOSH are provided for additional information:

#### **RECOMMENDATIONS FOR MERCURY COMPOUNDS [except (organo) alkyls] (as Hg) CONCENTRATIONS IN AIR:**

- |  |  |
|--|--|
| Up to 0.5 mg/m <sup>3</sup> :  | Chemical cartridge respirator with cartridge(s) to protect against mercury compounds (an End-of-Service Life Indicator is required); or Supplied-Air Respirator (SAR).   |
| Up to 1.25 mg/m <sup>3</sup> :   | SAR operated in a continuous-flow mode; or powered air-purifying respirator with cartridge(s) to protect against mercury compounds (canister) (an End-of-Service Life Indicator is required.)  |
| Up to 2.5 mg/m <sup>3</sup> :  | Full-facepiece chemical cartridge respirator with cartridge(s) to protect against mercury compounds; or gas mask with canister to protect against mercury compounds; or SAR with a tight-fitting facepiece operated in a continuous-flow mode; or powered air-purifying respirator with a tight-fitting facepiece and cartridge(s) to protect against mercury compounds (canister) (an End-of-Service Life Indicator is required); or full-facepiece Self-Contained Breathing Apparatus (SCBA); or full-facepiece SAR. |
| Up to 10 mg/m <sup>3</sup> :   | Positive pressure SAR.   |
| Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions: | Positive pressure, full-facepiece SCBA; or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.   |
| Escape:  | Gas mask with canister to protect against mercury compounds; or escape-type SCBA.  |

EYE PROTECTION: Splash goggles or safety glasses. For operations involving the use of more than 1 pound of Mercury, or if the operation may generate a spray of Mercury, the use of a faceshield is recommended.

HAND PROTECTION: Wear neoprene gloves for routine industrial use. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this MSDS.

BODY PROTECTION: Use body protection appropriate for task (i.e. lab coat, coveralls, Tyvek suit).

## 9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): 6.9  
determined.

EVAPORATION RATE (n-BuAc = 1): Not

SPECIFIC GRAVITY (water = 1): 13.5939

MELTING/FREEZING POINT: -38.87°C (-37.97°F)

SOLUBILITY IN WATER: Insoluble.

BOILING POINT: 356.72°C (674.1°F)

VAPOR PRESSURE, mm Hg @ 25°C: 0.002

pH: Not applicable.

ODOR THRESHOLD: Not applicable.

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not available.

APPEARANCE, ODOR AND COLOR: Mercury is a silver-white, heavy liquid which is odorless.

HOW TO DETECT THIS SUBSTANCE (warning properties): The appearance of this product is a distinguishing characteristic.

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## 10. STABILITY and REACTIVITY

STABILITY: Stable

DECOMPOSITION PRODUCTS: If this product is exposed to extremely high temperatures in the presence of oxygen or air, toxic vapors of mercury and mercury oxides will be generated.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Mercury is incompatible with acetylene and acetylene derivatives, amines, ammonia, 3-bromopropyne, boron diiodophosphide, methyl azide, sodium carbide, heated sulfuric acid, methylsilane/oxygen mixtures; nitric acid/alcohol mixtures, tetracarbonylnickel/oxygen mixtures, alkyne/silver perchlorate mixtures, halogens (i.e. chlorine, bromine) and strong oxidizers (i.e. chlorine dioxide, perchlorates). Mercury can attack copper and copper alloys. Additionally, mercury can react with many metals (i.e. calcium, lithium, potassium, sodium, rubidium, aluminum) to form amalgams.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid exposure or contact to extreme temperatures, incompatible chemicals

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## PART IV *Is there any other useful information about this material?*

## 11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The specific toxicology data available for Mercury are as follows.

TDLo (Subcutaneous-Man) 254 mg/kg: Skin and Appendages: dermatitis, other (after systemic exposure)

TDLo (Oral-Man) 43 mg/kg: Behavioral: tremor; Liver: jaundice, other or unclassified, other changes

TDLo (Skin-Man) 129 mg/kg/5 hours-continuous: Sense Organs and Special Senses (Ear): tinnitus; Behavioral: headache; Skin and Appendages: dermatitis, allergic (after systemic exposure)

TDLo (Intravenous-Man) 571 µL/kg: Peripheral Nerve and Sensation: paresthesia; Lungs, Thorax, or Respiration: dyspnea; Skin and Appendages: sweating

TDLo (Intraperitoneal-Rat) 400 mg/kg/14 days-intermittent: Tumorigenic: equivocal tumorigenic agent by RTECS criteria, tumors at site of application

TCLo (Inhalation-Woman) 150 µg/m<sup>3</sup>/46 days: Behavioral: wakefulness, anorexia (human); Gastrointestinal: hypermotility, diarrhea

TCLo (Inhalation-Man) 44300 µg/m<sup>3</sup>/8 hours: Behavioral: muscle weakness; Liver: other changes; Nutritional and Gross Metabolic: body temperature increase

TCLo (Inhalation-Rat) 4 mg/m<sup>3</sup>/2 hours/11 days-intermittent: Brain and Coverings: other degenerative changes; Kidney, Ureter, Bladder: other changes; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: other Enzymes

TCLo (Inhalation-Rat) 1 mg/m<sup>3</sup>/24 hours/5 weeks-continuous: Kidney, Ureter, Bladder: proteinuria

TCLo (Inhalation-Rat) 8 µg/m<sup>3</sup>/6.5 hours/41 weeks-intermittent: Behavioral: alteration of classical conditioning

TCLo (Inhalation-Rat) 17 mg/m<sup>3</sup>/2 hours/30 days-continuous: Brain and Coverings: other degenerative changes; Behavioral: alteration of classical conditioning, alteration of operant conditioning

TCLo (Inhalation-Rat) 890 ng/m<sup>3</sup>/24 hours: male 16 week(s) pre-mating: Reproductive: Paternal Effects: spermatogenesis (incl. genetic material, sperm morphology, motility, and count)

TCLo (Inhalation-Rat) 7440 ng/m<sup>3</sup>/24 hours: male 16 week(s) pre-mating: Reproductive: Fertility: post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants)

TCLo (Inhalation-Rat) 1 mg/m<sup>3</sup>/24 hours: female 1-20 day(s) after conception: Reproductive: Effects on Embryo or Fetus: fetotoxicity (except death, e.g., stunted fetus)

TCLo (Inhalation-Rat) 300 µg/m<sup>3</sup>/4 hours: female 7-21 day(s) after conception: Reproductive: Specific Developmental Abnormalities: Central Nervous System

LCLo (Inhalation-Rabbit) 29 mg/m<sup>3</sup>/30 hours Cytogenetic Analysis (Unreported-Man) 150 µg/m<sup>3</sup>

SUSPECTED CANCER AGENT: Mercury is listed as follows by agencies tracking carcinogenic potential:

ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans, but which cannot be assessed conclusively because of a lack of data); EPA- D (Not Classifiable as to Human Carcinogenicity-Inadequate human and animal evidence of carcinogenicity or no data are available); IARC-3 (Possibly Carcinogenic to Humans)

Mercury is not found on the following lists: FEDERAL OSHA Z LIST, NTP, or CAL/OSHA and therefore is not considered to be, nor suspected to be, a cancer-causing agent by these agencies.

## 11. TOXICOLOGICAL INFORMATION (CONTINUED)

**IRRITANCY OF PRODUCT:** Mercury can be irritating to skin, eyes, or other contaminated tissue.

**SENSITIZATION TO THE PRODUCT:** Mercury is a sensitizer capable of causing allergic reactions (i.e. breathing difficulty, dermatitis, rashes) after prolonged or repeated over-exposures.

**REPRODUCTIVE TOXICITY INFORMATION:** Listed below is information concerning the effects of Mercury on the human reproductive system.

**Mutagenicity:** Human mutation data are available for Mercury; these data were obtained during clinical studies on specific human tissues exposed to high doses of this element.

**Embryotoxicity:** This product may cause embryotoxic effects in humans. Refer to the paragraph on "Teratogenicity" for additional information.

**Teratogenicity:** This product may cause teratogenic effects in humans. Intrauterine exposure may result in tremors and involuntary movements in the fetus. Mercury has also been reported to produce teratogenic effects in test animals.

**Reproductive Toxicity:** This product is reported to cause reproductive effects in humans. Impotence has been reported in over-exposed males. Women occupationally exposed have reported menstrual disturbances, reduced ovulation, and spontaneous abortions. Mercury is excreted in breast milk. Mercury has also been reported to produce adverse reproductive effects in test animals.

*A **mutagen** is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An **embryotoxin** is a chemical which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A **teratogen** is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A **reproductive toxin** is any substance which interferes in any way with the reproductive process.*

**BIOLOGICAL EXPOSURE INDICES:** The following Biological Exposure Indices (BEIs) have been determined for Mercury.

CHEMICAL DETERMINANT	SAMPLING TIME	BEI
MERCURY • Total inorganic mercury in urine • Total inorganic mercury in blood	• Preshift • End of shift at end of workweek	• 35 µg/g creatinine • 15 µg/L

Note: Women of child-bearing potential, whose blood Pb exceeds 10 µg/dl, are at risk of delivering a child with a blood Pb over the current Center for Disease Control Guideline of 10 µg/dl. If the blood Pb of such children remains elevated, they may be at increased risk of cognitive deficits. The blood Pb of these children should be closely monitored and appropriate steps should be taken to minimize the child's exposure to environmental lead.

## 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

**ENVIRONMENTAL STABILITY:** Mercury is stable, and persists for long periods in ambient environmental conditions. The following environmental data are available for this element:

The biological half-life of mercury in fish is approximately 2 to 3 years. Mercury bioaccumulates and concentrates in the food chain. Concentration may be as much as 10,000 times that of water. Mercury is concentrated by animals, plants and fishes. Chinook salmon fed contaminated fingerlings concentrated Mercury in the liver and kidneys. Methyl mercury is formed naturally in aquatic and terrestrial environments from elemental mercury. Methylation is likely to occur in upper sedimentary layers of sea or lake bottoms.

**EFFECT OF MATERIAL ON PLANTS or ANIMALS:** Mercury can be harmful or fatal to contaminated plant or animal life.

**EFFECT OF CHEMICAL ON AQUATIC LIFE:** Mercury can be harmful or fatal to contaminated aquatic plant or animal life in contaminated bodies of water. The following aquatic toxicity data are available for Mercury:

### MERCURY:

LC<sub>50</sub> (Catfish) = 0.35 mg/L / 96 hours (conditions of bioassay not specified)

LC<sub>50</sub> (*Modiolus carvalhoi*) (mollusk) = 0.5 ppm / 48 hours; 0.19 ppm - 96 hours (conditions of bioassay not specified)

LC<sub>50</sub> (*Rana hexadactyla*) (tadpoles) = 0.051 ppm / 96 hours (conditions of bioassay not specified)

## 13. DISPOSAL CONSIDERATIONS

**PREPARING WASTES FOR DISPOSAL:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, should be recycled. If altered by use, recycling may be possible. Consult Bethlehem Apparatus Company for information. If Mercury must be disposed of as hazardous waste, it must be handled at a permitted facility or as advised by your local hazardous waste regulatory authority.

**EPA WASTE NUMBER:** Depending on the nature of the waste, one of the following RCRA codes will be applicable: U151 (Toxic Commercial Chemical Products/Mercury); D009 (Characteristic; Toxicity Characteristic Leaching Procedure; Regulated Level: 0.2 mg/L).

## 14. TRANSPORTATION INFORMATION

THIS MATERIAL IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Mercury  
HAZARD CLASS NUMBER and DESCRIPTION: 8 (Corrosive Material)  
UN IDENTIFICATION NUMBER: UN 2809  
PACKING GROUP: PG III  
DOT LABEL(S) REQUIRED: Corrosive

NOTE: For transport by aircraft, Mercury must be packaged in packagings which meet the requirements of Packing Group I Performance Level. For transportation by other modes, Mercury must be packaged in packagings which meet the requirements of Packing Group III Performance Level or in non-specification reusable metal packagings. Refer to 49 CFR 173.164 for specific packaging requirements.

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MARINE POLLUTANT: Mercury is not listed as a Marine Pollutant, per Appendix B to 49 CFR 172.101.

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This material is considered as dangerous goods, per regulations of Transport Canada. Use the above U.S. DOT information for the preparation of Canadian Shipments.

## 15. REGULATORY INFORMATION

### ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: Mercury is subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows:

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
Mercury	No	YES	YES

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for Mercury. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs. (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. TSCA INVENTORY STATUS: Mercury is listed on the TSCA Inventory.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Mercury = 1 lb (0.454 kg)

OTHER U.S. FEDERAL REGULATIONS: Mercury is regulated as follows (other regulations may be applicable):

EPA: Mercury is listed as a Hazardous Air Pollutant (HAP) generally known or suspected to cause serious health problems. The Clean Air Act, as amended in 1990, directs EPA to set standards requiring major sources to sharply reduce routine emissions of toxic pollutants. EPA is required to establish and phase in specific performance based standards for all air emission sources that emit one or more of the listed pollutants. Mercury is included on this list.

FDA: The action level of 1.0 ppm total mercury in fish has been revised on September 12, 1984 by FDA to apply only to methyl mercury.

FIFRA: All uses of mercury are cancelled except the following: 1) as a fungicide in the treatment of textiles and fabrics intended for continuous outdoor use; 2) as a fungicide to control brown mold on freshly sawn lumber; 3) as a fungicide treatment to control Dutch elm disease; 4) as an in-can preservative in water based paints and coatings; 5) as a fungicide in water-based paints and coatings used for exterior application; 6) as a fungicide to control "winter turf diseases" such as Sclerotinia boreales, and gray and pink snow mold subject to the following: a. the use of these products shall be prohibited within 25 feet of any water body where fish are taken for human consumption. b. these products can be applied only by or under the direct supervision of golf course superintendents. These types of Mercury-containing products will be classified as restricted use pesticides when they are reregistered and classified in accordance with Section 4(C) of FEPCA.

U.S. STATE REGULATORY INFORMATION: Mercury is covered under specific State regulations, as denoted below:

**Alaska - Designated Toxic and Hazardous Substances:** Mercury.  
**California - Permissible Exposure Limits for Chemical Contaminants:** Mercury.  
**Florida - Substance List:** Mercury.  
**Illinois - Toxic Substance List:** Mercury.  
**Kansas - Section 302/313 List:** Mercury.  
**Massachusetts - Substance List:** Mercury.  
**Michigan - Critical Materials Register:** Mercury.

**Minnesota - List of Hazardous Substances:** Mercury.  
**Missouri - Employer Information/Toxic Substance List:** Mercury.  
**New Jersey - Right to Know Hazardous Substance List:** Mercury.  
**North Dakota - List of Hazardous Chemicals, Reportable Quantities:** Mercury.

**Pennsylvania - Hazardous Substance List:** Mercury.  
**Rhode Island - Hazardous Substance List:** Mercury.  
**Texas - Hazardous Substance List:** Mercury.  
**West Virginia - Hazardous Substance List:** Mercury.  
**Wisconsin - Toxic and Hazardous Substances:** Mercury.

## 15. REGULATORY INFORMATION (Continued)

### ADDITIONAL U.S. REGULATIONS (continued):

CALIFORNIA PROPOSITION 65: Mercury is on the California Proposition 65 lists. **WARNING**: Contains a chemical known to the State of California to cause birth defects or other reproductive harm.

LABELING (Precautionary Statements) ANSI LABELING (Z129.1): **DANGER!** HIGHLY TOXIC AFTER LONG-TERM EXPOSURE. DANGER OF CUMULATIVE EFFECTS. MAY CAUSE DAMAGE TO THE NERVOUS SYSTEM, BLOOD SYSTEM, KIDNEYS, LIVER. REPRODUCTIVE HAZARD. HARMFUL OR FATAL IF INHALED OR SWALLOWED. MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION. CAUSES SKIN AND EYE IRRITATION. Do not get on skin, in eyes, or on clothing. Avoid prolonged contact with the skin. Avoid breathing vapors and fumes. Do not take internally. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Wear gloves, goggles, face-shield, body protection, and NIOSH-approved respiratory protection, as appropriate. **FIRST-AID**: In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If inhaled, remove to fresh air. If ingested, induce vomiting. Get medical attention immediately. **IN CASE OF FIRE**: Use water fog, dry chemical, CO<sub>2</sub>, or "alcohol" foam. **IN CASE OF SPILL**: Vacuum released material, or use a Mercury Spill Kit. Containerize residue immediately, and label appropriately. Consult Material Safety Data Sheet for additional information.

### ADDITIONAL CANADIAN REGULATIONS:

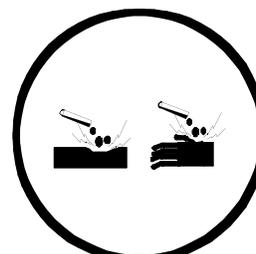
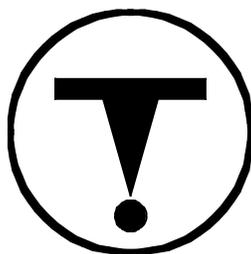
CANADIAN DSL/NDL INVENTORY STATUS: Mercury is listed on the DSL Inventory.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: Mercury is not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS SYMBOLS:

D1B:	Materials Causing Immediate and Serious Toxic Effects/Toxic Material
D2A:	Materials Causing Other Toxic Effects/Very Toxic Material
D2B:	Materials Causing Other Toxic Effects/Toxic Material
E:	Corrosive Material



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## 16. OTHER INFORMATION

### PREPARED BY:

CHEMICAL SAFETY ASSOCIATES, Inc.  
9163 Chesapeake Drive, San Diego, CA 92123-1002  
(858) 565 - 0302

### DATE OF PRINTING:

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The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Bethlehem Apparatus Company responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Bethlehem Apparatus Company for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

## DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these which are commonly used include the following:

**CAS #:** This is the Chemical Abstract Service Number which uniquely identifies each constituent.

### EXPOSURE LIMITS IN AIR:

**ACGIH** - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. **TLV** - Threshold Limit Value - an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (**TWA**), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level (**C**). Skin absorption effects must also be considered.

**OSHA** - U.S. Occupational Safety and Health Administration.

**PEL** - Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL which was vacated by Court Order. **IDLH** - Immediately Dangerous to Life and Health - This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury. **The DFG - MAK** is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. **NIOSH** is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (**OSHA**). NIOSH issues exposure guidelines called Recommended Exposure Levels (**RELs**). When no exposure guidelines are established, an entry of **NE** is made for reference.

### HAZARD RATINGS:

**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM:** Health Hazard: **0** (minimal acute or chronic exposure hazard); **1** (slight acute or chronic exposure hazard); **2** (moderate acute or significant chronic exposure hazard); **3** (severe acute exposure hazard; onetime overexposure can result in permanent injury and may be fatal); **4** (extreme acute exposure hazard; onetime overexposure can be fatal). Flammability Hazard: **0** (minimal hazard); **1** (materials that require substantial pre-heating before burning); **2** (combustible liquid or solids; liquids with a flash point of 38-93°C [100-200°F]); **3** (Class IB and IC flammable liquids with flash points below 38°C [100°F]); **4** (Class IA flammable liquids with flash points below 23°C [73°F] and boiling points below 38°C [100°F]. Reactivity Hazard: **0** (normally stable); **1** (material that can become unstable at elevated temperatures or which can react slightly with water); **2** (materials that are unstable but do not detonate or which can react violently with water); **3** (materials that can detonate when initiated or which can react explosively with water); **4** (materials that can detonate at normal temperatures or pressures).

**NATIONAL FIRE PROTECTION ASSOCIATION:** Health Hazard: **0** (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); **1** (materials that on exposure under fire conditions could cause irritation or minor residual injury); **2** (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); **3** (materials that can on short exposure could cause serious temporary or residual injury); **4** (materials that under very short exposure causes death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for "Hazardous Materials Identification System".

### FLAMMABILITY LIMITS IN AIR:

Much of the information related to fire and explosion is derived from the National Fire Protection Association (**NFPA**). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

### TOXICOLOGICAL INFORMATION:

**Human and Animal Toxicology:** Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: **LD<sub>50</sub>** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC<sub>50</sub>** - Lethal Concentration (gases) which kills 50% of the exposed animals; **ppm** concentration expressed in parts of material per million parts of air or water; **mg/m<sup>3</sup>** concentration expressed in weight of substance per volume of air; **mg/kg** quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include **TDLo**, the lowest dose to cause a symptom and **TCLo** the lowest concentration to cause a symptom; **TDo**, **LDLo**, and **LDo**, or **TC**, **TCo**, **LCLo**, and **LCo**, the lowest dose (or concentration) to cause lethal or toxic effects. **Cancer Information:** The sources are: **IARC** - the International Agency for Research on Cancer; **NTP** - the National Toxicology Program, **RTECS** - the Registry of Toxic Effects of Chemical Substances, **OSHA** and **CAL/OSHA**. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. **Other Information:** **BEI** - ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. **Ecological Information:** **EC** is the effect concentration in water. **BCF** = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifeforms which consume contaminated plant or animal matter. Coefficient of Oil/Water Distribution is represented by **log K<sub>ow</sub>** or **log K<sub>oc</sub>** and is used to assess a substance's behavior in the environment.

### REGULATORY INFORMATION:

This section explains the impact of various laws and regulations on the material. **U.S.:** **EPA** is the U.S. Environmental Protection Agency. **DOT** is the U.S. Department of Transportation. **SARA** is the Superfund Amendments and Reauthorization Act. **TSCA** is the U.S. Toxic Substance Control Act. **CERCLA (or Superfund)** refers to the Comprehensive Environmental Response, Compensation, and Liability Act. Labeling is per the American National Standards Institute (**ANSI Z129.1**). **CANADA:** **CEPA** is the Canadian Environmental Protection Act. **WHMIS** is the Canadian Workplace Hazardous Materials Information System. **TC** is Transport Canada. **DSL/NDSL** are the Canadian Domestic/Non-Domestic Substances Lists. **The CPR is the Canadian Product Regulations.** This section also includes information on the precautionary warnings which appear on the materials package label.



# Material Safety Data Sheet

## 1. Product and Company Identification

Product name : **Benzene**

Chemical formula : C<sub>6</sub>H<sub>6</sub>

Synonyms : Benzol, Cyclohexatriene, Benzole, Phene, Pyrobenzol, Pyrobenzole, Carbon Oil, Coal Tar Naphtha, Phenyl Hydride, Benzolene, Bicarburet of Hydrogen, Coal Naphtha, Motor Benzol, Annulene, (6) Annulene, UN 1114

Company : Specialty Gases of America, Inc  
6055 Brent Dr.  
Toledo, OH 43611

Telephone : 419-729-7732

Emergency : 800-424-9300

## 2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Benzene	71-43-2	99+%
Thiophene	110-02-1	0.00010

## 3. Hazards Identification

### Emergency Overview

Flammable liquid and vapor. Vapor may cause flash fire.  
May cause respiratory tract irritation, skin irritation, eye irritation, central nervous system depression, cancer hazard (in humans).

### Potential Health Effects

Inhalation : Irritation, ringing in the ears, nausea, vomiting, chest pain, difficulty breathing, irregular heartbeat, headache, drowsiness, symptoms of drunkenness, disorientation, blurred vision, lung congestion, blood disorders, paralysis, convulsion, coma. May cause hearing loss, visual disturbances, reproductive effects, brain damage, cancer in long term exposure.

Eye contact : Irritation.

Skin contact : Irritation, blisters. May cause tingling sensation in long term exposure.

Ingestion : Nausea, vomiting, chest pain, headache, drowsiness, symptoms of drunkenness, disorientation, visual disturbances, lung congestion, paralysis, convulsion, coma. May cause impotence, cancer in long term exposure.

Chronic Health Hazard : Not applicable.

## 4. First Aid Measures

General advice : None.

Eye contact : Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

- Skin contact : Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.
- Ingestion : Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.
- Inhalation : If adverse effects occur, remove to contaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

## 5. Fire-Fighting Measures

- Suitable extinguishing media : Regular dry chemical carbon dioxide water regular foam.  
Large fires: Use regular foam or flood with fine water spray.
- Specific hazards : Severe fire hazard. Moderate explosion hazard. Vapor/air mixtures are explosive. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.
- Fire fighting : Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles well after fire is out. If this is impossible, take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Evacuation radius: 800 meters (1/2 mile). Water may be ineffective.

## 6. Accidental Release Measures

- Air release : Reduce vapors with water spray. Stay upwind and keep out of low areas.
- Soil release : Dig holding area such as lagoon, pond or pit for containment. Dike for later disposal. Absorb with sand or other non-combustible material.
- Water release : Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers. Cover with absorbent sheets, spill-control pads or pillows. Apply detergents, soaps, alcohols or another surface active agent. Collect with absorbent into suitable container. Absorb with activated carbon. Remove trapped material with suction hoses. Collect spilled material using mechanical equipment.
- Occupational release : Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Committee for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800) 424-8802 (USA) or (202) 426-2675 (USA).

## 7. Handling and Storage

### Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

### Storage

Store in accordance with all current regulations and standards. Subject to storage regulation: U.S. OSHA 29 CFR 1910.106. Grounding and bonding required. Protect from physical damage. Store outside or in a detached building. Store with flammable liquids. Keep separated from incompatible substances.

## **8. Exposure Controls / Personal Protection**

### Exposure limits

ACGIH	:	0.5 ppm TWA 2.5 ppm STEL Skin – potential significant contribution to overall exposure by the cutaneous route
OSHA (final)	:	5 ppm STEL (see 29 CFR 1910.1028) 10 ppm TWA applies to industry segments except from the benzene standard at 29 CFR 1910.1028; 1 ppm TWA 25 ppm Ceiling
OSHA (vacated)	:	50 ppm STEL unless specified in 1910.1028 10 minute 10 ppm TWA unless specified in 1910.1028 25 ppm Ceiling unless specified in 1910.1028
NIOSH	:	1 ppm STEL 0.1 ppm TWA

### Ventilation

Provide local exhaust or process enclosure ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

### Personal protective equipment

Respiratory protection	:	The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA. OSHA Standard: Respirator selection should comply with 29 CFR 1910.134, 29 CFR 1910.1028 and the final rule published in the Federal Register on August 24, 2006.  NIOSH Recommendations: At any detectable concentration – Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator with full facepiece and operated in pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in positive-demand or other positive-pressure mode. Escape – Any air-purifying respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister. Any escape-type, self-contained breathing apparatus.
Hand protection	:	Wear appropriate chemical resistant gloves. OSHA REGULATED SUBSTANCES: U.S. OSHA 29 CFR 1910.1028.
Eye protection	:	Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin and body protection	:	Wear appropriate chemical resistant clothing.

## **9. Physical and Chemical Properties**

Form	:	Liquid.
Color	:	Colorless to yellow.

Odor	: Distinct odor.
Molecular weight	: 78.11
Vapor pressure	: 75 mmHg @ 20°C
Vapor density	: 2.8 (air = 1)
Specific gravity	: 0.8765 @ 20°C (water = 1)
Boiling point	: 176°F (80°C)
Melting point	: 43°F (6°C)
Water solubility	: 0.18% @ 25°C
Solvent solubility	: Soluble: acetone, alcohol, carbon disulfide, acetic acid, carbon tetrachloride, chloroform, ether, oils.
Evaporation rate	: 5.1 (butyl acetate = 1)

## 10. Stability and Reactivity

Stability	: Stable under normal conditions.
Conditions to avoid	: Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.
Materials to avoid	: Acids, bases, halogens, oxidizing materials, metal salts.
Hazardous decomposition products	: Thermal decomposition products: oxides of carbon.

## 11. Toxicological Information

The components of this material have been reviewed in various sources and the following selected endpoints are published:

BENZENE (71-43-2)	: Inhalation LC50 Rat: 13050-14380 ppm/4H; Oral LD50 Rat: 1800 mg/kg
THIOPHENE (110-02-1)	: Oral LD50 Rat: 1400 mg/kg

### Acute Toxicity Level

BENZENE (71-43-2)	: Highly toxic: dermal absorption. Moderately toxic: ingestion. Slightly toxic: inhalation.
THIOPHENE (110-02-1)	: Toxic: inhalation. Moderately toxic: ingestion.

### Component Carcinogenicity

BENZENE (71-43-2)	: ACGIH: A1 – Confirmed Human Carcinogen IARC: Supplement 7 [1987]; Monograph 29 [1982] (Group 1 (carcinogenic to humans)) DFG: Category 1 (causes cancer in man) Present Known Human Carcinogen
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### Local Effects

BENZENE (71-43-2)	: Irritant: inhalation, skin, eye.
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### Target Organs

BENZENE (71-43-2)	: Immune system (blood), central nervous system.
THIOPHENE (110-02-1)	: Central nervous system.

### Medical Conditions Aggravated by Exposure

Blood system disorders, immune system disorders or allergies.

### Additional Data

May cross the placenta. Alcohol may enhance the toxic effects. Interactions with drugs may occur.

## **12. Ecological Information**

### Ecotoxicity Data

BENZENE (71-43-2) : Fish:  
96 Hr LC50 Pimephales promelas: 10.7 – 14.7 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 5.3 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 22.49 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 28.6 mg/L [static]; 96 Hr LC50 Pimephales promelas: 22330 – 41160 µg/L [static]; 96 Hr LC50 Lepomis macrochirus: 70000 – 142000 µg/L [static]

Algae:  
72 Hr EC50 Pseudokirchneriella subcapitata: 29 mg/L

Invertebrate:  
48 Hr EC50 Daphnia magna: 8.76 – 15.6 mg/L [static]; 48 Hr EC50 Daphnia magna: 10 mg/L

## **13. Disposal Considerations**

Waste from residues / unused products : Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U019. Hazardous Waste Number(s): D018. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level – 0.5 mg/L. Dispose in accordance with all applicable regulations.

Contaminated packaging : Return cylinder to supplier.

### Component Waste Numbers

BENZENE (71-43-2) : RCRA: waste\_number U019 (Ignitable waste; Toxic waste)  
0.5 mg/L regulatory level

## **14. Transport Information**

### DOT (US only)

Proper shipping name : Benzene  
Class : 3, Packing Group II  
UN/ID No. : UN1114  
Labeling : Flammable Liquid

### Further information

Cylinders should be transported in a secure upright position in a well ventilated truck.

## **15. Regulatory Information**

### U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

BENZENE (71-43-2) – 10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 1989 final rule)

BENZENE (71-43-2) – SARA 313: 0.1% de minimis concentration  
CERCLA: 10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 1989 final rule)

SARA 311/312

Acute: Yes  
Chronic: Yes  
Fire: Yes  
Reactive: No  
Pressure: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
BENZENE	71-43-2	Yes	Yes	Yes	Yes	Yes	Yes
THIOPHENE	110-02-1	No	Yes	No	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enhancement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

**16. Other Information**

Prepared by : Specialty Gases of America, Inc.

For additional information, please visit our website at [www.americangasgroup.com](http://www.americangasgroup.com).

# Material Safety Data Sheet

## Toluene

MSDS Number: M1003  
Effective Date: 9/07/2004

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Toluene

**Synonyms:** Methacide; Methylbenzene; Methylbenzol; Phenylmethane; Toluol

**Company Identification:**

VEE GEE Scientific, Inc.  
13600 NE 126th PI Ste A  
Kirkland, WA 98034

**For information in North America, call:** 425-823-4518

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
108-88-3	Toluene	>99	203-625-9

**Hazard Symbols:** XN F

**Risk Phrases:** 11 20

### Section 3 - Hazards Identification

#### Emergency Overview

**Appearance:** Colorless. Flash Point: 40°F. **Warning!** Flammable liquid and vapor. May cause central nervous system depression. May cause liver and kidney damage. This substance has caused adverse reproductive and fetal effects in animals. Causes digestive and respiratory tract irritation. May cause skin irritation. Aspiration hazard if swallowed. Can enter lungs and cause damage. **Danger!** Harmful or fatal if swallowed. Causes eye irritation and possible transient injury. **Poison!** May be absorbed through intact skin. Vapor harmful. Call physician immediately.

**Target Organs:** Kidneys, central nervous system, liver.

#### Potential Health Effects

**Eye Contact:** Causes eye irritation. May result in corneal injury. Vapors may cause eye irritation.

**Skin Contact:** Causes moderate skin irritation. May cause cyanosis of the extremities.

**Ingestion:** Aspiration hazard. May cause irritation of the digestive tract. May cause effects similar to those for inhalation exposure. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal.

**Inhalation:** Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Inhalation of vapor may cause respiratory tract irritation. May cause liver and kidney damage. Vapors may cause dizziness or suffocation. Overexposure may cause dizziness, tremors, restlessness, rapid heart beat, increased blood pressure, hallucinations, acidosis, kidney failure.

**Chronic Exposure:** Prolonged or repeated skin contact may cause dermatitis. May cause cardiac sensitization and severe heart abnormalities. May cause liver and kidney damage.

### Section 4 - First Aid Measures

**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin Contact:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Ingestion:** Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Possible aspiration hazard. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Causes cardiac sensitization to endogenous catecholamines which may lead to cardiac arrhythmias. Do NOT use adrenergic agents such as epinephrine or pseudoepinephrine.

### Section 5 - Fire Fighting Measures

**General Information:** Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

**Fire Extinguishing Media:** Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water. For small fires, use dry chemical, carbon dioxide, water spray or regular foam. Cool containers with flooding quantities of water until well after fire is out. For large fires, use water spray, fog or regular foam.

## Section 5 -

## Fire Fighting Measures

**Autoignition Temperature:** 422°C (792°F)

**Flash Point:** 7°C (45°F)

**Explosion Limits, lower:** 1.2 vol%.

**Explosion Limits, upper:** 7.1 vol%

**NFPA Rating:** (estimated) Health: 2; Flammability: 3; Instability: 0

## Section 6 -

## Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Avoid runoff into storm sewers and ditches which lead to waterways. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as saw dust. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

## Section 7 -

## Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 -

## Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs	OSHA - Vacated Pels
Toluene	50 ppm TWA	100 ppm TWA 375 mg/m3 TWA 500 ppm IDLH	200 ppm TWA C 300 ppm	100 ppm TWA 375 mg/m3 TWA 150 ppm STEL 560 mg/m3 STEL

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 -

## Physical and Chemical Properties

**Physical State:** Clear liquid

**Appearance:** Colorless

**Odor:** Sweet, pleasant

**pH:** Not available

**Vapor Pressure:** 36.7 mm Hg @ 30° C

**Vapor Density:** 3.1

**Evaporation Rate:** 2.4

**Viscosity:** 0.59 cP @ 20° C

**Boiling Point:** 232° F

**Freezing/Melting Point:** -139° F

**Decomposition Temperature:** Not available

**Solubility:** Insoluble

**Specific Gravity/Density:** 0.9

**Molecular Formula:** C<sub>6</sub>H<sub>5</sub>CH<sub>3</sub>

**Molecular Weight:** 92.056

## Section 10 -

## Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.

**Incompatibilities with Other Materials:** Nitrogen tetroxide, nitric acid plus sulfuric acid, silver perchlorate, strong oxidizers, sodium difluoride.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 -

## Toxicological Information

**Carcinogenicity:**

**CAS# 108-88-3:**

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**IARC:** Group 3 carcinogen

**Section 11 -****Toxicological Information (continued)**

**Epidemiology:** No information available.

**Teratogenicity:** Specific developmental abnormalities included craniofacial effects involving the nose and tongue, musculoskeletal effects, urogenital and metabolic effects in studies on mice and rats by the inhalation and oral routes of exposure. Some evidence of fetotoxicity with reduced fetal weight and retarded skeletal development has been reported in mice and rats.

**Reproductive Effects:** Effects on fertility such as abortion were reported in rabbits by inhalation. Paternal effects were noted in rats by inhalation. These effects involved the testes, sperm duct and epididymis.

**Neurotoxicity:** No information available.

**Mutagenicity:** No information available.

**Section 12 -****Ecological Information**

**Ecotoxicity:** No data available. Bluegill LC50=17 mg/L/24H Shrimp LC50=4.3 ppm/96H Fathead minnow LC50=36.2 mg/L/96H Sunfish (fresh water) TLm=1180 mg/L/96H

**Environmental:** From soil, substance evaporates and is microbially biodegraded. In water, substance volatilizes and biodegrades.

**Physical:** Photochemically produced hydroxyl radicals degrade substance.

**Other:** None.

**Section 13 -****Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** CAS# 108-88-3: waste number U220.

**Section 14 -****Transport Information**

Shipping Name	US DOT	Canada TDG
	Toluene	Toluene
<b>Hazard Class</b>	3	3 (9.2)
<b>UN Number</b>	UN1294	UN1294
<b>Packing Group</b>	II	II
<b>Other</b>		FP 4C

**Section 15 -****Regulatory Information****US Federal**

**TSCA:** CAS# 108-88-3 is listed on the TSCA inventory.

**Health & Safety Reporting List:** None of the chemicals are on the Health & Safety Reporting List.

CAS# 108-88-3: Effective Date: October 4, 1982; Sunset Date: October 4, 1992

**Chemical Test Rules:** None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b:** None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

**SARA:**

**Section 302 (RQ):** CAS# 108-88-3: final RQ = 1000 pounds (454 kg)

**Section 302 (TPQ):** None of the chemicals in this product have a TPQ.

**SARA Codes:** CAS # 108-88-3: acute, flammable.

**Section 313:** This material contains Toluene (CAS# 108-88-3, 99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:** CAS# 108-88-3 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:** CAS# 108-88-3 is listed as a Hazardous Substance under the CWA. CAS# 108-88-3 is listed as a Priority Pollutant under the Clean Water Act. CAS# 108-88-3 is listed as a Toxic Pollutant under the Clean Water Act.

**OSHA:** None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE:** CAS# 108-88-3 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

**WARNING:** This product contains Toluene, a chemical known to the state of California to cause birth defects or other reproductive harm. California No Significant Risk Level: CAS# 108-88-3: NOEL = 7000 ug/day

**European/International Regulations****European Labeling in Accordance with EC Directives**

**Hazard Symbols:** XN F

**Risk Phrases:**

R 11 Highly flammable.

R 20 Harmful by inhalation

## Section 15 -

## Regulatory Information (continued)

### Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.  
S 25 Avoid contact with eyes.  
S 29 Do not empty into drains.  
S 33 Take precautionary measures against static discharges.

**WGK (Water Danger/Protection):** CAS# 108-88-3: 2

**Canada - DSL/NDL:** CAS# 108-88-3 is listed on Canada's DSL List.

**Canada - WHMIS:** This product has a WHMIS classification of B2, D2B.

**Canadian Ingredient Disclosure List:** CAS# 108-88-3 is listed on Canada's Ingredient Disclosure List.

**Exposure Limits:** CAS# 108-88-3: OEL-AUSTRALIA:TWA 100 ppm (375 mg/m<sup>3</sup>);STEL 150 ppm (560 mg/m<sup>3</sup>) OEL-BELGIUM:TWA 100 ppm (377 g/m<sup>3</sup>);STEL 150 ppm (565 mg/m<sup>3</sup>) OEL-CZECHOSLOVAKIA:TWA 200 mg/m<sup>3</sup>;STEL 1000 mg/m<sup>3</sup> OEL-DENMARK:TWA 50 ppm (190 mg/m<sup>3</sup>);Skin OEL-FINLAND:TWA 100 ppm (375 mg/m<sup>3</sup>);STEL 150 ppm;Skin OEL-FRANCE:TWA 100 ppm (375 mg/m<sup>3</sup>);STEL 150 ppm (560 mg/m<sup>3</sup>) OEL-GERMANY:TWA 100 ppm (380 mg/m<sup>3</sup>) OEL-HUNGARY:TWA 100 mg/m<sup>3</sup>;STEL 300 mg/m<sup>3</sup>;Skin OEL-JAPAN:TWA 100 ppm (380 mg/m<sup>3</sup>) OEL-THE NETHERLANDS:TWA 100 ppm (375 mg/m<sup>3</sup>);Skin OEL-THE PHILIPPINES:TWA 100 ppm (375 mg/m<sup>3</sup>) OEL-POLAND:TWA 100 mg/m<sup>3</sup> OEL-USSIA:TWA 100 ppm;STEL 50 mg/m<sup>3</sup> OEL-SWEDEN:TWA 50 ppm (200 mg/m<sup>3</sup>);STEL 100 ppm (400 mg/m<sup>3</sup>);Skin OEL-SWITZERLAND:TWA 100 ppm (380 mg/m<sup>3</sup>);STEL 500 ppm OEL-THAILAND:TWA 200 ppm;STEL 300 ppm OEL-TURKEY:TWA 200 ppm (750 mg/m<sup>3</sup>) OEL-UNITED KINGDOM :TWA 100 ppm (375 mg/m<sup>3</sup>);STEL 150 ppm;Skin OEL IN BULGARIA, COLOMBIA,JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

## Section 16 -

## Additional Information

**MSDS Creation Date:** 09/07/2004

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall VEE GEE Scientific be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if VEE GEE Scientific has been advised of the possibility of such damages.*

# MATERIAL SAFETY DATA SHEET

Xylenes (Xylol)

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Xylenes (Xylol)  
Product Code: 280-20  
Material Uses:  
Manufacturer: OFI Testing Equipment Inc.  
1006 W. 34th Street  
Houston, TX 77018  
(877) 880-9885  
Entry Date : 5/12/2010  
Print Date: 9/13/2010  
24 Hour Emergency Assistance : Chemtrec 800-424-9300  
Canutec 613-996-6666

Health:	2			
Flammability:	3			
Reactivity:	0			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA = Not Applicable		NE = Not Established		

## SECTION 2 HAZARD IDENTIFICATION

Keep away from heat and ignition sources. May be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Emergency Overview: Danger! Harmful Or Fatal If Swallowed. Vapor Harmful. Affects Central Nervous System. Causes Severe Eye Irritation. Causes Irritation To Skin And Respiratory Tract. Chronic Exposure Can Cause Adverse Liver, Kidney, And Blood Effects. Flammable Liquid And Vapor.

Inhalation: Inhalation of Vapors May be Irritating To The Nose And Throat. Inhalation Of High Concentrations May Result In Nausea, Vomiting, Headache, Ringing In The Ears, And Severe Breathing Difficulties Which May Be Delayed In Onset. Substernal Pain, Cough, And Hoarseness Are Also Reported. High Vapor Concentrations Are Anesthetic And Central Nervous System Depressants.

Ingestion: Ingestion Causes Burning Sensation in Mouth and Stomach, Nausea, Vomiting and Salvation. Minute Amounts Aspirated into the Lungs can Produce a Severe Hemorrhagic Pneumonitis with Severe Pulmonary Injury or Death.

Skin: Skin Contact Results in Loss of Natural Oils and Often Results in Characteristic Dermatitis. May be Absorbed Through the Skin.

Eye Contact: Vapors Cause Eye Irritation. Splashes Cause Severe Irritation, Possible Corneal Burns and Eye Damage.

Chronic Exposure: Chronic Inhalation Can Cause Headache, Loss of Appetite, Nervousness and Pale Skin. Repeated or Prolonged Skin Contact may Cause a Skin Rash. Repeated Exposure of the Eyes to High Concentrations of Vapor may Cause Reversible Eye Damage. Repeated Exposure can Damage Bone Marrow, Causing Low Blood Cell Count. May Damage Liver and Kidneys.

Aggravated by Exposure: Persons with Pre-Existing Skin Disorders or Eye Problems or Impaired Respiratory Function, or Impaired Liver or Kidney Function may be more Susceptible to the Effects of the Substance.

## SECTION 3 MIXTURE COMPONENTS

Xylenes (Xylol)

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Xylenes (Xylol)	CAS# 1330-20-7	100	V/V	OSHA TWA 100 ppm (435 mg/m <sup>3</sup> )

**SECTION 4 FIRST AID MEASURES**

Keep away from heat and ignition sources. May be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

**SECTION 5 FIRE FIGHTING MEASURES**

Fire Extinguisher Type:	Water spray, dry chemical, carbon dioxide, alcohol foam
Fire / Explosion Hazards:	Vapor may travel considerable distance to source of ignition and flash back.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Remove all sources of ignition. Ventilate area of leak or spill. Wear protective equipment. Clean up in a manner that doesn't disperse dust.

Ventilate area or Leak or Spill. Remove all Sources of Ignition. Wear Appropriate Personal Protective Equipment as Specified in Section 8. Isolate Hazard Area. Keep Unnecessary and Unprotected Personnel from Entering. Contain and Recover Liquid when Possible. Use Non-Sparking Tools and Equipment. Collect Liquid in an Appropriate Container or Absorb with an Inert Material (e.g., Vermiculite, Dry Sand, Earth), and Place in a Chemical Waste Container. Do Not Use Combustible Materials, such as Saw Dust. Do Not Flush to Sewer! US Regulations (CERCLA) Require Reporting Spills and Releases to Soil, Water and Air in Excess of Reportable Quantities.

**SECTION 7 HANDLING AND STORAGE**

Keep away from heat and flame. Do not get in eyes, on skin, on clothing. Use with adequate ventilation.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Respiratory Protection:	NIOSH/MSHA-approved respirator
Ventilation	Local Exhaust <input checked="" type="checkbox"/>

Xylenes (Xylol)

Mechanical

Protective Gloves: Gloves to prevent skin exposure as rubber or vinyl

Eye Protection: Goggles and Face Shield

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Melting Point:	12.2° C	Percent Volatile by Volume:	> 99%
Boiling Point:	138° C	Evaporation Rate	Information not available
Vapor Pressure:	6.72	Evaporation Standard	
Vapor Density:	3.66	Auto Ignition Temp	Information not available
Solubility in Water:	Negligible	Lower Flamm. Limit in Air	1.0
Appearance /Odors:	Red liquid, solvent odor	Upper Flamm. Limit in Air	6.0
Flash Point:	17.0° C		
Specific Gravity:	0.864		

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability: Stable

Conditions to Avoid: Avoid contact with heat, sparks, flames, or other sources of ignition.

Materials to Avoid: Oxidizing materials

Hazardous Decomposition Products: Oxides of carbon, acrid fumes

Hazardous polymerization: Will Not Occur

Conditions to Avoid: None known

**SECTION 11 Toxicological Information**

Carcinogenic References: NTP Carcinogen - Known: No, IARC Category- 3

**SECTION 12 Ecological Information**

Environmental Toxicity: When Released to the Soil and Water, this Material may Evaporate to Moderate Extent.

Environmental Toxicity: This material may be toxic to aquatic life. The LC50/96-hour values for fish are between 1 and 10 mg/l. The LC50/96-hour values for fish are between 10 and 100 mg/l.

**SECTION 13 Disposal Considerations**

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**SECTION 14 Transport Information**

Xylenes (Xylol)

DOT Classification: Xylenes, 3, UN1307, PG III

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

**SECTION 15 Regulatory Information**

Chemical Inventory Status –

Part 1:Ingredient

p-Xylene (106-42-3)

TSCA Yes

EC Yes

Japan YES

Australia Yes

Chemical Inventory Status –

Part 2:Ingredient

p-Xylene (106-42-3)

Korea Yes

DSL Yes

NDSL No

Phil. Yes

Federal, State & International Regulations –

Part 1: Ingredient.

p-Xylene (106-42-3)

RQ No

TPQ No

List YES

Chemical Catg No

Federal, State &  
International Regulations –

Part 2:Ingredient

p-Xylene (106-42-3)

CERCLA 100

261.33 No

8(d) YES

Chemical Weapons Convention: No

TSCA 12 (b):YES

CDTA:NO PURE/LIQUID

SARA 311/312: Acute:YES

Chronic: YES

Fire: YES

Pressure: No

Reactivity: No

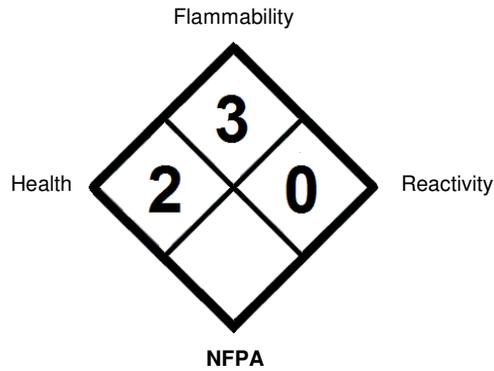
Australian Hazchem Code: 3Y

Poison Schedule:S6

**SECTION 16 Additional Information**

Effects of overexposure, Acute and Chronic: Irritation of eyes, nose and throat. Reversible eye damage, dermatitis, chemical pneumonia, central nervous system depression. Conditions aggravated: Persons with pre-existing eye, skin or respiratory conditions may be more susceptible. Target organs: Liver and kidneys.

Xylenes (Xylol)



**Revisions**

6/22/2010	0.1	updated msds to 16 section from 10 section msds. STN
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The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.

## MATERIAL SAFETY DATA SHEET

### SECTION 1 ♦ PRODUCT AND COMPANY IDENTIFICATION

Explorer Pipeline Company  
6846 South Canton  
P.O. Box 2650  
Tulsa, Oklahoma 74101

**FOR EMERGENCY SOURCE INFORMATION CONTACT:**

- (918) 493 - 5100
- CHEMTREC: (800) 424-9300 (24 hour contact)
- CANUTEC: (613) 996-6666
- SETIQ: 91-800-00214

**TRADE NAMES/SYNONYMS:**

Methyl Tertiary Butyl Ether, Methyl Ether, Butyl Ether, or MTBE

**CHEMICAL FAMILY:** Alkyl Ethyl

**EPL Code:** 17

*This material safety data sheet represents the composite characteristics and properties of fungible petroleum hydrocarbons and other related substances transported by explorer pipeline company. The information presented was compiled from one or more product shipper sources and is intended to provide health and safety guidance for these fungible products. Individual shipper and manufacturer MSDSs are available at Explorer Pipeline Company's, Tulsa, Oklahoma, offices.*

### SECTION 2 \* HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

#### DANGER! EXTREMELY FLAMMABLE LIQUID

- Clear, colorless liquid with ether-like odor;
- Eye and mucous membrane irritant - effects central Nervous system - harmful or fatal if swallowed - aspiration hazard;
- High fire hazard. Keep away from heat, spark, open flame, and other ignition sources;
- Contact may cause eye, skin and mucous membrane irritation. Avoid prolonged breathing of vapors or mists;
- Inhalation may cause irritation, anesthetic effects (dizziness, nausea, headache, intoxication), and respiratory system effects;
- If ingested, do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs); and
- Obtain prompt medical attention. Keep Out of Reach of Children!

### SECTION 3 ▼ COMPOSITION/INFORMATION OF INGREDIENTS

INGREDIENT	CAS NUMBER	PERCENTAGE (%)
Methyl Tertiary Butyl Ether	1634-04-4	97+%

#### ACUTE

**GETTING IT IN YOUR EYE...**

- May cause minor eye irritation.

**GETTING IT ON YOUR SKIN...**

- No significant signs or symptoms indicative of any health hazard are expected to occur as a result of skin absorption exposure.
- May produce skin irritation.

**SWALLOWING IT...**

- The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

**BREATHING IT...**

- Excessive exposure may cause irritation to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

**CHRONIC**

➤ Medical information regarding special health effects is not conclusive.

**CANCER, REPRODUCTIVE AND GENETIC EFFECTS**

➤ This product has produced cancer, developmental and systemic toxicity in laboratory animals following repeated exposure. The significance of these results to human exposures has not been determined.

See Toxicological Information (Section 11) For More Information

**SECTION 4 ☩ FIRST AID MEASURES**

**EYES:** In case of eye contact, immediately rinse with clean water for 20-30 minutes. Retract eyelids often. Obtain emergency medical attention if pain, blinking, tears or redness persist.

**SKIN:** Immediately remove contaminated clothing. Wash skin thoroughly with mild soap/water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first.

**INGESTION:** If large quantity swallowed, give lukewarm water (pint) if victim completely conscious/alert. Do not induce vomiting/risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

**INHALATION:** If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

NOTE TO PHYSICIAN: TREAT SYMPTOMATICALLY AND SUPPORTIVELY

**SECTION 5 ⚠ FIRE FIGHTING MEASURES**

Releases flammable vapors below normal ambient temperatures. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Flammable vapors may be heavier than air. May travel long distances along ground before igniting/flashing back to vapor source.

**FLASH POINT:**(Method Used) -30°F

**FLAMMABLE LIMITS:**

LEL: 1.0%

UEL: 8.0%

**AUTOIGNITION TEMPERATURE:** 797°F

**EXTINGUISHING MEDIA:** Dry Chemical, CO<sub>2</sub>, Foam for Alcohols, Water spray, and fog to cool exposures

**HAZARDOUS REACTIONS/DECOMPOSITION:** Combustion may produce carbon monoxide, carbon dioxide, and acrid fumes. Incomplete combustion generates highly poisonous carbon monoxide and perhaps other toxic gases.

**SPECIAL INSTRUCTIONS:** Do not enter fire area without proper protection. Decomposition products possible. Fight fires from safe distance/protected location. Heat may build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Water may be ineffective due to low flash point. Even if material is water soluble, may not be practicable to extinguish fire by water dilution. Apply water spray/fog for cooling. Notify authorities if liquid enters sewer/public waters.

**SECTION 6 ❖ ACCIDENTAL RELEASE MEASURES**

➤ Flammable liquid. Release can cause fire/explosion. Liquids/vapors may ignite. Evacuate/limit access. Equip responders with proper protection. Kill all ignition sources. Stop release. Prevent flow to sewers/public waters. Notify fire/environmental authorities. Blanket with firefighting foam. Restrict water use for cleanup. Impound/recover large land spill. Soak up small spill with inert solids. Use suitable disposal containers. On water material partially soluble/may float or sink. Contain/minimize dispersion/collect. Disperse residue to reduce aquatic harm.

**SECTION 7 ⚗ HANDLING AND STORAGE**

Prior to working with this product workers should be trained on its proper handling and storage

➤ Store in tightly closed/properly vented containers away from heat/sparks/open flame/strong oxidizers. Use only non-sparking tools. Store drums with bung in up position. Carefully vent internal pressure before removing closure. Containers must be grounded before transfer. Electrical equipment should conform to National Electric Code. Handle used containers with care; residue may be flammable/explosive, unless blanketed with inert gas.

➤ Isolate, vent, drain, wash, and purge equipment before maintenance. Remove all ignition sources, check atmosphere for explosiveness and oxygen deficiencies. Use adequate personal protective equipment. Observe precautions pertaining to confined space entry.

### SECTION 8 ☄ EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** No special ventilation is usually required beyond that needed for normal comfort control.

**OTHER HYGIENIC AND WORK PRACTICES:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

#### EXPOSURE LIMITS

##### OSHA PEL

##### ACGIH TLV (2005)

#### METHYL TERT BUTYL ETHER

TWA	STEL	TWA	STEL
Not Applicable (N.A.)	N.A.	50 ppm	N.A.

#### PERSONAL PROTECTIVE EQUIPMENT

- **EYES:** Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor. Contact lenses should not be worn.
- **SKIN:** Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. This equipment should be cleaned thoroughly after each use.
- **RESPIRATORY PROTECTION:** No occupational exposure standards have been developed for this material. Where exposure through inhalation may occur from use, NIOSH/MSHA approved respiratory protection is recommended.

### SECTION 9 ⚡ PHYSICAL AND CHEMICAL PROPERTIES

<b>BOILING POINT (760 MM HG):</b> 131°F	<b>PERCENT VOLATILE BY VOLUME:</b> 100%
<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1):</b> 0.74 @ 68°F	<b>VISCOSITY UNITS, TEMP:</b> No Data
<b>FREEZING POINT:</b> -164°F	<b>VAPOR DENSITY (AIR =1):</b> 3.1
<b>VAPOR PRESSURE AT 68°F:</b> 75 mm Hg	<b>SOLUBILITY IN WATER:</b> Approximately 4% to 5%
<b>APPEARANCE AND ODOR:</b> Clear, colorless liquid with ether-like odor.	

### SECTION 10 ⚡ STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable

**CONDITIONS TO AVOID:** High temperature, open flame or spark.

**OTHER PHYSICAL AND CHEMICAL PROPERTIES:** No Data

**MATERIALS TO AVOID:** Strong oxidizing agents, ungrounded electrical equipment, open flames and spark.

**HAZARDOUS POLYMERIZATION:** Not Expected to Occur

### SECTION 11 ☠ TOXICOLOGICAL INFORMATION

#### METHYL TERT BUTYL ETHER (MTBE)

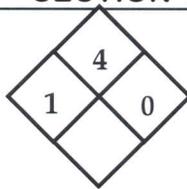
Acute symptoms associated with human exposure to MTBE appear to be mild and transient. Breathing small amounts of MTBE for short periods may cause nose and throat irritation. In laboratory studies, rodents exposed to high doses of MTBE exhibited blood chemistry changes and liver and kidney abnormalities.

#### TOXICITY

Type Of Dose	Specie	Result	Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LD <sub>50</sub> (oral)	Mouse	3,500 mg/kg	LC <sub>50</sub> (inh)	Mouse	35,000 ppm	LD <sub>LO</sub> (oral)	Human	No Data Available

#### CARCINOGENICITY

<b>IARC</b>	Sufficient evidence in animals	Inadequate evidence in humans	Group 3: Possible human carcinogen
<b>NTP</b>	Not identified as a Know Carcinogen or Anticipated Human Carcinogen		

MATERIAL NAME: MTBE				MSDS # EPL-9	
<b>California (Prop 65):</b> Listed as carcinogen		<b>NIOSH:</b> Not Listed		<b>ACGIH:</b> A3 – Confirmed Animal	
<b>OSHA:</b> not classifiable as a human carcinogen					
<b>MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS</b>					
In laboratory studies, MTBE vapor exposure at the high dose concentration was associated with an increased incidence of liver tumors in female mice. Also, at high dose concentration exposures, MTBE was associated with an increased incidence of kidney and testicular (Leydig cell) tumors in male rats. There is no evidence that MTBE causes cancer in humans.					
<b>SECTION 12 ✨ ECOLOGICAL INFORMATION</b>					
<b>ACUTE EFFECTS:</b> MTBE is considered moderately toxicity to aquatic life. Insufficient data are available to evaluate or predict the short-term effects to birds or land animals.					
<b>CHRONIC EFFECTS:</b> MTBE is considered moderately toxicity to aquatic life. Insufficient data are available to evaluate or predict the long-term effects to birds or land animals.					
<b>DISTRIBUTION AND PERSISTENCE IN THE ENVIRONMENT:</b> MTBE evaporates when exposed to air. It dissolves when mixed with water. Most direct releases of MTBE to the environment are to air. MTBE also evaporates from water and soil exposed to air. Once in air, it is expected to break down to other chemicals. Because it is a liquid that does not bind well to soil, MTBE that makes its way into the ground can move through the ground and enter groundwater. Plants and animals are not likely to store methyl tertiary-butyl ether..					
<b>SECTION 13 ✨ DISPOSAL CONSIDERATIONS</b>					
Contaminated product/soil/water may be RCRA/OSHA hazardous waste due to low flash point. Use registered transporters. Dilute aqueous waste may biodegrade.					
<b>SECTION 14 ★ TRANSPORTATION INFORMATION</b>					
Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations					
Agency		Shipping Name		Packing Group	
U.S. DOT		Methyl tert-butyl ether		II	
				Hazard Class	
				Flammable Liquid	
				UN/NA #	
				UN 2398	
<b>SECTION 15 ☽ REGULATORY INFORMATION</b>					
<b>CERCLA RQ's (40 CFR Part 302)</b>			MTBE - 1,000 pounds		
<b>RCRA</b>			Not Listed		
<b>SARA (40 CFR Part 355) TPQ's</b>			None of the ingredients are listed		
<b>SARA Title III Section 313</b>			All ingredients listed		
<b>California's Prop 65</b>			All ingredients listed		
<b>OSHA</b>			All ingredients are listed as hazardous under 29 CFR 1910.1200		
<b>SECTION 16 ☼ OTHER INFORMATION</b>					
<b>NFPA 704 LABEL:</b>			<b>HMIS LABEL</b>		
			1-4-0		
<b>MSDS REVISIONS:</b> Change in Format and update of Information					
<b>MSDS CREATION DATE:</b> July 1997			<b>REVISION #1:</b> 01/03/06		

**DISCLAIMER**

The information in this MSDS was obtained from sources which we believe are reliable. **HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS ACCURACY.** Some conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.** All product measurements such as flash point, *etc.* are considered approximate values. All data provided by Explorer Pipeline Company.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, such as refined petroleum hydrocarbon mixtures, this MSDS information may not be applicable.

MSDS DEVELOPER: \_\_\_\_\_

A handwritten signature in black ink that reads "Cass Willard".

Cass Willard, CIH

DATE: 01/03/06

# **MATERIAL SAFETY DATA SHEET FOR LEAD**

## **SECTION 1 – MATERIAL IDENTIFICATION**

**Material Name:**        **Lead**

Description:            Bluish-Grey metal, apparently odorless

Other Designations:    Soft lead, Hard Lead, Calcium lead.

Manufacturer:         Mars Metal Company,  
4130 Morris Drive,  
Burlington, Ontario  
L7L 5L6

Emergency Phone Number: (905) 637-3862

## **SECTION II – HAZARDOUS INGREDIENTS EXPOSURE GUIDELINES**

Base Metal: Lead – C.A.S. #7439-9201/Exposure Limits: 1.05 Mg/M3 ACGIH TWA  
Alloys: Sb, Sn, As, Cu, Ca – Antimony C.A.S. #7440-36-0/  
Exposure Limits: 0.50 Mg/M3 ALGIH TWA

## **SECTION III – PHYSICAL DATA:**

Boiling Point: 3164 degrees Fahrenheit  
Melting Point: 622 degrees Fahrenheit  
Specific Gravity: (H<sub>o</sub> = 1) Approximately 10.3  
Vapour Pressure: (MM HG) N.A.  
Solubility in Water: Negligible

## **SECTION IV – FIRE AND EXPLOSION DATA**

Hazards:                Toxic fumes and vapours are produced by molten lead.  
Dust explosion potential exists

Extinguishing Media: Dry chemical or carbon dioxide should be used on surrounding Area.

Firefighting Procedures: Full body protective clothing should be worn and positive pressure breathing apparatus used.

Flammability:         Metal is not flammable, powders or dust may be flammable.

## **SECTION V – REACTIVITY DATA**

Chemical Stability:    Metal is stable.

Incompatibility: Strong oxidizers, Hydrogen Peroxide, Active metals.

Hazardous Decomposition Products: High temperature may produce hazardous fumes.

#### **SECTION VI – HEALTH HAZARD DATA AND FIRST AID**

Threshold Limit Value: Time weighed average exposure 0.15 MG/M3. Short term Exposure 0.30 MG/M3.

Routes of Exposure: Ingestion, Inhalation, and Eyes.

#### **EFFECTS OF EXPOSURE:**

Acute Overexposure: May cause weakness, vomiting, loss of appetite and Constipation.

Chronic Exposure: May cause weakness, Insomnia, Hypertension, Anemia, Neuromuscular dysfunction's and joint pain.

#### **EMERGENCY AND FIRST AID PROCEDURES:**

Ingestion: Rinse mouth, give plenty of water, get medical attention.

Inhalation: Remove from exposure to fresh air, get medical attention.

Eyes: Rinse thoroughly with water, get medical attention.

Skin: Remove contaminated clothing and wash effected area with water and soap.

#### **SECTION VII – SPILL AND LEAK PROCEDURES:**

Released or Spilled: Sweep up carefully using water (or other suitable wetting agent) to prevent emissions, place waste in sealable containers which are to be disposed of in accordance with local legislation.

Waste Disposal Method: Contact local authorities for instructions on proper disposal procedures in your area.

#### **SECTION VIII – SPECIAL PROTECTION INFORMATION:**

Respiratory: Use respirators as per the regulations respecting Lead.

Eye Protection: Face shield/approved safety glasses.

Hands: Protective gloves should be worn when handling Lead.

Other Protective Equipment: Clean overalls, safety boots, and helmets.

Local Exhaust: Adequate local and general ventilation must be provided.

**SECTION IX – SPECIAL PRECAUTIONS:**

Handling and Storage: Lead dust should be handled in sealed containers. Every effort should be made to prevent dusts from becoming airborne.

Other Precautions: Use wet methods for dust control whenever possible. Ensure that there is sufficient ventilation in areas of lead use.

January 2008



## MATERIAL SAFETY DATA SHEET

(POLYCHLORINATED BIPHENYLS)

### COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name: polychlorinated biphenyls (PCBs)

### HAZARD IDENTIFICATION

Reports of Carcinogenicity: YES

### HEALTH HAZARDS ACUTE AND CHRONIC

- **Eyes**: Moderately irritating to eye tissues.
- **Skin**: Can be absorbed through intact skin, may cause de-fatting, potential for chloracne.
- **Inhalation**: Possible liver injury.
- **Ingestion**: Slightly toxic; reasonably anticipated to be carcinogenic.

### EFFECTS OF OVER-EXPOSURE

Can cause dermatological symptoms; however, these are reversible upon removal of exposure source.

### FIRST AID MEASURES

- **Eyes**: Irrigate immediately with copious quantities of running water for at least 15 minutes if liquid or solid PCBs get into them.
- **Skin**: Contaminated clothing should be removed and the skin washed thoroughly with soap and water. Hot PCBs may cause thermal burns.
- **Inhalation**: Remove to fresh air; if skin rash or respiratory irritation persists, consult a physician (if electrical equipment arcs over, PCBs may decompose to produce hydrochloric acid).
- **Ingestion**: Consult a physician. Do not induce vomiting or give any oily laxatives. (If large amounts are ingested, gastric lavage is suggested).

**FIRE FIGHTING MEASURES**: Flash Point: >141 °C (285.8 °F)

**EXTINGUISHING MEDIA**: PCBs are fire-resistant compounds.

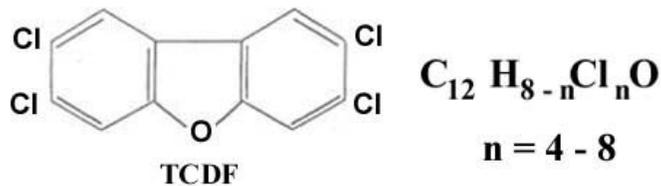
## FIRE-FIGHTING PROCEDURES

Standard fire-fighting wearing apparel and self-contained breathing apparatus should be worn when fighting fires that involve possible exposure to chemical combustion products. Fire fighting equipment should be thoroughly cleaned and decontaminated after use.

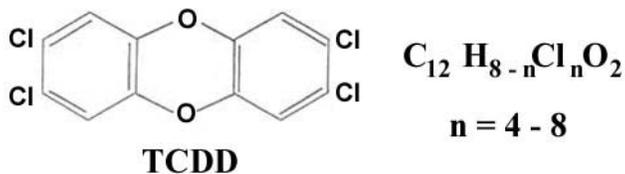
## UNUSUAL FIRE/EXPLOSION HAZARD

If a PCB transformer is involved in a fire-related incident, the owner of the transformer is required to report the incident. Consult and follow appropriate federal, provincial and local regulations.

*Note: When askarel liquid becomes involved in a fire, toxic by-products of combustion are typically produced including polychlorinated dibenzofurans and polychlorinated dibenzodioxins, both known carcinogens. The structures of these chemical species are as follows:*



**2,3,7,8-tetrachlorodibenzofuran**



**2,3,7,8-tetrachloro-dibenzo-p-dioxin**

*Note: 2,3,7,8-tetrachloro-dibenzo-p-dioxin is one of the most potent teratogenic, mutagenic and carcinogenic agents known to man.*

## SPILL RELEASE PROCEDURES

Cleanup & disposal of liquid PCBs are strictly regulated by the federal government. Ventilate area. Contain spill/leak. Remove spill by means of absorptive material. Spill clean-up personnel should use proper protective clothing. All wastes and residues containing PCBs should be collected, containerized, marked and disposed of in the manner prescribed by applicable federal, provincial and local laws.

## HANDLING AND STORAGE PRECAUTIONS

Care should be taken to prevent entry into the environment through spills, leakage, use, vaporization, or disposal of liquid. Avoid prolonged breathing of vapours or mists. Avoid contact with eyes or prolonged contact with skin. Comply with all federal, provincial and local regulations.

## **OTHER PRECAUTIONS**

Federal regulations require PCBs, PCB items, storage areas, transformer vaults, and transport vehicles to be appropriately labelled.

## **RESPIRATORY PROTECTION**

Use OSHA approved equipment when airborne exposure limits are exceeded. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical splash goggles. The respirator use limitations specified by the manufacturer must be observed.

## **VENTILATION**

Provide natural or mechanical ventilation to control exposure levels below airborne exposure levels.

**PROTECTIVE GLOVES:** Wear appropriate chemical resistant gloves to prevent skin contact.

**EYE PROTECTION:** Wear chemical splash goggles and have eye baths available.

## **OTHER PROTECTIVE EQUIPMENT**

Wear appropriate protective clothing. Provide a safety shower at any location where skin contact can occur.

## **WORK HYGIENIC PRACTICES**

Wash thoroughly after handling. Supplemental safety and health : none

## **PHYSICAL/CHEMICAL PROPERTIES**

- **Vapour pressure:** (mm Hg @100 °F) 0.005 - 0.00006
- **Viscosity:** (CENTISTOKES) 3.6 - 540
- **Stability indicator/materials to avoid:** Yes
- **Stability Condition to Avoid:** PCBs are very stable, fire-resistant compounds.

## **HAZARDOUS DECOMPOSITION PRODUCTS**

Carbon monoxide, carbon dioxide, hydrogen chloride, phenolics, aldehydes, furans, dioxins

## **WASTE DISPOSAL METHODS**

Consult the applicable PCB regulations prior to any disposal of PCBs or PCB-contaminated items.



# Material Safety Data Sheet

MSDS ID NO.: 0255MAR019  
Revision date: 09/12/2005

## 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product name:** Marathon 325 Extract  
**Synonyms:** SB-AE Binder; 325 Aromatic Extract; Heavy Paraffinic Solvent Extract  
**Chemical Family:** Aromatic Extract  
**Formula:** Mixture

**Manufacturer:**  
Marathon Petroleum Company LLC  
539 South Main Street  
Findlay OH 45840

**Other information:** 419-421-3070  
**Emergency telephone number:** 877-627-5463

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

325 Extract is a complex mixture of hydrocarbons obtained as the extract from a solvent extraction process. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C20-C50. The CAS description of this stream states that it is likely to contain >5% 4 to 6-membered condensed ring polycyclic aromatic hydrocarbons.

This product was analyzed by MAP and found to contain <0.05% of the 22 3-7 ring polycyclic aromatic compounds identified as Persistent Bioaccumulative Toxic (PBT) Chemicals subject to reporting under EPA EPCRA Section 313 regulations.

### Product information

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon 325 Extract	64742-04-7	100			

### Component Information

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	64742-04-7	100.0000			
Sulfur Compounds	Mixture	0.5-4			

**Notes:** The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

THIS PRODUCT IS A BROWN TO BLACK VISCOUS COLORED LIQUID. CONTAINS POLYNUCLEAR AROMATIC HYDROCARBONS SOME OF WHICH HAVE PRODUCED CANCER IN LABORATORY ANIMALS AND HUMANS. REPEATED SKIN CONTACT TO SOME COMPONENTS OF THIS PRODUCT HAVE PRODUCED SYSTEMIC TOXICITY (INCLUDING LIVER DAMAGE) IN LABORATORY ANIMALS. VAPORS CAN PRODUCE EYE, SKIN, AND RESPIRATORY TRACT IRRITATION. THIS PRODUCT IS NOT A COMBUSTIBLE LIQUID PER THE OSHA HAZARD COMMUNICATION STANDARD, BUT WILL IGNITE AND BURN AT TEMPERATURES EXCEEDING THE FLASH POINT.

**OSHA WARNING LABEL:**

**DANGER!**

**CONTAINS POLYNUCLEAR AROMATIC HYDROCARBONS SOME OF WHICH HAVE PRODUCED CANCER IN LABORATORY ANIMALS AND HUMANS.  
REPEATED SKIN CONTACT TO SOME COMPONENTS IN THIS PRODUCT HAS PRODUCED SYSTEMIC TOXICITY (INCLUDING LIVER DAMAGE) IN LABORATORY ANIMALS.**

**CONSUMER WARNING LABEL:**

**A CONSUMER WARNING LABEL IS NOT APPLICABLE FOR THIS PRODUCT.**

- Inhalation:** Exposure to vapor or mist may cause pulmonary irritation, dizziness, nausea and loss of consciousness.
- Ingestion:** Product is presumed to be slightly toxic (single dose). Significant ingestion could result in liver damage.
- Skin contact:** Prolonged and repeated liquid contact can cause dermatitis, folliculitis or oil acne. Components of this product may cause skin sensitization. Components of this product can cause liver damage if absorbed through the skin.
- Eye contact:** Liquid or vapor contact may result in slight eye irritation.

**Carcinogenic Evaluation:**

**Product information**

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon 325 Extract 64742-04-7	NE			

- Notes:** The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of untreated vacuum distillates, acid-treated oils, and aromatic oils, including extracts from solvent treatment of distillates and the high boiling fraction of catalytically cracked oils in animals.

**Component Information**

- Notes:** The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have concluded that certain polycyclic aromatic hydrocarbons, i.e. (benzo(a)pyrene, benz(a)anthracene, benzo(a)phenanthrene, indeno(1,2,3-cd)pyrene, benzo(j)fluoranthene, benzo(j,k,fluorine, benzo(g,h,i)perylene, and 5-methylchrysene are probably carcinogenic to humans (Group 2A and B).

**4. FIRST AID MEASURES**

- Inhalation:** If affected, move person to fresh air. If breathing is difficult, administer oxygen. If not breathing or if no heartbeat, give artificial respiration or cardiopulmonary resuscitation (CPR). Immediately call a physician. If symptoms or irritation occur with any exposure, call a physician.

<b>Skin contact:</b>	Wash with soap and large amounts of water. Remove contaminated clothing. If symptoms or irritation occur, call a physician.
<b>Ingestion:</b>	Ingestion not likely. If swallowed, do not induce vomiting and do not give liquids. Immediately call a physician.
<b>Eye contact:</b>	Flush eyes with large amounts of tepid water for at least 15 minutes. If symptoms or irritation occur, call a physician.
<b>Medical conditions aggravated by exposure:</b>	Preexisting skin conditions, respiratory disorders, and impaired liver function may be aggravated by exposure to components of this product.

## 5. FIRE FIGHTING MEASURES

<b>Suitable extinguishing media:</b>	For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFT/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.
<b>Specific hazards:</b>	This product is not a combustible liquid per the OSHA Hazard Communication Standard, but will ignite and burn at temperatures exceeding the flash point.
<b>Special protective equipment for firefighters:</b>	Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Use water spray to cool exposed surfaces from as far a distance as possible. Keep run-off water out of sewers and water sources.
<b>Flash point:</b>	435 F; 224 C (Min)
<b>Autoignition temperature:</b>	No data available.
<b>Flammable limits in air - lower (%):</b>	No data available.
<b>Flammable limits in air - upper (%):</b>	No data available.
<b><u>NFPA rating:</u></b>	<b><u>HMIS classification:</u></b>
Health: 2	Health: 2
Flammability: 1	Flammability: 1
Reactivity: 1	Reactivity: 1
Other: -	Special: *See Section 8 for guidance in selection of personal protective equipment.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Advise authorities and National Response Center (800-424-8802) if substance has entered a watercourse or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return product to source.
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## 7. HANDLING AND STORAGE

**Handling:**

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues.

Avoid skin contact. Stay upwind and vent open hatches before unloading. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

<b>Engineering measures:</b>	Local or general exhaust required in an enclosed area or when there is inadequate ventilation.
<b>Respiratory protection:</b>	Not required under normal conditions and adequate ventilation. Use atmosphere supplying respirators in confined spaces or when vapors exceed permissible limits; otherwise, an organic vapor respirator with pre-filter for fumes can be used. Self-contained breathing apparatus should be used for fire fighting.
<b>Skin and body protection:</b>	Impermeable gloves (e.g., nitrile, viton, tyvek/saranex 23) to prevent skin contact. Chemical resistant apron or other protective clothing to avoid skin contact.
<b>Eye protection:</b>	Goggles and faceshield when handling hot material.
<b>Hygiene measures:</b>	Use mechanical ventilation equipment that is explosion-proof.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>Appearance:</b>	Brown To Black Viscous Liquid
<b>Physical state (Solid/Liquid/Gas):</b>	Liquid
<b>Substance type (Pure/Mixture):</b>	Mixture
<b>Color:</b>	Brown to Black
<b>Odor:</b>	Aromatic Sweet
<b>Molecular weight:</b>	Not determined.
<b>pH:</b>	Neutral
<b>Boiling point/range (5-95%):</b>	642-1017 F
<b>Melting point/range:</b>	Not determined.
<b>Decomposition temperature:</b>	Not applicable.
<b>Specific gravity:</b>	1.0
<b>Density:</b>	8.3 lbs/gal
<b>Bulk density:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Vapor pressure:</b>	Negligible
<b>Evaporation rate:</b>	No data available.
<b>Solubility:</b>	Not determined
<b>Solubility in other solvents:</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>VOC content(%):</b>	No data available.
<b>Viscosity:</b>	453.4 cSt @ 40 C 16.4 cSt @ 100 C
<b>Pour Point:</b>	70 F

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	The material is stable at 70 F, 760 mm pressure.
<b>Polymerization:</b>	Will not occur.

**Hazardous decomposition products:**

Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.

**Materials to avoid:**

Strong oxidizers such as nitrates, chlorates, peroxides.

**Conditions to avoid:**

Sources of heat or ignition.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:****Product information**

Name	CAS Number	Inhalation:	Dermal:	Oral:
Marathon 325 Extract	64742-04-7	No data available	>2 mg/kg [Rabbit]	>5 gm/kg [Rat]

Lifetime skin painting studies with heavy distillate aromatic extracts (HDAE) have produced tumors following prolonged and repeated skin contact. HDAE was found to be positive in an Ames mutagenicity test. Repeated dermal application of HDAE (30 mg/kg/day for 13 weeks) resulted in anemia, liver degeneration and injury to bone marrow and lymphoid tissues. Treatment related mortality and body weight reduction was observed at 500 mg/kg. Repeated dermal application (125 mg/kg/day) of HDAE to pregnant rats during gestation produced maternal and fetal toxicity. Increased resorptions were observed at doses of 30 mg/kg/day and above.

Summary of health effect data on aromatic extracts:

This product contains >0.1% 3-7 ring polynuclear aromatic hydrocarbons (PAC's). Some 3-7 ring PACs have been shown to be carcinogenic in experiment animals. An increased risk of cancer has been observed in workers employed in the aluminum production, coal gasification, coal-tar pitch, coke production and iron and steel industries that had been occupationally exposed to polynuclear aromatic hydrocarbons (PAC). Since these kinds of PACs have been measured at high levels in air samples taken in these industries, IARC has concluded that these PACs are probably carcinogenic to humans.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects:**

If spilled, hot product and/or the coating action of the oil components could harm plant life.

The 96 hour TLM for WAF (water accommodated fraction) of an aromatic extract is >1000 mg/l in fish or algae. 21 day exposures of 1000 mg/l WAF of an aromatic extract to Daphnia did not affect survival nor reproduction.

## 13. DISPOSAL CONSIDERATIONS

**Cleanup Considerations:**

This material as supplied and by itself, when discarded or disposed of, is not an EPA RCRA hazardous waste according to federal regulations. This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

## 14. TRANSPORT INFORMATION

**49 CFR 172.101:****DOT:****Transport Information:**

This material when transported via US commerce is NOT REGULATED by DOT regulations.

DOT reportable quantity (lbs):

Not applicable.

TDG (Canada):

Regulated substances:

Not applicable.

## 15. REGULATORY INFORMATION

### Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b):

This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard:

This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

### EPA Superfund Amendment & Reauthorization Act (SARA):

#### SARA Section 302:

This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	NA
Sulfur Compounds	NA

#### SARA Section 304:

This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	NA
Sulfur Compounds	NA

#### SARA Section 311/312:

The following EPA hazard categories apply to this product:

Acute Health Hazard  
Chronic Health Hazard

#### SARA Section 313:

This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

Name	CERCLA/SARA 313 Emission reporting:
Extracts, Petroleum Heavy Paraffinic Distillate Solvent	None
Sulfur Compounds	None

### State and Community Right-To-Know Regulations:

The following component(s) of this material are identified on the regulatory lists below:

Extracts, Petroleum Heavy Paraffinic Distillate Solvent

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Carcinogen; Extraordinarily hazardous
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed

Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	carcinogen; extraordinarily hazardous
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
<b>Sulfur Compounds</b>	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

**Canadian Regulatory Information:**

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or the Non Domestic Substance List (NDSL).

**16. OTHER INFORMATION**

**Additional Information:** No data available.

**Prepared by:** Craig M. Parker Manager, Toxicology And Product Safety

The information and recommendations contained herein are based upon tests believed to be reliable. However, Marathon Petroleum Company LLC (MPC) does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage maybe required. MPC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of Safety Data Sheet**

# MATERIAL SAFETY DATA SHEET

# MALATHION ULV® CONCENTRATE INSECTICIDE

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### FORMULATED FOR:

Loveland Products, Inc.  
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300  
Medical Emergencies: 1-800-301-7976  
U.S. Coast Guard National Response Center: 1-800-424-8802

**PRODUCT NAME:** MALATHION ULV® CONCENTRATE INSECTICIDE  
**CHEMICAL NAME:** Malathion; (0-0-Dimethyl phosphorodithioate of diethyl mercaptosuccinate)  
**CHEMICAL FAMILY:** Organophosphate Insecticide  
**EPA REG. NO.:** 34704-565  
**MSDS Number:** 000565-04b-LPI

**MSDS Revisions:** See section 16

**Date of Issue:** 07/08/04

**Supersedes:** 01/08/04

## 2. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – CAUTION –** Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes, or clothing. Do not contaminate feed or foodstuffs.

This product is clear yellow-amber colored liquid with a mild petroleum odor.

Warning Statements:

**NOTE TO PHYSICIAN:** This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is an antidote. Symptoms of cholinesterase inhibition include salivation, gastrointestinal hypermotility, abdominal cramping, nausea, diarrhea, sweating, miosis, tearing, blurred vision, headache, dizziness, ataxia, bradycardia, dyspnea, cyanosis, and muscle twitching or tremors. In extreme cases, tetany, mental confusion, incontinence, weakness, collapse, paralysis, convulsive seizures, and even death, can occur.

## 3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Malathion	96.50	121-75-5	15 mg/m <sup>3</sup> (skin)
Inert Ingredients	3.50		

This product is hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

## 4. FIRST AID MEASURES

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-800-301-7976**. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT (°F/Test Method):** 325.4°F/163°C (PMCC)

**FLAMMABLE LIMITS (LFL & UFL):** None established

**EXTINGUISHING MEDIA:** Dry chemical, carbon dioxide, foam, water spray or fog.

**HAZARDOUS COMBUSTION PRODUCTS:** Thermal decomposition products include dimethyl sulfide, sulfur dioxide, carbon monoxide, carbon dioxide, and phosphorus pentoxide.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus with full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area. Avoid heavy hose streams.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** If water is used to fight fire or cool containers, contain runoff by diking to prevent contamination of water supplies. Containers in fire may burst or explode from excessive heat. Stay well back from fire area.

## 6. ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

For small spills, absorb with an absorbent material such as pet litter. Sweep up and transfer to containers for possible land application according to label use or for proper disposal. Check local, state and federal regulations for proper disposal. Flush the area with water to remove any residue.

**CAUTION:** Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

## 7. HANDLING AND STORAGE

**HANDLING:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# MATERIAL SAFETY DATA SHEET

# MALATHION ULV® CONCENTRATE INSECTICIDE

**STORAGE:** Store in a safe manner. Store in original container only. Keep container tightly closed when not in use. Store at temperatures not exceeding 77°F/25°C. Do not use or store near heat or open flame. Do not contaminate water, food or feed by storage or disposal.

**Personal Protective Equipment: Applicators and other handlers must wear:** long sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or Viton® and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**RESPIRATORY PROTECTION:** Not normally required, if vapors or mists exceed acceptable levels, wear a NIOSH approved pesticide respirator.

**EYE PROTECTION:** Chemical goggles or shielded safety glasses.

**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirts and pants, shoes with socks. Wear chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Malathion	15 mg/m <sup>3</sup> (Skin)	1 mg/m <sup>3</sup> (Inhalable fraction of aerosol); BEI*

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE AND ODOR:** Clear yellow-amber colored liquid with a mild petroleum odor.

**SPECIFIC GRAVITY (Water = 1):** 1.231 g/ml

**VAPOR PRESSURE:** 3.4 x 10<sup>-6</sup> mm/Hg @ 25°C

**PERCENT VOLATILE (by volume):** Not established

**Note:** These physical data are typical values based on material tested but may vary from sample to sample.

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

**BULK DENSITY:** 10.27 lbs/gal.

**BOILING POINT:** >300°F/>148.9°C

**EVAPORATION RATE:** Not established

**SOLUBILITY:** Emulsifies

**pH:** 3.7-3.8 (50% solution)

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive heat.

**INCOMPATIBILITY:** Strong alkalis, amines, and strong oxidizing compounds. Can corrode iron, steel, tin plate, lead and copper. Rapidly hydrolyzed at pH >7.0 or <5.0.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Dimethyl sulfide, sulfur dioxide, carbon monoxide, carbon dioxide, and phosphorus pentoxide.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Oral LD<sub>50</sub> (rat):** 5500 mg/kg

**Eye Irritation (rabbit):** Slight irritation

**Inhalation LC<sub>50</sub> (rat):** >5.2 mg/L (4 hr)

**Carcinogenic Potential:** Not listed by NTP, ACGIH, OSHA, or NIOSH as a carcinogen.

**Acute Dermal LD<sub>50</sub> (rabbit):** > 2000 mg/kg

**Skin Irritation (rabbit):** Slight irritation

**Skin Sensitization (Guinea Pig):** Not a sensitizer

## 12. ECOLOGICAL INFORMATION

Malathion is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in areas near the application site. Do not contaminate water by cleaning equipment or disposal of wash waters. Highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

## 13. DISPOSAL CONSIDERATIONS

Do not reuse empty container. **Metal:** Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by local, state and federal regulations. **Plastic:** Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill, or, incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food or feed by storage or disposal.

## 14. TRANSPORT INFORMATION

**DOT Shipping Description:** LESS THAN 10.2 GALLONS NOT REGULATED BY USDOT.

**DOT Shipping Description:** RQ ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, UN3082, III (MALATHION) MARINE POLLUTANT ERG GUIDE 171

**U.S. Surface Freight Classification:** INSECTICIDES, INSECT REPELLENTS, NOI, OTHER THAN POISON (NMFC 102120, CLASS: 60)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	NFPA		HMIS
	2 Health	0 Least	2 Health
	1 Flammability	1 Slight	1 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
	4 Severe		

SARA Hazard Notification/Reporting  
 SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N  
 Delayed Y Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Malathion (CAS: 121-75-5): 100 pounds  
 SARA, Title III, Section 313: Malathion (CAS: 121-75-5) 96.5%  
 RCRA Waste Code: Not listed  
 CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: Format modified to address changes in ANSI Standard Z400.1-2004  
 PREPARED BY: Registrations and Regulatory Affairs REVIEWED BY: Environmental/ Regulatory Services

©Viton is a registered trademark of DUPONT DOW ELASTOMERS L.L.C.  
 \*ACGIH® has recommended a Biological Exposure Index for this substance: Acetylcholinesterase Inhibiting Pesticides  
 ©ACGIH is a registered trademark of American Conference of Governmental Industrial Hygienists

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# MATERIAL SAFETY DATA SHEET

**UNITED MINERAL & CHEMICAL CORPORATION**  
1100 VALLEY BROOK AVENUE  
LYNDHURST, NJ 07071  
TEL: 201-507-3300 FAX: 201-507-1506

**FOR EMERGENCY CALL:**  
**C H E M T R E C**  
1-800-424-9300

## SECTION A - PRODUCT INFORMATION

**TRADE NAME :** ARSENIC METAL;  
MBE CHARGES, ARSENIC CHUNK & GRANULE  
**CAS NUMBER :** 7440-38-2  
**SYNONYMS :** METALLIC ARSENIC; GREY ARSENIC; ARSENIA  
**CHEMICAL FAMILY :** METALS - GROUP 5a  
**FORMULA :** As  
**REVISION DATE :** NOVEMBER 16, 2007

## SECTION B - HAZARDOUS COMPONENTS

COMPONENT	CAS NO.	%	PEL/TLV
ARSENIC METAL (As)	7440-38-2	100	0.01mg/m <sup>3</sup> ACGIH TWA AS As 0.01mg/m <sup>3</sup> OSHA TWA, INORGANIC COMPOUNDS AS AS (SEE 29 CFR 1910.1018) 0.5 mg/m <sup>3</sup> OSHA TWA, ORGANIC COMPOUNDS AS AS 0.002 mg/m <sup>3</sup> /15 min. CEILING-NIOSH, INORGANIC CMPD. 5 mg As/m <sup>3</sup> IDLH-CARCINOGEN, INORGANIC COMPOUNDS

TWA – Time Weighted Average over 8 hours  
IDLH - Immediately dangerous to life & health

See the OSHA Inorganic Arsenic Standard at 29 CFR 1910.1018 before processing.

## SECTION C - PHYSICAL PROPERTIES

<b>BOILING POINT (°C) :</b>	SUBLIMES @ 615	<b>SPECIFIC GRAVITY :</b>	5.72
<b>MELTING POINT (°C) :</b>	817 @ 3.6477 Mpa	<b>FREEZING POINT (°) :</b>	N/A
<b>VAPOR PRESSURE (mm Hg) :</b>	1mm @ 372°C	<b>PERCENT VOLATILE (BY WT.) :</b>	N/A
<b>VAPOR DENSITY (AIR=1) :</b>	N/A	<b>EVAPORATION RATE :</b>	N/A
<b>SOLUBILITY IN WATER :</b>	INSOLUBLE	<b>pH (0 % IN WATER) :</b>	NONE
<b>ODOR THRESHOLD :</b>	N/A		
<b>APPEARANCE &amp; ODOR :</b>	SILVER GRAY CRYSTALLINE CHUNKS, RODS, OR GRANULES; NO ODOR AS METAL AS COMPOUND, AsH <sub>3</sub> HAS GARLIC ODOR		

## SECTION D - FIRE & EXPLOSION DATA

<b>FLAMMABLE LIMITS :</b>	<b>FLASH POINT (°) :</b> NONE	<b>AUTO IGNITION TEMP (° F): (UNKNOWN)</b>
<b>EXTINGUISHING MEDIA :</b>	<b>LEL : (N/A)</b> <b>WATER : ( )</b>	<b>UEL : (N/A)</b> <b>FOAM : (X)</b> <b>CO<sub>2</sub> : (X)</b> <b>DRY CHEMICAL : (X)</b>
<b>SPECIAL FIRE FIGHTING PROCEDURES :</b>	ARSENIC IN MASS FORM IS NON-FLAMMABLE. IN THE EVENT OF A FIRE, RESTRICT PERSONS NOT WEARING PROTECTIVE EQUIPMENT FROM AREA. TRY TO SNUFF FIRE WITH SAND, DRY MEDIA, FOAM OR CO <sub>2</sub> . IF NO OTHER OPTIONS AVAILABLE, USE WATER & ALWAYS WEAR SELF CONTAINED BREATHING APPARATUS OR NIOSH TOXIC VAPOR RESPIRATOR. POISONOUS GASES ARE PRODUCED IN FIRE, INCLUDING ARSENIC OXIDES.	
<b>UNUSUAL FIRE &amp; EXPLOSION HAZARDS :</b>	ARSENIC, WHEN HEATED OR IN CONTACT WITH ACID OR ACID FUMES, CAN PRODUCE HIGHLY TOXIC FUMES (SUCH AS ARSINE). ARSENIC REACTS VIGOROUSLY WITH OXIDIZING MATERIALS. ARSENIC IS FLAMMABLE IN THE FORM OF DUST WHEN EXPOSED TO HEAT OR FLAME OR BY CHEMICAL REACTION WITH POWERFUL OXIDIZERS (SEE SECTION E). SLIGHT EXPLOSION HAZARD EXISTS IN THE FORM OF DUST WHEN EXPOSED TO FLAME. IN THE EVENT OF A FIRE OR SPILL, CONTACT THE STATE DEPT. OF THE ENVIRONMENT & YOUR REGIONAL OFFICE OF THE FEDERAL ENVIRONMENTAL PROTECTION AGENCY.	

## SECTION E - REACTIVITY DATA

**STABILITY :** STABLE  
**INCOMPATIBILITY :** HYDROGEN GAS CAN REACT WITH INORGANIC ARSENIC TO FORM THE HIGHLY TOXIC GAS ARSINE. INCOMPATIBLE WITH BROMINE AZIDE, DIRUBIDIUM ACETYLIDE, HALOGENS, PALLADIUM ZINC, PLATINUM, NCl<sub>3</sub>, AgNO<sub>3</sub>, CrO<sub>3</sub>, Na<sub>2</sub>O<sub>2</sub>, HEXAFLUOROISOPROPYLIDENEAMINO LITHIUM. CAN REACT WITH ACIDS OR ACID FUMES AND POWERFUL OXIDIZERS SUCH AS BROMATES, CHLORATES, IODATES, PEROXIDES, LITHIUM, NaCl<sub>3</sub>, KNO<sub>3</sub>, KMnO<sub>3</sub>, Rb<sub>2</sub>C<sub>2</sub>, AgNO<sub>4</sub>, NOCl, IF<sub>5</sub>, CrO<sub>3</sub>, ClF<sub>3</sub>, ClO, BrF<sub>3</sub>, BrF<sub>5</sub>, BrN<sub>3</sub>, RbC<sub>3</sub>BCH, CsC<sub>3</sub>BCH.  
**HAZARDOUS DECOMPOSITION PRODUCTS :** ARSENIC FUMES, ARSINE, OTHER ARSENIC COMPOUNDS  
**HAZARDOUS POLYMERIZATION :** WILL NOT OCCUR  
**CONDITIONS TO AVOID :** AVOID OPEN CONTAINERS AND CONTACT WITH INCOMPATIBLE MATERIALS

**SECTION F - PERSONAL PROTECTIVE EQUIPMENT INFO**

**RESPIRATORY EQUIPMENT :** FOR HANDLING ELEMENTAL ARSENIC IN CHUNK, ROD, OR GRANULES USE NIOSH APPROVED, AIR PURIFYING, TOXIC VAPOR RESPIRATOR FOR PARTICULATE & FUME/ AIR LEVEL. IF PROCESSING MATERIAL INTO INORGANIC ARSENIC COMPOUNDS, CHOOSE PROPER RESPIRATORY PROTECTION IN ACCORDANCE WITH THE OSHA INORGANIC ARSENIC STANDARD AT 29 CFR 1910.1018 (h). FOR UNKNOWN CONCENTRATIONS OF INORGANIC ARSENIC OR UNDER FIRE-FIGHTING CONDITIONS USE FULL FACEPIECE SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE.

**PROTECTIVE GLOVES :** NEOPRENE OR PLASTIC

**EYE PROTECTION :** FACE SHIELD OR VENTED GOGGLES FOR WHEN DUST/ FUME OR INORGANIC COMPOUNDS ARE GENERATED.

**VENTILATION :** LOCAL EXHAUST/MECHANICAL(GENERAL) SCRUBBER OR TRAP IF POSSIBLE TO MAINTAIN EXPOSURE TO LESS THAN PERMISSIBLE LIMITS FOR ELEMENTAL ARSENIC AND ANY COMPOUNDS BEING GENERATED (SEE SECTION B)

**OTHER PROTECTIVE EQUIPMENT :** LAB COAT, COVERALLS, COVERLETS FOR SHOES, AND ACCESS TO EYEWASH FOUNTAIN FOR DUST OR INORGANIC COMPOUND GENERATION

**SECTION G - HEALTH HAZARD DATA**

**THRESHOLD LIMIT VALUE :** 0.01mg/m<sup>3</sup> TWA ARSENIC, ELEMENTAL & INORGANIC COMPOUNDS(EXCEPT ARSINE), AS As

**PRIMARY ROUTES OF EXPOSURE :** INHALATION OF FUMES, DUST, REACTION GASES; INGESTION; SKIN CONTACT

**ORAL LD<sub>50</sub> :** 763 mg/m<sup>3</sup> RAT; ORAL RAT TDLo 605 micrograms/kg – REPRODUCTIVE EFFECTS; ORAL-MAN TDLo 7857 mg/kg/55 year old – SKIN & GASTROINTESTINAL EFFECTS

**DERMAL IRRITATION-RABBIT :** UNKNOWN; SUBCUTANEOUS RABBIT LDLo: 300 mg/kg

**EYE IRRITATION-RABBIT :** UNKNOWN

**OSHA PEL :** 0.01mg/m<sup>3</sup> TWA INORGANIC COMPOUNDS AS As; 0.5 mg/m<sup>3</sup> TWA ORGANIC COMPOUNDS AS As.

**ACGIH TLV :** 0.01mg/m<sup>3</sup> TWA ELEMENTAL ARSENIC & INORGANIC COMPOUNDS (EXCEPT ARSINE), AS As

**EFFECTS OF OVEREXPOSURE :** ARSENIC METAL IS NOT AS READILY AVAILABLE IN THE BODY AS ARSENIC IN THE FORM OF DUST OR VAPOR OR WHEN PROCESSED INTO ARSENIC COMPOUNDS (ARSENICALS). INORGANIC ARSENICALS ARE MORE TOXIC THAN ORGANIC ARSENICALS.

**ACUTE EFFECTS:** ARSENIC IS A POISON BY SUBCUTANEOUS, INTRAMUSCULAR, AND INTRAPERITONEAL ROUTES. ACUTE ARSENIC POISONING FROM INGESTION RESULTS IN BURNING LIPS, THROAT CONSTRICTION, ABDOMINAL PAIN, MARKED IRRITATION OF THE STOMACH AND INTESTINES WITH NAUSEA, VOMITING, AND DIARRHEA. IN SEVERE CASES THE STOOLS AND VOMIT ARE BLOODY AND THE PATIENT MAY GO INTO COLLAPSE AND SHOCK WITH WEAK, RAPID PULSE, COLD SWEATS, COMA, AND DEATH. INHALATION MAY CAUSE ULCERATION OF NASAL SEPTUM, RESPIRATORY IRRITATION (COUGH, SORE THROAT), SHORTNESS OF BREATH AND WEAKNESS. SKIN OR EYE CONTACT MAY CAUSE DERMATITIS, SKIN AND EYE IRRITATION. AFTER ABSORPTION, ARSENIC MAY CAUSE MULTI-ORGAN FAILURE AS DELAYED EFFECTS. ARSENIC IS AN EXPERIMENTAL TERATOGEN (MAY CAUSE DAMAGE TO THE DEVELOPING FETUS) AND MAY CAUSE SPONTANEOUS ABORTION OR STILLBIRTH WITH EITHER ACUTE OR CHRONIC POISONING.

**CHRONIC EFFECTS:** ARSENIC IS A CONFIRMED HUMAN CARCINOGEN AND HAS BEEN ASSOCIATED WITH LUNG, BLADDER, SKIN, AND OTHER CANCERS IN HUMANS. CHRONIC ARSENIC POISONING MAY INCLUDE ANY OR ALL OF THE FOLLOWING: DIGESTIVE SYSTEM DISTURBANCES, LOSS OF APPETITE, CRAMPS, NAUSEA, CONSTIPATION, DIARRHEA; LIVER DAMAGE WHICH MAY RESULT IN JAUNDICE; DISTURBANCES OF THE BLOOD, KIDNEYS AND NERVOUS SYSTEM; SKIN ABNORMALITIES INCLUDING ITCHING, PIGMENTATION, AND POSSIBLE CANCEROUS CHANGES. ARSENIC HAS INDUCED DNA DAMAGE IN HUMAN CELLS.

**TARGET ORGANS (NIOSH) :** (FOR INORGANIC COMPOUNDS AS As): LIVER, KIDNEYS, SKIN, LUNGS, LYMPHATIC SYSTEM

**KNOWN EFFECTS ON OTHER ILLNESSES :** EXPECTED TO AGGRAVATE PRE-EXISTING GASTROINTESTINAL, NERVOUS SYSTEM, SKIN, LIVER & KIDNEY PROBLEMS.

<b>LISTED CARCINOGEN :</b>	NONE ( )	OSHA (YES)	NTP (YES)	IARC (YES)	OTHER (YES)
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**SECTION H – EMERGENCY & FIRST AID DATA**

**SKIN :** FLUSH WITH SOAP & WATER. AVOID RUBBING INTO THE SKIN. CONTACT PHYSICIAN IMMEDIATELY.

**EYES :** FLUSH WITH WATER FOR AT LEAST 15 MINUTES, LIFTING UPPER AND LOWER EYELIDS. CONTACT PHYSICIAN IMMEDIATELY.

**INHALATION :** REMOVE TO FRESH AIR. PROVIDE OXYGEN IF NECESSARY. CONTACT PHYSICIAN IMMEDIATELY.

**INGESTION :** IMMEDIATELY CALL POISON CONTROL OR A PHYSICIAN. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY POISON CONTROL OR EMERGENCY MEDICAL PERSONNEL. TAKE TO HOSPITAL IMMEDIATELY.

**MEDICAL NOTE:** AGGRESSIVE DECONTAMINATION WITH GASTRIC LAVAGE IS RECOMMENDED. IF AN X-RAY INDICATES THE PRESENCE OF ARSENIC IN THE LOWER GI TRACT, WHOLE BOWEL IRRIGATION SHOULD BE CONSIDERED. ACTIVATED CHARCOAL MAY NOT BIND SIGNIFICANT AMOUNTS BUT IS RECOMMENDED UNTIL DEFINITIVE QUANTITATIVE DATA IS AVAILABLE. FLUID REPLETION SHOULD BEGIN AS SOON AS POSSIBLE.

**SECTION I - SPILL & DISPOSAL INFORMATION****STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:**

EVACUATE THE DANGER AREA. WEARING FULL PROTECTIVE EQUIPMENT (RESPIRATOR, GLOVES, GOGGLES, LAB COAT), GATHER UP CHUNKS, RODS, OR GRANULES WITH VACUUM OR UTENSILS RESERVED FOR POISONOUS SOLIDS AND PLACE IN SUITABLE CONTAINER AND SEAL. DO NOT RELEASE TO THE ENVIRONMENT. AVOID GENERATING DUST. VENTILATE THE AREA AFTER CLEANUP OF MATERIAL AND RESIDUE IS COMPLETE.

**WASTE DISPOSAL INFORMATION:**

SOLID WASTES SHOULD BE VITRIFIED, PLACED IN LABELED CONTAINER & BURIED IN AN EPA SUPERVISED FACILITY. ETCHING SOLUTIONS & CUTTING WASTES SHOULD BE PRECIPITATED, CEMENTED/VITRIFIED & PLACED IN METAL/PLASTIC LABELED CONTAINERS & BURIED IN EPA SUPERVISED FACILITY. PASS GAS THROUGH POTASSIUM PERMANGANATE, PRECIPITATE & TREAT AS ABOVE. WASTE MAY BE CONSIDERED HAZARDOUS DEPENDING ON LEVEL OF TOXICITY CHARACTERISTIC OF ARSENIC. SEE 40 CFR 261.24 FOR DETERMINATION.

**RCRA HAZARDOUS WASTE :** NO () YES (\*\*X) **RCRA # :** (\*\*D004)

\*\* - IF TESTED POSITIVE AS CHARACTERISTIC OF TOXICITY FOR ARSENIC

**CERCLA :** NO () YES (X)

**RQ** (1 LB. RQ IS APPLICABLE ONLY IF THE DIAMETER OF THE PIECES OF THE SOLID METAL RELEASED IS LESS THAN 100 MICROMETERS OR 0.004 INCH. THIS PRODUCT FORM IS LARGER THAN 100 MICROMETERS AND HAS NO RQ IN ITS CURRENT FORM. IF AS HAZARDOUS WASTE CHARACTERISTIC OF ARSENIC, THEN RQ=1 LB.)

**FOLLOW ALL LOCAL, STATE AND FEDERAL INFORMATION AND REGULATIONS**

**SECTION J - OTHER REGULATORY INFORMATION**

**TSCA:** WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER THE REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

**SARA TITLE III, SECT. 313:** LISTED (X) UNLISTED ()

**DOT REGULATED:** YES: (X) NO: () **RQ:** (N/A - PIECES ARE LARGER THAN 100 MICROMETERS IN DIAMETER)  
**IF REGULATED, PROPER SHIPPING NAME:** ARSENIC **HAZARD CLASS:** (6.1)  
**IDENTIFICATION NO.:** (UN1558) **PACKING GROUP:** (II) **LABEL REQUIRED:** (POISON)  
**INLAND B/L:** UN1558, ARSENIC, 6.1, PACKING GROUP II, POISON  
**EMERGENCY RESPONSE GUIDE NO.:** (152)

**SECTION K - SPECIAL PRECAUTIONS****FOR INDUSTRIAL USE ONLY****HANDLING & STORAGE INFORMATION:**

PRIOR TO WORKING WITH ARSENIC, PERSONNEL SHOULD BE TRAINED IN PROPER HANDLING & STORAGE. STORE IN ORIGINAL PACKAGING IN COOL DRY AREA. WHEN HANDLING, WEAR FULL PROTECTIVE EQUIPMENT (SEE SECTION F). PLACE INTO INERT ATMOSPHERE IMMEDIATELY. IF PROCESSING INTO INORGANIC ARSENIC COMPOUNDS, FOLLOW THE OSHA STANDARD AT 29 CFR 1910.1018. DO NOT INGEST. DO NOT INHALE DUST OR ANY PROCESSING FUMES. AVOID SKIN AND EYE CONTACT.

**NOTE:** MAINTENANCE PERSONNEL OF PROCESSING AND EXTRACT EQUIPMENT MUST ALSO WEAR FULL PROTECTIVE EQUIPMENT (SEE SECTION F) AND OBSERVE THE REQUIREMENTS OF THE OSHA INORGANIC ARSENIC STANDARD (29 CFR 1910.1018) AS RESIDUES MAY CONTAIN ARSENIC PARTICLES AND VARYING COMPOUNDS OF ARSENIC.

**OTHER PRECAUTIONS :**

MINIMUM - HAVE QUARTERLY MEDICAL CHECKS INCLUDING URINE TESTS OF PERSONNEL WORKING WITH ARSENIC OR ARSENIC COMPOUNDS. DO NOT EAT, DRINK OR SMOKE IN THE WORK AREA.

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL HYGIENE, HANDLE WITH DUE CARE AND AVOID ANY UNNECESSARY CONTACT WITH THIS PRODUCT. THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATION. THE INFORMATION IS BELIEVED TO BE TRUE AND ACCURATE. NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARD CONNECTED WITH USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, IS MADE. UNITED MINERAL AND CHEMICAL CORPORATION AND ITS SUPPLIERS ASSUME NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.  
 UNITED MINERAL & CHEMICAL CORPORATION

# Appendix C

## Soil Boring Geologic Logs

# BORING LOG

Boring #: MW-2 (B-1)

PAGE # 1 OF 2

DATE: 05/02/2012 & 05/03/2012

CLIENT: David Koptiev

SITE: 224-01 Merrick Blvd.  
Queens, NY

GPS COORDINATES:  
LATITUDE: 40.67808°  
LONGITUDE: -73.74540°

DRILLER: Zebra Environmental Corp.

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 26 feet

DEPTH TO WATER: 19 feet

## GEOLOGIC LOG

DEPTH (ft)		RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
FROM	TO			
0	5	3.0	0.0	Brown fine grained sand with quartz pebbles. 6-inch thick layer of gray-brown silty clay near bottom.  Soil sample collected for lab analysis at 0 to 2 feet.
5	10	4.2	0.0	Brown medium to fine grained sand with quartz pebbles.
10	15	5.0	0.0	Light brown fine grained sand with quartz pebbles.
15	20	3.3	0.0	Medium to fine grained sand with quartz pebbles and crystalline rock fragments. Approximate 6-inch layer of gray-brown silty sand at around 17 feet. Wet near bottom.  Soil sample collected for lab analysis at 15 to 17 feet.

# BORING LOG

Boring #: MW-2 (B-1)

PAGE # 2 OF 2

DATE: 05/02/2012 & 05/03/2012

CLIENT: David Koptiev

SITE: 224-01 Merrick Blvd.  
Queens, NY

GPS COORDINATES:  
LATITUDE: 40.67808°  
LONGITUDE: -73.74540°

DRILLER: Zebra Environmental Corp.

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 26 feet

DEPTH TO WATER: 19 feet

## GEOLOGIC LOG

DEPTH (ft) FROM TO		RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
20	25	2.9	0.0	Medium brown wet fine grained sand with gravel and approximately 2-inches gray-brown silty sand.

# BORING LOG

Boring #: B-2

PAGE # 1 OF 1

DATE: 05/02/2012

CLIENT: David Koptiev

SITE: 224-01 Merrick Blvd.  
Queens, NY

DRILLER: Zebra Environmental Corp.

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 25 feet

DEPTH TO WATER: 19 feet

## GEOLOGIC LOG

DEPTH (ft) FROM TO		RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	5	3.0	0.0	6-inches concrete, fine grained brown sand and fine gravel.  Soil sample collected for lab analysis at 0 to 2 feet.
5	10	3.8	0.0	Brown fine grained sand, black sand and fine gravel.
10	15	4.1	0.0	Brown medium grained fine grained sand, some quartz pebbles, and fine gravel. Moist.
15	20	5.0	0.0	Brown medium to fine grained sand with quartz pebbles. Wet near bottom.  Soil sample collected for lab analysis at 15 to 17 feet.
20	25	3.0	0.0	Brown medium to fine grained sand with rock fragments and quartz pebbles. Wet.

# BORING LOG

Boring #: B-3

PAGE # 1 OF 1

DATE: 05/02/2012

CLIENT: David Koptiev

SITE: 224-01 Merrick Blvd.  
Queens, NY

DRILLER: Zebra Environmental Corp.

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 5 feet

DEPTH TO WATER: N/A

## GEOLOGIC LOG

DEPTH (ft)		RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
FROM	TO			
0	5	3.3	0.0	8-inches concrete, fine grained tan to light brown sand and fine gravel.  Soil sample collected for lab analysis at 0 to 2 feet.

# BORING LOG

Boring #: B-4

PAGE # 1 OF 1

DATE: 05/02/2012

CLIENT: David Koptiev

SITE: 224-01 Merrick Blvd.  
Queens, NY

DRILLER: Zebra Environmental Corp.

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 5 feet

DEPTH TO WATER: N/A

## GEOLOGIC LOG

DEPTH (ft) FROM TO		RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	5	3.0	0.0	8-inches concrete, fine grained light brown sand and some gravel.  Soil sample collected for lab analysis at 0 to 2 feet.

# BORING LOG

Boring #: MW-1 (B-5)

PAGE # 1 OF 1

DATE: 05/02/2012 & 05/03/2012

CLIENT: David Koptiev

SITE: 224-01 Merrick Blvd.  
Queens, NY

GPS COORDINATES:

LATITUDE: 40.67795°

LONGITUDE: -73.74519°

DRILLER: Zebra Environmental Corp.

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 26 feet

DEPTH TO WATER: 19 feet

## GEOLOGIC LOG

DEPTH (ft) FROM TO		RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	5	2.5	0.0	Brown Fine grained sand, fine gravel and small rock.  Soil sample collected for lab analysis at 0 to 2 feet.
5	10	3.1	0.0	Brown fine grained sand and large crushed quartz.
10	15	5.0	0.0	Brown fine grained sand with quartz pebbles.
15	20	2.8	0.0	Brown fine grained sand with quartz pebbles and an approximate 3-inch layer of gray silty clay at around 17 feet. Wet near bottom.  Soil sample collected for lab analysis at 15 to 17 feet.
20	25	2.8	0.0	Brown medium to fine grained sand with rock fragments and quartz pebbles. Wet.

# BORING LOG

Boring #: MW-3 (B-6)

PAGE # 1 OF 1

DATE: 05/02/2012 & 05/03/2012

CLIENT: David Koptiev

SITE: 224-01 Merrick Blvd.  
Queens, NY

GPS COORDINATES:  
LATITUDE: 40.67810°  
LONGITUDE: -73.74511°

DRILLER: Zebra Environmental Corp.

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 26 feet

DEPTH TO WATER: 19 feet

## GEOLOGIC LOG

DEPTH (ft)		RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
FROM	TO			
0	5	2.5	0.0	Fine to medium grained light brown sand and some gravel.  Soil sample collected for lab analysis at 0 to 2 feet.

# Appendix D

## Monitoring Well Sampling Logs

**GROUNDWATER SAMPLING LOG**  
**224-01 Merrick Blvd**  
**Queens, NY**

Well ID:	W - 1
Date:	5/17/12
Sampling Personnel:	AJS & HS
Weather:	Sunny - 70°F

**WELL INFORMATION**

Well Depth (ft):	26.20
Water Level Depth (ft):	18.91
Well Diameter (in):	2

**WELL WATER INFORMATION**

Length of Water Column (ft):	7.29
Volume of Water in Well (gal):	1.19
Total Volume Purged (gal):	5.0
Duration of Pumping (min):	26

**EVACUATION INFORMATION**

Pump On: 11:20 Pump Off: 11:46

Time:	11:25	11:30	11:35	11:40				
<i>Parameter</i>								
DO (mg/L)	1.45	2.97	3.04	3.06				
Temperature (°C)	17.43	17.25	17.20	17.24				
pH	6.25	6.10	6.07	6.03				
Cond (umho's/cm)	330	260	265	263				
Turbidity (NTU)	223.0	110.0	98.0	99.0				

**GROUNDWATER SAMPLING LOG**  
**224-01 Merrick Blvd**  
**Queens, NY**

Well ID:	W-2
Date:	5/17/12
Sampling Personnel:	AJS & HS
Weather:	Sunny - 70°F

**WELL INFORMATION**

Well Depth (ft):	26.20
Water Level Depth (ft):	21.78
Well Diameter (in):	2

**WELL WATER INFORMATION**

Length of Water Column (ft):	4.42
Volume of Water in Well (gal):	0.72
Total Volume Purged (gal):	2.5
Duration of Pumping (min):	26

**EVACUATION INFORMATION**

Pump On: 11:55 Pump Off: 12:21

Time:	12:00	12:05	12:10	12:15				
<i>Parameter</i>								
DO (mg/L)	1.53	2.10	2.16	2.22				
Temperature (°C)	18.61	18.39	18.42	18.40				
pH	5.82	5.64	5.60	5.62				
Cond (umho's/cm)	1,370	1,100	1,090	1,090				
Turbidity (NTU)	382.0	63.7	60.8	57.4				

**GROUNDWATER SAMPLING LOG**  
**224-01 Merrick Blvd**  
**Queens, NY**

Well ID:	W - 3
Date:	5/17/12
Sampling Personnel:	AJS & HS
Weather:	Sunny - 70°F

**WELL INFORMATION**

Well Depth (ft):	26.20
Water Level Depth (ft):	21.90
Well Diameter (in):	2

**WELL WATER INFORMATION**

Length of Water Column (ft):	4.30
Volume of Water in Well (gal):	0.70
Total Volume Purged (gal):	2.50
Duration of Pumping (min):	26

**EVACUATION INFORMATION**

Pump On: 12:35 Pump Off: 13:01

Time:	12:40	12:45	12:50	12:55				
<i>Parameter</i>								
DO (mg/L)	4.09	5.65	5.69	5.72				
Temperature (°C)	17.07	17.11	17.23	17.44				
pH	5.84	5.86	5.86	5.86				
Cond (umho's/cm)	296	260	258	259				
Turbidity (NTU)	829.0	140.0	137.0	132.0				

# Appendix E

## Laboratory Data Deliverables

Thursday, May 10, 2012

Jim DeMartinis  
J.R. Holzmacher P.E. LLC  
300 Wheeler Road, Suite 402  
Hauppauge, NY 11788

TEL: (631) 234-2220

FAX (631) 234-2221

RE: 224-01 Merrick Blvd., Queens, NY

Order No.: 1205020

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 9 sample(s) on 5/2/2012 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. This report consists of 96 pages.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at [lbeyer@american-analytical.com](mailto:lbeyer@american-analytical.com).

Sincerely,



Lori Beyer  
Lab Director

CLIENT: J.R. Holzmacher P.E. LLC  
Project: 224-01 Merrick Blvd., Queens, NY  
Lab Order: 1205020

**Work Order Sample Summary**

---

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1205020-01A	B-2 (0-2')	5/2/2012 9:40:00 AM	5/2/2012
1205020-01B	B-2 (0-2')	5/2/2012 9:40:00 AM	5/2/2012
1205020-02A	B-2 (15-17')	5/2/2012 9:50:00 AM	5/2/2012
1205020-02B	B-2 (15-17')	5/2/2012 9:50:00 AM	5/2/2012
1205020-03A	B-5 (0-2')	5/2/2012 9:30:00 AM	5/2/2012
1205020-03B	B-5 (0-2')	5/2/2012 9:30:00 AM	5/2/2012
1205020-04A	B-5 (15-17')	5/2/2012 10:20:00 AM	5/2/2012
1205020-04B	B-5 (15-17')	5/2/2012 10:20:00 AM	5/2/2012
1205020-05A	B-3 (0-2')	5/2/2012 11:15:00 AM	5/2/2012
1205020-05B	B-3 (0-2')	5/2/2012 11:15:00 AM	5/2/2012
1205020-06A	B-1 (0-2')	5/2/2012 11:50:00 AM	5/2/2012
1205020-06B	B-1 (0-2')	5/2/2012 11:50:00 AM	5/2/2012
1205020-07A	B-1 (15-17')	5/2/2012 12:10:00 PM	5/2/2012
1205020-07B	B-1 (15-17')	5/2/2012 12:10:00 PM	5/2/2012
1205020-08A	B-4 (0-2')	5/2/2012 1:00:00 PM	5/2/2012
1205020-08B	B-4 (0-2')	5/2/2012 1:00:00 PM	5/2/2012
1205020-09A	B-6 (0-2')	5/2/2012 1:40:00 PM	5/2/2012
1205020-09B	B-6 (0-2')	5/2/2012 1:40:00 PM	5/2/2012



56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735  
 (631) 454-6100 • FAX (631) 454-8027  
 www.american-analytical.com

NYSDOH 11412  
 CTDOH PH-020  
 NJDEP NY050  
 PADEP 68-573

# CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS <i>S.R. Holznacker</i>		CONTACT: <i>Jim De Martius</i>		SAMPLER(S) SEALED <b>YES / NO</b>	
PROJECT LOCATION: <i>224-01 Mersink Blvd., Queens, NY</i>		SAMPLER(S) SIGNATURE <i>Heather Sonnenberg</i>		CORRECT CONTAINER(S) <b>YES / NO</b>	
LABORATORY ID# LAB USE ONLY		SAMPLER NAME (PRINT) <i>Heather Sonnenberg</i>		TEMPERATURE (°C) <i>4.1</i>	
MATRIX TYPE	NO. OF CONTAINERS	SAMPLING DATE	SAMPLING TIME	SAMPLE # - LOCATION	ANALYSIS REQUIRED
S	2	5-2-12	9:46 AM	B-2 (0-2')	ERK method 8200 ✓ ERK method 8270 ✓ Pesticides 8081 ✓ TAN method 6010 ✓
S	2	9:50 AM	B-2 (15-17')		
S	2	9:30 AM	B-5 (0-2')		
S	2	10:20 AM	B-5 (15-17')		
S	2	11:15 AM	B-3 (0-2')		
S	2	11:50 PM	B-1 (0-2')		
S	2	6:10 PM	B-1 (15-17')		
S	2	1 PM	B-4 (0-2')		
S	2	1:40 PM	B-6 (0-2')		
COMMENTS / INSTRUCTIONS Samples must be on ICE (<6° C)					
MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS		TURNAROUND REQUIRED		E-MAIL ADDRESS FOR RESULTS:	
TYPE G=GRAB; C=COMPOSITE		STANDARD STAT <input type="checkbox"/> BY / /			
RELINQUISHED BY (SIGNATURE) <i>Heather Sonnenberg</i>	DATE 5-2-12	PRINTED NAME <i>Heather Sonnenberg</i>	RECEIVED BY LAB (SIGNATURE) <i>C. Fenara</i>	DATE 5-2-12	PRINTED NAME <i>C. Fenara</i>
RELINQUISHED BY (SIGNATURE)	DATE 5-2-12	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE 5-2-12	PRINTED NAME

WHITE-OFFICE / CANARY-LAB / PINK-SAMPLE CUSTODIAN / GOLDENROD-CLIENT

Sample Receipt Checklist

Client Name **HOLZMACHER**

Date and Time Receive **5/2/2012 2:53:53 PM**

Work Order Numbe **1205020**

RcptNo: **1**

Received by **CF**

COC\_ID:

CoolerID:

Checklist completed by

*C. Benara* 5/2/12  
Signature Date

Reviewed by

*Jen Blair* 5/2/12  
Initials Date

Matrix:

Carrier name Courier

- Shipping container/cooler in good condition? Yes  No  Not Presen
- Custody seals intact on shipping container/cooler? Yes  No  Not Presen
- Custody seals intact on sample bottles? Yes  No  Not Presen
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No  N/A

Adjusted? \_\_\_\_\_ Checked b \_\_\_\_\_

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments:

Corrective Action \_\_\_\_\_

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:40:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-01A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
1,1,1,2-Tetrachloroethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,1,1-Trichloroethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,1,2,2-Tetrachloroethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,1,2-Trichloroethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,1-Dichloroethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,1-Dichloroethene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,1-Dichloropropene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2,3-Trichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2,3-Trichloropropane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2,4,5-Tetramethylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2,4-Trichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2,4-Trimethylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2-Dibromo-3-chloropropane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2-Dibromoethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2-Dichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2-Dichloroethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,2-Dichloropropane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,3,5-Trimethylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,3-Dichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,3-dichloropropane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,4-Dichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
1,4-Dioxane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
2,2-Dichloropropane	U	0.58	5.8	C	µg/Kg-dry	1	5/5/2012 4:28:00 AM
2-Butanone	U	1.73	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
2-Chloroethyl vinyl ether	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
2-Chlorotoluene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
2-Hexanone	U	1.73	5.8	C	µg/Kg-dry	1	5/5/2012 4:28:00 AM
2-Propanol	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
4-Chlorotoluene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
4-Isopropyltoluene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
4-Methyl-2-pentanone	U	1.73	5.8	C	µg/Kg-dry	1	5/5/2012 4:28:00 AM
Acetone	U	1.73	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM

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- |                    |   |  |
|--------------------|---|--|
| <b>Qualifiers:</b> | B Analyte detected in the associated Method Blank       | C Calibration %RSD/%D exceeded for non-CCC analytes      |
|                    | E Value above quantitation range                        | H Holding times for preparation or analysis exceeded     |
|                    | J Analyte detected below quantitation limits            | LOD Limit of Detection                                   |
|                    | LOQ Limit of Quantitation                               | P >40% diff for detected conc between the two GC columns |
|                    | PQL Practical Quantitation Limit                        | S Spike Recovery outside accepted recovery limits        |
|                    | U Indicates the compound was analyzed but not detected. |  |

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC      Client Sample ID: B-2 (0-2')  
 Lab Order: 1205020      Collection Date: 5/2/2012 9:40:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY      Matrix: SOIL  
 Lab ID: 1205020-01A

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
Acrolein	U	2.88	12	C	µg/Kg-dry	1	5/5/2012 4:28:00 AM
Acrylonitrile	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Benzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Bromobenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Bromochloromethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Bromodichloromethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Bromoform	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Bromomethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Carbon disulfide	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Carbon tetrachloride	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Chlorobenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Chlorodifluoromethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Chloroethane	U	0.58	5.8	C	µg/Kg-dry	1	5/5/2012 4:28:00 AM
Chloroform	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Chloromethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
cis-1,2-Dichloroethene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
cis-1,3-Dichloropropene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Dibromochloromethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Dibromomethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Dichlorodifluoromethane	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Diisopropyl ether	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Ethanol	U	2.88	12		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Ethyl acetate	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Ethylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Freon-114	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Hexachlorobutadiene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Isopropyl acetate	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Isopropylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
m,p-Xylene	U	1.15	12		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Methyl Acetate	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Methyl tert-butyl ether	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Methylene chloride	12	0.58	5.8	B	µg/Kg-dry	1	5/5/2012 4:28:00 AM
n-Amyl acetate	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM

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- Qualifiers:**
- B Analyte detected in the associated Method Blank
  - C Calibration %RSD/%D exceeded for non-CCC analytes
  - E Value above quantitation range
  - H Holding times for preparation or analysis exceeded
  - J Analyte detected below quantitation limits
  - LOD Limit of Detection
  - LOQ Limit of Quantitation
  - P >40% diff for detected conc between the two GC columns
  - PQL Practical Quantitation Limit
  - S Spike Recovery outside accepted recovery limits
  - U Indicates the compound was analyzed but not detected.

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b> J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b> B-2 (0-2')
<b>Lab Order:</b> 1205020	<b>Collection Date:</b> 5/2/2012 9:40:00 AM
<b>Project:</b> 224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 1205020-01A	

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
Naphthalene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
n-Butyl acetate	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
n-Butylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
n-Propyl acetate	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
n-Propylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
o-Xylene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
p-Diethylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
p-Ethyltoluene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
sec-Butylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Styrene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
t-Butyl alcohol	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
tert-Butylbenzene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Tetrachloroethene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Toluene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
trans-1,2-Dichloroethene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
trans-1,3-Dichloropropene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Trichloroethene	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Trichlorofluoromethane	U	0.58	5.8	C	µg/Kg-dry	1	5/5/2012 4:28:00 AM
Vinyl acetate	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Vinyl chloride	U	0.58	5.8		µg/Kg-dry	1	5/5/2012 4:28:00 AM
Surr: 4-Bromofluorobenzene	90.4	0	42-133		%REC	1	5/5/2012 4:28:00 AM
Surr: Dibromofluoromethane	99.8	0	50-133		%REC	1	5/5/2012 4:28:00 AM
Surr: Toluene-d8	94.2	0	53-130		%REC	1	5/5/2012 4:28:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:40:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-01B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
			<b>SW7471B</b>		<b>SW7471B</b>		Analyst: <b>JP</b>
Mercury	U	0.005	0.00967		mg/Kg-dry	1	5/9/2012 1:51:28 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>							
			<b>SW8082A</b>		<b>SW3550C</b>		Analyst: <b>SB</b>
Aroclor 1016	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1221	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1232	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1242	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1248	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1254	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1260	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1262	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Aroclor 1268	U	1.28	2.6		µg/Kg-dry	1	5/8/2012 9:07:00 PM
Surr: TCX	91.7	0	17-151		%REC	1	5/8/2012 9:07:00 PM
Surr: DCB	103	0	16-152		%REC	1	5/8/2012 9:07:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>							
			<b>SW8081B</b>		<b>SW3550C</b>		Analyst: <b>SB</b>
4,4'-DDD	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
4,4'-DDE	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
4,4'-DDT	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Aldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
alpha-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
beta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Chlordane	U	0.26	1.0		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Chlorobenzilate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
DBCP	U	0.20	0.82		µg/Kg-dry	1	5/8/2012 2:42:00 PM
delta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Dieldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Endosulfan I	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Endosulfan II	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Endosulfan sulfate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Endrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Endrin aldehyde	U	0.20	0.82		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Endrin ketone	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
gamma-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:40:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-01B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>							
							Analyst: <b>SB</b>
Heptachlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Heptachlor epoxide	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Hexachlorobenzene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Hexachlorocyclopentadiene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Methoxychlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Toxaphene	U	2.56	10		µg/Kg-dry	1	5/8/2012 2:42:00 PM
Surr: DCB	92.8	0	23-157		%REC	1	5/8/2012 2:42:00 PM
Surr: TCX	74.4	0	21-151		%REC	1	5/8/2012 2:42:00 PM
<b>PERCENT MOISTURE</b>							
							Analyst: <b>CF</b>
Percent Moisture	3.38	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>							
							Analyst: <b>JP</b>
Aluminum	1480	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Antimony	U	0.19	0.485		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Arsenic	0.682	0.19	0.485		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Barium	6.08	0.19	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Beryllium	U	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Cadmium	U	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Calcium	222	0.19	0.485		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Chromium	4.52	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Cobalt	U	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Copper	3.70	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Iron	3450	0.19	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Lead	1.70	0.19	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Magnesium	582	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Manganese	74.8	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Nickel	7.20	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Potassium	249	0.19	0.485		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Selenium	U	0.19	0.485		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Silver	U	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Sodium	22.6	0.19	0.485		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Thallium	U	0.29	0.485		mg/Kg-dry	1	5/3/2012 12:36:13 PM
Vanadium	5.45	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
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ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: B-2 (0-2')  
 Lab Order: 1205020 Collection Date: 5/2/2012 9:40:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: SOIL  
 Lab ID: 1205020-01B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	6.32	0.1	0.388		mg/Kg-dry	1	5/3/2012 12:36:13 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			SW6010C		SW3050B		Analyst: JP
1,2,4-Trichlorobenzene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
1,2-Dichlorobenzene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
1,3-Dichlorobenzene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
1,4-Dichlorobenzene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2,4,5-Trichlorophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2,4,6-Trichlorophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2,4-Dichlorophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2,4-Dimethylphenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2,4-Dinitrophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2,4-Dinitrotoluene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2,6-Dinitrotoluene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2-Chloronaphthalene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2-Chlorophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2-Methylnaphthalene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2-Methylphenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2-Nitroaniline	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
2-Nitrophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
3,3'-Dichlorobenzidine	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
3+4-Methylphenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
3-Nitroaniline	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
4,6-Dinitro-2-methylphenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
4-Bromophenyl phenyl ether	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
4-Chloro-3-methylphenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
4-Chloroaniline	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
4-Chlorophenyl phenyl ether	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
4-Nitroaniline	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
4-Nitrophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Acenaphthene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Acenaphthylene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Acetophenone	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM

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- Qualifiers:**
- B Analyte detected in the associated Method Blank
  - E Value above quantitation range
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  - LOQ Limit of Quantitation
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  - U Indicates the compound was analyzed but not detected.
  - C Calibration %RSD/%D exceeded for non-CCC analytes
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  - LOD Limit of Detection
  - P >40% diff for detected conc between the two GC columns
  - S Spike Recovery outside accepted recovery limits

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b> J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b> B-2 (0-2')
<b>Lab Order:</b> 1205020	<b>Collection Date:</b> 5/2/2012 9:40:00 AM
<b>Project:</b> 224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 1205020-01B	

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		<b>Analyst: LDS</b>
Aniline	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Anthracene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Atrazine	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Azobenzene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzaldehyde	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzidine	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzo(a)anthracene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzo(a)pyrene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzo(b)fluoranthene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzo(g,h,i)perylene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzo(k)fluoranthene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzoic acid	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Benzyl alcohol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Biphenyl	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Bis(2-chloroethoxy)methane	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Bis(2-chloroethyl)ether	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Bis(2-chloroisopropyl)ether	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Bis(2-ethylhexyl)phthalate	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Butyl benzyl phthalate	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Caprolactam	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Carbazole	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Chrysene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Dibenzo(a,h)anthracene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Dibenzofuran	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Diethyl phthalate	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Dimethyl phthalate	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Di-n-butyl phthalate	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Di-n-octyl phthalate	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Fluoranthene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Fluorene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Hexachlorobenzene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Hexachlorobutadiene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Hexachlorocyclopentadiene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:40:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-01B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: <b>LDS</b>
Hexachloroethane	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Indeno(1,2,3-c,d)pyrene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Isophorone	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Naphthalene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Nitrobenzene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
N-Nitrosodimethylamine	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
N-Nitrosodi-n-propylamine	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
N-Nitrosodiphenylamine	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Parathion	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Pentachlorophenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Phenanthrene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Phenol	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Pyrene	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Pyridine	U	25.6	260		µg/Kg-dry	1	5/7/2012 9:13:00 PM
Surr: 2,4,6-Tribromophenol	46.7	0	21-119		%REC	1	5/7/2012 9:13:00 PM
Surr: 2-Fluorobiphenyl	102	0	21-117		%REC	1	5/7/2012 9:13:00 PM
Surr: 2-Fluorophenol	30.1	0	11-105		%REC	1	5/7/2012 9:13:00 PM
Surr: 4-Terphenyl-d14	127	0	21-132		%REC	1	5/7/2012 9:13:00 PM
Surr: Nitrobenzene-d5	75.4	0	18-116		%REC	1	5/7/2012 9:13:00 PM
Surr: Phenol-d6	44.8	0	12-110		%REC	1	5/7/2012 9:13:00 PM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-02A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
1,1,1,2-Tetrachloroethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,1,1-Trichloroethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,1,2,2-Tetrachloroethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,1,2-Trichloroethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,1-Dichloroethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,1-Dichloroethene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,1-Dichloropropene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2,3-Trichlorobenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2,3-Trichloropropane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2,4,5-Tetramethylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2,4-Trichlorobenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2,4-Trimethylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2-Dibromo-3-chloropropane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2-Dibromoethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2-Dichlorobenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2-Dichloroethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,2-Dichloropropane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,3,5-Trimethylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,3-Dichlorobenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,3-dichloropropane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,4-Dichlorobenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
1,4-Dioxane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
2,2-Dichloropropane	U	0.62	6.2	C	µg/Kg-dry	1	5/5/2012 5:01:00 AM
2-Butanone	U	1.87	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
2-Chloroethyl vinyl ether	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
2-Chlorotoluene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
2-Hexanone	U	1.87	6.2	C	µg/Kg-dry	1	5/5/2012 5:01:00 AM
2-Propanol	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
4-Chlorotoluene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
4-Isopropyltoluene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
4-Methyl-2-pentanone	U	1.87	6.2	C	µg/Kg-dry	1	5/5/2012 5:01:00 AM
Acetone	U	1.87	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM

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	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-02A		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
Acrolein	U	3.12	12	C	µg/Kg-dry	1	5/5/2012 5:01:00 AM
Acrylonitrile	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Benzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Bromobenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Bromochloromethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Bromodichloromethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Bromoform	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Bromomethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Carbon disulfide	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Carbon tetrachloride	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Chlorobenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Chlorodifluoromethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Chloroethane	U	0.62	6.2	C	µg/Kg-dry	1	5/5/2012 5:01:00 AM
Chloroform	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Chloromethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
cis-1,2-Dichloroethene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
cis-1,3-Dichloropropene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Dibromochloromethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Dibromomethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Dichlorodifluoromethane	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Diisopropyl ether	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Ethanol	U	3.12	12		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Ethyl acetate	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Ethylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Freon-114	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Hexachlorobutadiene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Isopropyl acetate	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Isopropylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
m,p-Xylene	U	1.25	12		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Methyl Acetate	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Methyl tert-butyl ether	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Methylene chloride	13	0.62	6.2	B	µg/Kg-dry	1	5/5/2012 5:01:00 AM
n-Amyl acetate	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM

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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-02A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Naphthalene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
n-Butyl acetate	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
n-Butylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
n-Propyl acetate	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
n-Propylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
o-Xylene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
p-Diethylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
p-Ethyltoluene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
sec-Butylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Styrene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
t-Butyl alcohol	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
tert-Butylbenzene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Tetrachloroethene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Toluene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
trans-1,2-Dichloroethene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
trans-1,3-Dichloropropene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Trichloroethene	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Trichlorofluoromethane	U	0.62	6.2	C	µg/Kg-dry	1	5/5/2012 5:01:00 AM
Vinyl acetate	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Vinyl chloride	U	0.62	6.2		µg/Kg-dry	1	5/5/2012 5:01:00 AM
Surr: 4-Bromofluorobenzene	91.7	0	42-133		%REC	1	5/5/2012 5:01:00 AM
Surr: Dibromofluoromethane	101	0	50-133		%REC	1	5/5/2012 5:01:00 AM
Surr: Toluene-d8	94.6	0	53-130		%REC	1	5/5/2012 5:01:00 AM

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# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-02B		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>			<b>SW7471B</b>		<b>SW7471B</b>		<b>Analyst: JP</b>
Mercury	U	0.004	0.00841		mg/Kg-dry	1	5/9/2012 1:53:36 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>			<b>SW8082A</b>		<b>SW3550C</b>		<b>Analyst: SB</b>
Aroclor 1016	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1221	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1232	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1242	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1248	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1254	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1260	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1262	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Aroclor 1268	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:20:00 PM
Surr: TCX	108	0	17-151		%REC	1	5/8/2012 10:20:00 PM
Surr: DCB	119	0	16-152		%REC	1	5/8/2012 10:20:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>SW8081B</b>		<b>SW3550C</b>		<b>Analyst: SB</b>
4,4'-DDD	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
4,4'-DDE	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
4,4'-DDT	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Aldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
alpha-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
beta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Chlordane	U	0.25	1.0		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Chlorobenzilate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
DBCP	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 2:56:00 PM
delta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Dieldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Endosulfan I	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Endosulfan II	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Endosulfan sulfate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Endrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Endrin aldehyde	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Endrin ketone	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
gamma-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM

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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-02B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>SW8081B</b>		<b>SW3550C</b>		Analyst: <b>SB</b>
Heptachlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Heptachlor epoxide	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Hexachlorobenzene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Hexachlorocyclopentadiene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Methoxychlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Toxaphene	U	2.54	10		µg/Kg-dry	1	5/8/2012 2:56:00 PM
Surr: DCB	110	0	23-157		%REC	1	5/8/2012 2:56:00 PM
Surr: TCX	96.1	0	21-151		%REC	1	5/8/2012 2:56:00 PM
<b>PERCENT MOISTURE</b>			<b>D2216</b>				Analyst: <b>CF</b>
Percent Moisture	4.13	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>			<b>SW6010C</b>		<b>SW3050B</b>		Analyst: <b>JP</b>
Aluminum	1520	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Antimony	U	0.20	0.503		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Arsenic	0.507	0.20	0.503		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Barium	11.2	0.20	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Beryllium	U	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Cadmium	U	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Calcium	281	0.20	0.503		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Chromium	8.08	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Cobalt	U	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Copper	4.36	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Iron	3240	0.20	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Lead	1.43	0.20	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Magnesium	597	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Manganese	104	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Nickel	7.39	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Potassium	434	0.20	0.503		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Selenium	U	0.20	0.503		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Silver	U	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Sodium	28.6	0.20	0.503		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Thallium	U	0.30	0.503		mg/Kg-dry	1	5/3/2012 12:38:15 PM
Vanadium	4.87	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
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# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-02B

Client Sample ID: B-2 (15-17')  
 Collection Date: 5/2/2012 9:50:00 AM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							Analyst: JP
Zinc	6.70	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:38:15 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							Analyst: LDS
1,2,4-Trichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
1,2-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
1,3-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
1,4-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2,4,5-Trichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2,4,6-Trichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2,4-Dichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2,4-Dimethylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2,4-Dinitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2,4-Dinitrotoluene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2,6-Dinitrotoluene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2-Chloronaphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2-Chlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2-Methylnaphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2-Methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
2-Nitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
3,3'-Dichlorobenzidine	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
3+4-Methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
3-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
4,6-Dinitro-2-methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
4-Bromophenyl phenyl ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
4-Chloro-3-methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
4-Chloroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
4-Chlorophenyl phenyl ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
4-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
4-Nitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Acenaphthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Acenaphthylene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Acetophenone	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-02B

Client Sample ID: B-2 (15-17')  
 Collection Date: 5/2/2012 9:50:00 AM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Aniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Atrazine	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Azobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzaldehyde	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzidine	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzo(a)anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzo(a)pyrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzo(b)fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzo(g,h,i)perylene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzo(k)fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzoic acid	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Benzyl alcohol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Biphenyl	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Bis(2-chloroethoxy)methane	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Bis(2-chloroethyl)ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Bis(2-chloroisopropyl)ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Bis(2-ethylhexyl)phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Butyl benzyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Caprolactam	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Carbazole	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Chrysene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Dibenzo(a,h)anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Dibenzofuran	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Diethyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Dimethyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Di-n-butyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Di-n-octyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Fluorene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Hexachlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Hexachlorobutadiene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Hexachlorocyclopentadiene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-2 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-02B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		<b>Analyst: LDS</b>
Hexachloroethane	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Indeno(1,2,3-c,d)pyrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Isophorone	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Naphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Nitrobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
N-Nitrosodimethylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
N-Nitrosodi-n-propylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
N-Nitrosodiphenylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Parathion	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Pentachlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Phenanthrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Phenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Pyrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Pyridine	U	25.4	250		µg/Kg-dry	1	5/8/2012 5:03:00 PM
Surr: 2,4,6-Tribromophenol	99.3	0	21-119		%REC	1	5/8/2012 5:03:00 PM
Surr: 2-Fluorobiphenyl	98.6	0	21-117		%REC	1	5/8/2012 5:03:00 PM
Surr: 2-Fluorophenol	54.6	0	11-105		%REC	1	5/8/2012 5:03:00 PM
Surr: 4-Terphenyl-d14	109	0	21-132		%REC	1	5/8/2012 5:03:00 PM
Surr: Nitrobenzene-d5	73.6	0	18-116		%REC	1	5/8/2012 5:03:00 PM
Surr: Phenol-d6	57.6	0	12-110		%REC	1	5/8/2012 5:03:00 PM

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- |                    |     |   |     |  |
|--------------------|-----|---|-----|--|
| <b>Qualifiers:</b> | B   | Analyte detected in the associated Method Blank       | C   | Calibration %RSD/%D exceeded for non-CCC analytes      |
|                    | E   | Value above quantitation range                        | H   | Holding times for preparation or analysis exceeded     |
|                    | J   | Analyte detected below quantitation limits            | LOD | Limit of Detection                                     |
|                    | LOQ | Limit of Quantitation                                 | P   | >40% diff for detected conc between the two GC columns |
|                    | PQL | Practical Quantitation Limit                          | S   | Spike Recovery outside accepted recovery limits        |
|                    | U   | Indicates the compound was analyzed but not detected. |     |  |

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:30:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-03A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
1,1,1,2-Tetrachloroethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,1,1-Trichloroethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,1,2,2-Tetrachloroethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,1,2-Trichloroethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,1-Dichloroethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,1-Dichloroethene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,1-Dichloropropene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2,3-Trichlorobenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2,3-Trichloropropane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2,4,5-Tetramethylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2,4-Trichlorobenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2,4-Trimethylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2-Dibromo-3-chloropropane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2-Dibromoethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2-Dichlorobenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2-Dichloroethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,2-Dichloropropane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,3,5-Trimethylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,3-Dichlorobenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,3-dichloropropane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,4-Dichlorobenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
1,4-Dioxane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
2,2-Dichloropropane	U	0.51	5.1	C	µg/Kg-dry	1	5/5/2012 5:33:00 AM
2-Butanone	U	1.54	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
2-Chloroethyl vinyl ether	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
2-Chlorotoluene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
2-Hexanone	U	1.54	5.1	C	µg/Kg-dry	1	5/5/2012 5:33:00 AM
2-Propanol	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
4-Chlorotoluene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
4-Isopropyltoluene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
4-Methyl-2-pentanone	U	1.54	5.1	C	µg/Kg-dry	1	5/5/2012 5:33:00 AM
Acetone	U	1.54	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:30:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-03A		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Acrolein	U	2.56	10	C	µg/Kg-dry	1	5/5/2012 5:33:00 AM
Acrylonitrile	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Benzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Bromobenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Bromochloromethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Bromodichloromethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Bromoform	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Bromomethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Carbon disulfide	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Carbon tetrachloride	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Chlorobenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Chlorodifluoromethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Chloroethane	U	0.51	5.1	C	µg/Kg-dry	1	5/5/2012 5:33:00 AM
Chloroform	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Chloromethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
cis-1,2-Dichloroethene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
cis-1,3-Dichloropropene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Dibromochloromethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Dibromomethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Dichlorodifluoromethane	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Diisopropyl ether	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Ethanol	U	2.56	10		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Ethyl acetate	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Ethylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Freon-114	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Hexachlorobutadiene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Isopropyl acetate	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Isopropylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
m,p-Xylene	U	1.02	10		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Methyl Acetate	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Methyl tert-butyl ether	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Methylene chloride	11	0.51	5.1	B	µg/Kg-dry	1	5/5/2012 5:33:00 AM
n-Amyl acetate	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:30:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-03A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Naphthalene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
n-Butyl acetate	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
n-Butylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
n-Propyl acetate	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
n-Propylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
o-Xylene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
p-Diethylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
p-Ethyltoluene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
sec-Butylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Styrene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
t-Butyl alcohol	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
tert-Butylbenzene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Tetrachloroethene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Toluene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
trans-1,2-Dichloroethene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
trans-1,3-Dichloropropene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Trichloroethene	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Trichlorofluoromethane	U	0.51	5.1	C	µg/Kg-dry	1	5/5/2012 5:33:00 AM
Vinyl acetate	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Vinyl chloride	U	0.51	5.1		µg/Kg-dry	1	5/5/2012 5:33:00 AM
Surr: 4-Bromofluorobenzene	85.4	0	42-133		%REC	1	5/5/2012 5:33:00 AM
Surr: Dibromofluoromethane	100	0	50-133		%REC	1	5/5/2012 5:33:00 AM
Surr: Toluene-d8	91.6	0	53-130		%REC	1	5/5/2012 5:33:00 AM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b> J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b> B-5 (0-2')
<b>Lab Order:</b> 1205020	<b>Collection Date:</b> 5/2/2012 9:30:00 AM
<b>Project:</b> 224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 1205020-03B	

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
Mercury	0.0103	0.004	0.00894		mg/Kg-dry	1	5/9/2012 1:55:44 PM
							Analyst: JP
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>							
							Analyst: SB
Aroclor 1016	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1221	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1232	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1242	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1248	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1254	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1260	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1262	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Aroclor 1268	U	1.27	2.5		µg/Kg-dry	1	5/8/2012 10:44:00 PM
Surr: TCX	105	0	17-151		%REC	1	5/8/2012 10:44:00 PM
Surr: DCB	105	0	16-152		%REC	1	5/8/2012 10:44:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>							
							Analyst: SB
4,4'-DDD	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
4,4'-DDE	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
4,4'-DDT	0.91	0.10	0.41	CP	µg/Kg-dry	1	5/8/2012 3:10:00 PM
Aldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
alpha-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
beta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Chlordane	U	0.25	1.0		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Chlorobenzilate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
DBCP	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 3:10:00 PM
delta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Dieldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Endosulfan I	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Endosulfan II	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Endosulfan sulfate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Endrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Endrin aldehyde	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Endrin ketone	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
gamma-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM

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	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
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ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: B-5 (0-2')  
 Lab Order: 1205020 Collection Date: 5/2/2012 9:30:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: SOIL  
 Lab ID: 1205020-03B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>				<b>SW8081B</b>	<b>SW3550C</b>		Analyst: <b>SB</b>
Heptachlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Heptachlor epoxide	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Hexachlorobenzene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Hexachlorocyclopentadiene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Methoxychlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Toxaphene	U	2.54	10		µg/Kg-dry	1	5/8/2012 3:10:00 PM
Surr: DCB	79.8	0	23-157		%REC	1	5/8/2012 3:10:00 PM
Surr: TCX	89.9	0	21-151		%REC	1	5/8/2012 3:10:00 PM
<b>PERCENT MOISTURE</b>				<b>D2216</b>			Analyst: <b>CF</b>
Percent Moisture	2.71	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>				<b>SW6010C</b>	<b>SW3050B</b>		Analyst: <b>JP</b>
Aluminum	1770	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Antimony	U	0.20	0.504		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Arsenic	1.45	0.20	0.504		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Barium	13.7	0.20	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Beryllium	U	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Cadmium	0.108	0.10	0.403	J	mg/Kg-dry	1	5/3/2012 12:40:16 PM
Calcium	2100	0.20	0.504		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Chromium	7.24	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Cobalt	U	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Copper	7.67	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Iron	11600	2.02	4.03		mg/Kg-dry	10	5/3/2012 2:47:17 PM
Lead	11.2	0.20	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Magnesium	650	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Manganese	105	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Nickel	5.57	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Potassium	344	0.20	0.504		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Selenium	U	0.20	0.504		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Silver	U	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Sodium	164	0.20	0.504		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Thallium	U	0.30	0.504		mg/Kg-dry	1	5/3/2012 12:40:16 PM
Vanadium	7.70	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM

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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: B-5 (0-2')  
 Lab Order: 1205020 Collection Date: 5/2/2012 9:30:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: SOIL  
 Lab ID: 1205020-03B

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	24.8	0.10	0.403		mg/Kg-dry	1	5/3/2012 12:40:16 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			<b>SW6010C</b>		<b>SW3050B</b>		Analyst: JP
1,2,4-Trichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
1,2-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
1,3-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
1,4-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2,4,5-Trichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2,4,6-Trichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2,4-Dichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2,4-Dimethylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2,4-Dinitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2,4-Dinitrotoluene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2,6-Dinitrotoluene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2-Chloronaphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2-Chlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2-Methylnaphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2-Methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
2-Nitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
3,3'-Dichlorobenzidine	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
3+4-Methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
3-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
4,6-Dinitro-2-methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
4-Bromophenyl phenyl ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
4-Chloro-3-methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
4-Chloroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
4-Chlorophenyl phenyl ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
4-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
4-Nitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Acenaphthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Acenaphthylene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Acetophenone	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM

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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-03B

Client Sample ID: B-5 (0-2')  
 Collection Date: 5/2/2012 9:30:00 AM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: <b>LDS</b>
Aniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Atrazine	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Azobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzaldehyde	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzidine	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzo(a)anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzo(a)pyrene	28	25.4	250	J	µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzo(b)fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzo(g,h,i)perylene	71	25.4	250	J	µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzo(k)fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzoic acid	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Benzyl alcohol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Biphenyl	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Bis(2-chloroethoxy)methane	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Bis(2-chloroethyl)ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Bis(2-chloroisopropyl)ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Bis(2-ethylhexyl)phthalate	890	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Butyl benzyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Caprolactam	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Carbazole	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Chrysene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Dibenzo(a,h)anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Dibenzofuran	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Diethyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Dimethyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Di-n-butyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Di-n-octyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Fluorene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Hexachlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Hexachlorobutadiene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Hexachlorocyclopentadiene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM

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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 9:30:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-03B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: <b>LDS</b>
Hexachloroethane	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Indeno(1,2,3-c,d)pyrene	37	25.4	250	J	µg/Kg-dry	1	5/8/2012 4:39:00 PM
Isophorone	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Naphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Nitrobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
N-Nitrosodimethylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
N-Nitrosodi-n-propylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
N-Nitrosodiphenylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Parathion	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Pentachlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Phenanthrene	33	25.4	250	J	µg/Kg-dry	1	5/8/2012 4:39:00 PM
Phenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Pyrene	57	25.4	250	J	µg/Kg-dry	1	5/8/2012 4:39:00 PM
Pyridine	U	25.4	250		µg/Kg-dry	1	5/8/2012 4:39:00 PM
Surr: 2,4,6-Tribromophenol	98.5	0	21-119		%REC	1	5/8/2012 4:39:00 PM
Surr: 2-Fluorobiphenyl	94.7	0	21-117		%REC	1	5/8/2012 4:39:00 PM
Surr: 2-Fluorophenol	57.3	0	11-105		%REC	1	5/8/2012 4:39:00 PM
Surr: 4-Terphenyl-d14	112	0	21-132		%REC	1	5/8/2012 4:39:00 PM
Surr: Nitrobenzene-d5	71.6	0	18-116		%REC	1	5/8/2012 4:39:00 PM
Surr: Phenol-d6	75.5	0	12-110		%REC	1	5/8/2012 4:39:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 10:20:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-04A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
1,1,1,2-Tetrachloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,1,1-Trichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,1,2,2-Tetrachloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,1,2-Trichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,1-Dichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,1-Dichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,1-Dichloropropene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2,3-Trichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2,3-Trichloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2,4,5-Tetramethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2,4-Trichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2,4-Trimethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2-Dibromo-3-chloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2-Dibromoethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2-Dichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2-Dichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,2-Dichloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,3,5-Trimethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,3-Dichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,3-dichloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,4-Dichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
1,4-Dioxane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
2,2-Dichloropropane	U	0.53	5.3	C	µg/Kg-dry	1	5/5/2012 6:07:00 AM
2-Butanone	U	1.6	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
2-Chloroethyl vinyl ether	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
2-Chlorotoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
2-Hexanone	U	1.6	5.3	C	µg/Kg-dry	1	5/5/2012 6:07:00 AM
2-Propanol	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
4-Chlorotoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
4-Isopropyltoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
4-Methyl-2-pentanone	U	1.6	5.3	C	µg/Kg-dry	1	5/5/2012 6:07:00 AM
Acetone	U	1.6	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM

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	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
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# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-04A

Client Sample ID: B-5 (15-17')  
 Collection Date: 5/2/2012 10:20:00 AM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
Acrolein	U	2.66	11	C	µg/Kg-dry	1	5/5/2012 6:07:00 AM
Acrylonitrile	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Benzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Bromobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Bromochloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Bromodichloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Bromoform	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Bromomethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Carbon disulfide	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Carbon tetrachloride	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Chlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Chlorodifluoromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Chloroethane	U	0.53	5.3	C	µg/Kg-dry	1	5/5/2012 6:07:00 AM
Chloroform	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Chloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
cis-1,2-Dichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
cis-1,3-Dichloropropene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Dibromochloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Dibromomethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Dichlorodifluoromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Diisopropyl ether	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Ethanol	U	2.66	11		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Ethyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Ethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Freon-114	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Hexachlorobutadiene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Isopropyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Isopropylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
m,p-Xylene	U	1.07	11		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Methyl Acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Methyl tert-butyl ether	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Methylene chloride	13	0.53	5.3	B	µg/Kg-dry	1	5/5/2012 6:07:00 AM
n-Amyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM

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	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 10:20:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-04A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
Naphthalene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
n-Butyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
n-Butylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
n-Propyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
n-Propylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
o-Xylene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
p-Diethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
p-Ethyltoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
sec-Butylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Styrene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
t-Butyl alcohol	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
tert-Butylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Tetrachloroethene	17	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Toluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
trans-1,2-Dichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
trans-1,3-Dichloropropene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Trichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Trichlorofluoromethane	U	0.53	5.3	C	µg/Kg-dry	1	5/5/2012 6:07:00 AM
Vinyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Vinyl chloride	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 6:07:00 AM
Surr: 4-Bromofluorobenzene	75.6	0	42-133		%REC	1	5/5/2012 6:07:00 AM
Surr: Dibromofluoromethane	104	0	50-133		%REC	1	5/5/2012 6:07:00 AM
Surr: Toluene-d8	87.7	0	53-130		%REC	1	5/5/2012 6:07:00 AM

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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 10:20:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-04B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>					<b>SW7471B</b>	<b>SW7471B</b>	<b>Analyst: JP</b>
Mercury	U	0.005	0.0101		mg/Kg-dry	1	5/9/2012 1:57:52 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>					<b>SW8082A</b>	<b>SW3550C</b>	<b>Analyst: SB</b>
Aroclor 1016	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1221	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1232	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1242	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1248	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1254	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1260	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1262	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Aroclor 1268	U	1.31	2.6		µg/Kg-dry	1	5/8/2012 11:08:00 PM
Surr: TCX	113	0	17-151		%REC	1	5/8/2012 11:08:00 PM
Surr: DCB	123	0	16-152		%REC	1	5/8/2012 11:08:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>					<b>SW8081B</b>	<b>SW3550C</b>	<b>Analyst: SB</b>
4,4'-DDD	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
4,4'-DDE	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
4,4'-DDT	0.65	0.10	0.42	C	µg/Kg-dry	1	5/8/2012 7:14:00 PM
Aldrin	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
alpha-BHC	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
beta-BHC	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Chlordane	U	0.26	1.0		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Chlorobenzilate	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
DBCP	U	0.21	0.84		µg/Kg-dry	1	5/8/2012 7:14:00 PM
delta-BHC	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Dieldrin	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Endosulfan I	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Endosulfan II	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Endosulfan sulfate	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Endrin	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Endrin aldehyde	U	0.21	0.84		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Endrin ketone	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
gamma-BHC	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
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# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 10:20:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-04B		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>				<b>SW8081B</b>	<b>SW3550C</b>		Analyst: <b>SB</b>
Heptachlor	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Heptachlor epoxide	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Hexachlorobenzene	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Hexachlorocyclopentadiene	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Methoxychlor	U	0.10	0.42		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Toxaphene	U	2.62	10		µg/Kg-dry	1	5/8/2012 7:14:00 PM
Surr: DCB	109	0	23-157		%REC	1	5/8/2012 7:14:00 PM
Surr: TCX	90.2	0	21-151		%REC	1	5/8/2012 7:14:00 PM
<b>PERCENT MOISTURE</b>				<b>D2216</b>			Analyst: <b>CF</b>
Percent Moisture	6.30	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>				<b>SW6010C</b>	<b>SW3050B</b>		Analyst: <b>JP</b>
Aluminum	1640	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Antimony	U	0.21	0.534		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Arsenic	1.14	0.21	0.534		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Barium	8.39	0.21	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Beryllium	U	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Cadmium	U	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Calcium	157	0.21	0.534		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Chromium	9.22	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Cobalt	U	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Copper	5.06	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Iron	3830	0.21	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Lead	2.00	0.21	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Magnesium	445	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Manganese	41.1	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Nickel	6.04	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Potassium	355	0.21	0.534		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Selenium	U	0.21	0.534		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Silver	U	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Sodium	42.6	0.21	0.534		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Thallium	U	0.32	0.534		mg/Kg-dry	1	5/3/2012 12:42:18 PM
Vanadium	9.12	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-04B

Client Sample ID: B-5 (15-17')  
 Collection Date: 5/2/2012 10:20:00 AM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	11.0	0.11	0.427		mg/Kg-dry	1	5/3/2012 12:42:18 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			<b>SW6010C</b>		<b>SW3050B</b>		Analyst: JP
1,2,4-Trichlorobenzene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
1,2-Dichlorobenzene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
1,3-Dichlorobenzene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
1,4-Dichlorobenzene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2,4,5-Trichlorophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2,4,6-Trichlorophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2,4-Dichlorophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2,4-Dimethylphenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2,4-Dinitrophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2,4-Dinitrotoluene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2,6-Dinitrotoluene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2-Chloronaphthalene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2-Chlorophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2-Methylnaphthalene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2-Methylphenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2-Nitroaniline	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
2-Nitrophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
3,3'-Dichlorobenzidine	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
3+4-Methylphenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
3-Nitroaniline	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
4,6-Dinitro-2-methylphenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
4-Bromophenyl phenyl ether	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
4-Chloro-3-methylphenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
4-Chloroaniline	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
4-Chlorophenyl phenyl ether	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
4-Nitroaniline	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
4-Nitrophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Acenaphthene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Acenaphthylene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Acetophenone	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 10:20:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-04B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Aniline	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Anthracene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Atrazine	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Azobenzene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzaldehyde	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzidine	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzo(a)anthracene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzo(a)pyrene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzo(b)fluoranthene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzo(g,h,i)perylene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzo(k)fluoranthene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzoic acid	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Benzyl alcohol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Biphenyl	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Bis(2-chloroethoxy)methane	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Bis(2-chloroethyl)ether	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Bis(2-chloroisopropyl)ether	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Bis(2-ethylhexyl)phthalate	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Butyl benzyl phthalate	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Caprolactam	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Carbazole	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Chrysene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Dibenzo(a,h)anthracene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Dibenzofuran	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Diethyl phthalate	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Dimethyl phthalate	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Di-n-butyl phthalate	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Di-n-octyl phthalate	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Fluoranthene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Fluorene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Hexachlorobenzene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Hexachlorobutadiene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Hexachlorocyclopentadiene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-5 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 10:20:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-04B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: <b>LDS</b>
Hexachloroethane	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Indeno(1,2,3-c,d)pyrene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Isophorone	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Naphthalene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Nitrobenzene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
N-Nitrosodimethylamine	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
N-Nitrosodi-n-propylamine	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
N-Nitrosodiphenylamine	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Parathion	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Pentachlorophenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Phenanthrene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Phenol	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Pyrene	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Pyridine	U	26.2	260		µg/Kg-dry	1	5/8/2012 4:14:00 PM
Surr: 2,4,6-Tribromophenol	100	0	21-119		%REC	1	5/8/2012 4:14:00 PM
Surr: 2-Fluorobiphenyl	108	0	21-117		%REC	1	5/8/2012 4:14:00 PM
Surr: 2-Fluorophenol	45.4	0	11-105		%REC	1	5/8/2012 4:14:00 PM
Surr: 4-Terphenyl-d14	99.4	0	21-132		%REC	1	5/8/2012 4:14:00 PM
Surr: Nitrobenzene-d5	77.4	0	18-116		%REC	1	5/8/2012 4:14:00 PM
Surr: Phenol-d6	53.2	0	12-110		%REC	1	5/8/2012 4:14:00 PM

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- |                    |     |   |     |  |
|--------------------|-----|---|-----|--|
| <b>Qualifiers:</b> | B   | Analyte detected in the associated Method Blank       | C   | Calibration %RSD/%D exceeded for non-CCC analytes      |
|                    | E   | Value above quantitation range                        | H   | Holding times for preparation or analysis exceeded     |
|                    | J   | Analyte detected below quantitation limits            | LOD | Limit of Detection                                     |
|                    | LOQ | Limit of Quantitation                                 | P   | >40% diff for detected conc between the two GC columns |
|                    | PQL | Practical Quantitation Limit                          | S   | Spike Recovery outside accepted recovery limits        |
|                    | U   | Indicates the compound was analyzed but not detected. |     |  |

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: B-3 (0-2')  
 Lab Order: 1205020 Collection Date: 5/2/2012 11:15:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: SOIL  
 Lab ID: 1205020-05A

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
1,1,1,2-Tetrachloroethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,1,1-Trichloroethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,1,2,2-Tetrachloroethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,1,2-Trichloroethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,1-Dichloroethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,1-Dichloroethene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,1-Dichloropropene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2,3-Trichlorobenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2,3-Trichloropropane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2,4,5-Tetramethylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2,4-Trichlorobenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2,4-Trimethylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2-Dibromo-3-chloropropane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2-Dibromoethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2-Dichlorobenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2-Dichloroethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,2-Dichloropropane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,3,5-Trimethylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,3-Dichlorobenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,3-dichloropropane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,4-Dichlorobenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
1,4-Dioxane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
2,2-Dichloropropane	U	0.47	4.7	C	µg/Kg-dry	1	5/5/2012 6:40:00 AM
2-Butanone	U	1.40	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
2-Chloroethyl vinyl ether	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
2-Chlorotoluene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
2-Hexanone	U	1.40	4.7	C	µg/Kg-dry	1	5/5/2012 6:40:00 AM
2-Propanol	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
4-Chlorotoluene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
4-Isopropyltoluene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
4-Methyl-2-pentanone	U	1.40	4.7	C	µg/Kg-dry	1	5/5/2012 6:40:00 AM
Acetone	U	1.40	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM

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Qualifiers:	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: B-3 (0-2')  
 Lab Order: 1205020 Collection Date: 5/2/2012 11:15:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: SOIL  
 Lab ID: 1205020-05A

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
Acrolein	U	2.34	9.3	C	µg/Kg-dry	1	5/5/2012 6:40:00 AM
Acrylonitrile	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Benzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Bromobenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Bromochloromethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Bromodichloromethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Bromoform	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Bromomethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Carbon disulfide	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Carbon tetrachloride	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Chlorobenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Chlorodifluoromethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Chloroethane	U	0.47	4.7	C	µg/Kg-dry	1	5/5/2012 6:40:00 AM
Chloroform	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Chloromethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
cis-1,2-Dichloroethene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
cis-1,3-Dichloropropene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Dibromochloromethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Dibromomethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Dichlorodifluoromethane	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Diisopropyl ether	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Ethanol	U	2.34	9.3		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Ethyl acetate	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Ethylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Freon-114	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Hexachlorobutadiene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Isopropyl acetate	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Isopropylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
m,p-Xylene	U	0.93	9.3		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Methyl Acetate	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Methyl tert-butyl ether	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Methylene chloride	9.4	0.47	4.7	B	µg/Kg-dry	1	5/5/2012 6:40:00 AM
n-Amyl acetate	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	Client Sample ID:	B-3 (0-2')
Lab Order:	1205020	Collection Date:	5/2/2012 11:15:00 AM
Project:	224-01 Merrick Blvd., Queens, NY	Matrix:	SOIL
Lab ID:	1205020-05A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Naphthalene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
n-Butyl acetate	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
n-Butylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
n-Propyl acetate	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
n-Propylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
o-Xylene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
p-Diethylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
p-Ethyltoluene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
sec-Butylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Styrene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
t-Butyl alcohol	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
tert-Butylbenzene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Tetrachloroethene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Toluene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
trans-1,2-Dichloroethene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
trans-1,3-Dichloropropene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Trichloroethene	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Trichlorofluoromethane	U	0.47	4.7	C	µg/Kg-dry	1	5/5/2012 6:40:00 AM
Vinyl acetate	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Vinyl chloride	U	0.47	4.7		µg/Kg-dry	1	5/5/2012 6:40:00 AM
Surr: 4-Bromofluorobenzene	91.2	0	42-133		%REC	1	5/5/2012 6:40:00 AM
Surr: Dibromofluoromethane	99.6	0	50-133		%REC	1	5/5/2012 6:40:00 AM
Surr: Toluene-d8	92.2	0	53-130		%REC	1	5/5/2012 6:40:00 AM

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- |                    |   |  |
|--------------------|---|--|
| <b>Qualifiers:</b> | B Analyte detected in the associated Method Blank       | C Calibration %RSD/%D exceeded for non-CCC analytes      |
|                    | E Value above quantitation range                        | H Holding times for preparation or analysis exceeded     |
|                    | J Analyte detected below quantitation limits            | LOD Limit of Detection                                   |
|                    | LOQ Limit of Quantitation                               | P >40% diff for detected conc between the two GC columns |
|                    | PQL Practical Quantitation Limit                        | S Spike Recovery outside accepted recovery limits        |
|                    | U Indicates the compound was analyzed but not detected. |  |

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: B-3 (0-2')  
 Lab Order: 1205020 Collection Date: 5/2/2012 11:15:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: SOIL  
 Lab ID: 1205020-05B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>					<b>SW7471B</b>		<b>SW7471B</b>
Mercury	U	0.005	0.00980		mg/Kg-dry	1	Analyst: JP 5/9/2012 2:00:00 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>					<b>SW8082A</b>		<b>SW3550C</b>
Aroclor 1016	U	1.26	2.5		µg/Kg-dry	1	Analyst: SB 5/8/2012 11:32:00 PM
Aroclor 1221	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Aroclor 1232	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Aroclor 1242	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Aroclor 1248	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Aroclor 1254	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Aroclor 1260	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Aroclor 1262	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Aroclor 1268	U	1.26	2.5		µg/Kg-dry	1	5/8/2012 11:32:00 PM
Surr: TCX	108	0	17-151		%REC	1	5/8/2012 11:32:00 PM
Surr: DCB	118	0	16-152		%REC	1	5/8/2012 11:32:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>					<b>SW8081B</b>		<b>SW3550C</b>
4,4'-DDD	U	0.10	0.40		µg/Kg-dry	1	Analyst: SB 5/8/2012 7:28:00 PM
4,4'-DDE	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
4,4'-DDT	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Aldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
alpha-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
beta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Chlordane	U	0.25	1.0		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Chlorobenzilate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
DBCP	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 7:28:00 PM
delta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Dieldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Endosulfan I	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Endosulfan II	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Endosulfan sulfate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Endrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Endrin aldehyde	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Endrin ketone	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
gamma-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM

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**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes  
 E Value above quantitation range H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits LOD Limit of Detection  
 LOQ Limit of Quantitation P >40% diff for detected conc between the two GC columns  
 PQL Practical Quantitation Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed but not detected.

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-3 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 11:15:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-05B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>							
					<b>SW8081B</b>		<b>SW3550C</b>
							<b>Analyst: SB</b>
Heptachlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Heptachlor epoxide	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Hexachlorobenzene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Hexachlorocyclopentadiene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Methoxychlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Toxaphene	U	2.52	10		µg/Kg-dry	1	5/8/2012 7:28:00 PM
Surr: DCB	114	0	23-157		%REC	1	5/8/2012 7:28:00 PM
Surr: TCX	98.4	0	21-151		%REC	1	5/8/2012 7:28:00 PM
<b>PERCENT MOISTURE</b>							
					<b>D2216</b>		<b>Analyst: CF</b>
Percent Moisture	0.970	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>							
					<b>SW6010C</b>		<b>SW3050B</b>
							<b>Analyst: JP</b>
Aluminum	1840	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Antimony	U	0.18	0.444		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Arsenic	0.735	0.18	0.444		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Barium	7.56	0.18	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Beryllium	U	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Cadmium	U	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Calcium	244	0.18	0.444		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Chromium	5.18	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Cobalt	U	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Copper	3.71	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Iron	3320	0.18	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Lead	2.09	0.18	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Magnesium	761	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Manganese	107	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Nickel	9.23	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Potassium	285	0.18	0.444		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Selenium	U	0.18	0.444		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Silver	U	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Sodium	28.0	0.18	0.444		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Thallium	U	0.27	0.444		mg/Kg-dry	1	5/3/2012 12:44:19 PM
Vanadium	5.77	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM

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- |                    |   |  |
|--------------------|---|--|
| <b>Qualifiers:</b> | B Analyte detected in the associated Method Blank       | C Calibration %RSD/%D exceeded for non-CCC analytes      |
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|                    | J Analyte detected below quantitation limits            | LOD Limit of Detection                                   |
|                    | LOQ Limit of Quantitation                               | P >40% diff for detected conc between the two GC columns |
|                    | PQL Practical Quantitation Limit                        | S Spike Recovery outside accepted recovery limits        |
|                    | U Indicates the compound was analyzed but not detected. |  |

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-05B

Client Sample ID: B-3 (0-2')  
 Collection Date: 5/2/2012 11:15:00 AM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	8.06	0.09	0.356		mg/Kg-dry	1	5/3/2012 12:44:19 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			<b>SW6010C</b>		<b>SW3050B</b>		Analyst: <b>JP</b>
			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: <b>LDS</b>
1,2,4-Trichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
1,2-Dichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
1,3-Dichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
1,4-Dichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2,4,5-Trichlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2,4,6-Trichlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2,4-Dichlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2,4-Dimethylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2,4-Dinitrophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2,4-Dinitrotoluene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2,6-Dinitrotoluene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2-Chloronaphthalene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2-Chlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2-Methylnaphthalene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2-Methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2-Nitroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
2-Nitrophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
3,3'-Dichlorobenzidine	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
3+4-Methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
3-Nitroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
4,6-Dinitro-2-methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
4-Bromophenyl phenyl ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
4-Chloro-3-methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
4-Chloroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
4-Chlorophenyl phenyl ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
4-Nitroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
4-Nitrophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Acenaphthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Acenaphthylene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Acetophenone	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
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ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-05B

Client Sample ID: B-3 (0-2')  
 Collection Date: 5/2/2012 11:15:00 AM  
 Matrix: SOIL

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Aniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Anthracene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Atrazine	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Azobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzaldehyde	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzidine	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzo(a)anthracene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzo(a)pyrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzo(b)fluoranthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzo(g,h,i)perylene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzo(k)fluoranthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzoic acid	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Benzyl alcohol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Biphenyl	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Bis(2-chloroethoxy)methane	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Bis(2-chloroethyl)ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Bis(2-chloroisopropyl)ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Bis(2-ethylhexyl)phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Butyl benzyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Caprolactam	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Carbazole	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Chrysene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Dibenzo(a,h)anthracene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Dibenzofuran	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Diethyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Dimethyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Di-n-butyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Di-n-octyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Fluoranthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Fluorene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Hexachlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Hexachlorobutadiene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Hexachlorocyclopentadiene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-3 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 11:15:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-05B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Hexachloroethane	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Indeno(1,2,3-c,d)pyrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Isophorone	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Naphthalene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Nitrobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
N-Nitrosodimethylamine	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
N-Nitrosodi-n-propylamine	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
N-Nitrosodiphenylamine	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Parathion	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Pentachlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Phenanthrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Phenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Pyrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Pyridine	U	25.2	250		µg/Kg-dry	1	5/8/2012 3:49:00 PM
Surr: 2,4,6-Tribromophenol	91.2	0	21-119		%REC	1	5/8/2012 3:49:00 PM
Surr: 2-Fluorobiphenyl	100	0	21-117		%REC	1	5/8/2012 3:49:00 PM
Surr: 2-Fluorophenol	49.0	0	11-105		%REC	1	5/8/2012 3:49:00 PM
Surr: 4-Terphenyl-d14	93.8	0	21-132		%REC	1	5/8/2012 3:49:00 PM
Surr: Nitrobenzene-d5	69.9	0	18-116		%REC	1	5/8/2012 3:49:00 PM
Surr: Phenol-d6	60.6	0	12-110		%REC	1	5/8/2012 3:49:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-1 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 11:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-06A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
1,1,1,2-Tetrachloroethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,1,1-Trichloroethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,1,2,2-Tetrachloroethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,1,2-Trichloroethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,1-Dichloroethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,1-Dichloroethene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,1-Dichloropropene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2,3-Trichlorobenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2,3-Trichloropropane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2,4,5-Tetramethylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2,4-Trichlorobenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2,4-Trimethylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2-Dibromo-3-chloropropane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2-Dibromoethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2-Dichlorobenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2-Dichloroethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,2-Dichloropropane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,3,5-Trimethylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,3-Dichlorobenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,3-dichloropropane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,4-Dichlorobenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
1,4-Dioxane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
2,2-Dichloropropane	U	0.49	4.9	C	µg/Kg-dry	1	5/5/2012 7:12:00 AM
2-Butanone	U	1.48	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
2-Chloroethyl vinyl ether	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
2-Chlorotoluene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
2-Hexanone	U	1.48	4.9	C	µg/Kg-dry	1	5/5/2012 7:12:00 AM
2-Propanol	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
4-Chlorotoluene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
4-Isopropyltoluene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
4-Methyl-2-pentanone	U	1.48	4.9	C	µg/Kg-dry	1	5/5/2012 7:12:00 AM
Acetone	U	1.48	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-06A

Client Sample ID: B-1 (0-2')  
 Collection Date: 5/2/2012 11:50:00 AM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
Acrolein	U	2.47	9.9	C	µg/Kg-dry	1	5/5/2012 7:12:00 AM
Acrylonitrile	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Benzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Bromobenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Bromochloromethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Bromodichloromethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Bromoform	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Bromomethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Carbon disulfide	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Carbon tetrachloride	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Chlorobenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Chlorodifluoromethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Chloroethane	U	0.49	4.9	C	µg/Kg-dry	1	5/5/2012 7:12:00 AM
Chloroform	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Chloromethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
cis-1,2-Dichloroethene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
cis-1,3-Dichloropropene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Dibromochloromethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Dibromomethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Dichlorodifluoromethane	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Diisopropyl ether	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Ethanol	U	2.47	9.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Ethyl acetate	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Ethylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Freon-114	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Hexachlorobutadiene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Isopropyl acetate	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Isopropylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
m,p-Xylene	U	0.99	9.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Methyl Acetate	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Methyl tert-butyl ether	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Methylene chloride	9.2	0.49	4.9	B	µg/Kg-dry	1	5/5/2012 7:12:00 AM
n-Amyl acetate	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM

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Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-1 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 11:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-06A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>			Analyst: LA	
Naphthalene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
n-Butyl acetate	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
n-Butylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
n-Propyl acetate	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
n-Propylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
o-Xylene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
p-Diethylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
p-Ethyltoluene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
sec-Butylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Styrene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
t-Butyl alcohol	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
tert-Butylbenzene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Tetrachloroethene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Toluene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
trans-1,2-Dichloroethene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
trans-1,3-Dichloropropene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Trichloroethene	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Trichlorofluoromethane	U	0.49	4.9	C	µg/Kg-dry	1	5/5/2012 7:12:00 AM
Vinyl acetate	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Vinyl chloride	U	0.49	4.9		µg/Kg-dry	1	5/5/2012 7:12:00 AM
Surr: 4-Bromofluorobenzene	89.1	0	42-133		%REC	1	5/5/2012 7:12:00 AM
Surr: Dibromofluoromethane	103	0	50-133		%REC	1	5/5/2012 7:12:00 AM
Surr: Toluene-d8	93.7	0	53-130		%REC	1	5/5/2012 7:12:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: B-1 (0-2')  
 Lab Order: 1205020 Collection Date: 5/2/2012 11:50:00 AM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: SOIL  
 Lab ID: 1205020-06B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>			<b>SW7471B</b>		<b>SW7471B</b>		Analyst: <b>JP</b>
Mercury	U	0.004	0.00850		mg/Kg-dry	1	5/9/2012 2:02:08 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>			<b>SW8082A</b>		<b>SW3550C</b>		Analyst: <b>SB</b>
Aroclor 1016	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1221	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1232	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1242	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1248	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1254	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1260	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1262	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Aroclor 1268	U	1.25	2.5		µg/Kg-dry	1	5/8/2012 11:56:00 PM
Surr: TCX	92.8	0	17-151		%REC	1	5/8/2012 11:56:00 PM
Surr: DCB	101	0	16-152		%REC	1	5/8/2012 11:56:00 PM
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>SW8081B</b>		<b>SW3550C</b>		Analyst: <b>SB</b>
4,4'-DDD	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
4,4'-DDE	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
4,4'-DDT	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Aldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
alpha-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
beta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Chlordane	U	0.25	1.0		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Chlorobenzilate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
DBCP	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 7:42:00 PM
delta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Dieldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Endosulfan I	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Endosulfan II	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Endosulfan sulfate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Endrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Endrin aldehyde	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Endrin ketone	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
gamma-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-1 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 11:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-06B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>							
							Analyst: <b>SB</b>
Heptachlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Heptachlor epoxide	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Hexachlorobenzene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Hexachlorocyclopentadiene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Methoxychlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Toxaphene	U	2.52	10		µg/Kg-dry	1	5/8/2012 7:42:00 PM
Surr: DCB	86.9	0	23-157		%REC	1	5/8/2012 7:42:00 PM
Surr: TCX	80.1	0	21-151		%REC	1	5/8/2012 7:42:00 PM
<b>PERCENT MOISTURE</b>							Analyst: <b>CF</b>
Percent Moisture	1.11	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>							Analyst: <b>JP</b>
Aluminum	1610	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Antimony	U	0.20	0.508		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Arsenic	0.452	0.20	0.508	J	mg/Kg-dry	1	5/3/2012 12:46:20 PM
Barium	6.77	0.20	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Beryllium	U	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Cadmium	U	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Calcium	110	0.20	0.508		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Chromium	3.98	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Cobalt	U	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Copper	2.50	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Iron	2630	0.20	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Lead	1.33	0.20	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Magnesium	590	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Manganese	92.1	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Nickel	6.85	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Potassium	218	0.20	0.508		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Selenium	U	0.20	0.508		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Silver	U	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Sodium	13.0	0.20	0.508		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Thallium	U	0.31	0.508		mg/Kg-dry	1	5/3/2012 12:46:20 PM
Vanadium	3.77	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-06B

Client Sample ID: B-1 (0-2)  
 Collection Date: 5/2/2012 11:50:00 AM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	5.79	0.10	0.406		mg/Kg-dry	1	5/3/2012 12:46:20 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
1,2,4-Trichlorobenzene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
1,2-Dichlorobenzene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
1,3-Dichlorobenzene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
1,4-Dichlorobenzene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2,4,5-Trichlorophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2,4,6-Trichlorophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2,4-Dichlorophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2,4-Dimethylphenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2,4-Dinitrophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2,4-Dinitrotoluene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2,6-Dinitrotoluene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2-Chloronaphthalene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2-Chlorophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2-Methylnaphthalene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2-Methylphenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2-Nitroaniline	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
2-Nitrophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
3,3'-Dichlorobenzidine	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
3+4-Methylphenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
3-Nitroaniline	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
4,6-Dinitro-2-methylphenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
4-Bromophenyl phenyl ether	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
4-Chloro-3-methylphenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
4-Chloroaniline	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
4-Chlorophenyl phenyl ether	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
4-Nitroaniline	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
4-Nitrophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Acenaphthene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Acenaphthylene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Acetophenone	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b> J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b> B-1 (0-2')
<b>Lab Order:</b> 1205020	<b>Collection Date:</b> 5/2/2012 11:50:00 AM
<b>Project:</b> 224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 1205020-06B	

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Aniline	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Anthracene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Atrazine	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Azobenzene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzaldehyde	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzidine	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzo(a)anthracene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzo(a)pyrene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzo(b)fluoranthene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzo(g,h,i)perylene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzo(k)fluoranthene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzoic acid	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Benzyl alcohol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Biphenyl	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Bis(2-chloroethoxy)methane	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Bis(2-chloroethyl)ether	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Bis(2-chloroisopropyl)ether	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Bis(2-ethylhexyl)phthalate	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Butyl benzyl phthalate	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Caprolactam	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Carbazole	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Chrysene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Dibenzo(a,h)anthracene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Dibenzofuran	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Diethyl phthalate	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Dimethyl phthalate	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Di-n-butyl phthalate	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Di-n-octyl phthalate	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Fluoranthene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Fluorene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Hexachlorobenzene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Hexachlorobutadiene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Hexachlorocyclopentadiene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-1 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 11:50:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-06B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Hexachloroethane	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Indeno(1,2,3-c,d)pyrene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Isophorone	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Naphthalene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Nitrobenzene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
N-Nitrosodimethylamine	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
N-Nitrosodi-n-propylamine	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
N-Nitrosodiphenylamine	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Parathion	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Pentachlorophenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Phenanthrene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Phenol	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Pyrene	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Pyridine	U	24.9	250		µg/Kg-dry	1	5/8/2012 3:24:00 PM
Surr: 2,4,6-Tribromophenol	111	0	21-119		%REC	1	5/8/2012 3:24:00 PM
Surr: 2-Fluorobiphenyl	107	0	21-117		%REC	1	5/8/2012 3:24:00 PM
Surr: 2-Fluorophenol	61.9	0	11-105		%REC	1	5/8/2012 3:24:00 PM
Surr: 4-Terphenyl-d14	106	0	21-132		%REC	1	5/8/2012 3:24:00 PM
Surr: Nitrobenzene-d5	81.1	0	18-116		%REC	1	5/8/2012 3:24:00 PM
Surr: Phenol-d6	76.7	0	12-110		%REC	1	5/8/2012 3:24:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-1 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 12:10:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-07A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
1,1,1,2-Tetrachloroethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,1,1-Trichloroethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,1,2,2-Tetrachloroethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,1,2-Trichloroethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,1-Dichloroethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,1-Dichloroethene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,1-Dichloropropene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2,3-Trichlorobenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2,3-Trichloropropane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2,4,5-Tetramethylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2,4-Trichlorobenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2,4-Trimethylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2-Dibromo-3-chloropropane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2-Dibromoethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2-Dichlorobenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2-Dichloroethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,2-Dichloropropane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,3,5-Trimethylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,3-Dichlorobenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,3-dichloropropane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,4-Dichlorobenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
1,4-Dioxane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
2,2-Dichloropropane	U	0.54	5.4	C	µg/Kg-dry	1	5/5/2012 7:45:00 AM
2-Butanone	U	1.61	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
2-Chloroethyl vinyl ether	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
2-Chlorotoluene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
2-Hexanone	U	1.61	5.4	C	µg/Kg-dry	1	5/5/2012 7:45:00 AM
2-Propanol	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
4-Chlorotoluene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
4-Isopropyltoluene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
4-Methyl-2-pentanone	U	1.61	5.4	C	µg/Kg-dry	1	5/5/2012 7:45:00 AM
Acetone	U	1.61	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-07A

Client Sample ID: B-1 (15-17)  
 Collection Date: 5/2/2012 12:10:00 PM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Acrolein	U	2.69	11	C	µg/Kg-dry	1	5/5/2012 7:45:00 AM
Acrylonitrile	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Benzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Bromobenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Bromochloromethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Bromodichloromethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Bromoform	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Bromomethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Carbon disulfide	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Carbon tetrachloride	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Chlorobenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Chlorodifluoromethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Chloroethane	U	0.54	5.4	C	µg/Kg-dry	1	5/5/2012 7:45:00 AM
Chloroform	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Chloromethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
cis-1,2-Dichloroethene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
cis-1,3-Dichloropropene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Dibromochloromethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Dibromomethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Dichlorodifluoromethane	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Diisopropyl ether	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Ethanol	U	2.69	11		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Ethyl acetate	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Ethylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Freon-114	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Hexachlorobutadiene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Isopropyl acetate	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Isopropylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
m,p-Xylene	U	1.07	11		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Methyl Acetate	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Methyl tert-butyl ether	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Methylene chloride	11	0.54	5.4	B	µg/Kg-dry	1	5/5/2012 7:45:00 AM
n-Amyl acetate	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-1 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 12:10:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-07A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>			<b>Analyst: LA</b>	
Naphthalene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
n-Butyl acetate	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
n-Butylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
n-Propyl acetate	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
n-Propylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
o-Xylene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
p-Diethylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
p-Ethyltoluene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
sec-Butylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Styrene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
t-Butyl alcohol	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
tert-Butylbenzene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Tetrachloroethene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Toluene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
trans-1,2-Dichloroethene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
trans-1,3-Dichloropropene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Trichloroethene	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Trichlorofluoromethane	U	0.54	5.4	C	µg/Kg-dry	1	5/5/2012 7:45:00 AM
Vinyl acetate	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Vinyl chloride	U	0.54	5.4		µg/Kg-dry	1	5/5/2012 7:45:00 AM
Surr: 4-Bromofluorobenzene	87.1	0	42-133		%REC	1	5/5/2012 7:45:00 AM
Surr: Dibromofluoromethane	97.0	0	50-133		%REC	1	5/5/2012 7:45:00 AM
Surr: Toluene-d8	92.4	0	53-130		%REC	1	5/5/2012 7:45:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-07B

Client Sample ID: B-1 (15-17')  
 Collection Date: 5/2/2012 12:10:00 PM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							Analyst: JP
Mercury	0.00533	0.005	0.00968	J	mg/Kg-dry	1	5/9/2012 2:04:16 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>							Analyst: SB
Aroclor 1016	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1221	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1232	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1242	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1248	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1254	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1260	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1262	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Aroclor 1268	U	1.27	2.5		µg/Kg-dry	1	5/9/2012 12:20:00 AM
Surr: TCX	96.7	0	17-151		%REC	1	5/9/2012 12:20:00 AM
Surr: DCB	107	0	16-152		%REC	1	5/9/2012 12:20:00 AM
<b>PESTICIDES SW-846 METHOD 8081</b>							Analyst: SB
4,4'-DDD	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
4,4'-DDE	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
4,4'-DDT	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Aldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
alpha-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
beta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Chlordane	U	0.26	1.0		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Chlorobenzilate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
DBCP	U	0.20	0.82		µg/Kg-dry	1	5/8/2012 7:56:00 PM
delta-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Dieldrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Endosulfan I	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Endosulfan II	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Endosulfan sulfate	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Endrin	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Endrin aldehyde	U	0.20	0.82		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Endrin ketone	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
gamma-BHC	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b> J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b> B-1 (15-17')
<b>Lab Order:</b> 1205020	<b>Collection Date:</b> 5/2/2012 12:10:00 PM
<b>Project:</b> 224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 1205020-07B	

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>							
			<b>SW8081B</b>		<b>SW3550C</b>		Analyst: <b>SB</b>
Heptachlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Heptachlor epoxide	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Hexachlorobenzene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Hexachlorocyclopentadiene	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Methoxychlor	U	0.10	0.41		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Toxaphene	U	2.55	10		µg/Kg-dry	1	5/8/2012 7:56:00 PM
Surr: DCB	97.5	0	23-157		%REC	1	5/8/2012 7:56:00 PM
Surr: TCX	85.7	0	21-151		%REC	1	5/8/2012 7:56:00 PM
<b>PERCENT MOISTURE</b>							
			<b>D2216</b>				Analyst: <b>CF</b>
Percent Moisture	3.48	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>							
			<b>SW6010C</b>		<b>SW3050B</b>		Analyst: <b>JP</b>
Aluminum	1670	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Antimony	U	0.20	0.510		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Arsenic	0.614	0.20	0.510		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Barium	7.78	0.20	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Beryllium	U	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Cadmium	U	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Calcium	350	0.20	0.510		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Chromium	4.16	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Cobalt	U	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Copper	3.59	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Iron	2970	0.20	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Lead	1.58	0.20	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Magnesium	690	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Manganese	82.9	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Nickel	6.79	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Potassium	315	0.20	0.510		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Selenium	U	0.20	0.510		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Silver	U	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Sodium	20.1	0.20	0.510		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Thallium	U	0.31	0.510		mg/Kg-dry	1	5/3/2012 12:48:23 PM
Vanadium	4.31	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM

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- |                    |   |  |
|--------------------|---|--|
| <b>Qualifiers:</b> | B Analyte detected in the associated Method Blank       | C Calibration %RSD/%D exceeded for non-CCC analytes      |
|                    | E Value above quantitation range                        | H Holding times for preparation or analysis exceeded     |
|                    | J Analyte detected below quantitation limits            | LOD Limit of Detection                                   |
|                    | LOQ Limit of Quantitation                               | P >40% diff for detected conc between the two GC columns |
|                    | PQL Practical Quantitation Limit                        | S Spike Recovery outside accepted recovery limits        |
|                    | U Indicates the compound was analyzed but not detected. |  |

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-07B

Client Sample ID: B-1 (15-17')  
 Collection Date: 5/2/2012 12:10:00 PM  
 Matrix: SOIL

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	7.76	0.10	0.408		mg/Kg-dry	1	5/3/2012 12:48:23 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			SW6010C		SW3050B		Analyst: JP
1,2,4-Trichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
1,2-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
1,3-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
1,4-Dichlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2,4,5-Trichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2,4,6-Trichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2,4-Dichlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2,4-Dimethylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2,4-Dinitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2,4-Dinitrotoluene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2,6-Dinitrotoluene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2-Chloronaphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2-Chlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2-Methylnaphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2-Methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
2-Nitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
3,3'-Dichlorobenzidine	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
3+4-Methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
3-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
4,6-Dinitro-2-methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
4-Bromophenyl phenyl ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
4-Chloro-3-methylphenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
4-Chloroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
4-Chlorophenyl phenyl ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
4-Nitroaniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
4-Nitrophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Acenaphthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Acenaphthylene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Acetophenone	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-07B

Client Sample ID: B-1 (15-17')  
 Collection Date: 5/2/2012 12:10:00 PM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Aniline	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Atrazine	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Azobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzaldehyde	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzidine	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzo(a)anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzo(a)pyrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzo(b)fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzo(g,h,i)perylene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzo(k)fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzoic acid	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Benzyl alcohol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Biphenyl	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Bis(2-chloroethoxy)methane	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Bis(2-chloroethyl)ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Bis(2-chloroisopropyl)ether	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Bis(2-ethylhexyl)phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Butyl benzyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Caprolactam	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Carbazole	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Chrysene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Dibenzo(a,h)anthracene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Dibenzofuran	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Diethyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Dimethyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Di-n-butyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Di-n-octyl phthalate	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Fluoranthene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Fluorene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Hexachlorobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Hexachlorobutadiene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Hexachlorocyclopentadiene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-1 (15-17')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 12:10:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-07B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		<b>Analyst: LDS</b>
Hexachloroethane	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Indeno(1,2,3-c,d)pyrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Isophorone	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Naphthalene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Nitrobenzene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
N-Nitrosodimethylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
N-Nitrosodi-n-propylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
N-Nitrosodiphenylamine	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Parathion	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Pentachlorophenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Phenanthrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Phenol	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Pyrene	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Pyridine	U	25.4	250		µg/Kg-dry	1	5/8/2012 2:59:00 PM
Surr: 2,4,6-Tribromophenol	104	0	21-119		%REC	1	5/8/2012 2:59:00 PM
Surr: 2-Fluorobiphenyl	108	0	21-117		%REC	1	5/8/2012 2:59:00 PM
Surr: 2-Fluorophenol	55.7	0	11-105		%REC	1	5/8/2012 2:59:00 PM
Surr: 4-Terphenyl-d14	102	0	21-132		%REC	1	5/8/2012 2:59:00 PM
Surr: Nitrobenzene-d5	76.5	0	18-116		%REC	1	5/8/2012 2:59:00 PM
Surr: Phenol-d6	69.6	0	12-110		%REC	1	5/8/2012 2:59:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
1,1,1,2-Tetrachloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,1,1-Trichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,1,2,2-Tetrachloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,1,2-Trichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,1-Dichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,1-Dichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,1-Dichloropropene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2,3-Trichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2,3-Trichloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2,4,5-Tetramethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2,4-Trichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2,4-Trimethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2-Dibromo-3-chloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2-Dibromoethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2-Dichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2-Dichloroethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,2-Dichloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,3,5-Trimethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,3-Dichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,3-dichloropropane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,4-Dichlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
1,4-Dioxane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
2,2-Dichloropropane	U	0.53	5.3	C	µg/Kg-dry	1	5/5/2012 8:18:00 AM
2-Butanone	U	1.59	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
2-Chloroethyl vinyl ether	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
2-Chlorotoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
2-Hexanone	U	1.59	5.3	C	µg/Kg-dry	1	5/5/2012 8:18:00 AM
2-Propanol	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
4-Chlorotoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
4-Isopropyltoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
4-Methyl-2-pentanone	U	1.59	5.3	C	µg/Kg-dry	1	5/5/2012 8:18:00 AM
Acetone	U	1.59	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Acrolein	U	2.64	11	C	µg/Kg-dry	1	5/5/2012 8:18:00 AM
Acrylonitrile	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Benzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Bromobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Bromochloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Bromodichloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Bromoform	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Bromomethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Carbon disulfide	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Carbon tetrachloride	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Chlorobenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Chlorodifluoromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Chloroethane	U	0.53	5.3	C	µg/Kg-dry	1	5/5/2012 8:18:00 AM
Chloroform	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Chloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
cis-1,2-Dichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
cis-1,3-Dichloropropene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Dibromochloromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Dibromomethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Dichlorodifluoromethane	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Diisopropyl ether	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Ethanol	U	2.64	11		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Ethyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Ethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Freon-114	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Hexachlorobutadiene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Isopropyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Isopropylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
m,p-Xylene	U	1.06	11		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Methyl Acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Methyl tert-butyl ether	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Methylene chloride	10	0.53	5.3	B	µg/Kg-dry	1	5/5/2012 8:18:00 AM
n-Amyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Naphthalene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
n-Butyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
n-Butylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
n-Propyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
n-Propylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
o-Xylene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
p-Diethylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
p-Ethyltoluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
sec-Butylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Styrene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
t-Butyl alcohol	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
tert-Butylbenzene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Tetrachloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Toluene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
trans-1,2-Dichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
trans-1,3-Dichloropropene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Trichloroethene	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Trichlorofluoromethane	U	0.53	5.3	C	µg/Kg-dry	1	5/5/2012 8:18:00 AM
Vinyl acetate	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Vinyl chloride	U	0.53	5.3		µg/Kg-dry	1	5/5/2012 8:18:00 AM
Surr: 4-Bromofluorobenzene	87.8	0	42-133		%REC	1	5/5/2012 8:18:00 AM
Surr: Dibromofluoromethane	101	0	50-133		%REC	1	5/5/2012 8:18:00 AM
Surr: Toluene-d8	90.2	0	53-130		%REC	1	5/5/2012 8:18:00 AM

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- |                    |   |  |
|--------------------|---|--|
| <b>Qualifiers:</b> | B Analyte detected in the associated Method Blank       | C Calibration %RSD/%D exceeded for non-CCC analytes      |
|                    | E Value above quantitation range                        | H Holding times for preparation or analysis exceeded     |
|                    | J Analyte detected below quantitation limits            | LOD Limit of Detection                                   |
|                    | LOQ Limit of Quantitation                               | P >40% diff for detected conc between the two GC columns |
|                    | PQL Practical Quantitation Limit                        | S Spike Recovery outside accepted recovery limits        |
|                    | U Indicates the compound was analyzed but not detected. |  |

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
			<b>SW7471B</b>		<b>SW7471B</b>		Analyst: <b>JP</b>
Mercury	U	0.005	0.00956		mg/Kg-dry	1	5/9/2012 2:06:25 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>							Analyst: <b>SB</b>
			<b>SW8082A</b>		<b>SW3550C</b>		
Aroclor 1016	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1221	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1232	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1242	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1248	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1254	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1260	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1262	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Aroclor 1268	U	1.26	2.5		µg/Kg-dry	1	5/9/2012 12:44:00 AM
Surr: TCX	96.9	0	17-151		%REC	1	5/9/2012 12:44:00 AM
Surr: DCB	106	0	16-152		%REC	1	5/9/2012 12:44:00 AM
<b>PESTICIDES SW-846 METHOD 8081</b>							Analyst: <b>SB</b>
			<b>SW8081B</b>		<b>SW3550C</b>		
4,4'-DDD	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
4,4'-DDE	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
4,4'-DDT	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Aldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
alpha-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
beta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Chlordane	U	0.25	1.0		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Chlorobenzilate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
DBCP	U	0.20	0.80		µg/Kg-dry	1	5/8/2012 8:10:00 PM
delta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Dieldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Endosulfan I	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Endosulfan II	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Endosulfan sulfate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Endrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Endrin aldehyde	U	0.20	0.80		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Endrin ketone	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
gamma-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08B		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>SW8081B</b>		<b>SW3550C</b>		Analyst: <b>SB</b>
Heptachlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Heptachlor epoxide	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Hexachlorobenzene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Hexachlorocyclopentadiene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Methoxychlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Toxaphene	U	2.51	10		µg/Kg-dry	1	5/8/2012 8:10:00 PM
Surr: DCB	101	0	23-157		%REC	1	5/8/2012 8:10:00 PM
Surr: TCX	78.5	0	21-151		%REC	1	5/8/2012 8:10:00 PM
<b>PERCENT MOISTURE</b>			<b>D2216</b>				Analyst: <b>CF</b>
Percent Moisture	2.27	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>			<b>SW6010C</b>		<b>SW3050B</b>		Analyst: <b>JP</b>
Aluminum	2190	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Antimony	U	0.2	0.494		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Arsenic	0.982	0.2	0.494		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Barium	9.21	0.2	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Beryllium	U	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Cadmium	U	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Calcium	144	0.2	0.494		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Chromium	8.10	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Cobalt	U	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Copper	2.97	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Iron	3390	0.2	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Lead	1.94	0.2	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Magnesium	861	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Manganese	134	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Nickel	7.89	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Potassium	420	0.2	0.494		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Selenium	U	0.2	0.494		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Silver	U	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Sodium	22.4	0.2	0.494		mg/Kg-dry	1	5/3/2012 12:50:25 PM
Thallium	0.371	0.3	0.494	J	mg/Kg-dry	1	5/3/2012 12:50:25 PM
Vanadium	6.70	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM

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	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	8.62	0.1	0.395		mg/Kg-dry	1	5/3/2012 12:50:25 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			SW6010C		SW3050B		Analyst: JP
1,2,4-Trichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
1,2-Dichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
1,3-Dichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
1,4-Dichlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2,4,5-Trichlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2,4,6-Trichlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2,4-Dichlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2,4-Dimethylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2,4-Dinitrophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2,4-Dinitrotoluene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2,6-Dinitrotoluene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2-Chloronaphthalene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2-Chlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2-Methylnaphthalene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2-Methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2-Nitroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
2-Nitrophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
3,3'-Dichlorobenzidine	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
3+4-Methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
3-Nitroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
4,6-Dinitro-2-methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
4-Bromophenyl phenyl ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
4-Chloro-3-methylphenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
4-Chloroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
4-Chlorophenyl phenyl ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
4-Nitroaniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
4-Nitrophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Acenaphthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Acenaphthylene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Acetophenone	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM

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# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08B		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Aniline	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Anthracene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Atrazine	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Azobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzaldehyde	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzidine	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzo(a)anthracene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzo(a)pyrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzo(b)fluoranthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzo(g,h,i)perylene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzo(k)fluoranthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzoic acid	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Benzyl alcohol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Biphenyl	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Bis(2-chloroethoxy)methane	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Bis(2-chloroethyl)ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Bis(2-chloroisopropyl)ether	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Bis(2-ethylhexyl)phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Butyl benzyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Caprolactam	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Carbazole	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Chrysene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Dibenzo(a,h)anthracene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Dibenzofuran	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Diethyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Dimethyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Di-n-butyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Di-n-octyl phthalate	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Fluoranthene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Fluorene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Hexachlorobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Hexachlorobutadiene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Hexachlorocyclopentadiene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-4 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:00:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-08B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Hexachloroethane	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Indeno(1,2,3-c,d)pyrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Isophorone	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Naphthalene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Nitrobenzene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
N-Nitrosodimethylamine	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
N-Nitrosodi-n-propylamine	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
N-Nitrosodiphenylamine	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Parathion	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Pentachlorophenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Phenanthrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Phenol	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Pyrene	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Pyridine	U	25.2	250		µg/Kg-dry	1	5/8/2012 2:35:00 PM
Surr: 2,4,6-Tribromophenol	94.7	0	21-119		%REC	1	5/8/2012 2:35:00 PM
Surr: 2-Fluorobiphenyl	92.1	0	21-117		%REC	1	5/8/2012 2:35:00 PM
Surr: 2-Fluorophenol	51.5	0	11-105		%REC	1	5/8/2012 2:35:00 PM
Surr: 4-Terphenyl-d14	97.2	0	21-132		%REC	1	5/8/2012 2:35:00 PM
Surr: Nitrobenzene-d5	70.8	0	18-116		%REC	1	5/8/2012 2:35:00 PM
Surr: Phenol-d6	54.8	0	12-110		%REC	1	5/8/2012 2:35:00 PM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
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ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-6 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:40:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-09A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
1,1,1,2-Tetrachloroethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,1,1-Trichloroethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,1,2,2-Tetrachloroethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,1,2-Trichloroethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,1-Dichloroethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,1-Dichloroethene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,1-Dichloropropene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2,3-Trichlorobenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2,3-Trichloropropane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2,4,5-Tetramethylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2,4-Trichlorobenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2,4-Trimethylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2-Dibromo-3-chloropropane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2-Dibromoethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2-Dichlorobenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2-Dichloroethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,2-Dichloropropane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,3,5-Trimethylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,3-Dichlorobenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,3-dichloropropane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,4-Dichlorobenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
1,4-Dioxane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
2,2-Dichloropropane	U	0.45	4.5	C	µg/Kg-dry	1	5/5/2012 8:51:00 AM
2-Butanone	U	1.34	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
2-Chloroethyl vinyl ether	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
2-Chlorotoluene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
2-Hexanone	U	1.34	4.5	C	µg/Kg-dry	1	5/5/2012 8:51:00 AM
2-Propanol	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
4-Chlorotoluene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
4-Isopropyltoluene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
4-Methyl-2-pentanone	U	1.34	4.5	C	µg/Kg-dry	1	5/5/2012 8:51:00 AM
Acetone	U	1.34	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
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ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-6 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:40:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-09A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>				Analyst: LA
Acrolein	U	2.23	8.9	C	µg/Kg-dry	1	5/5/2012 8:51:00 AM
Acrylonitrile	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Benzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Bromobenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Bromochloromethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Bromodichloromethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Bromoform	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Bromomethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Carbon disulfide	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Carbon tetrachloride	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Chlorobenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Chlorodifluoromethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Chloroethane	U	0.45	4.5	C	µg/Kg-dry	1	5/5/2012 8:51:00 AM
Chloroform	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Chloromethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
cis-1,2-Dichloroethene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
cis-1,3-Dichloropropene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Dibromochloromethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Dibromomethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Dichlorodifluoromethane	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Diisopropyl ether	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Ethanol	U	2.23	8.9		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Ethyl acetate	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Ethylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Freon-114	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Hexachlorobutadiene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Isopropyl acetate	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Isopropylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
m,p-Xylene	U	0.89	8.9		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Methyl Acetate	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Methyl tert-butyl ether	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Methylene chloride	8.0	0.45	4.5	B	µg/Kg-dry	1	5/5/2012 8:51:00 AM
n-Amyl acetate	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-6 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:40:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-09A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>			<b>Analyst: LA</b>	
Naphthalene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
n-Butyl acetate	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
n-Butylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
n-Propyl acetate	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
n-Propylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
o-Xylene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
p-Diethylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
p-Ethyltoluene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
sec-Butylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Styrene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
t-Butyl alcohol	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
tert-Butylbenzene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Tetrachloroethene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Toluene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
trans-1,2-Dichloroethene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
trans-1,3-Dichloropropene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Trichloroethene	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Trichlorofluoromethane	U	0.45	4.5	C	µg/Kg-dry	1	5/5/2012 8:51:00 AM
Vinyl acetate	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Vinyl chloride	U	0.45	4.5		µg/Kg-dry	1	5/5/2012 8:51:00 AM
Surr: 4-Bromofluorobenzene	90.7	0	42-133		%REC	1	5/5/2012 8:51:00 AM
Surr: Dibromofluoromethane	96.7	0	50-133		%REC	1	5/5/2012 8:51:00 AM
Surr: Toluene-d8	89.7	0	53-130		%REC	1	5/5/2012 8:51:00 AM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
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**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-6 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:40:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-09B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
			<b>SW7471B</b>		<b>SW7471B</b>		<b>Analyst: JP</b>
Mercury	0.00941	0.004	0.00819		mg/Kg-dry	1	5/9/2012 2:08:34 PM
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>							
			<b>SW8082A</b>		<b>SW3550C</b>		<b>Analyst: SB</b>
Aroclor 1016	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1221	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1232	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1242	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1248	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1254	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1260	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1262	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Aroclor 1268	U	1.22	2.4		µg/Kg-dry	1	5/9/2012 1:08:00 AM
Surr: TCX	109	0	17-151		%REC	1	5/9/2012 1:08:00 AM
Surr: DCB	119	0	16-152		%REC	1	5/9/2012 1:08:00 AM
<b>PESTICIDES SW-846 METHOD 8081</b>							
			<b>SW8081B</b>		<b>SW3550C</b>		<b>Analyst: SB</b>
4,4'-DDD	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
4,4'-DDE	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
4,4'-DDT	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Aldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
alpha-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
beta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Chlordane	U	0.25	1.0		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Chlorobenzilate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
DBCP	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 8:24:00 PM
delta-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Dieldrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Endosulfan I	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Endosulfan II	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Endosulfan sulfate	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Endrin	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Endrin aldehyde	U	0.20	0.81		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Endrin ketone	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
gamma-BHC	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-6 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:40:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-09B		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>				<b>SW8081B</b>	<b>SW3550C</b>		Analyst: <b>SB</b>
Heptachlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Heptachlor epoxide	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Hexachlorobenzene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Hexachlorocyclopentadiene	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Methoxychlor	U	0.10	0.40		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Toxaphene	U	2.52	10		µg/Kg-dry	1	5/8/2012 8:24:00 PM
Surr: DCB	103	0	23-157		%REC	1	5/8/2012 8:24:00 PM
Surr: TCX	86.8	0	21-151		%REC	1	5/8/2012 8:24:00 PM
<b>PERCENT MOISTURE</b>				<b>D2216</b>			Analyst: <b>CF</b>
Percent Moisture	2.28	0	0		wt%	1	5/4/2012
<b>TARGET ANALYTE LIST METALS</b>				<b>SW6010C</b>	<b>SW3050B</b>		Analyst: <b>JP</b>
Aluminum	2460	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Antimony	U	0.21	0.512		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Arsenic	0.969	0.21	0.512		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Barium	15.0	0.21	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Beryllium	U	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Cadmium	U	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Calcium	182	0.21	0.512		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Chromium	6.16	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Cobalt	U	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Copper	3.47	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Iron	3530	0.21	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Lead	3.74	0.21	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Magnesium	613	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Manganese	106	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Nickel	8.02	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Potassium	221	0.21	0.512		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Selenium	U	0.21	0.512		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Silver	U	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Sodium	31.0	0.21	0.512		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Thallium	U	0.31	0.512		mg/Kg-dry	1	5/3/2012 1:01:19 PM
Vanadium	6.44	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM

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- |                    |   |  |
|--------------------|---|--|
| <b>Qualifiers:</b> | B Analyte detected in the associated Method Blank       | C Calibration %RSD/%D exceeded for non-CCC analytes      |
|                    | E Value above quantitation range                        | H Holding times for preparation or analysis exceeded     |
|                    | J Analyte detected below quantitation limits            | LOD Limit of Detection                                   |
|                    | LOQ Limit of Quantitation                               | P >40% diff for detected conc between the two GC columns |
|                    | PQL Practical Quantitation Limit                        | S Spike Recovery outside accepted recovery limits        |
|                    | U Indicates the compound was analyzed but not detected. |  |

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-09B

Client Sample ID: B-6 (0-2')  
 Collection Date: 5/2/2012 1:40:00 PM  
 Matrix: SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TARGET ANALYTE LIST METALS</b>							
Zinc	9.78	0.10	0.409		mg/Kg-dry	1	5/3/2012 1:01:19 PM
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							
			SW6010C		SW3050B		Analyst: JP
1,2,4-Trichlorobenzene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
1,2-Dichlorobenzene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
1,3-Dichlorobenzene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
1,4-Dichlorobenzene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2,4,5-Trichlorophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2,4,6-Trichlorophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2,4-Dichlorophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2,4-Dimethylphenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2,4-Dinitrophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2,4-Dinitrotoluene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2,6-Dinitrotoluene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2-Chloronaphthalene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2-Chlorophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2-Methylnaphthalene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2-Methylphenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2-Nitroaniline	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
2-Nitrophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
3,3'-Dichlorobenzidine	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
3+4-Methylphenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
3-Nitroaniline	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
4,6-Dinitro-2-methylphenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
4-Bromophenyl phenyl ether	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
4-Chloro-3-methylphenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
4-Chloroaniline	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
4-Chlorophenyl phenyl ether	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
4-Nitroaniline	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
4-Nitrophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Acenaphthene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Acenaphthylene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Acetophenone	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

# American Analytical Laboratories, LLC.

Date: 10-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205020-09B

Client Sample ID: B-6 (0-2')  
 Collection Date: 5/2/2012 1:40:00 PM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3550C</b>		Analyst: LDS
Aniline	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Anthracene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Atrazine	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Azobenzene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzaldehyde	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzidine	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzo(a)anthracene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzo(a)pyrene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzo(b)fluoranthene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzo(g,h,i)perylene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzo(k)fluoranthene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzoic acid	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Benzyl alcohol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Biphenyl	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Bis(2-chloroethoxy)methane	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Bis(2-chloroethyl)ether	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Bis(2-chloroisopropyl)ether	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Bis(2-ethylhexyl)phthalate	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Butyl benzyl phthalate	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Caprolactam	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Carbazole	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Chrysene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Dibenzo(a,h)anthracene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Dibenzofuran	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Diethyl phthalate	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Dimethyl phthalate	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Di-n-butyl phthalate	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Di-n-octyl phthalate	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Fluoranthene	28	24.4	240	J	µg/Kg-dry	1	5/8/2012 2:10:00 PM
Fluorene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Hexachlorobenzene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Hexachlorobutadiene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Hexachlorocyclopentadiene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 10-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	B-6 (0-2')
<b>Lab Order:</b>	1205020	<b>Collection Date:</b>	5/2/2012 1:40:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1205020-09B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>							<b>Analyst: LDS</b>
			<b>SW8270D</b>		<b>SW3550C</b>		
Hexachloroethane	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Indeno(1,2,3-c,d)pyrene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Isophorone	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Naphthalene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Nitrobenzene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
N-Nitrosodimethylamine	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
N-Nitrosodi-n-propylamine	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
N-Nitrosodiphenylamine	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Parathion	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Pentachlorophenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Phenanthrene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Phenol	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Pyrene	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Pyridine	U	24.4	240		µg/Kg-dry	1	5/8/2012 2:10:00 PM
Surr: 2,4,6-Tribromophenol	113	0	21-119		%REC	1	5/8/2012 2:10:00 PM
Surr: 2-Fluorobiphenyl	125	0	21-117	S	%REC	1	5/8/2012 2:10:00 PM
Surr: 2-Fluorophenol	75.9	0	11-105		%REC	1	5/8/2012 2:10:00 PM
Surr: 4-Terphenyl-d14	93.1	0	21-132		%REC	1	5/8/2012 2:10:00 PM
Surr: Nitrobenzene-d5	100	0	18-116		%REC	1	5/8/2012 2:10:00 PM
Surr: Phenol-d6	90.9	0	12-110		%REC	1	5/8/2012 2:10:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: 10-May-12

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205020

Project: 224-01 Merrick Blvd., Queens, NY

ANALYTICAL QC SUMMARY REPORT

TestCode: DRY\_TAL\_MET

Sample ID: MBS050312A	SampType: MBLK	TestCode: DRY_TAL_M	Units: mg/Kg	Prep Date: 5/3/2012	RunNo: 63251						
Client ID: PBS	Batch ID: 35696	TestNo: SW6010C	SW3050B	Analysis Date: 5/3/2012	SeqNo: 889729						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	U	0.400									
Antimony	U	0.500									
Arsenic	U	0.500									
Barium	U	0.400									
Beryllium	U	0.400									
Cadmium	U	0.400									
Calcium	U	0.500									
Chromium	U	0.400									
Cobalt	U	0.400									
Copper	U	0.400									
Iron	U	0.400									
Lead	U	0.400									
Magnesium	U	0.400									
Manganese	U	0.400									
Nickel	U	0.400									
Potassium	U	0.500									
Selenium	U	0.500									
Silver	U	0.400									
Sodium	U	0.500									
Thallium	U	0.500									
Vanadium	U	0.400									
Zinc	U	0.400									

Sample ID: LCSS050312A	SampType: LCS	TestCode: DRY_TAL_M	Units: mg/Kg	Prep Date: 5/3/2012	RunNo: 63251						
Client ID: LCSS	Batch ID: 35696	TestNo: SW6010C	SW3050B	Analysis Date: 5/3/2012	SeqNo: 889730						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	39.3	0.400	40.00	0	98.2	80	120				
Antimony	41.5	0.500	40.00	0	104	80	120				

Qualifiers: B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analy  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQ Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode: DRY\_TAL\_MET**

Sample ID: LCSS050312A	SampType: LCS	TestCode: DRY_TAL_M	Units: mg/Kg
Client ID: LCSS	Batch ID: 35696	TestNo: SW6010C	SW3050B
		Prep Date: 5/3/2012	RunNo: 63251
		Analysis Date: 5/3/2012	SeqNo: 889730

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	41.2	0.500	40.00	0	103	80	120				
Barium	39.3	0.400	40.00	0	98.3	80	120				
Beryllium	41.1	0.400	40.00	0	103	80	120				
Cadmium	41.1	0.400	40.00	0	103	80	120				
Calcium	40.8	0.500	40.00	0	102	80	120				
Chromium	42.1	0.400	40.00	0	105	80	120				
Cobalt	41.7	0.400	40.00	0	104	80	120				
Copper	40.1	0.400	40.00	0	100	80	120				
Iron	41.3	0.400	40.00	0	103	80	120				
Lead	41.8	0.400	40.00	0	105	80	120				
Magnesium	40.6	0.400	40.00	0	101	80	120				
Manganese	40.6	0.400	40.00	0	102	80	120				
Nickel	41.4	0.400	40.00	0	104	80	120				
Potassium	396	0.500	400.0	0	98.9	80	120				
Selenium	41.4	0.500	40.00	0	104	80	120				
Silver	39.0	0.400	40.00	0	97.6	80	120				
Sodium	41.3	0.500	40.00	0	103	80	120				
Thallium	39.6	0.500	40.00	0	98.9	80	120				
Vanadium	40.8	0.400	40.00	0	102	80	120				
Zinc	41.3	0.400	40.00	0	103	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank      C Calibration %RSD/%D exceeded for non-CCC analytes      H Holding times for preparation or analy  
 J Analyte detected below quantitation limits      P >40% diff for detected conc between the two GC column      PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits      U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Dry8081\_Soil

Sample ID: MB-35716	SampType: MBLK	TestCode: Dry8081_Soil	Units: µg/Kg	Prep Date: 5/7/2012	RunNo: 63321						
Client ID: PBS	Batch ID: 35716	TestNo: SW8081B	SW3550C	Analysis Date: 5/8/2012	SeqNo: 890987						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4,4'-DDD	U	0.38									
4,4'-DDE	U	0.38									
4,4'-DDT	U	0.38									
Aldrin	U	0.38									
alpha-BHC	U	0.38									
beta-BHC	U	0.38									
Chlordane	U	0.96									
Chlorobenzilate	U	0.38									
DBCP	U	0.77									
delta-BHC	U	0.38									
Dieldrin	U	0.38									
Endosulfan I	U	0.38									
Endosulfan II	U	0.38									
Endosulfan sulfate	U	0.38									
Endrin	U	0.38									
Endrin aldehyde	U	0.77									
Endrin ketone	U	0.38									
gamma-BHC	U	0.38									
Heptachlor	U	0.38									
Heptachlor epoxide	U	0.38									
Hexachlorobenzene	U	0.38									
Hexachlorocyclopentadiene	U	0.38									
Methoxychlor	U	0.38									
Toxaphene	U	9.6									
Surr: DCB	27		23.96		111	23	157				
Surr: TCX	20		23.96		85.0	21	151				

Sample ID: LCS-35716	SampType: LCS	TestCode: Dry8081_Soil	Units: µg/Kg	Prep Date: 5/7/2012	RunNo: 63321						
Client ID: LCSS	Batch ID: 35716	TestNo: SW8081B	SW3550C	Analysis Date: 5/8/2012	SeqNo: 890988						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:** B Analyte detected in the associated Method Blank      C Calibration %RSD/%D exceeded for non-CCC analytes      H Holding times for preparation or anal  
 J Analyte detected below quantitation limits      P >40% diff for detected conc between the two GC column      PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits      U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Dry8081\_Soil

Sample ID: LCS-35716	Batch ID: 35716	Sample Type: LCS	TestCode: Dry8081_Soil	Units: µg/Kg	Prep Date: 5/7/2012	RunNo: 63321					
Client ID: LCSS	Batch ID: 35716	Batch ID: 35716	TestNo: SW8081B	SW3550C	Analysis Date: 5/8/2012	SeqNo: 890988					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	4.8	0.38	4.812	0	99.2	27	149				
4,4'-DDE	3.8	0.38	4.812	0	79.7	26	144				
4,4'-DDT	5.0	0.38	4.812	0	103	25	145				
Aldrin	4.2	0.38	4.812	0	86.3	28	147				
alpha-BHC	4.1	0.38	4.812	0	85.2	34	146				
beta-BHC	4.4	0.38	4.812	0	91.8	25	155				
Chlorobenzilate	3.1	0.38	4.812	0	64.0	26	152				
DBCP	3.0	0.77	4.812	0	62.8	24	148				
delta-BHC	6.0	0.38	4.812	0	126	27	146				
Dieldrin	4.9	0.38	4.812	0	103	25	148				
Endosulfan I	4.9	0.38	4.812	0	103	26	146				
Endosulfan II	5.4	0.38	4.812	0	112	22	143				
Endosulfan sulfate	5.3	0.38	4.812	0	111	24	154				
Endrin	6.4	0.38	4.812	0	133	23	145				
Endrin aldehyde	3.1	0.77	4.812	0	65.3	25	153				
Endrin ketone	5.8	0.38	4.812	0	120	33	152				
gamma-BHC	4.3	0.38	4.812	0	89.7	27	147				
Heptachlor	6.2	0.38	4.812	0	128	33	150				
Heptachlor epoxide	5.1	0.38	4.812	0	105	33	148				
Hexachlorobenzene	3.2	0.38	4.812	0	67.4	20	145				
Hexachlorocyclopentadiene	5.1	0.38	4.812	0	106	29	144				
Methoxychlor	6.0	0.38	4.812	0	125	49	154				
Surr: DCB	30		24.06		124	23	157				
Surr: TCX	20		24.06		84.5	21	151				

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Dry8082\_Soil

Sample ID: LCS-35715	SampType: LCS	TestCode: Dry8082_Soil	Units: µg/Kg	RunNo: 63306
Client ID: LCSS	Batch ID: 35715	TestNo: SW8082A	SW3550C	SeqNo: 890669
Analyte	Result	PQL	SPK value	SPK Ref Val
Aroclor 1254	64	2.5	49.65	0
Surr: TCX	30		24.83	
Surr: DCB	30		24.83	

Prep Date: 5/7/2012	RunNo: 63306				
Analysis Date: 5/7/2012	SeqNo: 890669				
LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
50	135				
17	151				
16	152				

Sample ID: MB-35715	SampType: MBLK	TestCode: Dry8082_Soil	Units: µg/Kg	RunNo: 63306
Client ID: PBS	Batch ID: 35715	TestNo: SW8082A	SW3550C	SeqNo: 890670
Analyte	Result	PQL	SPK value	SPK Ref Val
Aroclor 1016	U	2.4		
Aroclor 1221	U	2.4		
Aroclor 1232	U	2.4		
Aroclor 1242	U	2.4		
Aroclor 1248	U	2.4		
Aroclor 1254	U	2.4		
Aroclor 1260	U	2.4		
Aroclor 1262	U	2.4		
Aroclor 1268	U	2.4		
Surr: TCX	22		23.96	
Surr: DCB	25		23.96	

Prep Date: 5/7/2012	RunNo: 63306				
Analysis Date: 5/7/2012	SeqNo: 890670				
LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
50	135				
17	151				
16	152				

Prep Date: 5/7/2012	RunNo: 63306				
Analysis Date: 5/7/2012	SeqNo: 890670				
LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
50	135				
17	151				
16	152				

Sample ID: MB-35715	SampType: MBLK	TestCode: Dry8082_Soil	Units: µg/Kg	RunNo: 63306
Client ID: PBS	Batch ID: 35715	TestNo: SW8082A	SW3550C	SeqNo: 890670
Analyte	Result	PQL	SPK value	SPK Ref Val
Aroclor 1016	U	2.4		
Aroclor 1221	U	2.4		
Aroclor 1232	U	2.4		
Aroclor 1242	U	2.4		
Aroclor 1248	U	2.4		
Aroclor 1254	U	2.4		
Aroclor 1260	U	2.4		
Aroclor 1262	U	2.4		
Aroclor 1268	U	2.4		
Surr: TCX	22		23.96	
Surr: DCB	25		23.96	

Prep Date: 5/7/2012	RunNo: 63306				
Analysis Date: 5/7/2012	SeqNo: 890670				
LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
50	135				
17	151				
16	152				

Prep Date: 5/7/2012	RunNo: 63306				
Analysis Date: 5/7/2012	SeqNo: 890670				
LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
50	135				
17	151				
16	152				

**Qualifiers:** B Analyte detected in the associated Method Blank      C Calibration %RSD/%D exceeded for non-CCC analytes      H Holding times for preparation or anal  
 J Analyte detected below quantitation limits      P >40% diff for detected conc between the two GC column      PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits      U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Dry8270\_Soil

Sample ID: MB-35717	SampType: MBLK	TestCode: Dry8270_Soil	Units: µg/Kg	Prep Date: 5/7/2012	RunNo: 63302						
Client ID: PBS	Batch ID: 35717	TestNo: SW8270D	SW3550C	Analysis Date: 5/7/2012	SeqNo: 890648						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	U	240									
1,2-Dichlorobenzene	U	240									
1,3-Dichlorobenzene	U	240									
1,4-Dichlorobenzene	U	240									
2,4,5-Trichlorophenol	U	240									
2,4,6-Trichlorophenol	U	240									
2,4-Dichlorophenol	U	240									
2,4-Dimethylphenol	U	240									
2,4-Dinitrophenol	U	240									
2,4-Dinitrotoluene	U	240									
2,6-Dinitrotoluene	U	240									
2-Chloronaphthalene	U	240									
2-Chlorophenol	U	240									
2-Methylnaphthalene	U	240									
2-Methylphenol	U	240									
2-Nitroaniline	U	240									
2-Nitrophenol	U	240									
3,3'-Dichlorobenzidine	U	240									
3+4-Methylphenol	U	240									
3-Nitroaniline	U	240									
4,6-Dinitro-2-methylphenol	U	240									
4-Bromophenyl phenyl ether	U	240									
4-Chloro-3-methylphenol	U	240									
4-Chloroaniline	U	240									
4-Chlorophenyl phenyl ether	U	240									
4-Nitroaniline	U	240									
4-Nitrophenol	U	240									
Acenaphthene	U	240									
Acenaphthylene	U	240									
Acetophenone	U	240									
Aniline	U	240									

**Qualifiers:** B Analyte detected in the associated Method Blank      C Calibration %RSD/%D exceeded for non-CCC analytes      H Holding times for preparation or analy  
 J Analyte detected below quantitation limits      P >40% diff for detected conc between the two GC column      PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits      U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: Dry8270\_Soil

Sample ID: MB-35717	SampType: MIBLK	TestCode: Dry8270_Soil	Units: µg/Kg	Prep Date: 5/7/2012	RunNo: 63302						
Client ID: PBS	Batch ID: 35717	TestNo: SW8270D	SW3550C	Analysis Date: 5/7/2012	SeqNo: 890648						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Anthracene	U	240									
Atrazine	U	240									
Azobenzene	U	240									
Benzaldehyde	U	240									
Benzidine	U	240									
Benzo(a)anthracene	U	240									
Benzo(a)pyrene	U	240									
Benzo(b)fluoranthene	U	240									
Benzo(g,h,i)perylene	U	240									
Benzo(k)fluoranthene	U	240									
Benzoic acid	U	240									
Benzyl alcohol	U	240									
Biphenyl	U	240									
Bis(2-chloroethoxy)methane	U	240									
Bis(2-chloroethyl)ether	U	240									
Bis(2-chloroisopropyl)ether	U	240									
Bis(2-ethylhexyl)phthalate	U	240									
Butyl benzyl phthalate	U	240									
Caprolactam	U	240									
Carbazole	U	240									
Chrysene	U	240									
Dibenzo(a,h)anthracene	U	240									
Dibenzofuran	U	240									
Diethyl phthalate	U	240									
Dimethyl phthalate	U	240									
Di-n-butyl phthalate	U	240									
Di-n-octyl phthalate	U	240									
Fluoranthene	U	240									
Fluorene	U	240									
Hexachlorobenzene	U	240									
Hexachlorobutadiene	U	240									

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode: Dry8270\_Soil**

Sample ID: MB-35717	SampType: MBLK	TestCode: Dry8270_Soil	Units: µg/Kg	RunNo: 63302
Client ID: PBS	Batch ID: 35717	TestNo: SW8270D	SW3550C	SeqNo: 890648
		Prep Date: 5/7/2012		
		Analysis Date: 5/7/2012		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorocyclopentadiene	U	240									
Hexachloroethane	U	240									
Indeno(1,2,3-c,d)pyrene	U	240									
Isophorone	U	240									
Naphthalene	U	240									
Nitrobenzene	U	240									
N-Nitrosodimethylamine	U	240									
N-Nitrosodi-n-propylamine	U	240									
N-Nitrosodiphenylamine	U	240									
Parathion	U	240									
Pentachlorophenol	U	240									
Phenanthrene	U	240									
Phenol	U	240									
Pyrene	U	240									
Pyridine	U	240									
Surr: 2,4,6-Tribromophenol	1000		1917		54.3	21	119				
Surr: 2-Fluorobiphenyl	830		958.3		86.7	21	117				
Surr: 2-Fluorophenol	570		1917		29.6	11	105				
Surr: 4-Terphenyl-d14	1100		958.3		117	21	132				
Surr: Nitrobenzene-d5	650		958.3		67.8	18	116				
Surr: Phenol-d6	850		1917		44.5	12	110				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	710	250	998.5	0	71.0	38	128				
1,2-Dichlorobenzene	690	250	998.5	0	69.1	35	129				
1,3-Dichlorobenzene	680	250	998.5	0	67.8	36	122				
1,4-Dichlorobenzene	680	250	998.5	0	68.0	33	127				
2,4,5-Trichlorophenol	660	250	998.5	0	65.7	42	122				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes	H Holding times for preparation or analysis
	J Analyte detected below quantitation limits	P >40% diff for detected conc between the two GC column	PQL Practical Quantitation Limit
	R RPD outside accepted recovery limits	S Spike Recovery outside accepted recovery limits	U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Dry8270\_Soil

**RunNo:** 63302  
**SeqNo:** 890649

**Prep Date:** 5/7/2012  
**Analysis Date:** 5/7/2012

**TestCode:** Dry8270\_Soil Units: µg/Kg  
**TestNo:** SW8270D SW3550C

**Sample Type:** LCS  
**Batch ID:** 35717

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	750	250	998.5	0	74.9	40	124				
2,4-Dichlorophenol	710	250	998.5	0	71.5	37	124				
2,4-Dimethylphenol	670	250	998.5	0	67.4	35	127				
2,4-Dinitrotoluene	720	250	998.5	0	72.4	28	126				
2,6-Dinitrotoluene	790	250	998.5	0	78.9	29	127				
2-Chloronaphthalene	770	250	998.5	0	77.4	41	117				
2-Chlorophenol	630	250	998.5	0	63.3	37	127				
2-Methylnaphthalene	770	250	998.5	0	77.5	30	130				
2-Methylphenol	640	250	998.5	0	64.2	43	124				
2-Nitroaniline	570	250	998.5	0	57.5	30	130				
2-Nitrophenol	740	250	998.5	0	73.7	10	128				
3+4-Methylphenol	640	250	998.5	0	63.7	30	138				
3-Nitroaniline	730	250	998.5	0	73.1	30	130				
4,6-Dinitro-2-methylphenol	800	250	998.5	0	79.9	13	129				
4-Bromophenyl phenyl ether	910	250	998.5	0	90.9	27	135				
4-Chloro-3-methylphenol	700	250	998.5	0	69.9	31	135				
4-Chloroaniline	330	250	998.5	0	33.1	17	110				
4-Chlorophenyl phenyl ether	750	250	998.5	0	75.2	30	130				
4-Nitroaniline	430	250	998.5	0	43.1	20	120				
4-Nitrophenol	330	250	998.5	0	33.5	11	124				
Acenaphthene	740	250	998.5	0	74.4	38	141				
Acenaphthylene	740	250	998.5	0	74.1	48	121				
Aniline	330	250	998.5	0	32.7	25	135				
Anthracene	710	250	998.5	0	70.7	40	120				
Azobenzene	690	250	998.5	0	69.6	25	125				
Benzo(a)anthracene	770	250	998.5	0	76.8	45	120				
Benzo(a)pyrene	780	250	998.5	0	78.4	47	137				
Benzo(b)fluoranthene	760	250	998.5	0	75.6	42	136				
Benzo(k)fluoranthene	730	250	998.5	0	73.1	32	147				
Benzyl alcohol	700	250	998.5	0	70.0	20	130				
Bis(2-chloroethoxy)methane	560	250	998.5	0	56.5	23	133				

**Qualifiers:** B Analyte detected in the associated Method Blank  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 P >40% diff for detected conc between the two GC column  
 S Spike Recovery outside accepted recovery limits  
 H Holding times for preparation or anal  
 PQL Practical Quantitation Limit  
 U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205020  
 Project: 224-01 Merrick Blvd., Queens, NY

TestCode: Dry8270\_Soil

Sample ID: LCS-35717	SampType: LCS	TestCode: Dry8270_Soil	Units: µg/Kg	Prep Date: 5/7/2012	RunNo: 63302
Client ID: LCSS	Batch ID: 35717	TestNo: SW8270D	SW3550C	Analysis Date: 5/7/2012	SeqNo: 890649

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethyl)ether	630	250	998.5	0	63.1	41	136				
Bis(2-chloroisopropyl)ether	660	250	998.5	0	65.9	52	138				
Butyl benzyl phthalate	950	250	998.5	0	95.2	51	125				
Carbazole	610	250	998.5	0	60.9	30	130				
Chrysene	640	250	998.5	0	64.1	43	125				
Dibenzofuran	740	250	998.5	0	74.4	30	130				
Diethyl phthalate	820	250	998.5	0	82.0	47	125				
Dimethyl phthalate	850	250	998.5	0	84.8	44	131				
Di-n-butyl phthalate	870	250	998.5	0	86.9	51	128				
Di-n-octyl phthalate	780	250	998.5	0	77.7	41	123				
Fluoranthene	910	250	998.5	0	91.1	42	120				
Fluorene	720	250	998.5	0	71.7	38	122				
Hexachlorobenzene	810	250	998.5	0	81.2	40	133				
Hexachlorobutadiene	690	250	998.5	0	68.8	38	135				
Hexachloroethane	790	250	998.5	0	79.1	21	138				
Isophorone	650	250	998.5	0	65.3	47	122				
Naphthalene	720	250	998.5	0	72.1	33	127				
Nitrobenzene	600	250	998.5	0	60.5	36	127				
N-Nitrosodi-n-propylamine	690	250	998.5	0	69.2	45	121				
N-Nitrosodiphenylamine	1000	250	998.5	0	101	19	122				
Pentachlorophenol	390	250	998.5	0	39.2	21	124				
Phenanthrene	750	250	998.5	0	74.9	49	126				
Phenol	390	250	998.5	0	38.9	21	136				
Pyrene	760	250	998.5	0	75.9	39	123				
Surr: 2,4,6-Tribromophenol	1500		1997		74.8	21	119				
Surr: 2-Fluorobiphenyl	790		998.5		78.9	21	117				
Surr: 2-Fluorophenol	530		1997		26.4	11	105				
Surr: 4-Terphenyl-d14	1300		998.5		128	21	132				
Surr: Nitrobenzene-d5	640		998.5		63.8	18	116				
Surr: Phenol-d6	900		1997		45.1	12	110				

**Qualifiers:** B Analyte detected in the associated Method Blank  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 P >40% diff for detected conc between the two GC column  
 S Spike Recovery outside accepted recovery limits  
 H Holding times for preparation or analy  
 PQL Practical Quantitation Limit  
 U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** DryFull8260\_Soil

Sample ID: V624LCS-050412HS    SampType: LCS    Batch ID: R63329    TestCode: DryFull8260\_    Units: µg/Kg    Prep Date:    RunNo: 63329  
 Client ID: LCSS    TestNo: SW8260C    PQL    SPK value    SPK Ref Val    %REC    LowLimit    HighLimit    RPD Ref Val    %RPD    RPDLimit    Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	36	5.0	50.00	0	71.2	40	125				
1,1,2,2-Tetrachloroethane	47	5.0	50.00	0	94.2	41	130				
1,1,2-Trichloroethane	39	5.0	50.00	0	77.9	43	121				
1,1-Dichloroethane	37	5.0	50.00	0	73.3	42	126				
1,1-Dichloroethene	40	5.0	50.00	0	79.6	40	126				
1,2-Dichlorobenzene	34	5.0	50.00	0	67.3	41	122				
1,2-Dichloroethane	37	5.0	50.00	0	74.8	42	133				
1,2-Dichloropropane	40	5.0	50.00	0	80.1	41	128				
1,3-Dichlorobenzene	33	5.0	50.00	0	65.3	45	119				
1,4-Dichlorobenzene	32	5.0	50.00	0	63.5	46	121				
2-Chloroethyl vinyl ether	38	5.0	50.00	0	76.3	30	135				
Benzene	34	5.0	50.00	0	68.4	35	123				
Bromodichloromethane	36	5.0	50.00	0	72.3	37	130				
Bromoforn	45	5.0	50.00	0	89.0	43	121				
Bromomethane	38	5.0	50.00	0	75.4	32	130				
Carbon tetrachloride	38	5.0	50.00	0	75.0	37	134				
Chlorobenzene	35	5.0	50.00	0	69.3	40	124				
Chloroethane	22	5.0	50.00	0	43.3	35	141				C
Chloroform	37	5.0	50.00	0	74.8	36	126				
Chloromethane	36	5.0	50.00	0	71.5	42	141				
cis-1,3-Dichloropropene	36	5.0	50.00	0	71.4	30	130				
Dibromochloromethane	37	5.0	50.00	0	74.8	43	125				
Ethylbenzene	35	5.0	50.00	0	70.9	44	122				
Methylene chloride	36	5.0	50.00	0	72.7	32	132				
Tetrachloroethene	34	5.0	50.00	0	67.0	31	120				
Toluene	36	5.0	50.00	0	71.5	42	124				
trans-1,2-Dichloroethene	33	5.0	50.00	0	65.5	38	122				
trans-1,3-Dichloropropene	34	5.0	50.00	0	68.3	45	123				
Trichloroethene	37	5.0	50.00	0	74.3	46	124				
Trichlorofluoromethane	52	5.0	50.00	0	103	45	137				C
Vinyl chloride	38	5.0	50.00	0	75.1	46	139				

**Qualifiers:** B Analyte detected in the associated Method Blank    C Calibration %RSD/%D exceeded for non-CCC analytes    H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits    P >40% diff for detected conc between the two GC column    PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits    S Spike Recovery outside accepted recovery limits    U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode: DryFull8260\_Soil**

Sample ID: V624LCS-050412HS	SampType: LCS	TestCode: DryFull8260_	Units: µg/Kg								
Client ID: LCSS	Batch ID: R63329	Prep Date:	RunNo: 63329								
		Analysis Date: 5/5/2012	SeqNo: 891350								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	50		50.00		99.7	42	133				
Surr: Dibromofluoromethane	50		50.00		100	50	133				
Surr: Toluene-d8	49		50.00		97.5	53	130				

Sample ID: VBLK-050412HS-A	SampType: MBLK	TestCode: DryFull8260_	Units: µg/Kg								
Client ID: PBS	Batch ID: R63329	Prep Date:	RunNo: 63329								
		Analysis Date: 5/5/2012	SeqNo: 891351								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	U	5.0									
1,1,1-Trichloroethane	U	5.0									
1,1,2,2-Tetrachloroethane	U	5.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	U	5.0									
1,1,2-Trichloroethane	U	5.0									
1,1-Dichloroethane	U	5.0									
1,1-Dichloroethene	U	5.0									
1,1-Dichloropropene	U	5.0									
1,2,3-Trichlorobenzene	U	5.0									
1,2,3-Trichloropropane	U	5.0									
1,2,4,5-Tetramethylbenzene	U	5.0									
1,2,4-Trichlorobenzene	U	5.0									
1,2,4-Trimethylbenzene	U	5.0									
1,2-Dibromo-3-chloropropane	U	5.0									
1,2-Dibromoethane	U	5.0									
1,2-Dichlorobenzene	U	5.0									
1,2-Dichloroethane	U	5.0									
1,2-Dichloropropane	U	5.0									
1,3,5-Trimethylbenzene	U	5.0									
1,3-Dichlorobenzene	U	5.0									
1,3-dichloropropane	U	5.0									
1,4-Dichlorobenzene	U	5.0									
1,4-Dioxane	U	5.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** DryFull8260\_Soil

**RunNo:** 63329  
**SeqNo:** 891351

**Prep Date:**  
**Analysis Date:** 5/5/2012

**TestCode:** DryFull8260\_ Units: µg/Kg  
**TestNo:** SW8260C

**Sample ID:** VBLK-050412HS-A **SampType:** MBLK  
**Batch ID:** R63329

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	U	5.0									C
2-Butanone	U	5.0									
2-Chloroethyl vinyl ether	U	5.0									
2-Chlorotoluene	U	5.0									C
2-Hexanone	U	5.0									
2-Propanol	U	5.0									
4-Chlorotoluene	U	5.0									
4-Isopropyltoluene	U	5.0									C
4-Methyl-2-pentanone	U	5.0									
Acetone	U	5.0									C
Acrolein	U	10									
Acrylonitrile	U	5.0									
Benzene	U	5.0									
Bromobenzene	U	5.0									
Bromochloromethane	U	5.0									
Bromodichloromethane	U	5.0									
Bromoform	U	5.0									
Bromomethane	U	5.0									
Carbon disulfide	U	5.0									
Carbon tetrachloride	U	5.0									
Chlorobenzene	U	5.0									
Chlorodifluoromethane	U	5.0									C
Chloroethane	U	5.0									
Chloroform	U	5.0									
Chloromethane	U	5.0									
cis-1,2-Dichloroethene	U	5.0									
cis-1,3-Dichloropropene	U	5.0									
Dibromochloromethane	U	5.0									
Dibromomethane	U	5.0									
Dichlorodifluoromethane	U	5.0									
Diisopropyl ether	U	5.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** DryFull8260\_Soil

**Sample ID:** VBLK-050412HS-A    **SampType:** MBLK    **TestCode:** DryFull8260\_    **Units:** µg/Kg    **Prep Date:**    **RunNo:** 63329  
**Client ID:** PBS    **Batch ID:** R63329    **TestNo:** SW8260C    **Analysis Date:** 5/5/2012    **SeqNo:** 891351

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethanol	U	10									
Ethyl acetate	U	5.0									
Ethylbenzene	U	5.0									
Freon-114	U	5.0									
Hexachlorobutadiene	U	5.0									
Isopropyl acetate	U	5.0									
Isopropylbenzene	U	5.0									
m,p-Xylene	U	10									
Methyl Acetate	U	5.0									
Methyl tert-butyl ether	U	5.0									
Methylene chloride	8.3	5.0									
n-Amyl acetate	U	5.0									
Naphthalene	U	5.0									
n-Butyl acetate	U	5.0									
n-Butylbenzene	U	5.0									
n-Propyl acetate	U	5.0									
n-Propylbenzene	U	5.0									
o-Xylene	U	5.0									
p-Diethylbenzene	U	5.0									
p-Ethyltoluene	U	5.0									
sec-Butylbenzene	U	5.0									
Styrene	U	5.0									
t-Butyl alcohol	U	5.0									
tert-Butylbenzene	U	5.0									
Tetrachloroethene	U	5.0									
Toluene	U	5.0									
trans-1,2-Dichloroethene	U	5.0									
trans-1,3-Dichloropropene	U	5.0									
Trichloroethene	U	5.0									
Trichlorofluoromethane	U	5.0									C
Vinyl acetate	U	5.0									

**Qualifiers:** B Analyte detected in the associated Method Blank    C Calibration %RSD/%D exceeded for non-CCC analytes    H Holding times for preparation or analy  
 J Analyte detected below quantitation limits    P >40% diff for detected conc between the two GC column    PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits    S Spike Recovery outside accepted recovery limits    U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** DryFull8260\_Soil

Sample ID: VBLK-050412HS-A	SampType: MBLK	TestCode: DryFull8260_	Units: µg/Kg	Prep Date:	RunNo: 63329						
Client ID: PBS	Batch ID: R63329	TestNo: SW8260C		Analysis Date: 5/5/2012	SeqNo: 891351						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	U	5.0									
Surr: 4-Bromofluorobenzene	46		50.00		92.9	42	133				
Surr: Dibromofluoromethane	49		50.00		98.9	50	133				
Surr: Toluene-d8	47		50.00		94.4	53	130				

**Qualifiers:** B Analyte detected in the associated Method Blank      C Calibration %RSD/%D exceeded for non-CCC analytes      H Holding times for preparation or analy  
 J Analyte detected below quantitation limits      P >40% diff for detected conc between the two GC column      PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits      U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** DRYHG\_S

Sample ID: MBS050912A	SampType: MBLK	TestCode: DRYHG_S	Units: mg/Kg	Prep Date: 5/9/2012	RunNo: 63344						
Client ID: PBS	Batch ID: 35700	TestNo: SW7471B	SW7471B	Analysis Date: 5/9/2012	SeqNo: 891696						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	U	0.0100									

Sample ID: LCSS050912A	SampType: LCS	TestCode: DRYHG_S	Units: mg/Kg	Prep Date: 5/9/2012	RunNo: 63344						
Client ID: LCSS	Batch ID: 35700	TestNo: SW7471B	SW7471B	Analysis Date: 5/9/2012	SeqNo: 891697						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.194	0.0100	0.2000	0	97.0	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank    C Calibration %RSD/%D exceeded for non-CCC analytes    H Holding times for preparation or analy  
 J Analyte detected below quantitation limits    P >40% diff for detected conc between the two GC column    PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits    S Spike Recovery outside accepted recovery limits    U Indicates the compound was analyzed



**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020

**Project:** 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

**TestCode: Dry8081\_Soil**

Sample ID: 1205020-09B-MSD	SampType: MSD	TestCode: Dry8081_Soil	Units: µg/Kg-dry	Prep Date: 5/17/2012	RunNo: 63321						
Client ID: B-6 (0-2')	Batch ID: 35716	TestNo: SW8081B	SW3550C	Analysis Date: 5/18/2012	SeqNo: 891423						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	6.3	0.40	5.028	0	126	25	155	5.058	22.1	20	R
4,4'-DDE	5.1	0.40	5.028	0	101	20	141	4.784	6.07	20	
4,4'-DDT	6.3	0.40	5.028	0	125	22	140	5.312	17.0	20	
Aldrin	5.8	0.40	5.028	0	116	24	154	5.112	12.9	20	
alpha-BHC	6.1	0.40	5.028	0	122	21	145	5.400	12.7	20	
beta-BHC	6.1	0.40	5.028	0	122	22	156	6.044	1.65	20	
Chlorobenzilate	2.9	0.40	5.028	0	57.8	25	145	5.483	61.4	20	R
DBCP	4.7	0.80	5.028	0	92.6	24	148	4.618	0.817	20	
delta-BHC	6.9	0.40	5.028	0	137	26	150	6.566	5.01	20	
Dieldrin	5.8	0.40	5.028	0	115	20	154	5.795	0.0395	20	
Endosulfan I	6.7	0.40	5.028	0	133	23	151	6.025	10.8	20	
Endosulfan II	5.8	0.40	5.028	0	115	23	149	5.287	9.04	20	
Endosulfan sulfate	6.6	0.40	5.028	0	130	21	147	5.707	13.9	20	
Endrin	7.1	0.40	5.028	0	140	22	142	5.771	20.2	20	R
Endrin aldehyde	4.9	0.80	5.028	0	98.1	20	145	2.514	65.0	20	R
Endrin ketone	6.8	0.40	5.028	0	135	23	139	6.218	8.92	20	
gamma-BHC	6.2	0.40	5.028	0	123	21	147	5.546	11.3	20	
Heptachlor	7.2	0.40	5.028	0	143	23	147	6.776	6.07	20	
Heptachlor epoxide	5.8	0.40	5.028	0	116	24	152	5.385	7.99	20	
Hexachlorobenzene	5.8	0.40	5.028	0	115	25	147	5.361	7.40	20	
Hexachlorocyclopentadiene	4.6	0.40	5.028	0	91.3	30	146	6.957	40.9	20	R
Methoxychlor	7.5	0.40	5.028	0	148	26	149	6.686	10.8	20	
Surr: DCB	30		25.14		121	23	157		0	0	
Surr: TCX	30		25.14		118	21	151		0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC columns  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

**TestCode:** Dry8082\_Soil

Sample ID: 1205020-01B-MS	SampType: MS	TestCode: Dry8082_Soil	Units: µg/Kg-dry	Prep Date: 5/7/2012	RunNo: 63306						
Client ID: B-2 (0-2)	Batch ID: 35715	TestNo: SW8082A	SW3550C	Analysis Date: 5/8/2012	SeqNo: 891403						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1254	58	2.6	51.59	0	112	30	130				
Surr: TCX	29		25.80		114	17	151				
Surr: DCB	30		25.80		115	16	152				

Sample ID: 1205020-01B-MSD	SampType: MSD	TestCode: Dry8082_Soil	Units: µg/Kg-dry	Prep Date: 5/7/2012	RunNo: 63306						
Client ID: B-2 (0-2)	Batch ID: 35715	TestNo: SW8082A	SW3550C	Analysis Date: 5/8/2012	SeqNo: 891404						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1254	60	2.6	51.65	0	117	30	130	57.77	4.26	20	
Surr: TCX	29		25.82		114	17	151		0	0	
Surr: DCB	30		25.82		114	16	152		0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analy  
J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205020  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** DRYHG\_S

Sample ID: 1205070-01A-MS	SampType: MS	TestCode: DRYHG_S	Units: mg/Kg-dry	Prep Date: 5/9/2012	RunNo: 63344						
Client ID: ZZZZZZ	Batch ID: 35700	TestNo: SW7471B	SW7471B	Analysis Date: 5/9/2012	SeqNo: 891720						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.237	0.0116	0.2313	0	103	80	120				

Sample ID: 1205070-01A-MSD	SampType: MSD	TestCode: DRYHG_S	Units: mg/Kg-dry	Prep Date: 5/9/2012	RunNo: 63344						
Client ID: ZZZZZZ	Batch ID: 35700	TestNo: SW7471B	SW7471B	Analysis Date: 5/9/2012	SeqNo: 891721						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.265	0.0116	0.2313	0	115	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analy  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

Thursday, May 24, 2012

Jim DeMartinis  
J.R. Holzmacher P.E. LLC  
300 Wheeler Road, Suite 402  
Hauppauge, NY 11788

TEL: (631) 234-2220

FAX (631) 234-2221

RE: 224-01 Merrick Blvd., Queens, NY

Order No.: 1205159

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 4 sample(s) on 5/17/2012 for the analyses presented in the following report.

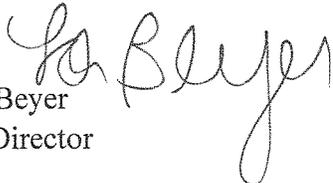
Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. This report consists of 66 pages.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

  
Lori Beyer  
Lab Director

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Project:** 224-01 Merrick Blvd., Queens, NY  
**Lab Order:** 1205159

**Work Order Sample Summary**

---

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date Collected</b>	<b>Date Received</b>
1205159-01A	MW-1	5/17/2012 11:41:00 AM	5/17/2012
1205159-01B	MW-1	5/17/2012 11:41:00 AM	5/17/2012
1205159-01C	MW-1	5/17/2012 11:41:00 AM	5/17/2012
1205159-01D	MW-1	5/17/2012 11:41:00 AM	5/17/2012
1205159-01E	MW-1	5/17/2012 11:41:00 AM	5/17/2012
1205159-01F	MW-1	5/17/2012 11:41:00 AM	5/17/2012
1205159-02A	MW-2	5/17/2012 12:16:00 PM	5/17/2012
1205159-02B	MW-2	5/17/2012 12:16:00 PM	5/17/2012
1205159-02C	MW-2	5/17/2012 12:16:00 PM	5/17/2012
1205159-02D	MW-2	5/17/2012 12:16:00 PM	5/17/2012
1205159-02E	MW-2	5/17/2012 12:16:00 PM	5/17/2012
1205159-02F	MW-2	5/17/2012 12:16:00 PM	5/17/2012
1205159-03A	MW-3	5/17/2012 12:56:00 PM	5/17/2012
1205159-03B	MW-3	5/17/2012 12:56:00 PM	5/17/2012
1205159-03C	MW-3	5/17/2012 12:56:00 PM	5/17/2012
1205159-03D	MW-3	5/17/2012 12:56:00 PM	5/17/2012
1205159-03E	MW-3	5/17/2012 12:56:00 PM	5/17/2012
1205159-03F	MW-3	5/17/2012 12:56:00 PM	5/17/2012
1205159-04A	Trip Blank	5/17/2012	5/17/2012



56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735  
 (631) 454-6100 • FAX (631) 454-8027  
 www.american-analytical.com

11418  
 PH-0205  
 NY050  
 68-573

NYSDOH  
 CTDOH  
 NJDEP  
 PADEP

# CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS <b>J.R. Holzmacher</b>	CONTACT: <b>Sim DeMartino</b>	SAMPLER (SIGNATURE) <i>Heather Somenberg</i>	SAMPLE(S) SEALED <b>YES / NO</b>
		SAMPLER NAME (PRINT) <b>Heather Somenberg</b>	CORRECT CONTAINER(S) <b>YES / NO</b>
		TEMPERATURE (°C) <b>36</b>	

LABORATORY ID# LAB USE ONLY	MATRIX/ TYPE	NO. OF CONTAINERS	SAMPLING DATE	SAMPLING TIME	SAMPLE # - LOCATION	ANALYSIS REQUIRED	RECEIVED BY LAB (SIGNATURE)	DATE TIME	PRINTED NAME
1205159-01A-F W	W	7	5-17-12	11:41pm	MW-1	✓	<i>Heather Somenberg</i>	5/17/12	<b>Heather Somenberg</b>
-02A-F W	W	7	↓	12:16pm	MW-2	✓	<i>Heather Somenberg</i>	7:45	<b>Heather Somenberg</b>
-03A-F W	W	7	↓	12:56pm	MW-3	✓	<i>Heather Somenberg</i>		
-04A W	W	2	5/17/12	—	TRIP BLANK	✓	<i>Heather Somenberg</i>		

COMMENTS / INSTRUCTIONS  
**Samples must be on ICE (<6° C)**

MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS TYPE G=GRAB; C=COMPOSITE	TURNAROUND REQUIRED STANDARD <input checked="" type="checkbox"/> STAT <input type="checkbox"/> (7-10 business days)	E-MAIL ADDRESS FOR RESULTS:
RELINQUISHED BY (SIGNATURE) <i>Heather Somenberg</i>	RECEIVED BY LAB (SIGNATURE) <i>Heather Somenberg</i>	PRINTED NAME <b>Heather Somenberg</b>
DATE 5-17-12	DATE 5/17/12	DATE 5/17/12
TIME 2:15pm	TIME 7:45	TIME 7:45
RELINQUISHED BY (SIGNATURE)	RECEIVED BY LAB (SIGNATURE)	PRINTED NAME

WHITE-OFFICE / CANARY-LAB / PINK-SAMPLE CUSTODIAN / GOLDENROD-CLIENT

American Analytical Laboratories, LLC.

Sample Receipt Checklist

Client Name **HOLZMACHER**

Date and Time Receive **5/17/2012 2:21:51 PM**

Work Order Numbe **1205159**

RcptNo: **1**

Received by **CF**

COC\_ID:

CoolerID:

Checklist completed by

*Genaro* 5/17/12  
Signature Date

Reviewed by

*Jo B* 5/17/12  
Initials Date

Matrix:

Carrier name Courier

- Shipping container/cooler in good condition? Yes  No  Not Presen
- Custody seals intact on shipping container/cooler? Yes  No  Not Presen
- Custody seals intact on sample bottles? Yes  No  Not Presen
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No  N/A

Adjusted? \_\_\_\_\_ Checked b \_\_\_\_\_

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments:

Corrective Action \_\_\_\_\_

**CLIENT:** Eastern Resource Recycling Inc.

**Project:** 88 Old Dock Rd., Yaphank

**Lab Order:** 1205140

**CASE NARRATIVE**

---

The closing degradation standard applicable to the method blank is outside 15% acceptance limits for Endrin Breakdown (17.7% and 23.4%).

No other analytical problems were encountered.

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-01A

Client Sample ID: MW-1  
 Collection Date: 5/17/2012 11:41:00 AM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>			<b>Analyst: LA</b>	
1,1,1,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,1,1-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,1,2,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,1,2-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,1-Dichloroethane	U	0.5	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,1-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,1-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2,3-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2,3-Trichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2,4,5-Tetramethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2,4-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2,4-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2-Dibromo-3-chloropropane	U	0.5	2.0		µg/L	1	5/18/2012 3:47:00 PM
1,2-Dibromoethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2-Dichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,3,5-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,3-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,3-dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,4-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
1,4-Dioxane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
2,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
2-Butanone	U	1.25	2.5		µg/L	1	5/18/2012 3:47:00 PM
2-Chloroethyl vinyl ether	U	0.5	1.0		µg/L	1	5/18/2012 3:47:00 PM
2-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
2-Hexanone	U	1.25	2.5		µg/L	1	5/18/2012 3:47:00 PM
2-Propanol	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
4-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
4-Isopropyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
4-Methyl-2-pentanone	U	1.25	2.5		µg/L	1	5/18/2012 3:47:00 PM
Acetone	U	1.25	5.0		µg/L	1	5/18/2012 3:47:00 PM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735  
 Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com



<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-1
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 11:41:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-01A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
Acrolein	U	5	10		µg/L	1	5/18/2012 3:47:00 PM
Acrylonitrile	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Benzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	5/18/2012 3:47:00 PM
Bromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Bromodichloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Bromoform	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Bromomethane	U	0.25	1.0	C	µg/L	1	5/18/2012 3:47:00 PM
Carbon disulfide	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Carbon tetrachloride	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Chlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Chlorodifluoromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Chloroethane	U	0.25	1.0	C	µg/L	1	5/18/2012 3:47:00 PM
Chloroform	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Chloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
cis-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
cis-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Dibromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Dibromomethane	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Dichlorodifluoromethane	U	0.25	1.0	C	µg/L	1	5/18/2012 3:47:00 PM
Diisopropyl ether	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Ethanol	U	2.5	5.0		µg/L	1	5/18/2012 3:47:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 3:47:00 PM
Ethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Freon-114	U	0.25	1.0	C	µg/L	1	5/18/2012 3:47:00 PM
Hexachlorobutadiene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Isopropyl acetate	U	1	2.0		µg/L	1	5/18/2012 3:47:00 PM
Isopropylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
m,p-Xylene	U	0.5	2.0		µg/L	1	5/18/2012 3:47:00 PM
Methyl Acetate	U	0.5	2.0		µg/L	1	5/18/2012 3:47:00 PM
Methyl tert-butyl ether	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Methylene chloride	3.0	0.25	1.0	B	µg/L	1	5/18/2012 3:47:00 PM
n-Amyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-01A

Client Sample ID: MW-1  
 Collection Date: 5/17/2012 11:41:00 AM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
Naphthalene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
n-Butyl acetate	U	0.25	2.0		µg/L	1	5/18/2012 3:47:00 PM
n-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 3:47:00 PM
n-Propylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
o-Xylene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	5/18/2012 3:47:00 PM
p-Ethyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
sec-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Styrene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
t-Butyl alcohol	U	1	2.0		µg/L	1	5/18/2012 3:47:00 PM
tert-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Tetrachloroethene	U	0.25	2.0		µg/L	1	5/18/2012 3:47:00 PM
Toluene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
trans-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
trans-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Trichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Trichlorofluoromethane	U	0.25	1.0	C	µg/L	1	5/18/2012 3:47:00 PM
Vinyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Vinyl chloride	U	0.25	1.0		µg/L	1	5/18/2012 3:47:00 PM
Surr: 4-Bromofluorobenzene	103	0	63-123		%REC	1	5/18/2012 3:47:00 PM
Surr: Dibromofluoromethane	96.1	0	68-124		%REC	1	5/18/2012 3:47:00 PM
Surr: Toluene-d8	97.2	0	67-125		%REC	1	5/18/2012 3:47:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-1
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 11:41:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-01B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>	<b>SW3510C</b>	<b>Analyst: LDS</b>		
1,2,4-Trichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
1,2-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
1,3-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
1,4-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2,4,5-Trichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2,4,6-Trichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2,4-Dichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2,4-Dimethylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2,4-Dinitrophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2,4-Dinitrotoluene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2,6-Dinitrotoluene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2-Chloronaphthalene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2-Chlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2-Methylnaphthalene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2-Methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
2-Nitrophenol	U	1	10		µg/L	1	5/23/2012 2:25:00 PM
3,3'-Dichlorobenzidine	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
3+4-Methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
3-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
4,6-Dinitro-2-methylphenol	U	1	10		µg/L	1	5/23/2012 2:25:00 PM
4-Bromophenyl phenyl ether	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
4-Chloro-3-methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
4-Chloroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
4-Chlorophenyl phenyl ether	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
4-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
4-Nitrophenol	U	1	10		µg/L	1	5/23/2012 2:25:00 PM
Acenaphthene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Acenaphthylene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Acetophenone	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Aniline	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Anthracene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Atrazine	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-01B

Client Sample ID: MW-1  
 Collection Date: 5/17/2012 11:41:00 AM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>	<b>SW3510C</b>	<b>Analyst: LDS</b>		
Azobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Benzaldehyde	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Benzdine	U	1	10		µg/L	1	5/23/2012 2:25:00 PM
Benzo(a)anthracene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Benzo(a)pyrene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Benzo(b)fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Benzo(g,h,i)perylene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Benzo(k)fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Benzoic acid	U	1	10		µg/L	1	5/23/2012 2:25:00 PM
Benzyl alcohol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Biphenyl	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Bis(2-chloroethoxy)methane	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Bis(2-chloroethyl)ether	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Bis(2-chloroisopropyl)ether	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Bis(2-ethylhexyl)phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Butyl benzyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Caprolactam	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Carbazole	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Chrysene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Dibenzo(a,h)anthracene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Dibenzofuran	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Diethyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Dimethyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Di-n-butyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Di-n-octyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Fluorene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Hexachlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Hexachlorobutadiene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Hexachlorocyclopentadiene	U	1	10		µg/L	1	5/23/2012 2:25:00 PM
Hexachloroethane	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Isophorone	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-1
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 11:41:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-01B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3510C</b>		<b>Analyst: LDS</b>
Naphthalene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Nitrobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
N-Nitrosodimethylamine	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
N-Nitrosodi-n-propylamine	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
N-Nitrosodiphenylamine	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Parathion	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Pentachlorophenol	U	1	10		µg/L	1	5/23/2012 2:25:00 PM
Phenanthrene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Phenol	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Pyrene	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Pyridine	U	0.5	5.0		µg/L	1	5/23/2012 2:25:00 PM
Surr: 2,4,6-Tribromophenol	102	0	36-133		%REC	1	5/23/2012 2:25:00 PM
Surr: 2-Fluorobiphenyl	117	0	20-131		%REC	1	5/23/2012 2:25:00 PM
Surr: 2-Fluorophenol	58.6	0	16-103		%REC	1	5/23/2012 2:25:00 PM
Surr: 4-Terphenyl-d14	105	0	22-132		%REC	1	5/23/2012 2:25:00 PM
Surr: Nitrobenzene-d5	116	0	19-133		%REC	1	5/23/2012 2:25:00 PM
Surr: Phenol-d6	37.2	0	12-98		%REC	1	5/23/2012 2:25:00 PM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-1
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 11:41:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-01C		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>			<b>SW8082A</b>		<b>SW3510C</b>		<b>Analyst: SB</b>
Aroclor 1016	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1221	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1232	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1242	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1248	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1254	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1260	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1262	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Aroclor 1268	U	0.03	0.050		µg/L	1	5/24/2012 2:23:00 AM
Surr: DCB	115	0	15-147		%REC	1	5/24/2012 2:23:00 AM
Surr: TCX	84.0	0	19-135		%REC	1	5/24/2012 2:23:00 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-1
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 11:41:00 AM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-01D		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>SW8081B</b>		<b>SW3510C</b>		<b>Analyst: SB</b>
4,4'-DDD	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
4,4'-DDE	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
4,4'-DDT	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Aldrin	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
alpha-BHC	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
beta-BHC	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Chlordane	U	0.05	1.0		µg/L	1	5/23/2012 7:56:00 PM
Chlorobenzilate	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
DBCP	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
delta-BHC	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Dieldrin	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Endosulfan I	0.029	0.02	0.40	J	µg/L	1	5/23/2012 7:56:00 PM
Endosulfan II	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Endosulfan sulfate	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Endrin	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Endrin aldehyde	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Endrin ketone	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
gamma-BHC	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Heptachlor	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Heptachlor epoxide	0.043	0.02	0.40	J	µg/L	1	5/23/2012 7:56:00 PM
Hexachlorobenzene	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Hexachlorocyclopentadiene	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Methoxychlor	U	0.02	0.40		µg/L	1	5/23/2012 7:56:00 PM
Toxaphene	U	0.5	10		µg/L	1	5/23/2012 7:56:00 PM
Surr: DCB	84.7	0	11-109		%REC	1	5/23/2012 7:56:00 PM
Surr: TCX	64.2	0	14-110		%REC	1	5/23/2012 7:56:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-01E

Client Sample ID: MW-1  
 Collection Date: 5/17/2012 11:41:00 AM  
 Matrix: LIQUID

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>				<b>E245.1</b>			Analyst: JP
Mercury	U	0.0001	0.000200		mg/L	1	5/22/2012 2:23:15 PM
<b>TARGET ANALYTE LIST METALS</b>				<b>E200.7</b>			Analyst: JP
					<b>SW3010A</b>		
Aluminum		4.00	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Antimony		0.0133	0.005	0.0200	J mg/L	1	5/24/2012 9:47:41 AM
Arsenic		U	0.01	0.0250	mg/L	1	5/24/2012 9:47:41 AM
Barium		0.0797	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Beryllium		U	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Cadmium		U	0.005	0.0100	mg/L	1	5/24/2012 9:47:41 AM
Calcium		16.5	0.005	0.0250	mg/L	1	5/24/2012 9:47:41 AM
Chromium		0.0316	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Cobalt		U	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Copper		0.0245	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Iron		20.7	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Lead		0.00819	0.005	0.0150	J mg/L	1	5/24/2012 9:47:41 AM
Magnesium		3.67	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Manganese		0.417	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Nickel		0.0262	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Potassium		3.39	0.05	0.100	mg/L	1	5/24/2012 9:47:41 AM
Selenium		U	0.01	0.0250	mg/L	1	5/24/2012 9:47:41 AM
Silver		U	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM
Sodium		4.50	0.005	0.0300	mg/L	1	5/24/2012 9:47:41 AM
Thallium		U	0.01	0.0150	mg/L	1	5/24/2012 9:47:41 AM
Vanadium		0.0124	0.005	0.0200	J mg/L	1	5/24/2012 9:47:41 AM
Zinc		0.0787	0.005	0.0200	mg/L	1	5/24/2012 9:47:41 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-01F

Client Sample ID: MW-1  
 Collection Date: 5/17/2012 11:41:00 AM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>			<b>E245.1</b>		<b>SW3005A</b>		<b>Analyst: JP</b>
Mercury	0.000250	0.0001	0.000200		mg/L	1	5/22/2012 1:55:59 PM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>			<b>E200.7</b>		<b>SW3005A</b>		<b>Analyst: JP</b>
Aluminum	0.0382	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Antimony	U	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Arsenic	U	0.01	0.0250		mg/L	1	5/21/2012 10:16:15 AM
Barium	0.0456	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Beryllium	U	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Cadmium	U	0.005	0.0100		mg/L	1	5/21/2012 10:16:15 AM
Calcium	16.7	0.005	0.0250		mg/L	1	5/21/2012 10:16:15 AM
Chromium	U	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Cobalt	U	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Copper	U	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Iron	1.97	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Lead	U	0.005	0.0150		mg/L	1	5/21/2012 10:16:15 AM
Magnesium	3.08	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Manganese	0.347	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Nickel	0.00691	0.005	0.0200	J	mg/L	1	5/21/2012 10:16:15 AM
Potassium	2.98	0.05	0.100		mg/L	1	5/21/2012 10:16:15 AM
Selenium	U	0.01	0.0250		mg/L	1	5/21/2012 10:16:15 AM
Silver	U	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Sodium	4.80	0.005	0.0300		mg/L	1	5/21/2012 10:16:15 AM
Thallium	U	0.01	0.0150		mg/L	1	5/21/2012 10:16:15 AM
Vanadium	U	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM
Zinc	0.0207	0.005	0.0200		mg/L	1	5/21/2012 10:16:15 AM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

<b>CLIENT:</b> J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b> MW-2
<b>Lab Order:</b> 1205159	<b>Collection Date:</b> 5/17/2012 12:16:00 PM
<b>Project:</b> 224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b> LIQUID
<b>Lab ID:</b> 1205159-02A	

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
1,1,1,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,1,1-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,1,2,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethan	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,1,2-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,1-Dichloroethane	U	0.5	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,1-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,1-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2,3-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2,3-Trichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2,4,5-Tetramethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2,4-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2,4-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2-Dibromo-3-chloropropane	U	0.5	2.0		µg/L	1	5/18/2012 2:34:00 PM
1,2-Dibromoethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2-Dichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,3,5-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,3-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,3-dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,4-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
1,4-Dioxane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
2,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
2-Butanone	U	1.25	2.5		µg/L	1	5/18/2012 2:34:00 PM
2-Chloroethyl vinyl ether	U	0.5	1.0		µg/L	1	5/18/2012 2:34:00 PM
2-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
2-Hexanone	U	1.25	2.5		µg/L	1	5/18/2012 2:34:00 PM
2-Propanol	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
4-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
4-Isopropyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
4-Methyl-2-pentanone	U	1.25	2.5		µg/L	1	5/18/2012 2:34:00 PM
Acetone	U	1.25	5.0		µg/L	1	5/18/2012 2:34:00 PM

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-02A

Client Sample ID: MW-2  
 Collection Date: 5/17/2012 12:16:00 PM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>			Analyst: LA	
Acrolein	U	5	10		µg/L	1	5/18/2012 2:34:00 PM
Acrylonitrile	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Benzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	5/18/2012 2:34:00 PM
Bromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Bromodichloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Bromoform	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Bromomethane	U	0.25	1.0	C	µg/L	1	5/18/2012 2:34:00 PM
Carbon disulfide	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Carbon tetrachloride	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Chlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Chlorodifluoromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Chloroethane	U	0.25	1.0	C	µg/L	1	5/18/2012 2:34:00 PM
Chloroform	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Chloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
cis-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
cis-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Dibromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Dibromomethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Dichlorodifluoromethane	U	0.25	1.0	C	µg/L	1	5/18/2012 2:34:00 PM
Diisopropyl ether	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Ethanol	U	2.5	5.0		µg/L	1	5/18/2012 2:34:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 2:34:00 PM
Ethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Freon-114	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Hexachlorobutadiene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Isopropyl acetate	U	1	2.0		µg/L	1	5/18/2012 2:34:00 PM
Isopropylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
m,p-Xylene	U	0.5	2.0		µg/L	1	5/18/2012 2:34:00 PM
Methyl Acetate	U	0.5	2.0		µg/L	1	5/18/2012 2:34:00 PM
Methyl tert-butyl ether	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Methylene chloride	2.7	0.25	1.0	B	µg/L	1	5/18/2012 2:34:00 PM
n-Amyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-2
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:16:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-02A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
Naphthalene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
n-Butyl acetate	U	0.25	2.0		µg/L	1	5/18/2012 2:34:00 PM
n-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 2:34:00 PM
n-Propylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
o-Xylene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	5/18/2012 2:34:00 PM
p-Ethyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
sec-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Styrene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
t-Butyl alcohol	U	1	2.0		µg/L	1	5/18/2012 2:34:00 PM
tert-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Tetrachloroethene	U	0.25	2.0		µg/L	1	5/18/2012 2:34:00 PM
Toluene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
trans-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
trans-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Trichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Trichlorofluoromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Vinyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Vinyl chloride	U	0.25	1.0		µg/L	1	5/18/2012 2:34:00 PM
Surr: 4-Bromofluorobenzene	104	0	63-123		%REC	1	5/18/2012 2:34:00 PM
Surr: Dibromofluoromethane	102	0	68-124		%REC	1	5/18/2012 2:34:00 PM
Surr: Toluene-d8	101	0	67-125		%REC	1	5/18/2012 2:34:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: MW-2  
 Lab Order: 1205159 Collection Date: 5/17/2012 12:16:00 PM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: LIQUID  
 Lab ID: 1205159-02B

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3510C</b>		Analyst: <b>LDS</b>
1,2,4-Trichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
1,2-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
1,3-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
1,4-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2,4,5-Trichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2,4,6-Trichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2,4-Dichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2,4-Dimethylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2,4-Dinitrophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2,4-Dinitrotoluene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2,6-Dinitrotoluene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2-Chloronaphthalene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2-Chlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2-Methylnaphthalene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2-Methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
2-Nitrophenol	U	1	10		µg/L	1	5/23/2012 2:50:00 PM
3,3'-Dichlorobenzidine	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
3+4-Methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
3-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
4,6-Dinitro-2-methylphenol	U	1	10		µg/L	1	5/23/2012 2:50:00 PM
4-Bromophenyl phenyl ether	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
4-Chloro-3-methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
4-Chloroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
4-Chlorophenyl phenyl ether	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
4-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
4-Nitrophenol	U	1	10		µg/L	1	5/23/2012 2:50:00 PM
Acenaphthene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Acenaphthylene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Acetophenone	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Aniline	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Anthracene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Atrazine	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-02B

Client Sample ID: MW-2  
 Collection Date: 5/17/2012 12:16:00 PM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3510C</b>		Analyst: LDS
Azobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Benzaldehyde	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Benzidine	U	1	10		µg/L	1	5/23/2012 2:50:00 PM
Benzo(a)anthracene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Benzo(a)pyrene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Benzo(b)fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Benzo(g,h,i)perylene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Benzo(k)fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Benzoic acid	U	1	10		µg/L	1	5/23/2012 2:50:00 PM
Benzyl alcohol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Biphenyl	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Bis(2-chloroethoxy)methane	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Bis(2-chloroethyl)ether	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Bis(2-chloroisopropyl)ether	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Bis(2-ethylhexyl)phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Butyl benzyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Caprolactam	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Carbazole	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Chrysene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Dibenzo(a,h)anthracene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Dibenzofuran	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Diethyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Dimethyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Di-n-butyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Di-n-octyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Fluorene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Hexachlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Hexachlorobutadiene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Hexachlorocyclopentadiene	U	1	10		µg/L	1	5/23/2012 2:50:00 PM
Hexachloroethane	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Isophorone	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-2
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:16:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-02B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3510C</b>		<b>Analyst: LDS</b>
Naphthalene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Nitrobenzene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
N-Nitrosodimethylamine	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
N-Nitrosodi-n-propylamine	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
N-Nitrosodiphenylamine	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Parathion	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Pentachlorophenol	U	1	10		µg/L	1	5/23/2012 2:50:00 PM
Phenanthrene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Phenol	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Pyrene	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Pyridine	U	0.5	5.0		µg/L	1	5/23/2012 2:50:00 PM
Surr: 2,4,6-Tribromophenol	104	0	36-133		%REC	1	5/23/2012 2:50:00 PM
Surr: 2-Fluorobiphenyl	116	0	20-131		%REC	1	5/23/2012 2:50:00 PM
Surr: 2-Fluorophenol	57.6	0	16-103		%REC	1	5/23/2012 2:50:00 PM
Surr: 4-Terphenyl-d14	111	0	22-132		%REC	1	5/23/2012 2:50:00 PM
Surr: Nitrobenzene-d5	109	0	19-133		%REC	1	5/23/2012 2:50:00 PM
Surr: Phenol-d6	36.1	0	12-98		%REC	1	5/23/2012 2:50:00 PM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-2
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:16:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-02C		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>			<b>SW8082A</b>		<b>SW3510C</b>		<b>Analyst: SB</b>
Aroclor 1016	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1221	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1232	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1242	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1248	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1254	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1260	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1262	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Aroclor 1268	U	0.03	0.050		µg/L	1	5/24/2012 2:47:00 AM
Surr: DCB	132	0	15-147		%REC	1	5/24/2012 2:47:00 AM
Surr: TCX	94.3	0	19-135		%REC	1	5/24/2012 2:47:00 AM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-2
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:16:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-02D		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>SW8081B</b>		<b>SW3510C</b>		<b>Analyst: SB</b>
4,4'-DDD	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
4,4'-DDE	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
4,4'-DDT	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Aldrin	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
alpha-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
beta-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Chlordane	U	0.05	1.0		µg/L	1	5/23/2012 8:10:00 PM
Chlorobenzilate	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
DBCP	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
delta-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Dieldrin	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Endosulfan I	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Endosulfan II	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Endosulfan sulfate	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Endrin	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Endrin aldehyde	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Endrin ketone	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
gamma-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Heptachlor	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Heptachlor epoxide	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Hexachlorobenzene	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Hexachlorocyclopentadiene	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Methoxychlor	U	0.02	0.40		µg/L	1	5/23/2012 8:10:00 PM
Toxaphene	U	0.5	10		µg/L	1	5/23/2012 8:10:00 PM
Surr: DCB	96.6	0	11-109		%REC	1	5/23/2012 8:10:00 PM
Surr: TCX	73.9	0	14-110		%REC	1	5/23/2012 8:10:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: MW-2  
 Lab Order: 1205159 Collection Date: 5/17/2012 12:16:00 PM  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: LIQUID  
 Lab ID: 1205159-02E

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>				<b>E245.1</b>		Analyst: JP	
Mercury	U	0.0001	0.000200		mg/L	1	5/22/2012 2:25:23 PM
<b>TARGET ANALYTE LIST METALS</b>				<b>E200.7</b>		Analyst: JP	
					<b>SW3010A</b>		
Aluminum	0.658	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Antimony	0.0109	0.005	0.0200	J	mg/L	1	5/24/2012 9:49:43 AM
Arsenic	U	0.01	0.0250		mg/L	1	5/24/2012 9:49:43 AM
Barium	0.143	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Beryllium	U	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Cadmium	U	0.005	0.0100		mg/L	1	5/24/2012 9:49:43 AM
Calcium	35.5	0.005	0.0250		mg/L	1	5/24/2012 9:49:43 AM
Chromium	0.00853	0.005	0.0200	J	mg/L	1	5/24/2012 9:49:43 AM
Cobalt	U	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Copper	U	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Iron	8.17	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Lead	U	0.005	0.0150		mg/L	1	5/24/2012 9:49:43 AM
Magnesium	5.11	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Manganese	1.92	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Nickel	0.0192	0.005	0.0200	J	mg/L	1	5/24/2012 9:49:43 AM
Potassium	7.04	0.05	0.100		mg/L	1	5/24/2012 9:49:43 AM
Selenium	U	0.01	0.0250		mg/L	1	5/24/2012 9:49:43 AM
Silver	U	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Sodium	36.3	0.005	0.0300		mg/L	1	5/24/2012 9:49:43 AM
Thallium	U	0.01	0.0150		mg/L	1	5/24/2012 9:49:43 AM
Vanadium	U	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM
Zinc	0.0388	0.005	0.0200		mg/L	1	5/24/2012 9:49:43 AM

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 J Analyte detected below quantitation limits LOD Limit of Detection  
 LOQ Limit of Quantitation P >40% diff for detected conc between the two GC columns  
 PQL Practical Quantitation Limit S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed but not detected.

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-2
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:16:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-02F		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>			<b>E245.1</b>		<b>SW3005A</b>		<b>Analyst: JP</b>
Mercury	0.000270	0.0001	0.000200		mg/L	1	5/22/2012 1:58:08 PM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>			<b>E200.7</b>		<b>SW3005A</b>		<b>Analyst: JP</b>
Aluminum	0.0228	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Antimony	U	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Arsenic	U	0.01	0.0250		mg/L	1	5/21/2012 10:18:17 AM
Barium	0.147	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Beryllium	U	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Cadmium	U	0.005	0.0100		mg/L	1	5/21/2012 10:18:17 AM
Calcium	38.6	0.005	0.0250		mg/L	1	5/21/2012 10:18:17 AM
Chromium	U	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Cobalt	U	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Copper	U	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Iron	6.55	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Lead	U	0.005	0.0150		mg/L	1	5/21/2012 10:18:17 AM
Magnesium	5.45	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Manganese	2.04	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Nickel	0.0164	0.005	0.0200	J	mg/L	1	5/21/2012 10:18:17 AM
Potassium	6.95	0.05	0.100		mg/L	1	5/21/2012 10:18:17 AM
Selenium	U	0.01	0.0250		mg/L	1	5/21/2012 10:18:17 AM
Silver	U	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Sodium	35.4	0.005	0.0300		mg/L	1	5/21/2012 10:18:17 AM
Thallium	U	0.01	0.0150		mg/L	1	5/21/2012 10:18:17 AM
Vanadium	U	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM
Zinc	0.0350	0.005	0.0200		mg/L	1	5/21/2012 10:18:17 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-03A

Client Sample ID: MW-3  
 Collection Date: 5/17/2012 12:56:00 PM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>			<b>Analyst: LA</b>	
1,1,1,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,1,1-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,1,2,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,1,2-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,1-Dichloroethane	U	0.5	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,1-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,1-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2,3-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2,3-Trichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2,4,5-Tetramethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2,4-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2,4-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2-Dibromo-3-chloropropane	U	0.5	2.0		µg/L	1	5/18/2012 2:58:00 PM
1,2-Dibromoethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2-Dichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,3,5-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,3-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,3-dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,4-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
1,4-Dioxane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
2,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
2-Butanone	U	1.25	2.5		µg/L	1	5/18/2012 2:58:00 PM
2-Chloroethyl vinyl ether	U	0.5	1.0		µg/L	1	5/18/2012 2:58:00 PM
2-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
2-Hexanone	U	1.25	2.5		µg/L	1	5/18/2012 2:58:00 PM
2-Propanol	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
4-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
4-Isopropyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
4-Methyl-2-pentanone	U	1.25	2.5		µg/L	1	5/18/2012 2:58:00 PM
Acetone	U	1.25	5.0		µg/L	1	5/18/2012 2:58:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:56:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-03A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
Acrolein	U	5	10		µg/L	1	5/18/2012 2:58:00 PM
Acrylonitrile	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Benzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	5/18/2012 2:58:00 PM
Bromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Bromodichloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Bromoform	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Bromomethane	U	0.25	1.0	C	µg/L	1	5/18/2012 2:58:00 PM
Carbon disulfide	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Carbon tetrachloride	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Chlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Chlorodifluoromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Chloroethane	U	0.25	1.0	C	µg/L	1	5/18/2012 2:58:00 PM
Chloroform	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Chloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
cis-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
cis-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Dibromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Dibromomethane	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Dichlorodifluoromethane	U	0.25	1.0	C	µg/L	1	5/18/2012 2:58:00 PM
Diisopropyl ether	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Ethanol	U	2.5	5.0		µg/L	1	5/18/2012 2:58:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 2:58:00 PM
Ethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Freon-114	U	0.25	1.0	C	µg/L	1	5/18/2012 2:58:00 PM
Hexachlorobutadiene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Isopropyl acetate	U	1	2.0		µg/L	1	5/18/2012 2:58:00 PM
Isopropylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
m,p-Xylene	U	0.5	2.0		µg/L	1	5/18/2012 2:58:00 PM
Methyl Acetate	U	0.5	2.0		µg/L	1	5/18/2012 2:58:00 PM
Methyl tert-butyl ether	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Methylene chloride	2.7	0.25	1.0	B	µg/L	1	5/18/2012 2:58:00 PM
n-Amyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:56:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-03A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
Naphthalene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
n-Butyl acetate	U	0.25	2.0		µg/L	1	5/18/2012 2:58:00 PM
n-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 2:58:00 PM
n-Propylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
o-Xylene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	5/18/2012 2:58:00 PM
p-Ethyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
sec-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Styrene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
t-Butyl alcohol	U	1	2.0		µg/L	1	5/18/2012 2:58:00 PM
tert-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Tetrachloroethene	U	0.25	2.0		µg/L	1	5/18/2012 2:58:00 PM
Toluene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
trans-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
trans-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Trichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Trichlorofluoromethane	U	0.25	1.0	C	µg/L	1	5/18/2012 2:58:00 PM
Vinyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Vinyl chloride	U	0.25	1.0		µg/L	1	5/18/2012 2:58:00 PM
Surr: 4-Bromofluorobenzene	96.3	0	63-123		%REC	1	5/18/2012 2:58:00 PM
Surr: Dibromofluoromethane	102	0	68-124		%REC	1	5/18/2012 2:58:00 PM
Surr: Toluene-d8	101	0	67-125		%REC	1	5/18/2012 2:58:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
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	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:56:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-03B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3510C</b>		<b>Analyst: LDS</b>
1,2,4-Trichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
1,2-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
1,3-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
1,4-Dichlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2,4,5-Trichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2,4,6-Trichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2,4-Dichlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2,4-Dimethylphenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2,4-Dinitrophenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2,4-Dinitrotoluene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2,6-Dinitrotoluene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2-Chloronaphthalene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2-Chlorophenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2-Methylnaphthalene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2-Methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
2-Nitrophenol	U	1	10		µg/L	1	5/23/2012 3:15:00 PM
3,3'-Dichlorobenzidine	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
3+4-Methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
3-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
4,6-Dinitro-2-methylphenol	U	1	10		µg/L	1	5/23/2012 3:15:00 PM
4-Bromophenyl phenyl ether	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
4-Chloro-3-methylphenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
4-Chloroaniline	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
4-Chlorophenyl phenyl ether	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
4-Nitroaniline	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
4-Nitrophenol	U	1	10		µg/L	1	5/23/2012 3:15:00 PM
Acenaphthene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Acenaphthylene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Acetophenone	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Aniline	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Anthracene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Atrazine	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b> J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b> MW-3
<b>Lab Order:</b> 1205159	<b>Collection Date:</b> 5/17/2012 12:56:00 PM
<b>Project:</b> 224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b> LIQUID
<b>Lab ID:</b> 1205159-03B	

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3510C</b>		<b>Analyst: LDS</b>
Azobenzene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Benzaldehyde	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Benzidine	U	1	10		µg/L	1	5/23/2012 3:15:00 PM
Benzo(a)anthracene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Benzo(a)pyrene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Benzo(b)fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Benzo(g,h,i)perylene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Benzo(k)fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Benzoic acid	U	1	10		µg/L	1	5/23/2012 3:15:00 PM
Benzyl alcohol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Biphenyl	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Bis(2-chloroethoxy)methane	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Bis(2-chloroethyl)ether	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Bis(2-chloroisopropyl)ether	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Bis(2-ethylhexyl)phthalate	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Butyl benzyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Caprolactam	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Carbazole	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Chrysene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Dibenzo(a,h)anthracene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Dibenzofuran	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Diethyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Dimethyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Di-n-butyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Di-n-octyl phthalate	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Fluoranthene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Fluorene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Hexachlorobenzene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Hexachlorobutadiene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Hexachlorocyclopentadiene	U	1	10		µg/L	1	5/23/2012 3:15:00 PM
Hexachloroethane	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Isophorone	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
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ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:56:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-03B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270</b>			<b>SW8270D</b>		<b>SW3510C</b>		<b>Analyst: LDS</b>
Naphthalene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Nitrobenzene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
N-Nitrosodimethylamine	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
N-Nitrosodi-n-propylamine	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
N-Nitrosodiphenylamine	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Parathion	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Pentachlorophenol	U	1	10		µg/L	1	5/23/2012 3:15:00 PM
Phenanthrene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Phenol	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Pyrene	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Pyridine	U	0.5	5.0		µg/L	1	5/23/2012 3:15:00 PM
Surr: 2,4,6-Tribromophenol	93.5	0	36-133		%REC	1	5/23/2012 3:15:00 PM
Surr: 2-Fluorobiphenyl	97.8	0	20-131		%REC	1	5/23/2012 3:15:00 PM
Surr: 2-Fluorophenol	61.6	0	16-103		%REC	1	5/23/2012 3:15:00 PM
Surr: 4-Terphenyl-d14	91.5	0	22-132		%REC	1	5/23/2012 3:15:00 PM
Surr: Nitrobenzene-d5	88.8	0	19-133		%REC	1	5/23/2012 3:15:00 PM
Surr: Phenol-d6	42.8	0	12-98		%REC	1	5/23/2012 3:15:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:56:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-03C		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PCB'S AS AROCLORS SW-846 METHOD 8082</b>			<b>SW8082A</b>		<b>SW3510C</b>		<b>Analyst: SB</b>
Aroclor 1016	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1221	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1232	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1242	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1248	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1254	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1260	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1262	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Aroclor 1268	U	0.03	0.050		µg/L	1	5/24/2012 3:11:00 AM
Surr: DCB	130	0	15-147		%REC	1	5/24/2012 3:11:00 AM
Surr: TCX	100	0	19-135		%REC	1	5/24/2012 3:11:00 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:56:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-03D		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PESTICIDES SW-846 METHOD 8081</b>			<b>SW8081B</b>		<b>SW3510C</b>		<b>Analyst: SB</b>
4,4'-DDD	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
4,4'-DDE	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
4,4'-DDT	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Aldrin	0.11	0.02	0.40	JP	µg/L	1	5/23/2012 8:24:00 PM
alpha-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
beta-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Chlordane	U	0.05	1.0		µg/L	1	5/23/2012 8:24:00 PM
Chlorobenzilate	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
DBCP	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
delta-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Dieldrin	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Endosulfan I	0.12	0.02	0.40	J	µg/L	1	5/23/2012 8:24:00 PM
Endosulfan II	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Endosulfan sulfate	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Endrin	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Endrin aldehyde	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Endrin ketone	0.051	0.02	0.40	J	µg/L	1	5/23/2012 8:24:00 PM
gamma-BHC	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Heptachlor	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Heptachlor epoxide	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Hexachlorobenzene	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Hexachlorocyclopentadiene	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Methoxychlor	U	0.02	0.40		µg/L	1	5/23/2012 8:24:00 PM
Toxaphene	U	0.5	10		µg/L	1	5/23/2012 8:24:00 PM
Surr: DCB	93.1	0	11-109		%REC	1	5/23/2012 8:24:00 PM
Surr: TCX	78.8	0	14-110		%REC	1	5/23/2012 8:24:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-03E

Client Sample ID: MW-3  
 Collection Date: 5/17/2012 12:56:00 PM  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>				<b>E245.1</b>			Analyst: JP
Mercury	0.00155	0.0001	0.000200		mg/L	1	5/22/2012 2:36:12 PM
<b>TARGET ANALYTE LIST METALS</b>				<b>E200.7</b>			Analyst: JP
							<b>SW3010A</b>
Aluminum	2.21	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Antimony	U	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Arsenic	U	0.01	0.0250		mg/L	1	5/24/2012 9:51:45 AM
Barium	0.0412	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Beryllium	U	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Cadmium	U	0.005	0.0100		mg/L	1	5/24/2012 9:51:45 AM
Calcium	15.2	0.005	0.0250		mg/L	1	5/24/2012 9:51:45 AM
Chromium	0.0194	0.005	0.0200	J	mg/L	1	5/24/2012 9:51:45 AM
Cobalt	U	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Copper	0.0101	0.005	0.0200	J	mg/L	1	5/24/2012 9:51:45 AM
Iron	8.08	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Lead	U	0.005	0.0150		mg/L	1	5/24/2012 9:51:45 AM
Magnesium	2.47	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Manganese	1.27	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Nickel	0.0187	0.005	0.0200	J	mg/L	1	5/24/2012 9:51:45 AM
Potassium	2.70	0.05	0.100		mg/L	1	5/24/2012 9:51:45 AM
Selenium	U	0.01	0.0250		mg/L	1	5/24/2012 9:51:45 AM
Silver	U	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM
Sodium	5.78	0.005	0.0300		mg/L	1	5/24/2012 9:51:45 AM
Thallium	U	0.01	0.0150		mg/L	1	5/24/2012 9:51:45 AM
Vanadium	0.00540	0.005	0.0200	J	mg/L	1	5/24/2012 9:51:45 AM
Zinc	0.0533	0.005	0.0200		mg/L	1	5/24/2012 9:51:45 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012 12:56:00 PM
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-03F		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>			<b>E245.1</b>		<b>SW3005A</b>		<b>Analyst: JP</b>
Mercury	0.00108	0.0001	0.000200		mg/L	1	5/22/2012 2:00:17 PM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>			<b>E200.7</b>		<b>SW3005A</b>		<b>Analyst: JP</b>
Aluminum	0.0278	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Antimony	U	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Arsenic	U	0.01	0.0250		mg/L	1	5/21/2012 10:20:19 AM
Barium	0.0261	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Beryllium	U	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Cadmium	U	0.005	0.0100		mg/L	1	5/21/2012 10:20:19 AM
Calcium	15.7	0.005	0.0250		mg/L	1	5/21/2012 10:20:19 AM
Chromium	U	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Cobalt	U	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Copper	U	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Iron	1.34	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Lead	U	0.005	0.0150		mg/L	1	5/21/2012 10:20:19 AM
Magnesium	2.05	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Manganese	1.22	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Nickel	0.00895	0.005	0.0200	J	mg/L	1	5/21/2012 10:20:19 AM
Potassium	1.99	0.05	0.100		mg/L	1	5/21/2012 10:20:19 AM
Selenium	U	0.01	0.0250		mg/L	1	5/21/2012 10:20:19 AM
Silver	U	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Sodium	6.20	0.005	0.0300		mg/L	1	5/21/2012 10:20:19 AM
Thallium	U	0.01	0.0150		mg/L	1	5/21/2012 10:20:19 AM
Vanadium	U	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM
Zinc	0.0446	0.005	0.0200		mg/L	1	5/21/2012 10:20:19 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC Client Sample ID: Trip Blank  
 Lab Order: 1205159 Collection Date: 5/17/2012  
 Project: 224-01 Merrick Blvd., Queens, NY Matrix: LIQUID  
 Lab ID: 1205159-04A

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>			Analyst: LA	
1,1,1,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,1,1-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,1,2,2-Tetrachloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,1,2-Trichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,1-Dichloroethane	U	0.5	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,1-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,1-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2,3-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2,3-Trichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2,4,5-Tetramethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2,4-Trichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2,4-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2-Dibromo-3-chloropropane	U	0.5	2.0		µg/L	1	5/18/2012 3:23:00 PM
1,2-Dibromoethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2-Dichloroethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,3,5-Trimethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,3-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,3-dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,4-Dichlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
1,4-Dioxane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
2,2-Dichloropropane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
2-Butanone	U	1.25	2.5		µg/L	1	5/18/2012 3:23:00 PM
2-Chloroethyl vinyl ether	U	0.5	1.0		µg/L	1	5/18/2012 3:23:00 PM
2-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
2-Hexanone	U	1.25	2.5		µg/L	1	5/18/2012 3:23:00 PM
2-Propanol	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
4-Chlorotoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
4-Isopropyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
4-Methyl-2-pentanone	U	1.25	2.5		µg/L	1	5/18/2012 3:23:00 PM
Acetone	U	1.25	5.0		µg/L	1	5/18/2012 3:23:00 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

**American Analytical Laboratories, LLC.**

Date: 24-May-12

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY  
 Lab ID: 1205159-04A

Client Sample ID: Trip Blank  
 Collection Date: 5/17/2012  
 Matrix: LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		Analyst: LA		
Acrolein	U	5	10		µg/L	1	5/18/2012 3:23:00 PM
Acrylonitrile	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Benzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	5/18/2012 3:23:00 PM
Bromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Bromodichloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Bromoform	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Bromomethane	U	0.25	1.0	C	µg/L	1	5/18/2012 3:23:00 PM
Carbon disulfide	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Carbon tetrachloride	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Chlorobenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Chlorodifluoromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Chloroethane	U	0.25	1.0	C	µg/L	1	5/18/2012 3:23:00 PM
Chloroform	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Chloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
cis-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
cis-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Dibromochloromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Dibromomethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Dichlorodifluoromethane	U	0.25	1.0	C	µg/L	1	5/18/2012 3:23:00 PM
Diisopropyl ether	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Ethanol	U	2.5	5.0		µg/L	1	5/18/2012 3:23:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 3:23:00 PM
Ethylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Freon-114	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Hexachlorobutadiene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Isopropyl acetate	U	1	2.0		µg/L	1	5/18/2012 3:23:00 PM
Isopropylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
m,p-Xylene	U	0.5	2.0		µg/L	1	5/18/2012 3:23:00 PM
Methyl Acetate	U	0.5	2.0		µg/L	1	5/18/2012 3:23:00 PM
Methyl tert-butyl ether	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Methylene chloride	3.5	0.25	1.0	B	µg/L	1	5/18/2012 3:23:00 PM
n-Amyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM

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 Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com



<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	C Calibration %RSD/%D exceeded for non-CCC analytes
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	LOD Limit of Detection
	LOQ Limit of Quantitation	P >40% diff for detected conc between the two GC columns
	PQL Practical Quantitation Limit	S Spike Recovery outside accepted recovery limits
	U Indicates the compound was analyzed but not detected.	

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	Trip Blank
<b>Lab Order:</b>	1205159	<b>Collection Date:</b>	5/17/2012
<b>Project:</b>	224-01 Merrick Blvd., Queens, NY	<b>Matrix:</b>	LIQUID
<b>Lab ID:</b>	1205159-04A		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>			<b>SW8260C</b>		<b>Analyst: LA</b>		
Naphthalene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
n-Butyl acetate	U	0.25	2.0		µg/L	1	5/18/2012 3:23:00 PM
n-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	5/18/2012 3:23:00 PM
n-Propylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
o-Xylene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	5/18/2012 3:23:00 PM
p-Ethyltoluene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
sec-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Styrene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
t-Butyl alcohol	U	1	2.0		µg/L	1	5/18/2012 3:23:00 PM
tert-Butylbenzene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Tetrachloroethene	U	0.25	2.0		µg/L	1	5/18/2012 3:23:00 PM
Toluene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
trans-1,2-Dichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
trans-1,3-Dichloropropene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Trichloroethene	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Trichlorofluoromethane	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Vinyl acetate	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Vinyl chloride	U	0.25	1.0		µg/L	1	5/18/2012 3:23:00 PM
Surr: 4-Bromofluorobenzene	100	0	63-123		%REC	1	5/18/2012 3:23:00 PM
Surr: Dibromofluoromethane	103	0	68-124		%REC	1	5/18/2012 3:23:00 PM
Surr: Toluene-d8	97.1	0	67-125		%REC	1	5/18/2012 3:23:00 PM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	LOD	Limit of Detection
	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: 24-May-12

CLIENT: J.R. Holzmacher P.E. LLC

Work Order: 1205159

Project: 224-01 Merrick Blvd., Queens, NY

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081\_W

Sample ID: MB-35908	SampType: MBLK	TestCode: 8081_W	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63584						
Client ID: PBW	Batch ID: 35908	TestNo: SW8081B	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896416						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4,4'-DDD	U	0.40									
4,4'-DDE	U	0.40									
4,4'-DDT	U	0.40									
Aldrin	U	0.40									
alpha-BHC	U	0.40									
beta-BHC	U	0.40									
Chlordane	U	1.0									
Chlorobenzilate	U	0.40									
DBCP	U	0.40									
delta-BHC	U	0.40									
Dieldrin	U	0.40									
Endosulfan I	U	0.40									
Endosulfan II	U	0.40									
Endosulfan sulfate	U	0.40									
Endrin	U	0.40									
Endrin aldehyde	U	0.40									
Endrin ketone	U	0.40									
gamma-BHC	U	0.40									
Heptachlor	U	0.40									
Heptachlor epoxide	U	0.40									
Hexachlorobenzene	U	0.40									
Hexachlorocyclopentadiene	U	0.40									
Methoxychlor	U	0.40									
Toxaphene	U	10									
Surr: DCB	0.39		0.5000			78.3		11		109	
Surr: TCX	0.32		0.5000			64.3		14		110	

Qualifiers: B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or anal  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode: 8081\_W**

Sample ID: LCS-35908	SampType: LCS	TestCode: 8081_W	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63584						
Client ID: LCSW	Batch ID: 35908	TestNo: SW8081B	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896417						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.082	0.40	0.1000	0	82.2	33	138				J
4,4'-DDE	0.070	0.40	0.1000	0	70.3	25	122				J
4,4'-DDT	0.092	0.40	0.1000	0	92.2	26	137				J
Aldrin	0.093	0.40	0.1000	0	93.3	30	135				J
alpha-BHC	0.088	0.40	0.1000	0	87.6	31	139				J
beta-BHC	0.11	0.40	0.1000	0	115	27	139				J
Chlorobenzilate	0.094	0.40	0.1000	0	94.1	20	120				J
DBCP	0.12	0.40	0.1000	0	123	20	124				J
delta-BHC	0.11	0.40	0.1000	0	108	25	134				J
Dieldrin	0.091	0.40	0.1000	0	90.6	25	125				J
Endosulfan I	0.090	0.40	0.1000	0	89.9	22	126				J
Endosulfan II	0.090	0.40	0.1000	0	90.0	23	129				J
Endosulfan sulfate	0.097	0.40	0.1000	0	96.7	25	135				J
Endrin	0.10	0.40	0.1000	0	102	22	134				J
Endrin aldehyde	0.099	0.40	0.1000	0	98.6	20	128				J
Endrin ketone	0.11	0.40	0.1000	0	114	25	136				J
gamma-BHC	0.095	0.40	0.1000	0	95.2	30	131				J
Heptachlor	0.11	0.40	0.1000	0	114	25	125				J
Heptachlor epoxide	0.10	0.40	0.1000	0	103	21	127				J
Hexachlorobenzene	0.11	0.40	0.1000	0	114	23	131				J
Hexachlorocyclopentadiene	0.11	0.40	0.1000	0	108	22	138				J
Methoxychlor	0.11	0.40	0.1000	0	109	20	130				J
Surr: DCB	0.42		0.5000		83.6	11	109				
Surr: TCX	0.38		0.5000		76.5	14	110				

Sample ID: LCSD-35908	SampType: LCSD	TestCode: 8081_W	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63584						
Client ID: LCSS02	Batch ID: 35908	TestNo: SW8081B	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896418						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.087	0.40	0.1000	0	87.1	33	138				J
4,4'-DDE	0.069	0.40	0.1000	0	69.2	25	122				J

**Qualifiers:** B Analyte detected in the associated Method Blank  
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 H Holding times for preparation or analy  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8081\_W

Sample ID: LCSD-35908	SampType: LCSD	TestCode: 8081_W	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63584						
Client ID: LCSS02	Batch ID: 35908	TestNo: SW8081B	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896418						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDT	0.12	0.40	0.1000	0	123	26	137	0	0	20	J
Aldrin	0.089	0.40	0.1000	0	89.0	30	135	0	0	20	J
alpha-BHC	0.093	0.40	0.1000	0	92.6	31	139	0	0	20	J
beta-BHC	0.11	0.40	0.1000	0	115	27	139	0	0	20	J
Chlorobenzilate	0.074	0.40	0.1000	0	73.9	20	120	0	0	20	J
DBCP	0.12	0.40	0.1000	0	121	20	124	0	0	20	J
delta-BHC	0.11	0.40	0.1000	0	106	25	134	0	0	20	J
Dieldrin	0.10	0.40	0.1000	0	102	25	125	0	0	20	J
Endosulfan I	0.089	0.40	0.1000	0	88.8	22	126	0	0	20	J
Endosulfan II	0.080	0.40	0.1000	0	79.6	23	129	0	0	20	J
Endosulfan sulfate	0.11	0.40	0.1000	0	110	25	135	0	0	20	J
Endrin	0.12	0.40	0.1000	0	115	22	134	0	0	20	J
Endrin aldehyde	0.090	0.40	0.1000	0	89.8	20	128	0	0	20	J
Endrin ketone	0.098	0.40	0.1000	0	97.5	25	136	0	0	20	J
gamma-BHC	0.099	0.40	0.1000	0	99.3	30	131	0	0	20	J
Heptachlor	0.11	0.40	0.1000	0	110	25	125	0	0	20	J
Heptachlor epoxide	0.098	0.40	0.1000	0	97.5	21	127	0	0	20	J
Hexachlorobenzene	0.11	0.40	0.1000	0	108	23	131	0	0	20	J
Hexachlorocyclopentadiene	0.13	0.40	0.1000	0	128	22	138	0	0	20	J
Methoxychlor	0.096	0.40	0.1000	0	95.7	20	130	0	0	20	J
Surr: DCB	0.41		0.5000		82.2	11	109		0	0	
Surr: TCX	0.37		0.5000		73.7	14	110		0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 P >40% diff for detected conc between the two GC column  
 S Spike Recovery outside accepted recovery limits  
 H Holding times for preparation or analy  
 PQL Practical Quantitation Limit  
 U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8082\_W

Sample ID: MB-35907	SampType: MBLK	TestCode: 8082_W	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63584						
Client ID: PBW	Batch ID: 35907	TestNo: SW8082A	SW3510C	Analysis Date: 5/24/2012	SeqNo: 896528						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1016	U	0.050									
Aroclor 1221	U	0.050									
Aroclor 1232	U	0.050									
Aroclor 1242	U	0.050									
Aroclor 1248	U	0.050									
Aroclor 1254	U	0.050									
Aroclor 1260	U	0.050									
Aroclor 1262	U	0.050									
Aroclor 1268	U	0.050									
Surr: DCB	0.62		0.5000		124	15	147				
Surr: TCX	0.41		0.5000		81.4	19	135				

Sample ID: LCS-35907	SampType: LCS	TestCode: 8082_W	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63584						
Client ID: LCSW	Batch ID: 35907	TestNo: SW8082A	SW3510C	Analysis Date: 5/24/2012	SeqNo: 896529						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1254	0.98	0.050	1.000	0	98.1	30	130				
Surr: DCB	0.60		0.5000		120	15	147				
Surr: TCX	0.46		0.5000		92.9	19	135				

Sample ID: LCSD-35907	SampType: LCSD	TestCode: 8082_W	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63584						
Client ID: LCSS02	Batch ID: 35907	TestNo: SW8082A	SW3510C	Analysis Date: 5/24/2012	SeqNo: 896530						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aroclor 1254	1.0	0.050	1.000	0	105	30	130	0.9809	6.50	20	
Surr: DCB	0.62		0.5000		125	15	147		0	0	
Surr: TCX	0.50		0.5000		99.9	19	135		0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_w

Sample ID: MB-35906	SampType: MBLK	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: PBW	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896296						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,4-Trichlorobenzene	U	5.0									
1,2-Dichlorobenzene	U	5.0									
1,3-Dichlorobenzene	U	5.0									
1,4-Dichlorobenzene	U	5.0									
2,4,5-Trichlorophenol	U	5.0									
2,4,6-Trichlorophenol	U	5.0									
2,4-Dichlorophenol	U	5.0									
2,4-Dimethylphenol	U	5.0									
2,4-Dinitrophenol	U	5.0									
2,4-Dinitrotoluene	U	5.0									
2,6-Dinitrotoluene	U	5.0									
2-Chloronaphthalene	U	5.0									
2-Chlorophenol	U	5.0									
2-Methylnaphthalene	U	5.0									
2-Methylphenol	U	5.0									
2-Nitroaniline	U	5.0									
2-Nitrophenol	U	10									
3,3'-Dichlorobenzidine	U	5.0									
3+4-Methylphenol	U	5.0									
3-Nitroaniline	U	5.0									
4,6-Dinitro-2-methylphenol	U	10									
4-Bromophenyl phenyl ether	U	5.0									
4-Chloro-3-methylphenol	U	5.0									
4-Chloroaniline	U	5.0									
4-Chlorophenyl phenyl ether	U	5.0									
4-Nitroaniline	U	5.0									
4-Nitrophenol	U	10									
Acenaphthene	U	5.0									
Acenaphthylene	U	5.0									
Acetophenone	U	5.0									
Aniline	U	5.0									

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode: 8270\_w**

Sample ID: MB-35906	SampType: MBLK	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: PBW	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896296						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Anthracene	U	5.0									
Atrazine	U	5.0									
Azobenzene	U	5.0									
Benzaldehyde	U	5.0									
Benzidine	U	10									
Benzo(a)anthracene	U	5.0									
Benzo(a)pyrene	U	5.0									
Benzo(b)fluoranthene	U	5.0									
Benzo(g,h,i)perylene	U	5.0									
Benzo(k)fluoranthene	U	5.0									
Benzoic acid	U	10									
Benzyl alcohol	U	5.0									
Biphenyl	U	5.0									
Bis(2-chloroethoxy)methane	U	5.0									
Bis(2-chloroethyl)ether	U	5.0									
Bis(2-chloroisopropyl)ether	U	5.0									
Bis(2-ethylhexyl)phthalate	U	5.0									
Butyl benzyl phthalate	U	5.0									
Caprolactam	U	5.0									
Carbazole	U	5.0									
Chrysene	U	5.0									
Dibenzo(a,h)anthracene	U	5.0									
Dibenzofuran	U	5.0									
Diethyl phthalate	U	5.0									
Dimethyl phthalate	U	5.0									
Di-n-butyl phthalate	U	5.0									
Di-n-octyl phthalate	U	5.0									
Fluoranthene	U	5.0									
Fluorene	U	5.0									
Hexachlorobenzene	U	5.0									
Hexachlorobutadiene	U	5.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
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 U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_w

Sample ID: MB-35906	SampType: MBLK	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: PBW	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896296						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hexachlorocyclopentadiene	U	10									
Hexachloroethane	U	5.0									
Indeno(1,2,3-c,d)pyrene	U	5.0									
Isophorone	U	5.0									
Naphthalene	U	5.0									
Nitrobenzene	U	5.0									
N-Nitrosodimethylamine	U	5.0									
N-Nitrosodi-n-propylamine	U	5.0									
N-Nitrosodiphenylamine	U	5.0									
Parathion	U	5.0									
Pentachlorophenol	U	10									
Phenanthrene	U	5.0									
Phenol	U	5.0									
Pyrene	U	5.0									
Pyridine	U	5.0									
Surr: 2,4,6-Tribromophenol	36		40.00		90.1	36	133				
Surr: 2-Fluorobiphenyl	18		20.00		92.1	20	131				
Surr: 2-Fluorophenol	20		40.00		48.9	16	103				
Surr: 4-Terphenyl-d14	20		20.00		101	22	132				
Surr: Nitrobenzene-d5	19		20.00		92.9	19	133				
Surr: Phenol-d6	12		40.00		30.5	12	98				

Sample ID: LCS-35906	SampType: LCS	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: LCSW	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896297						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,4-Trichlorobenzene	17	5.0	20.00	0	84.1	38	124				
1,2-Dichlorobenzene	18	5.0	20.00	0	91.6	46	118				
1,3-Dichlorobenzene	18	5.0	20.00	0	88.1	33	126				
1,4-Dichlorobenzene	19	5.0	20.00	0	92.6	35	123				
2,4,5-Trichlorophenol	20	5.0	20.00	0	100	60	120				

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC columns  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

**TestCode: 8270\_w**

Sample ID: LCS-35906	SampType: LCS	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: LCSW	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896297						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	19	5.0	20.00	0	96.8	59	121				
2,4-Dichlorophenol	18	5.0	20.00	0	91.4	51	119				
2,4-Dimethylphenol	14	5.0	20.00	0	72.4	50	119				
2,4-Dinitrotoluene	23	5.0	20.00	0	114	32	137				
2,6-Dinitrotoluene	19	5.0	20.00	0	96.1	53	123				
2-Chloronaphthalene	18	5.0	20.00	0	90.9	58	118				
2-Chlorophenol	17	5.0	20.00	0	86.1	34	122				
2-Methylnaphthalene	20	5.0	20.00	0	98.7	30	130				
2-Methylphenol	14	5.0	20.00	0	71.5	30	130				
2-Nitroaniline	15	5.0	20.00	0	75.9	30	130				
2-Nitrophenol	20	10	20.00	0	99.3	59	117				
3+4-Methylphenol	13	5.0	20.00	0	64.4	30	130				
3-Nitroaniline	20	5.0	20.00	0	97.5	30	130				
4-Bromophenyl phenyl ether	18	5.0	20.00	0	91.9	54	122				
4-Chloro-3-methylphenol	18	5.0	20.00	0	91.5	41	123				
4-Chloroaniline	11	5.0	20.00	0	54.2	30	130				
4-Chlorophenyl phenyl ether	19	5.0	20.00	0	95.6	65	125				
4-Nitroaniline	18	5.0	20.00	0	89.1	30	130				
4-Nitrophenol	11	10	20.00	0	54.1	10	95				
Acenaphthene	20	5.0	20.00	0	99.2	47	127				
Acenaphthylene	19	5.0	20.00	0	95.0	43	130				
Anthracene	20	5.0	20.00	0	102	57	122				
Azobenzene	18	5.0	20.00	0	88.3	30	130				
Benzo(a)anthracene	21	5.0	20.00	0	106	59	117				
Benzo(a)pyrene	19	5.0	20.00	0	95.8	57	122				
Benzo(b)fluoranthene	20	5.0	20.00	0	102	31	134				
Benzo(k)fluoranthene	18	5.0	20.00	0	91.9	56	126				
Benzyl alcohol	16	5.0	20.00	0	77.8	20	130				
Bis(2-chloroethoxy)methane	14	5.0	20.00	0	67.6	62	118				
Bis(2-chloroethyl)ether	17	5.0	20.00	0	87.1	54	129				
Bis(2-chloroisopropyl)ether	16	5.0	20.00	0	81.7	55	138				

**Qualifiers:** B Analyte detected in the associated Method Blank  
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CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_w

Sample ID: LCS-35906	SampType: LCS	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: LCSW	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896297						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl)phthalate	21	5.0	20.00	0	106	60	138				
Butyl benzyl phthalate	21	5.0	20.00	0	106	66	124				
Carbazole	26	5.0	20.00	0	129	20	130				
Chrysene	17	5.0	20.00	0	86.8	62	125				
Dibenzofuran	19	5.0	20.00	0	96.6	30	130				
Diethyl phthalate	21	5.0	20.00	0	104	65	131				
Dimethyl phthalate	19	5.0	20.00	0	94.8	64	128				
Di-n-butyl phthalate	22	5.0	20.00	0	111	58	134				
Di-n-octyl phthalate	20	5.0	20.00	0	101	61	131				
Fluoranthene	23	5.0	20.00	0	117	55	134				
Fluorene	21	5.0	20.00	0	105	60	127				
Hexachlorobenzene	18	5.0	20.00	0	89.1	59	134				
Hexachlorobutadiene	16	5.0	20.00	0	78.7	49	127				
Hexachloroethane	20	5.0	20.00	0	99.5	40	130				
Indeno(1,2,3-c,d)pyrene	20	5.0	20.00	0	100	64	132				
Isophorone	16	5.0	20.00	0	81.2	64	124				
Naphthalene	19	5.0	20.00	0	94.2	54	121				
Nitrobenzene	17	5.0	20.00	0	82.6	60	120				
N-Nitrosodimethylamine	8,9	5.0	20.00	0	44.5	14	120				
N-Nitrosodi-n-propylamine	17	5.0	20.00	0	84.4	41	135				
Pentachlorophenol	22	10	20.00	0	112	30	139				
Phenanthrene	22	5.0	20.00	0	110	62	124				
Phenol	6,8	5.0	20.00	0	34.1	6	104				
Pyrene	19	5.0	20.00	0	96.9	35	137				
Pyridine	6,6	5.0	20.00	0	33.1	25	125				
Surr: 2,4,6-Tribromophenol	36		40.00		90.8	36	133				
Surr: 2-Fluorobiphenyl	20		20.00		102	20	131				
Surr: 2-Fluorophenol	20		40.00		50.1	16	103				
Surr: 4-Terphenyl-d14	20		20.00		102	22	132				
Surr: Nitrobenzene-d5	19		20.00		95.9	19	133				
Surr: Phenol-d6	13		40.00		33.5	12	98				

**Qualifiers:** B Analyte detected in the associated Method Blank  
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CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_w

Sample ID: LCSD-35906	SampType: LCSD	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: LCSS02	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896298						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	16	5.0	20.00	0	80.4	38	124	16.81	4.49	20	20
1,2-Dichlorobenzene	16	5.0	20.00	0	79.1	46	118	18.32	14.7	20	20
1,3-Dichlorobenzene	16	5.0	20.00	0	80.1	33	126	17.61	9.48	20	20
1,4-Dichlorobenzene	16	5.0	20.00	0	82.0	35	123	18.51	12.1	20	20
2,4,5-Trichlorophenol	18	5.0	20.00	0	88.9	60	120	20.06	12.0	20	20
2,4,6-Trichlorophenol	18	5.0	20.00	0	89.3	59	121	19.37	8.11	20	20
2,4-Dichlorophenol	17	5.0	20.00	0	85.2	51	119	18.28	6.96	20	20
2,4-Dimethylphenol	14	5.0	20.00	0	71.5	50	119	14.48	1.23	20	20
2,4-Dinitrotoluene	22	5.0	20.00	0	109	32	137	22.79	4.34	20	20
2,6-Dinitrotoluene	20	5.0	20.00	0	100	53	123	19.23	4.11	20	20
2-Chloronaphthalene	18	5.0	20.00	0	88.4	58	118	18.18	2.74	20	20
2-Chlorophenol	16	5.0	20.00	0	77.6	34	122	17.22	10.4	20	20
2-Methylnaphthalene	18	5.0	20.00	0	90.5	30	130	19.74	8.68	20	20
2-Methylphenol	14	5.0	20.00	0	68.4	30	130	14.30	4.43	20	20
2-Nitroaniline	15	5.0	20.00	0	73.5	30	130	15.17	3.12	20	20
2-Nitrophenol	18	10	20.00	0	91.5	59	117	19.87	8.23	20	20
3+4-Methylphenol	13	5.0	20.00	0	64.6	30	130	12.87	0.378	20	20
3-Nitroaniline	17	5.0	20.00	0	85.3	30	130	19.50	13.3	20	20
4-Bromophenyl phenyl ether	17	5.0	20.00	0	85.1	54	122	18.39	7.71	20	20
4-Chloro-3-methylphenol	18	5.0	20.00	0	89.9	41	123	18.29	1.75	20	20
4-Chloroaniline	9.8	5.0	20.00	0	48.8	30	130	10.83	10.3	20	20
4-Chlorophenyl phenyl ether	17	5.0	20.00	0	86.0	65	125	19.12	10.6	20	20
4-Nitroaniline	17	5.0	20.00	0	83.8	30	130	17.82	6.20	20	20
4-Nitrophenol	12	10	20.00	0	59.7	10	95	10.81	9.89	20	20
Acenaphthene	19	5.0	20.00	0	95.1	47	127	19.85	4.23	20	20
Acenaphthylene	18	5.0	20.00	0	88.5	43	130	19.00	7.09	20	20
Anthracene	20	5.0	20.00	0	97.6	57	122	20.38	4.28	20	20
Azobenzene	17	5.0	20.00	0	83.0	30	130	17.66	6.21	20	20
Benzo(a)anthracene	20	5.0	20.00	0	98.7	59	117	21.28	7.53	20	20
Benzo(a)pyrene	18	5.0	20.00	0	91.1	57	122	19.16	5.04	20	20
Benzo(b)fluoranthene	21	5.0	20.00	0	103	31	134	20.41	1.22	20	20

**Qualifiers:** B Analyte detected in the associated Method Blank  
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 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_w

Sample ID: LCSD-35906	Batch ID: 35906	SampType: LCSD	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597					
Client ID: LCSS02	Batch ID: 35906	SampType: LCSD	TestCode: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896298					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	16	5.0	20.00	0	79.9	56	126	18.38	14.0	20	
Benzyl alcohol	14	5.0	20.00	0	67.5	20	130	15.57	14.2	20	
Bis(2-chloroethoxy)methane	13	5.0	20.00	0	64.0	62	118	13.51	5.34	20	
Bis(2-chloroethyl)ether	15	5.0	20.00	0	76.7	54	129	17.41	12.7	20	
Bis(2-chloroisopropyl)ether	14	5.0	20.00	0	71.9	55	138	16.33	12.8	20	
Bis(2-ethylhexyl)phthalate	19	5.0	20.00	0	94.9	60	138	21.16	10.8	20	
Butyl benzyl phthalate	20	5.0	20.00	0	99.6	66	124	21.13	5.88	20	
Carbazole	25	5.0	20.00	0	125	20	130	25.73	2.96	20	
Chrysene	17	5.0	20.00	0	85.4	62	125	17.35	1.58	20	
Dibenzofuran	18	5.0	20.00	0	91.7	30	130	19.32	5.15	20	
Diethyl phthalate	20	5.0	20.00	0	97.8	65	131	20.89	6.52	20	
Dimethyl phthalate	18	5.0	20.00	0	90.1	64	128	18.97	5.16	20	
Di-n-butyl phthalate	20	5.0	20.00	0	101	58	134	22.14	9.06	20	
Di-n-octyl phthalate	19	5.0	20.00	0	93.9	61	131	20.17	7.12	20	
Fluoranthene	22	5.0	20.00	0	112	55	134	23.47	4.30	20	
Fluorene	19	5.0	20.00	0	95.2	60	127	21.10	10.3	20	
Hexachlorobenzene	19	5.0	20.00	0	94.1	59	134	17.82	5.46	20	
Hexachlorobutadiene	14	5.0	20.00	0	71.4	49	127	15.73	9.72	20	
Hexachloroethane	17	5.0	20.00	0	85.4	40	130	19.90	15.3	20	
Indeno(1,2,3-c,d)pyrene	19	5.0	20.00	0	93.0	64	132	20.01	7.23	20	
Isophorone	15	5.0	20.00	0	75.0	64	124	16.24	7.94	20	
Naphthalene	18	5.0	20.00	0	87.8	54	121	18.84	7.06	20	
Nitrobenzene	16	5.0	20.00	0	80.3	60	120	16.53	2.86	20	
N-Nitrosodimethylamine	9.3	5.0	20.00	0	46.4	14	120	8.894	4.21	20	
N-Nitrosodi-n-propylamine	15	5.0	20.00	0	75.5	41	135	16.89	11.2	20	
Pentachlorophenol	22	10	20.00	0	112	30	139	22.44	0.330	20	
Phenanthrene	20	5.0	20.00	0	99.4	62	124	21.95	9.91	20	
Phenol	6.5	5.0	20.00	0	32.6	6	104	6.815	4.53	20	
Pyrene	18	5.0	20.00	0	92.0	35	137	19.38	5.17	20	
Pyridine	6.5	5.0	20.00	0	32.6	25	125	6.612	1.45	20	
Surr: 2,4,6-Tribromophenol	36		40.00		89.6	36	133		0	20	

**Qualifiers:** B Analyte detected in the associated Method Blank  
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# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** 8270\_w

Sample ID: LCSD-35906	SampType: LCSD	TestCode: 8270_w	Units: µg/L	Prep Date: 5/22/2012	RunNo: 63597						
Client ID: LCSS02	Batch ID: 35906	TestNo: SW8270D	SW3510C	Analysis Date: 5/23/2012	SeqNo: 896298						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	19		20.00		93.1	20	131		0	20	
Surr: 2-Fluorophenol	18		40.00		45.9	16	103		0	20	
Surr: 4-Terphenyl-d14	20		20.00		101	22	132		0	20	
Surr: Nitrobenzene-d5	19		20.00		92.7	19	133		0	20	
Surr: Phenol-d6	12		40.00		30.2	12	98		0	20	

**Qualifiers:** B Analyte detected in the associated Method Blank    C Calibration %RSD/%D exceeded for non-CCC analytes    H Holding times for preparation or anal  
 J Analyte detected below quantitation limits    P >40% diff for detected conc between the two GC column    PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits    S Spike Recovery outside accepted recovery limits    U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: V624LCS-051812YW	SampType: LCS	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599						
Client ID: LCSW	Batch ID: R63599	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896307						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	44	1.0	50.00	0	88.5	38	136				
1,1,2,2-Tetrachloroethane	44	1.0	50.00	0	88.5	50	124				
1,1,2-Trichloroethane	43	1.0	50.00	0	85.7	52	128				
1,1-Dichloroethane	44	1.0	50.00	0	88.5	55	123				
1,1-Dichloroethene	52	1.0	50.00	0	103	48	128				
1,2-Dichlorobenzene	43	1.0	50.00	0	85.7	59	123				
1,2-Dichloroethane	43	1.0	50.00	0	86.0	52	129				
1,2-Dichloropropane	41	1.0	50.00	0	81.4	58	124				
1,3-Dichlorobenzene	43	1.0	50.00	0	85.2	51	124				
1,4-Dichlorobenzene	41	1.0	50.00	0	81.7	54	128				
2-Chloroethyl vinyl ether	42	1.0	50.00	0	83.9	25	141				
Benzene	41	1.0	50.00	0	82.1	53	131				
Bromodichloromethane	42	1.0	50.00	0	83.9	54	126				
Bromoform	46	1.0	50.00	0	91.4	53	127				
Bromomethane	42	1.0	50.00	0	84.7	42	150				C
Carbon tetrachloride	45	1.0	50.00	0	89.5	46	135				
Chlorobenzene	44	1.0	50.00	0	87.4	53	121				
Chloroethane	45	1.0	50.00	0	89.7	40	145				C
Chloroform	42	1.0	50.00	0	83.3	41	135				
Chloromethane	42	1.0	50.00	0	84.0	32	149				
cis-1,3-Dichloropropene	40	1.0	50.00	0	80.7	46	128				
Dibromochloromethane	44	1.0	50.00	0	87.5	42	124				
Ethylbenzene	44	1.0	50.00	0	88.6	52	135				
Methylene chloride	47	1.0	50.00	0	94.6	35	137				B
Tetrachloroethene	37	2.0	50.00	0	74.2	26	126				
Toluene	40	1.0	50.00	0	80.4	51	130				
trans-1,2-Dichloroethene	48	1.0	50.00	0	95.2	49	125				
trans-1,3-Dichloropropene	37	1.0	50.00	0	74.6	43	125				
Trichloroethene	43	1.0	50.00	0	86.0	47	127				
Trichlorofluoromethane	60	1.0	50.00	0	119	50	152				C
Vinyl chloride	48	1.0	50.00	0	96.0	50	149				

**Qualifiers:** B Analyte detected in the associated Method Blank  
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**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

**TestCode: Full8260\_W**

Sample ID: V624LCS-051812YW	SampType: LCS	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599
Client ID: LCSW	Batch ID: R63599	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896307

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	50		50.00		100	63	123				
Surr: Dibromofluoromethane	49		50.00		98.6	68	124				
Surr: Toluene-d8	48		50.00		96.5	67	125				

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599
Client ID: PBW	Batch ID: R63599	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896308

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	U	1.0									
1,1,1-Trichloroethane	U	1.0									
1,1,2,2-Tetrachloroethane	U	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	U	1.0									
1,1,2-Trichloroethane	U	1.0									
1,1-Dichloroethane	U	1.0									
1,1-Dichloroethene	U	1.0									
1,1-Dichloropropene	U	1.0									
1,2,3-Trichlorobenzene	U	1.0									
1,2,3-Trichloropropane	U	1.0									
1,2,4,5-Tetramethylbenzene	U	1.0									
1,2,4-Trichlorobenzene	U	1.0									
1,2,4-Trimethylbenzene	U	1.0									
1,2-Dibromo-3-chloropropane	U	2.0									
1,2-Dibromoethane	U	1.0									
1,2-Dichlorobenzene	U	1.0									
1,2-Dichloroethane	U	1.0									
1,2-Dichloropropane	U	1.0									
1,3,5-Trimethylbenzene	U	1.0									
1,3-Dichlorobenzene	U	1.0									
1,3-dichloropropane	U	1.0									
1,4-Dichlorobenzene	U	1.0									
1,4-Dioxane	U	1.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column  
 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599						
Client ID: PBW	Batch ID: R63599	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896308						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

2,2-Dichloropropane	U	1.0									
2-Butanone	U	2.5									
2-Chloroethyl vinyl ether	U	1.0									
2-Chlorotoluene	U	1.0									
2-Hexanone	U	2.5									
2-Propanol	U	1.0									
4-Chlorotoluene	U	1.0									
4-Isopropyltoluene	U	1.0									
4-Methyl-2-pentanone	U	2.5									
Acetone	U	5.0									
Acrolein	U	10									
Acrylonitrile	U	1.0									
Benzene	U	1.0									
Bromobenzene	U	1.0									
Bromochloromethane	U	1.0									
Bromodichloromethane	U	1.0									
Bromoform	U	1.0									C
Bromomethane	U	1.0									
Carbon disulfide	U	1.0									
Carbon tetrachloride	U	1.0									
Chlorobenzene	U	1.0									
Chlorodifluoromethane	U	1.0									C
Chloroethane	U	1.0									
Chloroform	U	1.0									
Chloromethane	U	1.0									
cis-1,2-Dichloroethene	U	1.0									
cis-1,3-Dichloropropene	U	1.0									
Dibromochloromethane	U	1.0									
Dibromomethane	U	1.0									
Dichlorodifluoromethane	U	1.0									C
Diisopropyl ether	U	1.0									

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 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Full8260\_W

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599						
Client ID: PBW	Batch ID: R63599	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896308						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethanol	U	5.0									
Ethyl acetate	U	1.0									
Ethylbenzene	U	1.0									
Freon-114	U	1.0									
Hexachlorobutadiene	U	1.0									
Isopropyl acetate	U	2.0									
Isopropylbenzene	U	1.0									
m,p-Xylene	U	2.0									
Methyl Acetate	U	2.0									
Methyl tert-butyl ether	U	1.0									
Methylene chloride	3.8	1.0									
n-Amyl acetate	U	1.0									
Naphthalene	U	1.0									
n-Butyl acetate	U	2.0									
n-Butylbenzene	U	1.0									
n-Propyl acetate	U	1.0									
n-Propylbenzene	U	1.0									
o-Xylene	U	1.0									
p-Diethylbenzene	U	1.0									
p-Ethyltoluene	U	1.0									
sec-Butylbenzene	U	1.0									
Styrene	U	1.0									
t-Butyl alcohol	U	2.0									
tert-Butylbenzene	U	1.0									
Tetrachloroethene	U	2.0									
Toluene	U	1.0									
trans-1,2-Dichloroethene	U	1.0									
trans-1,3-Dichloropropene	U	1.0									
Trichloroethene	U	1.0									
Trichlorofluoromethane	U	1.0									
Vinyl acetate	U	1.0									

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD%D exceeded for non-CCC analytes H Holding times for preparation or analysis  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599						
Client ID: PBW	Batch ID: R63599	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896308						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	U	1.0									
Surr: 4-Bromofluorobenzene	50		50.00		100	63	123				
Surr: Dibromofluoromethane	48		50.00		96.4	68	124				
Surr: Toluene-d8	49		50.00		97.5	67	125				

Sample ID: V624LCS-051812YW	SampType: LCS	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599						
Client ID: LCSW	Batch ID: R63599A	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896311						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane	43	1.0	50.00	0	86.3	38	136				
1,1,2,2-Tetrachloroethane	40	1.0	50.00	0	79.6	50	124				
1,1,2-Trichloroethane	41	1.0	50.00	0	82.5	52	128				
1,1-Dichloroethane	38	1.0	50.00	0	76.6	55	123				
1,1-Dichloroethene	47	1.0	50.00	0	94.7	48	128				
1,2-Dichlorobenzene	40	1.0	50.00	0	79.6	59	123				
1,2-Dichloroethane	44	1.0	50.00	0	87.1	52	129				
1,2-Dichloropropane	39	1.0	50.00	0	77.8	58	124				
1,3-Dichlorobenzene	40	1.0	50.00	0	79.6	51	124				
1,4-Dichlorobenzene	39	1.0	50.00	0	78.2	54	128				
2-Chloroethyl vinyl ether	36	1.0	50.00	0	71.9	25	141				
Benzene	38	1.0	50.00	0	76.7	53	131				
Bromodichloromethane	40	1.0	50.00	0	79.1	54	126				
Bromoform	43	1.0	50.00	0	85.8	53	127				
Bromomethane	43	1.0	50.00	0	86.3	42	150				C
Carbon tetrachloride	44	1.0	50.00	0	87.4	46	135				
Chlorobenzene	41	1.0	50.00	0	81.2	53	121				
Chloroethane	44	1.0	50.00	0	87.1	40	145				C
Chloroform	39	1.0	50.00	0	78.9	41	135				
Chloromethane	40	1.0	50.00	0	80.5	32	149				
cis-1,3-Dichloropropene	39	1.0	50.00	0	78.4	46	128				
Dibromochloromethane	44	1.0	50.00	0	87.5	42	124				

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 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: V624LCS-051812YW	SampType: LCS	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599
Client ID: LCSW	Batch ID: R63599A	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896311

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	42	1.0	50.00	0	83.2	52	135				
Methylene chloride	39	1.0	50.00	0	78.0	35	137				B
Tetrachloroethene	37	2.0	50.00	0	74.5	26	126				
Toluene	39	1.0	50.00	0	78.8	51	130				
trans-1,2-Dichloroethene	41	1.0	50.00	0	81.7	49	125				
trans-1,3-Dichloropropene	36	1.0	50.00	0	71.5	43	125				
Trichloroethene	40	1.0	50.00	0	80.4	47	127				
Trichlorofluoromethane	59	1.0	50.00	0	117	50	152				
Vinyl chloride	46	1.0	50.00	0	92.4	50	149				
Surr: 4-Bromofluorobenzene	50		50.00		99.0	63	123				
Surr: Dibromofluoromethane	53		50.00		106	68	124				
Surr: Toluene-d8	50		50.00		99.6	67	125				

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599
Client ID: PBW	Batch ID: R63599A	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896312

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	U	1.0									
1,1,1-Trichloroethane	U	1.0									
1,1,2,2-Tetrachloroethane	U	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	U	1.0									
1,1,2-Trichloroethane	U	1.0									
1,1-Dichloroethane	U	1.0									
1,1-Dichloroethene	U	1.0									
1,1-Dichloropropene	U	1.0									
1,2,3-Trichlorobenzene	U	1.0									
1,2,3-Trichloropropane	U	1.0									
1,2,4,5-Tetramethylbenzene	U	1.0									
1,2,4-Trichlorobenzene	U	1.0									
1,2,4-Trimethylbenzene	U	1.0									
1,2-Dibromo-3-chloropropane	U	2.0									

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 PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits  
 U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Full8260\_W

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RunNo: 63599
Client ID: PBW	Batch ID: R63599A	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896312

Analyte	Result	PQL	SPK value	SPK Ref Val	Units: µg/L	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	U	1.0										
1,2-Dichlorobenzene	U	1.0										
1,2-Dichloroethane	U	1.0										
1,2-Dichloropropane	U	1.0										
1,3,5-Trimethylbenzene	U	1.0										
1,3-Dichlorobenzene	U	1.0										
1,3-dichloropropane	U	1.0										
1,4-Dichlorobenzene	U	1.0										
1,4-Dioxane	U	1.0										
2,2-Dichloropropane	U	1.0										
2-Butanone	U	2.5										
2-Chloroethyl vinyl ether	U	1.0										
2-Chlorotoluene	U	1.0										
2-Hexanone	U	2.5										
2-Propanol	U	1.0										
4-Chlorotoluene	U	1.0										
4-Isopropyltoluene	U	1.0										
4-Methyl-2-pentanone	U	2.5										
Acetone	U	5.0										
Acrolein	U	10										
Acrylonitrile	U	1.0										
Benzene	U	1.0										
Bromobenzene	U	1.0										
Bromochloromethane	U	1.0										
Bromodichloromethane	U	1.0										
Bromoform	U	1.0										
Bromomethane	U	1.0										
Carbon disulfide	U	1.0										
Carbon tetrachloride	U	1.0										
Chlorobenzene	U	1.0										
Chlorodifluoromethane	U	1.0										

C

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CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 5/18/2012	RumNo: 63599						
Client ID: PBW	Batch ID: R63599A	TestNo: SW8260C		Analysis Date: 5/18/2012	SeqNo: 896312						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloroethane	U	1.0									C
Chloroform	U	1.0									
Chloromethane	U	1.0									
cis-1,2-Dichloroethene	U	1.0									
cis-1,3-Dichloropropene	U	1.0									
Dibromochloromethane	U	1.0									
Dibromomethane	U	1.0									
Dichlorodifluoromethane	U	1.0									C
Diisopropyl ether	U	1.0									
Ethanol	U	5.0									
Ethyl acetate	U	1.0									
Ethylbenzene	U	1.0									
Freon-114	U	1.0									
Hexachlorobutadiene	U	1.0									
Isopropyl acetate	U	2.0									
Isopropylbenzene	U	1.0									
m,p-Xylene	U	2.0									
Methyl Acetate	U	2.0									
Methyl tert-butyl ether	U	1.0									
Methylene chloride	4.6	1.0									
n-Amyl acetate	U	1.0									
Naphthalene	U	1.0									
n-Butyl acetate	U	2.0									
n-Butylbenzene	U	1.0									
n-Propyl acetate	U	1.0									
n-Propylbenzene	U	1.0									
o-Xylene	U	1.0									
p-Diethylbenzene	U	1.0									
p-Ethyltoluene	U	1.0									
sec-Butylbenzene	U	1.0									
Styrene	U	1.0									

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analysis  
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# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** Full8260\_W

Sample ID: VBLK-051812YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L
Client ID: PBW	Batch ID: R63599A	Prep Date: 5/18/2012	RunNo: 63599
Analyte	Result	Analysis Date: 5/18/2012	SeqNo: 896312
		%REC	LowLimit
		HighLimit	RPD Ref Val
		%RPD	RPDLimit
			Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
t-Butyl alcohol	U	2.0									
tert-Butylbenzene	U	1.0									
Tetrachloroethene	U	2.0									
Toluene	U	1.0									
trans-1,2-Dichloroethene	U	1.0									
trans-1,3-Dichloropropene	U	1.0									
Trichloroethene	U	1.0									
Trichlorofluoromethane	U	1.0									
Vinyl acetate	U	1.0									
Vinyl chloride	U	1.0									
Surr: 4-Bromofluorobenzene	50		50.00		100	63				123	
Surr: Dibromofluoromethane	50		50.00		101	68				124	
Surr: Toluene-d8	48		50.00		96.6	67				125	

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD%D exceeded for non-CCC analytes H Holding times for preparation or analy  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** HG\_D

Sample ID: MB052212D	SampType: MBLK	TestCode: HG_D	Units: mg/L	Prep Date:	RunNo: 63562						
Client ID: PBW	Batch ID: 35901	TestNo: E245.1	SW3005A	Analysis Date: 5/22/2012	SeqNo: 895561						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	U	0.000200									

Sample ID: LCS052212D	SampType: LCS	TestCode: HG_D	Units: mg/L	Prep Date:	RunNo: 63562						
Client ID: LCSW	Batch ID: 35901	TestNo: E245.1	SW3005A	Analysis Date: 5/22/2012	SeqNo: 895562						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00407	0.000200	0.004000	0	102	76	122				

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analy  
J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159

**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** HG\_W

Sample ID: MBW052212A	SampType: MBLK	TestCode: HG_W	Units: mg/L	Prep Date:	RunNo: 63569
Client ID: PBW	Batch ID: R63569	TestNo: E245.1		Analysis Date: 5/22/2012	SeqNo: 895713
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
	U	0.000200			
				LowLimit	HighLimit
				RPD Ref Val	RPDlimit
					Qual

Mercury

Sample ID: LCSW052212A	SampType: LCS	TestCode: HG_W	Units: mg/L	Prep Date:	RunNo: 63569
Client ID: LCSW	Batch ID: R63569	TestNo: E245.1		Analysis Date: 5/22/2012	SeqNo: 895714
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
	0.00433	0.000200	0.004000	0	108
				76	122
				LowLimit	HighLimit
				RPD Ref Val	RPDlimit
					Qual

Mercury

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analysis  
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CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159  
 Project: 224-01 Merrick Blvd., Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: ICP\_TAL\_D

Sample ID: PBW051812AD	SampType: MBLK	TestCode: ICP_TAL_D	Units: mg/L	Prep Date:	RunNo: 63570						
Client ID: PBW	Batch ID: 35901	TestNo: E200.7	SW3005A	Analysis Date: 5/21/2012	SeqNo: 895745						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	U	0.0200									
Antimony	U	0.0200									
Arsenic	U	0.0250									
Barium	U	0.0200									
Beryllium	U	0.0200									
Cadmium	U	0.0100									
Calcium	U	0.0250									
Chromium	U	0.0200									
Cobalt	U	0.0200									
Copper	U	0.0200									
Iron	U	0.0200									
Lead	U	0.0150									
Magnesium	U	0.0200									
Manganese	U	0.0200									
Nickel	U	0.0200									
Potassium	U	0.100									
Selenium	U	0.0250									
Silver	U	0.0200									
Sodium	U	0.0300									
Thallium	U	0.0150									
Vanadium	U	0.0200									
Zinc	U	0.0200									

Sample ID: LCSW051812AD	SampType: LCS	TestCode: ICP_TAL_D	Units: mg/L	Prep Date: 5/17/2012	RunNo: 63570						
Client ID: LCSW	Batch ID: 35901	TestNo: E200.7	SW3005A	Analysis Date: 5/21/2012	SeqNo: 895746						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	1.97	0.0200	2.000	0	98.5	85	115				
Antimony	2.03	0.0200	2.000	0	102	85	115				
Arsenic	2.01	0.0250	2.000	0	100	85	115				
Barium	2.05	0.0200	2.000	0	102	85	115				

**Qualifiers:** B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analyte  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode: ICP\_TAL\_D**

Sample ID: LCSW051812AD	SampType: LCS	TestCode: ICP_TAL_D	Units: mg/L	Prep Date: 5/17/2012	RunNo: 63570
Client ID: LCSW	Batch ID: 35901	TestNo: E200.7	SW3005A	Analysis Date: 5/21/2012	SeqNo: 895746

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	2.03	0.0200	2.000	0	102	85	115				
Cadmium	2.06	0.0100	2.000	0	103	85	115				
Calcium	2.01	0.0250	2.000	0	101	85	115				
Chromium	2.08	0.0200	2.000	0	104	85	115				
Cobalt	2.06	0.0200	2.000	0	103	85	115				
Copper	2.04	0.0200	2.000	0	102	85	115				
Iron	2.05	0.0200	2.000	0	103	85	115				
Lead	2.06	0.0150	2.000	0	103	85	115				
Magnesium	1.94	0.0200	2.000	0	97.2	85	115				
Manganese	2.03	0.0200	2.000	0	101	85	115				
Nickel	2.04	0.0200	2.000	0	102	85	115				
Potassium	19.8	0.100	20.00	0	99.1	85	115				
Selenium	2.01	0.0250	2.000	0	101	85	115				
Silver	2.02	0.0200	2.000	0	101	85	115				
Sodium	2.09	0.0300	2.000	0	104	85	115				
Thallium	2.12	0.0150	2.000	0	106	85	115				
Vanadium	2.04	0.0200	2.000	0	102	85	115				
Zinc	2.04	0.0200	2.000	0	102	85	115				

**Qualifiers:** B Analyte detected in the associated Method Blank  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 C Calibration %RSD/%D exceeded for non-CCC analytes  
 P >40% diff for detected conc between the two GC column  
 S Spike Recovery outside accepted recovery limits  
 H Holding times for preparation or analy  
 PQL Practical Quantitation Limit  
 U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode:** ICP\_TAL\_W

Sample ID: MBW052212A	SampType: MBLK	TestCode: ICP_TAL_W	Units: mg/L	Prep Date: 5/22/2012	RunNo: 63605						
Client ID: PBW	Batch ID: 35942	TestNo: E200.7	SW3010A	Analysis Date: 5/24/2012	SeqNo: 896586						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	U	0.0200									
Antimony	U	0.0200									
Arsenic	U	0.0250									
Barium	U	0.0200									
Beryllium	U	0.0200									
Cadmium	U	0.0100									
Calcium	U	0.0250									
Chromium	U	0.0200									
Cobalt	U	0.0200									
Copper	U	0.0200									
Iron	U	0.0200									
Lead	U	0.0150									
Magnesium	U	0.0200									
Manganese	U	0.0200									
Nickel	U	0.0200									
Potassium	U	0.100									
Selenium	U	0.0250									
Silver	U	0.0200									
Sodium	U	0.0300									
Thallium	U	0.0150									
Vanadium	U	0.0200									
Zinc	U	0.0200									

Sample ID: LCSW052212A	SampType: LCS	TestCode: ICP_TAL_W	Units: mg/L	Prep Date: 5/22/2012	RunNo: 63605						
Client ID: LCSW	Batch ID: 35942	TestNo: E200.7	SW3010A	Analysis Date: 5/24/2012	SeqNo: 896586						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Aluminum	2.01	0.0200	2.000	0	100	85	115				
Antimony	1.89	0.0200	2.000	0	94.6	85	115				
Arsenic	2.16	0.0250	2.000	0	108	85	115				
Barium	1.98	0.0200	2.000	0	99.0	85	115				

**Qualifiers:** B Analyte detected in the associated Method Blank    C Calibration %RSD/%D exceeded for non-CCC analytes    H Holding times for preparation or analyte  
 J Analyte detected below quantitation limits    P >40% diff for detected conc between the two GC column    PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits    S Spike Recovery outside accepted recovery limits    U Indicates the compound was analyzed

# ANALYTICAL QC SUMMARY REPORT

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1205159  
**Project:** 224-01 Merrick Blvd., Queens, NY

**TestCode: ICP\_TAL\_W**

Sample ID: LCSW052212A	SampType: LCS	TestCode: ICP_TAL_W	Units: mg/L	Prep Date: 5/22/2012	RunNo: 63605
Client ID: LCSW	Batch ID: 35942	TestNo: E200.7	SW3010A	Analysis Date: 5/24/2012	SeqNo: 896586

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	1.93	0.0200	2.000	0	96.6	85	115				
Cadmium	2.00	0.0100	2.000	0	100	85	115				
Calcium	1.91	0.0250	2.000	0	95.7	85	115				
Chromium	2.04	0.0200	2.000	0	102	85	115				
Cobalt	1.99	0.0200	2.000	0	99.6	85	115				
Copper	1.96	0.0200	2.000	0	98.0	85	115				
Iron	1.96	0.0200	2.000	0	98.0	85	115				
Lead	2.02	0.0150	2.000	0	101	85	115				
Magnesium	1.88	0.0200	2.000	0	94.0	85	115				
Manganese	1.96	0.0200	2.000	0	98.2	85	115				
Nickel	2.05	0.0200	2.000	0	103	85	115				
Potassium	18.1	0.100	20.00	0	90.4	85	115				
Selenium	2.04	0.0250	2.000	0	102	85	115				
Silver	1.93	0.0200	2.000	0	96.6	85	115				
Sodium	2.01	0.0300	2.000	0	101	85	115				
Thallium	1.97	0.0150	2.000	0	98.7	85	115				
Vanadium	1.97	0.0200	2.000	0	98.4	85	115				
Zinc	2.00	0.0200	2.000	0	100	85	115				

**Qualifiers:** B Analyte detected in the associated Method Blank    C Calibration %RSD/%D exceeded for non-CCC analytes    H Holding times for preparation or analy  
 J Analyte detected below quantitation limits    P >40% diff for detected conc between the two GC column    PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits    S Spike Recovery outside accepted recovery limits    U Indicates the compound was analyzed

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1205159

Project: 224-01 Merrick Blvd., Queens, NY

ANALYTICAL QC SUMMARY REPORT

TestCode: HG\_D

Sample ID: 1205159-03F-MS	SampType: MS	TestCode: HG_D	Units: mg/L	Prep Date:	RunNo: 63562						
Client ID: MW-3	Batch ID: 35901	TestNo: E245.1	SW3005A	Analysis Date: 5/22/2012	SeqNo: 895566						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00505	0.000200	0.004000	0.001080	99.3	64.75	124				
Sample ID: 1205159-03F-MSD	SampType: MSD	TestCode: HG_D	Units: mg/L	Prep Date:	RunNo: 63562						
Client ID: MW-3	Batch ID: 35901	TestNo: E245.1	SW3005A	Analysis Date: 5/22/2012	SeqNo: 895566						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00511	0.000200	0.004000	0.001080	101	75	124				

Qualifiers: B Analyte detected in the associated Method Blank C Calibration %RSD/%D exceeded for non-CCC analytes H Holding times for preparation or analy  
 J Analyte detected below quantitation limits P >40% diff for detected conc between the two GC column PQL Practical Quantitation Limit  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits U Indicates the compound was analyzed

**DATA PACKAGE**

VOLATILE ORGANICS

**PROJECT NAME : KOPTD 12-02-224MERRICK BLVD. QNS NY****J.R.HOLZMACHER P.E., LLC****300 Wheeler Avenue****Suite 402****Hauppauge, NY - 11788****Phone No: 6312342220****ORDER ID : D2545****ATTENTION : Heather Sonnenberg****DoD ELAP**

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## Cover Page

**Order ID :** D2545

**Project ID :** KoptD 12-02-224Merrick Blvd. Qns NY

**Client :** J.R.Holzmacher P.E., LLC

**Lab Sample Number**

D2545-01  
D2545-02  
D2545-03

**Client Sample Number**

VP-1  
VP-2  
VP-3

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : \_\_\_\_\_

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
<b>U</b>	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>J</b>	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
<b>B</b>	Indicates the analyte was found in the blank as well as the sample report as "12 B".
<b>E</b>	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
<b>N</b>	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
<b>A</b>	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements

## CASE NARRATIVE

**J.R.Holzmacher P.E., LLC**

**Project Name: KoptD 12-02-224Merrick Blvd. Qns NY**

**Project # N/A**

**Chemtech Project # D2545**

**Test Name: TO-15**

**A. Number of Samples and Date of Receipt:**

3 Air samples were received on 05/04/2012.

**B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SUMMA Canister Rental and TO-15. This data package contains results for TO-15.

**C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator. The analysis of TO-15 was based on method TO-15.

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The Blank Spike met requirements for all samples .

The Initial Calibration met the requirements .

The Tuning criteria met requirements.

Samples VP-1, VP-2 and VP-3 were diluted due to high concentrations.

**E. Additional Comments:**

**F. Manual Integration Comments:**

---

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature \_\_\_\_\_

**APPENDIX A****QA REVIEW GENERAL DOCUMENTATION**

Project #: D2545

Completed

---

For thorough review, the report must have the following:

**GENERAL:**

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page) 

Check chain-of-custody for proper relinquish/return of samples 

Is the chain of custody signed and complete 

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts 

Collect information for each project id from server. Were all requirements followed 

**COVER PAGE:**

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page 

Do lab numbers and client Ids on cover page agree with the Chain of Custody 

**CHAIN OF CUSTODY:**

Do requested analyses on Chain of Custody agree with form I results 

Do requested analyses on Chain of Custody agree with the log-in page 

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody 

Were the samples received within hold time 

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle 

**ANALYTICAL:**

Was method requirement followed? 

Was client requirement followed? 

Does the case narrative summarize all QC failure? 

All runlogs and manual integration are reviewed for requirements 

All manual calculations and /or hand notations verified 

---

1st Level QA Review Signature: PRIYANKA PATEL

Date: 05/24/2012

2nd Level QA Review Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**QA/QC DELIVERABLES CHECKLIST**

Project Number : D2545

**THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.**

**The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.**

	Yes	No
I. Report Cover Page, Laboratory Certification and Field Sample To Lab Sample ID Cross Reference	<input checked="" type="checkbox"/>	<input type="checkbox"/>
II. Table of Content Table of Content s	<input checked="" type="checkbox"/>	<input type="checkbox"/>
III. Chain of Custody Documents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IV. Methodology Summaries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
V. Laboratory Chronicle and Hoeld Checks Time Checks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VI. Case Narrative	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VII. Tabulated Analytical Results	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIII. Initial and Continuing Calibration Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IX. Tune and Internal Standard Area Summaries (GC/MS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
X. Quality Control Summary Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XI. Surrogate Recovery Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XII. Raw Data Chromatogram, Blank Samples and QC when applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XIII. Subcontract Data	<input type="checkbox"/>	<input checked="" type="checkbox"/>

QA/QC Data Reviewer

Date: 05/24/2012

NJDEP Certification No. 20012

NYSDOH Certification No. 11376

**LAB CHRONICLE**

<b>OrderID:</b> D2545	<b>OrderDate:</b> 5/4/2012 11:14:16 AM
<b>Client:</b> J.R.Holzmacher P.E., LLC	<b>Project:</b> KoptD 12-02-224Merrick Blvd. Qns NY
<b>Contact:</b> Heather Sonnenberg	<b>Location:</b> Air Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
D2545-01	VP-1	AIR	TO-15	TO-15	05/03/12		05/06/12	05/04/12
D2545-01DL	VP-1DL	AIR	TO-15	TO-15	05/03/12		05/06/12	05/04/12
D2545-02	VP-2	AIR	TO-15	TO-15	05/03/12		05/06/12	05/04/12
D2545-02DL	VP-2DL	AIR	TO-15	TO-15	05/03/12		05/06/12	05/04/12
D2545-03	VP-3	AIR	TO-15	TO-15	05/03/12		05/06/12	05/04/12
D2545-03DL	VP-3DL	AIR	TO-15	TO-15	05/03/12		05/06/12	05/04/12

**Hit Summary Sheet**  
SW-846

SDG No.: D2545

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
<b>Client ID: VP-1</b>									
D2545-01	VP-1	AIR	Dichlorodifluoromethane	0.31	J	0.040	0.25	0.50	ppbv
D2545-01	VP-1	AIR	tert-Butyl alcohol	6.40		0.100	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Chloromethane	0.19	J	0.060	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Trichlorofluoromethane	0.19	J	0.040	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Heptane	2.20		0.060	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Acetone	49.00	E	0.100	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Carbon Disulfide	0.22	J	0.050	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Methylene Chloride	2.00		0.050	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Cyclohexane	0.28	J	0.080	0.25	0.50	ppbv
D2545-01	VP-1	AIR	2-Butanone	4.00		0.100	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Carbon Tetrachloride	0.05	J	0.030	0.03	0.06	ppbv
D2545-01	VP-1	AIR	Chloroform	0.24	J	0.020	0.25	0.50	ppbv
D2545-01	VP-1	AIR	1,1,1-Trichloroethane	0.04	J	0.030	0.03	0.06	ppbv
D2545-01	VP-1	AIR	Tetrahydrofuran	0.70		0.080	0.25	0.50	ppbv
D2545-01	VP-1	AIR	2,2,4-Trimethylpentane	1.30		0.040	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Benzene	0.88		0.040	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Trichloroethene	0.09		0.030	0.03	0.06	ppbv
D2545-01	VP-1	AIR	4-Methyl-2-Pentanone	0.55		0.060	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Toluene	12.00		0.050	0.25	0.50	ppbv
D2545-01	VP-1	AIR	Tetrachloroethene	60.00	E	0.030	0.03	0.06	ppbv
D2545-01	VP-1	AIR	Ethyl Benzene	2.40		0.080	0.25	0.50	ppbv
D2545-01	VP-1	AIR	m/p-Xylene	7.90		0.110	0.5	1.0	ppbv
D2545-01	VP-1	AIR	o-Xylene	2.50		0.070	0.25	0.50	ppbv
D2545-01	VP-1	AIR	1,3,5-Trimethylbenzene	0.66		0.090	0.25	0.50	ppbv
D2545-01	VP-1	AIR	1,2,4-Trimethylbenzene	2.10		0.100	0.25	0.50	ppbv
D2545-01	VP-1	AIR	4-Ethyltoluene	1.30		0.080	0.25	0.50	ppbv
<b>Total Voc :</b>					<b>157.50</b>				
<b>Total Concentration:</b>					<b>157.50</b>				
<b>Client ID: VP-1DL</b>									
D2545-01DL	VP-1DL	AIR	tert-Butyl alcohol	6.30	D	1.0	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	Heptane	1.20	JD	0.600	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	Acetone	66.00	D	1.0	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	Methylene Chloride	3.20	JD	0.500	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	2-Butanone	2.60	JD	1.0	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	Toluene	7.10	D	0.500	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	Tetrachloroethene	37.00	D	0.300	0.3	0.60	ppbv
D2545-01DL	VP-1DL	AIR	Ethyl Benzene	1.60	JD	0.800	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	m/p-Xylene	5.30	JD	1.1	5	10	ppbv

**Hit Summary Sheet**  
SW-846

SDG No.: D2545

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D2545-01DL	VP-1DL	AIR	o-Xylene	1.90	JD	0.700	2.5	5.0	ppbv
D2545-01DL	VP-1DL	AIR	1,2,4-Trimethylbenzene	1.50	JD	1.0	2.5	5.0	ppbv
<b>Total Voc :</b>					<b>133.70</b>				
<b>Total Concentration:</b>					<b>133.70</b>				
<b>Client ID:</b>	<b>VP-2</b>								
D2545-02	VP-2	AIR	Dichlorodifluoromethane	0.35	J	0.040	0.25	0.50	ppbv
D2545-02	VP-2	AIR	tert-Butyl alcohol	4.10		0.100	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Chloromethane	0.10	J	0.060	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Trichlorofluoromethane	0.21	J	0.040	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Heptane	1.60		0.060	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Acetone	31.00	E	0.100	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Carbon Disulfide	0.55		0.050	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Methylene Chloride	1.50		0.050	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Cyclohexane	0.33	J	0.080	0.25	0.50	ppbv
D2545-02	VP-2	AIR	2-Butanone	2.10		0.100	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Carbon Tetrachloride	0.03	J	0.030	0.03	0.06	ppbv
D2545-02	VP-2	AIR	Chloroform	0.89		0.020	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Tetrahydrofuran	0.45	J	0.080	0.25	0.50	ppbv
D2545-02	VP-2	AIR	2,2,4-Trimethylpentane	0.92		0.040	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Benzene	0.79		0.040	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Trichloroethene	0.06	J	0.030	0.03	0.06	ppbv
D2545-02	VP-2	AIR	4-Methyl-2-Pentanone	0.37	J	0.060	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Toluene	8.80		0.050	0.25	0.50	ppbv
D2545-02	VP-2	AIR	Tetrachloroethene	34.00	E	0.030	0.03	0.06	ppbv
D2545-02	VP-2	AIR	Ethyl Benzene	2.30		0.080	0.25	0.50	ppbv
D2545-02	VP-2	AIR	m/p-Xylene	7.70		0.110	0.5	1.0	ppbv
D2545-02	VP-2	AIR	o-Xylene	2.50		0.070	0.25	0.50	ppbv
D2545-02	VP-2	AIR	1,3,5-Trimethylbenzene	0.72		0.090	0.25	0.50	ppbv
D2545-02	VP-2	AIR	1,2,4-Trimethylbenzene	2.50		0.100	0.25	0.50	ppbv
D2545-02	VP-2	AIR	4-Ethyltoluene	1.30		0.080	0.25	0.50	ppbv
<b>Total Voc :</b>					<b>105.17</b>				
<b>Total Concentration:</b>					<b>105.17</b>				
<b>Client ID:</b>	<b>VP-2DL</b>								
D2545-02DL	VP-2DL	AIR	tert-Butyl alcohol	3.90	JD	1.0	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	Acetone	37.00	D	1.0	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	Methylene Chloride	2.70	JD	0.500	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	2-Butanone	1.60	JD	1.0	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	Toluene	5.80	D	0.500	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	Tetrachloroethene	26.00	D	0.300	0.3	0.60	ppbv

**Hit Summary Sheet**  
SW-846

SDG No.: D2545

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D2545-02DL	VP-2DL	AIR	Ethyl Benzene	1.60	JD	0.800	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	m/p-Xylene	5.40	JD	1.1	5	10	ppbv
D2545-02DL	VP-2DL	AIR	o-Xylene	1.90	JD	0.700	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	1,2,4-Trimethylbenzene	1.80	JD	1.0	2.5	5.0	ppbv
D2545-02DL	VP-2DL	AIR	4-Ethyltoluene	1.00	JD	0.800	2.5	5.0	ppbv
<b>Total Voc :</b>						<b>88.70</b>			
<b>Total Concentration:</b>						<b>88.70</b>			
<b>Client ID:</b>	<b>VP-3</b>								
D2545-03	VP-3	AIR	Dichlorodifluoromethane	0.41	J	0.040	0.25	0.50	ppbv
D2545-03	VP-3	AIR	tert-Butyl alcohol	5.60		0.100	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Trichlorofluoromethane	0.24	J	0.040	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Heptane	1.80		0.060	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Acetone	41.00	E	0.100	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Carbon Disulfide	0.23	J	0.050	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Methylene Chloride	1.50		0.050	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Cyclohexane	0.40	J	0.080	0.25	0.50	ppbv
D2545-03	VP-3	AIR	2-Butanone	2.30		0.100	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Carbon Tetrachloride	0.04	J	0.030	0.03	0.06	ppbv
D2545-03	VP-3	AIR	Chloroform	2.10		0.020	0.25	0.50	ppbv
D2545-03	VP-3	AIR	1,1,1-Trichloroethane	0.04	J	0.030	0.03	0.06	ppbv
D2545-03	VP-3	AIR	Tetrahydrofuran	0.50	J	0.080	0.25	0.50	ppbv
D2545-03	VP-3	AIR	2,2,4-Trimethylpentane	1.20		0.040	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Benzene	0.92		0.040	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Trichloroethene	0.18		0.030	0.03	0.06	ppbv
D2545-03	VP-3	AIR	4-Methyl-2-Pentanone	0.51		0.060	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Toluene	9.40		0.050	0.25	0.50	ppbv
D2545-03	VP-3	AIR	Tetrachloroethene	45.00	E	0.030	0.03	0.06	ppbv
D2545-03	VP-3	AIR	Ethyl Benzene	2.30		0.080	0.25	0.50	ppbv
D2545-03	VP-3	AIR	m/p-Xylene	7.40		0.110	0.5	1.0	ppbv
D2545-03	VP-3	AIR	o-Xylene	2.30		0.070	0.25	0.50	ppbv
D2545-03	VP-3	AIR	1,3,5-Trimethylbenzene	0.62		0.090	0.25	0.50	ppbv
D2545-03	VP-3	AIR	1,2,4-Trimethylbenzene	2.00		0.100	0.25	0.50	ppbv
D2545-03	VP-3	AIR	4-Ethyltoluene	1.10		0.080	0.25	0.50	ppbv
<b>Total Voc :</b>						<b>129.09</b>			
<b>Total Concentration:</b>						<b>129.09</b>			
<b>Client ID:</b>	<b>VP-3DL</b>								
D2545-03DL	VP-3DL	AIR	tert-Butyl alcohol	5.70	D	1.0	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	Heptane	1.00	JD	0.600	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	Acetone	56.00	D	1.0	2.5	5.0	ppbv

**Hit Summary Sheet**  
SW-846SDG No.: D2545Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D2545-03DL	VP-3DL	AIR	Methylene Chloride	2.90	JD	0.500	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	2-Butanone	1.80	JD	1.0	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	Chloroform	2.10	JD	0.200	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	Toluene	6.60	D	0.500	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	Tetrachloroethene	38.00	D	0.300	0.3	0.60	ppbv
D2545-03DL	VP-3DL	AIR	Ethyl Benzene	1.60	JD	0.800	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	m/p-Xylene	5.40	JD	1.1	5	10	ppbv
D2545-03DL	VP-3DL	AIR	o-Xylene	1.90	JD	0.700	2.5	5.0	ppbv
D2545-03DL	VP-3DL	AIR	1,2,4-Trimethylbenzene	1.60	JD	1.0	2.5	5.0	ppbv
<b>Total Voc :</b>						<b>124.60</b>			
<b>Total Concentration:</b>						<b>124.60</b>			

**SAMPLE**  
**DATA**

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-1	SDG No.:	D2545
Lab Sample ID:	D2545-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017028.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.31	1.53	J	0.04	0.25	0.5	ppbv
75-65-0	tert-Butyl alcohol	6.4	19.4		0.1	0.25	0.5	ppbv
74-87-3	Chloromethane	0.19	0.39	J	0.06	0.25	0.5	ppbv
80-62-6	Methyl Methacrylate	0.25	1.02	U	0.1	0.25	0.5	ppbv
75-01-4	Vinyl Chloride	0.25	0.64	U	0.07	0.25	0.5	ppbv
74-83-9	Bromomethane	0.25	0.97	U	0.03	0.25	0.5	ppbv
75-00-3	Chloroethane	0.25	0.66	U	0.07	0.25	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.19	1.07	J	0.04	0.25	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.25	1.75	U	0.04	0.25	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	1.92	U	0.04	0.25	0.5	ppbv
593-60-2	Bromoethene	0.25	1.09	U	0.03	0.25	0.5	ppbv
142-82-5	Heptane	2.2	9.02		0.06	0.25	0.5	ppbv
75-35-4	1,1-Dichloroethene	0.25	0.99	U	0.05	0.25	0.5	ppbv
67-64-1	Acetone	49	116	E	0.1	0.25	0.5	ppbv
75-15-0	Carbon Disulfide	0.22	0.69	J	0.05	0.25	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.25	0.9	U	0.05	0.25	0.5	ppbv
75-09-2	Methylene Chloride	2	6.95		0.05	0.25	0.5	ppbv
107-05-1	Allyl Chloride	0.25	0.78	U	0.05	0.25	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.25	1.01	U	0.04	0.25	0.5	ppbv
110-82-7	Cyclohexane	0.28	0.96	J	0.08	0.25	0.5	ppbv
78-93-3	2-Butanone	4	11.8		0.1	0.25	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.05	0.31	J	0.03	0.03	0.06	ppbv
156-59-2	cis-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
67-66-3	Chloroform	0.24	1.17	J	0.02	0.25	0.5	ppbv
123-91-1	1,4-Dioxane	0.25	0.9	U	0.09	0.25	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.04	0.22	J	0.03	0.03	0.06	ppbv
109-99-9	Tetrahydrofuran	0.7	2.06		0.08	0.25	0.5	ppbv
540-84-1	2,2,4-Trimethylpentane	1.3	6.07		0.04	0.25	0.5	ppbv
71-43-2	Benzene	0.88	2.81		0.04	0.25	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.25	1.01	U	0.07	0.25	0.5	ppbv
79-01-6	Trichloroethene	0.09	0.48		0.03	0.03	0.06	ppbv
78-87-5	1,2-Dichloropropane	0.25	1.16	U	0.06	0.25	0.5	ppbv
75-27-4	Bromodichloromethane	0.25	1.67	U	0.05	0.25	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	0.55	2.25		0.06	0.25	0.5	ppbv
108-88-3	Toluene	12	45.2		0.05	0.25	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.25	1.13	U	0.07	0.25	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.25	1.13	U	0.06	0.25	0.5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-1	SDG No.:	D2545
Lab Sample ID:	D2545-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017028.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.25	1.36	U	0.08	0.25	0.5	ppbv
124-48-1	Dibromochloromethane	0.25	2.13	U	0.05	0.25	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.25	1.92	U	0.07	0.25	0.5	ppbv
127-18-4	Tetrachloroethane	60	406	E	0.03	0.03	0.06	ppbv
108-90-7	Chlorobenzene	0.25	1.15	U	0.09	0.25	0.5	ppbv
100-41-4	Ethyl Benzene	2.4	10.4		0.08	0.25	0.5	ppbv
179601-23-1	m/p-Xylene	7.9	34.3		0.11	0.5	1	ppbv
95-47-6	o-Xylene	2.5	10.9		0.07	0.25	0.5	ppbv
100-42-5	Styrene	0.25	1.06	U	0.07	0.25	0.5	ppbv
75-25-2	Bromoform	0.25	2.58	U	0.05	0.25	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.25	1.72	U	0.1	0.25	0.5	ppbv
95-49-8	2-Chlorotoluene	0.25	1.29	U	0.1	0.25	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.66	3.24		0.09	0.25	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	2.1	10.3		0.1	0.25	0.5	ppbv
622-96-8	4-Ethyltoluene	1.3	6.39		0.08	0.25	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.25	1.5	U	0.08	0.25	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.25	1.5	U	0.06	0.25	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.25	1.5	U	0.07	0.25	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.25	1.86	U	0.04	0.25	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.25	2.67	U	0.08	0.25	0.5	ppbv
106-99-0	1,3-Butadiene	0.25	0.55	U	0.09	0.25	0.5	ppbv
110-54-3	Hexane	0.25	0.88	U	0.04	0.25	0.5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	9.94			65 - 135		99%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2187390			6.37			
540-36-3	1,4-Difluorobenzene	5365820			7.93			
3114-55-4	Chlorobenzene-d5	6046860			12.91			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-1	SDG No.:	D2545
Lab Sample ID:	D2545-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017028.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-1DL	SDG No.:	D2545
Lab Sample ID:	D2545-01DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017031.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	2.5	12.4	U	0.4	2.5	5	ppbv
75-65-0	tert-Butyl alcohol	6.3	19.1	D	1	2.5	5	ppbv
74-87-3	Chloromethane	2.5	5.16	U	0.6	2.5	5	ppbv
80-62-6	Methyl Methacrylate	2.5	10.2	U	1	2.5	5	ppbv
75-01-4	Vinyl Chloride	2.5	6.39	U	0.7	2.5	5	ppbv
74-83-9	Bromomethane	2.5	9.71	U	0.3	2.5	5	ppbv
75-00-3	Chloroethane	2.5	6.6	U	0.7	2.5	5	ppbv
75-69-4	Trichlorofluoromethane	2.5	14.0	U	0.4	2.5	5	ppbv
76-14-2	Dichlorotetrafluoroethane	2.5	17.5	U	0.4	2.5	5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	19.2	U	0.4	2.5	5	ppbv
593-60-2	Bromoethene	2.5	10.9	U	0.3	2.5	5	ppbv
142-82-5	Heptane	1.2	4.92	JD	0.6	2.5	5	ppbv
75-35-4	1,1-Dichloroethene	2.5	9.91	U	0.5	2.5	5	ppbv
67-64-1	Acetone	66	156	D	1	2.5	5	ppbv
75-15-0	Carbon Disulfide	2.5	7.79	U	0.5	2.5	5	ppbv
1634-04-4	Methyl tert-Butyl Ether	2.5	9.01	U	0.5	2.5	5	ppbv
75-09-2	Methylene Chloride	3.2	11.1	JD	0.5	2.5	5	ppbv
107-05-1	Allyl Chloride	2.5	7.83	U	0.5	2.5	5	ppbv
156-60-5	trans-1,2-Dichloroethene	2.5	9.91	U	0.6	2.5	5	ppbv
75-34-3	1,1-Dichloroethane	2.5	10.1	U	0.4	2.5	5	ppbv
110-82-7	Cyclohexane	2.5	8.61	U	0.8	2.5	5	ppbv
78-93-3	2-Butanone	2.6	7.67	JD	1	2.5	5	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	U	0.3	0.3	0.6	ppbv
156-59-2	cis-1,2-Dichloroethene	2.5	9.91	U	0.6	2.5	5	ppbv
67-66-3	Chloroform	2.5	12.2	U	0.2	2.5	5	ppbv
123-91-1	1,4-Dioxane	2.5	9.01	U	0.9	2.5	5	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	U	0.3	0.3	0.6	ppbv
109-99-9	Tetrahydrofuran	2.5	7.37	U	0.8	2.5	5	ppbv
540-84-1	2,2,4-Trimethylpentane	2.5	11.7	U	0.4	2.5	5	ppbv
71-43-2	Benzene	2.5	7.99	U	0.4	2.5	5	ppbv
107-06-2	1,2-Dichloroethane	2.5	10.1	U	0.7	2.5	5	ppbv
79-01-6	Trichloroethene	0.3	1.61	U	0.3	0.3	0.6	ppbv
78-87-5	1,2-Dichloropropane	2.5	11.6	U	0.6	2.5	5	ppbv
75-27-4	Bromodichloromethane	2.5	16.8	U	0.5	2.5	5	ppbv
108-10-1	4-Methyl-2-Pentanone	2.5	10.2	U	0.6	2.5	5	ppbv
108-88-3	Toluene	7.1	26.8	D	0.5	2.5	5	ppbv
10061-02-6	t-1,3-Dichloropropene	2.5	11.4	U	0.7	2.5	5	ppbv
10061-01-5	cis-1,3-Dichloropropene	2.5	11.4	U	0.6	2.5	5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-1DL	SDG No.:	D2545
Lab Sample ID:	D2545-01DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017031.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	2.5	13.6	U	0.8	2.5	5	ppbv
124-48-1	Dibromochloromethane	2.5	21.3	U	0.5	2.5	5	ppbv
106-93-4	1,2-Dibromoethane	2.5	19.2	U	0.7	2.5	5	ppbv
127-18-4	Tetrachloroethene	37	250	D	0.3	0.3	0.6	ppbv
108-90-7	Chlorobenzene	2.5	11.5	U	0.9	2.5	5	ppbv
100-41-4	Ethyl Benzene	1.6	6.95	JD	0.8	2.5	5	ppbv
179601-23-1	m/p-Xylene	5.3	23.0	JD	1.1	5	10	ppbv
95-47-6	o-Xylene	1.9	8.25	JD	0.7	2.5	5	ppbv
100-42-5	Styrene	2.5	10.6	U	0.7	2.5	5	ppbv
75-25-2	Bromoform	2.5	25.8	U	0.5	2.5	5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	2.5	17.2	U	1	2.5	5	ppbv
95-49-8	2-Chlorotoluene	2.5	12.9	U	1	2.5	5	ppbv
108-67-8	1,3,5-Trimethylbenzene	2.5	12.3	U	0.9	2.5	5	ppbv
95-63-6	1,2,4-Trimethylbenzene	1.5	7.37	JD	1	2.5	5	ppbv
622-96-8	4-Ethyltoluene	2.5	12.3	U	0.8	2.5	5	ppbv
541-73-1	1,3-Dichlorobenzene	2.5	15.0	U	0.8	2.5	5	ppbv
106-46-7	1,4-Dichlorobenzene	2.5	15.0	U	0.6	2.5	5	ppbv
95-50-1	1,2-Dichlorobenzene	2.5	15.0	U	0.7	2.5	5	ppbv
120-82-1	1,2,4-Trichlorobenzene	2.5	18.6	U	0.4	2.5	5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	2.5	26.7	U	0.8	2.5	5	ppbv
106-99-0	1,3-Butadiene	2.5	5.53	U	0.9	2.5	5	ppbv
110-54-3	Hexane	2.5	8.81	U	0.4	2.5	5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	10			65 - 135		100%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2394120		6.37				
540-36-3	1,4-Difluorobenzene	8004300		7.93				
3114-55-4	Chlorobenzene-d5	7635890		12.91				

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-1DL	SDG No.:	D2545
Lab Sample ID:	D2545-01DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017031.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-2	SDG No.:	D2545
Lab Sample ID:	D2545-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017029.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.35	1.73	J	0.04	0.25	0.5	ppbv
75-65-0	tert-Butyl alcohol	4.1	12.4		0.1	0.25	0.5	ppbv
74-87-3	Chloromethane	0.1	0.21	J	0.06	0.25	0.5	ppbv
80-62-6	Methyl Methacrylate	0.25	1.02	U	0.1	0.25	0.5	ppbv
75-01-4	Vinyl Chloride	0.25	0.64	U	0.07	0.25	0.5	ppbv
74-83-9	Bromomethane	0.25	0.97	U	0.03	0.25	0.5	ppbv
75-00-3	Chloroethane	0.25	0.66	U	0.07	0.25	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.21	1.18	J	0.04	0.25	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.25	1.75	U	0.04	0.25	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	1.92	U	0.04	0.25	0.5	ppbv
593-60-2	Bromoethene	0.25	1.09	U	0.03	0.25	0.5	ppbv
142-82-5	Heptane	1.6	6.56		0.06	0.25	0.5	ppbv
75-35-4	1,1-Dichloroethene	0.25	0.99	U	0.05	0.25	0.5	ppbv
67-64-1	Acetone	31	73.6	E	0.1	0.25	0.5	ppbv
75-15-0	Carbon Disulfide	0.55	1.71		0.05	0.25	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.25	0.9	U	0.05	0.25	0.5	ppbv
75-09-2	Methylene Chloride	1.5	5.21		0.05	0.25	0.5	ppbv
107-05-1	Allyl Chloride	0.25	0.78	U	0.05	0.25	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.25	1.01	U	0.04	0.25	0.5	ppbv
110-82-7	Cyclohexane	0.33	1.14	J	0.08	0.25	0.5	ppbv
78-93-3	2-Butanone	2.1	6.19		0.1	0.25	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	J	0.03	0.03	0.06	ppbv
156-59-2	cis-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
67-66-3	Chloroform	0.89	4.35		0.02	0.25	0.5	ppbv
123-91-1	1,4-Dioxane	0.25	0.9	U	0.09	0.25	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.06	ppbv
109-99-9	Tetrahydrofuran	0.45	1.33	J	0.08	0.25	0.5	ppbv
540-84-1	2,2,4-Trimethylpentane	0.92	4.3		0.04	0.25	0.5	ppbv
71-43-2	Benzene	0.79	2.52		0.04	0.25	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.25	1.01	U	0.07	0.25	0.5	ppbv
79-01-6	Trichloroethene	0.06	0.32	J	0.03	0.03	0.06	ppbv
78-87-5	1,2-Dichloropropane	0.25	1.16	U	0.06	0.25	0.5	ppbv
75-27-4	Bromodichloromethane	0.25	1.67	U	0.05	0.25	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	0.37	1.52	J	0.06	0.25	0.5	ppbv
108-88-3	Toluene	8.8	33.2		0.05	0.25	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.25	1.13	U	0.07	0.25	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.25	1.13	U	0.06	0.25	0.5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-2	SDG No.:	D2545
Lab Sample ID:	D2545-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017029.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.25	1.36	U	0.08	0.25	0.5	ppbv
124-48-1	Dibromochloromethane	0.25	2.13	U	0.05	0.25	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.25	1.92	U	0.07	0.25	0.5	ppbv
127-18-4	Tetrachloroethane	34	230	E	0.03	0.03	0.06	ppbv
108-90-7	Chlorobenzene	0.25	1.15	U	0.09	0.25	0.5	ppbv
100-41-4	Ethyl Benzene	2.3	9.99		0.08	0.25	0.5	ppbv
179601-23-1	m/p-Xylene	7.7	33.4		0.11	0.5	1	ppbv
95-47-6	o-Xylene	2.5	10.9		0.07	0.25	0.5	ppbv
100-42-5	Styrene	0.25	1.06	U	0.07	0.25	0.5	ppbv
75-25-2	Bromoform	0.25	2.58	U	0.05	0.25	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.25	1.72	U	0.1	0.25	0.5	ppbv
95-49-8	2-Chlorotoluene	0.25	1.29	U	0.1	0.25	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.72	3.54		0.09	0.25	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	2.5	12.3		0.1	0.25	0.5	ppbv
622-96-8	4-Ethyltoluene	1.3	6.39		0.08	0.25	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.25	1.5	U	0.08	0.25	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.25	1.5	U	0.06	0.25	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.25	1.5	U	0.07	0.25	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.25	1.86	U	0.04	0.25	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.25	2.67	U	0.08	0.25	0.5	ppbv
106-99-0	1,3-Butadiene	0.25	0.55	U	0.09	0.25	0.5	ppbv
110-54-3	Hexane	0.25	0.88	U	0.04	0.25	0.5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	9.59			65 - 135		96%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2312370			6.37			
540-36-3	1,4-Difluorobenzene	7261880			7.93			
3114-55-4	Chlorobenzene-d5	6913160			12.91			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-2	SDG No.:	D2545
Lab Sample ID:	D2545-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017029.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-2DL	SDG No.:	D2545
Lab Sample ID:	D2545-02DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017030.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	2.5	12.4	U	0.4	2.5	5	ppbv
75-65-0	tert-Butyl alcohol	3.9	11.8	JD	1	2.5	5	ppbv
74-87-3	Chloromethane	2.5	5.16	U	0.6	2.5	5	ppbv
80-62-6	Methyl Methacrylate	2.5	10.2	U	1	2.5	5	ppbv
75-01-4	Vinyl Chloride	2.5	6.39	U	0.7	2.5	5	ppbv
74-83-9	Bromomethane	2.5	9.71	U	0.3	2.5	5	ppbv
75-00-3	Chloroethane	2.5	6.6	U	0.7	2.5	5	ppbv
75-69-4	Trichlorofluoromethane	2.5	14.0	U	0.4	2.5	5	ppbv
76-14-2	Dichlorotetrafluoroethane	2.5	17.5	U	0.4	2.5	5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	19.2	U	0.4	2.5	5	ppbv
593-60-2	Bromoethene	2.5	10.9	U	0.3	2.5	5	ppbv
142-82-5	Heptane	2.5	10.2	U	0.6	2.5	5	ppbv
75-35-4	1,1-Dichloroethene	2.5	9.91	U	0.5	2.5	5	ppbv
67-64-1	Acetone	37	87.9	D	1	2.5	5	ppbv
75-15-0	Carbon Disulfide	2.5	7.79	U	0.5	2.5	5	ppbv
1634-04-4	Methyl tert-Butyl Ether	2.5	9.01	U	0.5	2.5	5	ppbv
75-09-2	Methylene Chloride	2.7	9.38	JD	0.5	2.5	5	ppbv
107-05-1	Allyl Chloride	2.5	7.83	U	0.5	2.5	5	ppbv
156-60-5	trans-1,2-Dichloroethene	2.5	9.91	U	0.6	2.5	5	ppbv
75-34-3	1,1-Dichloroethane	2.5	10.1	U	0.4	2.5	5	ppbv
110-82-7	Cyclohexane	2.5	8.61	U	0.8	2.5	5	ppbv
78-93-3	2-Butanone	1.6	4.72	JD	1	2.5	5	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	U	0.3	0.3	0.6	ppbv
156-59-2	cis-1,2-Dichloroethene	2.5	9.91	U	0.6	2.5	5	ppbv
67-66-3	Chloroform	2.5	12.2	U	0.2	2.5	5	ppbv
123-91-1	1,4-Dioxane	2.5	9.01	U	0.9	2.5	5	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	U	0.3	0.3	0.6	ppbv
109-99-9	Tetrahydrofuran	2.5	7.37	U	0.8	2.5	5	ppbv
540-84-1	2,2,4-Trimethylpentane	2.5	11.7	U	0.4	2.5	5	ppbv
71-43-2	Benzene	2.5	7.99	U	0.4	2.5	5	ppbv
107-06-2	1,2-Dichloroethane	2.5	10.1	U	0.7	2.5	5	ppbv
79-01-6	Trichloroethene	0.3	1.61	U	0.3	0.3	0.6	ppbv
78-87-5	1,2-Dichloropropane	2.5	11.6	U	0.6	2.5	5	ppbv
75-27-4	Bromodichloromethane	2.5	16.8	U	0.5	2.5	5	ppbv
108-10-1	4-Methyl-2-Pentanone	2.5	10.2	U	0.6	2.5	5	ppbv
108-88-3	Toluene	5.8	21.9	D	0.5	2.5	5	ppbv
10061-02-6	t-1,3-Dichloropropene	2.5	11.4	U	0.7	2.5	5	ppbv
10061-01-5	cis-1,3-Dichloropropene	2.5	11.4	U	0.6	2.5	5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-2DL	SDG No.:	D2545
Lab Sample ID:	D2545-02DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017030.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	2.5	13.6	U	0.8	2.5	5	ppbv
124-48-1	Dibromochloromethane	2.5	21.3	U	0.5	2.5	5	ppbv
106-93-4	1,2-Dibromoethane	2.5	19.2	U	0.7	2.5	5	ppbv
127-18-4	Tetrachloroethane	26	176	D	0.3	0.3	0.6	ppbv
108-90-7	Chlorobenzene	2.5	11.5	U	0.9	2.5	5	ppbv
100-41-4	Ethyl Benzene	1.6	6.95	JD	0.8	2.5	5	ppbv
179601-23-1	m/p-Xylene	5.4	23.5	JD	1.1	5	10	ppbv
95-47-6	o-Xylene	1.9	8.25	JD	0.7	2.5	5	ppbv
100-42-5	Styrene	2.5	10.6	U	0.7	2.5	5	ppbv
75-25-2	Bromoform	2.5	25.8	U	0.5	2.5	5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	2.5	17.2	U	1	2.5	5	ppbv
95-49-8	2-Chlorotoluene	2.5	12.9	U	1	2.5	5	ppbv
108-67-8	1,3,5-Trimethylbenzene	2.5	12.3	U	0.9	2.5	5	ppbv
95-63-6	1,2,4-Trimethylbenzene	1.8	8.85	JD	1	2.5	5	ppbv
622-96-8	4-Ethyltoluene	1	4.92	JD	0.8	2.5	5	ppbv
541-73-1	1,3-Dichlorobenzene	2.5	15.0	U	0.8	2.5	5	ppbv
106-46-7	1,4-Dichlorobenzene	2.5	15.0	U	0.6	2.5	5	ppbv
95-50-1	1,2-Dichlorobenzene	2.5	15.0	U	0.7	2.5	5	ppbv
120-82-1	1,2,4-Trichlorobenzene	2.5	18.6	U	0.4	2.5	5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	2.5	26.7	U	0.8	2.5	5	ppbv
106-99-0	1,3-Butadiene	2.5	5.53	U	0.9	2.5	5	ppbv
110-54-3	Hexane	2.5	8.81	U	0.4	2.5	5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	9.8			65 - 135		98%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2423430		6.37				
540-36-3	1,4-Difluorobenzene	8331710		7.93				
3114-55-4	Chlorobenzene-d5	7811160		12.91				

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-2DL	SDG No.:	D2545
Lab Sample ID:	D2545-02DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017030.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-3	SDG No.:	D2545
Lab Sample ID:	D2545-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017032.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.41	2.03	J	0.04	0.25	0.5	ppbv
75-65-0	tert-Butyl alcohol	5.6	17.0		0.1	0.25	0.5	ppbv
74-87-3	Chloromethane	0.25	0.52	U	0.06	0.25	0.5	ppbv
80-62-6	Methyl Methacrylate	0.25	1.02	U	0.1	0.25	0.5	ppbv
75-01-4	Vinyl Chloride	0.25	0.64	U	0.07	0.25	0.5	ppbv
74-83-9	Bromomethane	0.25	0.97	U	0.03	0.25	0.5	ppbv
75-00-3	Chloroethane	0.25	0.66	U	0.07	0.25	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.24	1.35	J	0.04	0.25	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.25	1.75	U	0.04	0.25	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	1.92	U	0.04	0.25	0.5	ppbv
593-60-2	Bromoethene	0.25	1.09	U	0.03	0.25	0.5	ppbv
142-82-5	Heptane	1.8	7.38		0.06	0.25	0.5	ppbv
75-35-4	1,1-Dichloroethene	0.25	0.99	U	0.05	0.25	0.5	ppbv
67-64-1	Acetone	41	97.4	E	0.1	0.25	0.5	ppbv
75-15-0	Carbon Disulfide	0.23	0.72	J	0.05	0.25	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.25	0.9	U	0.05	0.25	0.5	ppbv
75-09-2	Methylene Chloride	1.5	5.21		0.05	0.25	0.5	ppbv
107-05-1	Allyl Chloride	0.25	0.78	U	0.05	0.25	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.25	1.01	U	0.04	0.25	0.5	ppbv
110-82-7	Cyclohexane	0.4	1.38	J	0.08	0.25	0.5	ppbv
78-93-3	2-Butanone	2.3	6.78		0.1	0.25	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.04	0.25	J	0.03	0.03	0.06	ppbv
156-59-2	cis-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
67-66-3	Chloroform	2.1	10.3		0.02	0.25	0.5	ppbv
123-91-1	1,4-Dioxane	0.25	0.9	U	0.09	0.25	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.04	0.22	J	0.03	0.03	0.06	ppbv
109-99-9	Tetrahydrofuran	0.5	1.47	J	0.08	0.25	0.5	ppbv
540-84-1	2,2,4-Trimethylpentane	1.2	5.6		0.04	0.25	0.5	ppbv
71-43-2	Benzene	0.92	2.94		0.04	0.25	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.25	1.01	U	0.07	0.25	0.5	ppbv
79-01-6	Trichloroethene	0.18	0.97		0.03	0.03	0.06	ppbv
78-87-5	1,2-Dichloropropane	0.25	1.16	U	0.06	0.25	0.5	ppbv
75-27-4	Bromodichloromethane	0.25	1.67	U	0.05	0.25	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	0.51	2.09		0.06	0.25	0.5	ppbv
108-88-3	Toluene	9.4	35.4		0.05	0.25	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.25	1.13	U	0.07	0.25	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.25	1.13	U	0.06	0.25	0.5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-3	SDG No.:	D2545
Lab Sample ID:	D2545-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017032.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.25	1.36	U	0.08	0.25	0.5	ppbv
124-48-1	Dibromochloromethane	0.25	2.13	U	0.05	0.25	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.25	1.92	U	0.07	0.25	0.5	ppbv
127-18-4	Tetrachloroethane	45	305	E	0.03	0.03	0.06	ppbv
108-90-7	Chlorobenzene	0.25	1.15	U	0.09	0.25	0.5	ppbv
100-41-4	Ethyl Benzene	2.3	9.99		0.08	0.25	0.5	ppbv
179601-23-1	m/p-Xylene	7.4	32.1		0.11	0.5	1	ppbv
95-47-6	o-Xylene	2.3	9.99		0.07	0.25	0.5	ppbv
100-42-5	Styrene	0.25	1.06	U	0.07	0.25	0.5	ppbv
75-25-2	Bromoform	0.25	2.58	U	0.05	0.25	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.25	1.72	U	0.1	0.25	0.5	ppbv
95-49-8	2-Chlorotoluene	0.25	1.29	U	0.1	0.25	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.62	3.05		0.09	0.25	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	2	9.83		0.1	0.25	0.5	ppbv
622-96-8	4-Ethyltoluene	1.1	5.41		0.08	0.25	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.25	1.5	U	0.08	0.25	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.25	1.5	U	0.06	0.25	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.25	1.5	U	0.07	0.25	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.25	1.86	U	0.04	0.25	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.25	2.67	U	0.08	0.25	0.5	ppbv
106-99-0	1,3-Butadiene	0.25	0.55	U	0.09	0.25	0.5	ppbv
110-54-3	Hexane	0.25	0.88	U	0.04	0.25	0.5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	9.68			65 - 135		97%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2330420			6.37			
540-36-3	1,4-Difluorobenzene	7385150			7.93			
3114-55-4	Chlorobenzene-d5	7092800			12.91			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-3	SDG No.:	D2545
Lab Sample ID:	D2545-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017032.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-3DL	SDG No.:	D2545
Lab Sample ID:	D2545-03DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017033.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	2.5	12.4	U	0.4	2.5	5	ppbv
75-65-0	tert-Butyl alcohol	5.7	17.3	D	1	2.5	5	ppbv
74-87-3	Chloromethane	2.5	5.16	U	0.6	2.5	5	ppbv
80-62-6	Methyl Methacrylate	2.5	10.2	U	1	2.5	5	ppbv
75-01-4	Vinyl Chloride	2.5	6.39	U	0.7	2.5	5	ppbv
74-83-9	Bromomethane	2.5	9.71	U	0.3	2.5	5	ppbv
75-00-3	Chloroethane	2.5	6.6	U	0.7	2.5	5	ppbv
75-69-4	Trichlorofluoromethane	2.5	14.0	U	0.4	2.5	5	ppbv
76-14-2	Dichlorotetrafluoroethane	2.5	17.5	U	0.4	2.5	5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	19.2	U	0.4	2.5	5	ppbv
593-60-2	Bromoethene	2.5	10.9	U	0.3	2.5	5	ppbv
142-82-5	Heptane	1	4.1	JD	0.6	2.5	5	ppbv
75-35-4	1,1-Dichloroethene	2.5	9.91	U	0.5	2.5	5	ppbv
67-64-1	Acetone	56	133	D	1	2.5	5	ppbv
75-15-0	Carbon Disulfide	2.5	7.79	U	0.5	2.5	5	ppbv
1634-04-4	Methyl tert-Butyl Ether	2.5	9.01	U	0.5	2.5	5	ppbv
75-09-2	Methylene Chloride	2.9	10.1	JD	0.5	2.5	5	ppbv
107-05-1	Allyl Chloride	2.5	7.83	U	0.5	2.5	5	ppbv
156-60-5	trans-1,2-Dichloroethene	2.5	9.91	U	0.6	2.5	5	ppbv
75-34-3	1,1-Dichloroethane	2.5	10.1	U	0.4	2.5	5	ppbv
110-82-7	Cyclohexane	2.5	8.61	U	0.8	2.5	5	ppbv
78-93-3	2-Butanone	1.8	5.31	JD	1	2.5	5	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	U	0.3	0.3	0.6	ppbv
156-59-2	cis-1,2-Dichloroethene	2.5	9.91	U	0.6	2.5	5	ppbv
67-66-3	Chloroform	2.1	10.3	JD	0.2	2.5	5	ppbv
123-91-1	1,4-Dioxane	2.5	9.01	U	0.9	2.5	5	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	U	0.3	0.3	0.6	ppbv
109-99-9	Tetrahydrofuran	2.5	7.37	U	0.8	2.5	5	ppbv
540-84-1	2,2,4-Trimethylpentane	2.5	11.7	U	0.4	2.5	5	ppbv
71-43-2	Benzene	2.5	7.99	U	0.4	2.5	5	ppbv
107-06-2	1,2-Dichloroethane	2.5	10.1	U	0.7	2.5	5	ppbv
79-01-6	Trichloroethene	0.3	1.61	U	0.3	0.3	0.6	ppbv
78-87-5	1,2-Dichloropropane	2.5	11.6	U	0.6	2.5	5	ppbv
75-27-4	Bromodichloromethane	2.5	16.8	U	0.5	2.5	5	ppbv
108-10-1	4-Methyl-2-Pentanone	2.5	10.2	U	0.6	2.5	5	ppbv
108-88-3	Toluene	6.6	24.9	D	0.5	2.5	5	ppbv
10061-02-6	t-1,3-Dichloropropene	2.5	11.4	U	0.7	2.5	5	ppbv
10061-01-5	cis-1,3-Dichloropropene	2.5	11.4	U	0.6	2.5	5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-3DL	SDG No.:	D2545
Lab Sample ID:	D2545-03DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017033.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	2.5	13.6	U	0.8	2.5	5	ppbv
124-48-1	Dibromochloromethane	2.5	21.3	U	0.5	2.5	5	ppbv
106-93-4	1,2-Dibromoethane	2.5	19.2	U	0.7	2.5	5	ppbv
127-18-4	Tetrachloroethane	38	257	D	0.3	0.3	0.6	ppbv
108-90-7	Chlorobenzene	2.5	11.5	U	0.9	2.5	5	ppbv
100-41-4	Ethyl Benzene	1.6	6.95	JD	0.8	2.5	5	ppbv
179601-23-1	m/p-Xylene	5.4	23.5	JD	1.1	5	10	ppbv
95-47-6	o-Xylene	1.9	8.25	JD	0.7	2.5	5	ppbv
100-42-5	Styrene	2.5	10.6	U	0.7	2.5	5	ppbv
75-25-2	Bromoform	2.5	25.8	U	0.5	2.5	5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	2.5	17.2	U	1	2.5	5	ppbv
95-49-8	2-Chlorotoluene	2.5	12.9	U	1	2.5	5	ppbv
108-67-8	1,3,5-Trimethylbenzene	2.5	12.3	U	0.9	2.5	5	ppbv
95-63-6	1,2,4-Trimethylbenzene	1.6	7.87	JD	1	2.5	5	ppbv
622-96-8	4-Ethyltoluene	2.5	12.3	U	0.8	2.5	5	ppbv
541-73-1	1,3-Dichlorobenzene	2.5	15.0	U	0.8	2.5	5	ppbv
106-46-7	1,4-Dichlorobenzene	2.5	15.0	U	0.6	2.5	5	ppbv
95-50-1	1,2-Dichlorobenzene	2.5	15.0	U	0.7	2.5	5	ppbv
120-82-1	1,2,4-Trichlorobenzene	2.5	18.6	U	0.4	2.5	5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	2.5	26.7	U	0.8	2.5	5	ppbv
106-99-0	1,3-Butadiene	2.5	5.53	U	0.9	2.5	5	ppbv
110-54-3	Hexane	2.5	8.81	U	0.4	2.5	5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	9.84			65 - 135		98%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2429490		6.37				
540-36-3	1,4-Difluorobenzene	8337880		7.93				
3114-55-4	Chlorobenzene-d5	7800700		12.91				

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	05/03/12
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	05/04/12
Client Sample ID:	VP-3DL	SDG No.:	D2545
Lab Sample ID:	D2545-03DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017033.D	10		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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**CHEMTECH**

QC  
SUMMARY

## Surrogate Summary

SDG No.: D2545Client: J.R.Holzmacher P.E., LLCAnalytical Method: EPA SW846 TO-15

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
BSL0506A	BSL0506A	1-Bromo-4-Fluorobenzene	10	10.04	100		65	135
D2545-01	VP-1	1-Bromo-4-Fluorobenzene	10	9.94	99		65	135
D2545-01DL	VP-1DL	1-Bromo-4-Fluorobenzene	10	10.02	100		65	135
D2545-02	VP-2	1-Bromo-4-Fluorobenzene	10	9.59	96		65	135
D2545-02DL	VP-2DL	1-Bromo-4-Fluorobenzene	10	9.8	98		65	135
D2545-03	VP-3	1-Bromo-4-Fluorobenzene	10	9.68	97		65	135
D2545-03DL	VP-3DL	1-Bromo-4-Fluorobenzene	10	9.84	98		65	135
VBL0506A	VBL0506A	1-Bromo-4-Fluorobenzene	10	9.92	99		65	135

**AIR VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: J.R.Holzmacher P.E., LLC

Lab Code: CHEM Cas No: D2545 SAS No: D2545 SDG No: D2545

Matrix Spike - EPA Sample No: BSL0506A Analytical Method: EPA SW846 TO-15 Datafile: VL017014.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	10		9.6	96	(70-130)
tert-Butyl alcohol	10		9.1	91	(70-130)
Chloromethane	10		8.8	88	(70-130)
Methyl Methacrylate	10		11	110	(70-130)
Vinyl Chloride	10		9.0	90	(70-130)
Bromomethane	10		8.7	87	(70-130)
Chloroethane	10		8.7	87	(70-130)
Trichlorofluoromethane	10		8.9	89	(70-130)
Dichlorotetrafluoroethane	10		8.9	89	(70-130)
1,1,2-Trichlorotrifluoroethane	10		8.8	88	(70-130)
Bromoethene	10		9.2	92	(70-130)
Heptane	10		10	100	(70-130)
1,1-Dichloroethene	10		9.1	91	(70-130)
Acetone	10		7.3	73	(70-130)
Carbon Disulfide	10		9.0	90	(70-130)
Methyl tert-Butyl Ether	10		10	100	(70-130)
Methylene Chloride	10		8.0	80	(70-130)
Allyl Chloride	10		9.1	91	(70-130)
trans-1,2-Dichloroethene	10		9.8	98	(70-130)
1,1-Dichloroethane	10		9.3	93	(70-130)
Cyclohexane	10		10	100	(70-130)
2-Butanone	10		9.3	93	(70-130)
Carbon Tetrachloride	10		9.2	92	(70-130)
cis-1,2-Dichloroethene	10		10	100	(70-130)
Chloroform	10		9.3	93	(70-130)
1,4-Dioxane	10		9.8	98	(70-130)
1,1,1-Trichloroethane	10		9.7	97	(70-130)
Tetrahydrofuran	10		10	100	(70-130)
2,2,4-Trimethylpentane	10		9.7	97	(70-130)
Benzene	10		9.6	96	(70-130)
1,2-Dichloroethane	10		9.0	90	(70-130)
Trichloroethene	10		11	110	(70-130)
1,2-Dichloropropane	10		9.5	95	(70-130)
Bromodichloromethane	10		9.6	96	(70-130)

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Comments: \_\_\_\_\_

**AIR VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY**

Lab Name: CHEMTECH Client: J.R.Holzmacher P.E., LLC

Lab Code: CHEM Cas No: D2545 SAS No : D2545 SDG No: D2545

Matrix Spike - EPA Sample No : BSL0506A Analytical Method: EPA SW846 TO-15 Datafile : VL017014.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC#	QC LIMITS REC
4-Methyl-2-Pentanone	10		10	100	(70-130)
Toluene	10		11	110	(70-130)
t-1,3-Dichloropropene	10		11	110	(70-130)
cis-1,3-Dichloropropene	10		11	110	(70-130)
1,1,2-Trichloroethane	10		9.5	95	(70-130)
Dibromochloromethane	10		10	100	(70-130)
1,2-Dibromoethane	10		10	100	(70-130)
Tetrachloroethene	10		11	110	(70-130)
Chlorobenzene	10		9.0	90	(70-130)
Ethyl Benzene	10		10	100	(70-130)
m/p-Xylene	20		19	95	(70-130)
o-Xylene	10		9.9	99	(70-130)
Styrene	10		11	110	(70-130)
Bromoform	10		11	110	(70-130)
1,1,2,2-Tetrachloroethane	10		8.7	87	(70-130)
2-Chlorotoluene	10		11	110	(70-130)
1,3,5-Trimethylbenzene	10		10	100	(70-130)
1,2,4-Trimethylbenzene	10		9.8	98	(70-130)
4-Ethyltoluene	10		10	100	(70-130)
1,3-Dichlorobenzene	10		9.3	93	(70-130)
1,4-Dichlorobenzene	10		9.6	96	(70-130)
1,2-Dichlorobenzene	10		9.5	95	(70-130)
1,2,4-Trichlorobenzene	10		9.5	95	(70-130)
Hexachloro-1,3-Butadiene	10		9.5	95	(70-130)
1,3-Butadiene	10		9.3	93	(70-130)
Hexane	10		9.4	94	(70-130)

RPD : 0 Out of 60 outside limits

Spike Recovery : 0 Out of 60 outside limits

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Comments: \_\_\_\_\_

## VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBL0506A

Lab Name: CHEMTECH

Contract: JRH001

Lab Code: CHEM Case No.: D2545

SAS No.: D2545 SDG NO.: D2545

Lab File ID: VL017013.D

Lab Sample ID: VBL0506A

Date Analyzed: 05/06/2012

Time Analyzed: 06:04

GC Column: RTX-1 ID: 0.32 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA\_L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSL0506A	BSL0506A	VL017014.D	05/06/2012
VP-1	D2545-01	VL017028.D	05/06/2012
VP-2	D2545-02	VL017029.D	05/06/2012
VP-2DL	D2545-02DL	VL017030.D	05/06/2012
VP-1DL	D2545-01DL	VL017031.D	05/06/2012
VP-3	D2545-03	VL017032.D	05/06/2012
VP-3DL	D2545-03DL	VL017033.D	05/06/2012

COMMENTS:

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: JRHO01  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG NO.: D2545  
 Lab File ID: VL017006.D BFB Injection Date: 05/06/2012  
 Instrument ID: MSVOA\_L BFB Injection Time: 00:46  
 GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.2
75	30.0 - 66.0% of mass 95	54.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5 ( 0.6 ) 1
174	50.0 - 120.0% of mass 95	76.3
175	4.0 - 9.0% of mass 174	5.5 ( 7.2 ) 1
176	93.0 - 101.0% of mass 174	74.2 ( 97.4 ) 1
177	5.0 - 9.0% of mass 176	4.8 ( 6.5 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
10 PPB ICC	10 PPB ICC	VL017007.D	05/06/2012	01:34
2 PPB ICC	2 PPB ICC	VL017008.D	05/06/2012	02:16
1 PPB ICC	1 PPB ICC	VL017009.D	05/06/2012	02:54
15 PPB ICC	15 PPB ICC	VL017010.D	05/06/2012	03:35
0.5 PPB ICC	0.5 PPB ICC	VL017011.D	05/06/2012	04:13
VBL0506A	VBL0506A	VL017013.D	05/06/2012	06:04
BSL0506A	BSL0506A	VL017014.D	05/06/2012	06:53
0.1 RPT CHECK	0.1 RPT CHECK	VL017015.D	05/06/2012	07:41
0.03 RPT CHECK	0.03 RPT CHECK	VL017016.D	05/06/2012	08:20
VP-1	D2545-01	VL017028.D	05/06/2012	18:14
VP-2	D2545-02	VL017029.D	05/06/2012	18:56
VP-2DL	D2545-02DL	VL017030.D	05/06/2012	19:36
VP-1DL	D2545-01DL	VL017031.D	05/06/2012	20:17
VP-3	D2545-03	VL017032.D	05/06/2012	20:58
VP-3DL	D2545-03DL	VL017033.D	05/06/2012	21:39

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JRHO01  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG NO.: D2545  
 Lab File ID: VL017007.D Date Analyzed: 05/06/2012  
 Instrument ID: MSVOA\_L Time Analyzed: 01:34  
 GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	2479304	6.37	6064241	7.94	6024374	12.91
UPPER LIMIT	3471026	6.70	8489937	8.27	8434123	13.24
LOWER LIMIT	1487582	6.04	3638545	7.61	3614624	12.58
EPA SAMPLE NO.						
BSL0506A	2558827	6.37	6714686	7.94	6650548	12.91
VP-1	2187393	6.37	5365820	7.93	6046858	12.91
VP-1DL	2394122	6.37	8004300	7.93	7635893	12.91
VP-2	2312368	6.37	7261883	7.93	6913155	12.91
VP-2DL	2423433	6.37	8331705	7.93	7811160	12.91
VP-3	2330419	6.37	7385154	7.93	7092800	12.91
VP-3DL	2429489	6.37	8337876	7.93	7800704	12.91
VBL0506A	2790192	6.37	6993416	7.93	6398496	12.91

IS1 = Bromochloromethane  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +40% of internal standard area  
 AREA LOWER LIMIT = -40% of internal standard area  
 RT UPPER LIMIT = +0.33 minutes of internal standard RT  
 RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JRHO01  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG NO.: D2545  
 Lab File ID: VL017007.D Date Analyzed: 05/06/2012  
 Instrument ID: MSVOA\_L Time Analyzed: 01:34  
 GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	0	0				
UPPER LIMIT	0	0				
LOWER LIMIT	0	0				
EPA SAMPLE NO.						
BSL0506A	0	0.00				
VP-1	0	0.00				
VP-1DL	0	0.00				
VP-2	0	0.00				
VP-2DL	0	0.00				
VP-3	0	0.00				
VP-3DL	0	0.00				
VBL0506A	0	0.00				

IS4 =

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

RAW QC  
DATA

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	
Client Sample ID:	VBL0506A	SDG No.:	D2545
Lab Sample ID:	VBL0506A	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017013.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.25	1.24	U	0.04	0.25	0.5	ppbv
75-65-0	tert-Butyl alcohol	0.25	0.76	U	0.1	0.25	0.5	ppbv
74-87-3	Chloromethane	0.25	0.52	U	0.06	0.25	0.5	ppbv
80-62-6	Methyl Methacrylate	0.25	1.02	U	0.1	0.25	0.5	ppbv
75-01-4	Vinyl Chloride	0.25	0.64	U	0.07	0.25	0.5	ppbv
74-83-9	Bromomethane	0.25	0.97	U	0.03	0.25	0.5	ppbv
75-00-3	Chloroethane	0.25	0.66	U	0.07	0.25	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.25	1.4	U	0.04	0.25	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.25	1.75	U	0.04	0.25	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	1.92	U	0.04	0.25	0.5	ppbv
593-60-2	Bromoethene	0.25	1.09	U	0.03	0.25	0.5	ppbv
142-82-5	Heptane	0.25	1.02	U	0.06	0.25	0.5	ppbv
75-35-4	1,1-Dichloroethene	0.25	0.99	U	0.05	0.25	0.5	ppbv
67-64-1	Acetone	0.25	0.59	U	0.1	0.25	0.5	ppbv
75-15-0	Carbon Disulfide	0.25	0.78	U	0.05	0.25	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.25	0.9	U	0.05	0.25	0.5	ppbv
75-09-2	Methylene Chloride	0.25	0.87	U	0.05	0.25	0.5	ppbv
107-05-1	Allyl Chloride	0.25	0.78	U	0.05	0.25	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.25	1.01	U	0.04	0.25	0.5	ppbv
110-82-7	Cyclohexane	0.25	0.86	U	0.08	0.25	0.5	ppbv
78-93-3	2-Butanone	0.25	0.74	U	0.1	0.25	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.06	ppbv
156-59-2	cis-1,2-Dichloroethene	0.25	0.99	U	0.06	0.25	0.5	ppbv
67-66-3	Chloroform	0.25	1.22	U	0.02	0.25	0.5	ppbv
123-91-1	1,4-Dioxane	0.25	0.9	U	0.09	0.25	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.06	ppbv
109-99-9	Tetrahydrofuran	0.25	0.74	U	0.08	0.25	0.5	ppbv
540-84-1	2,2,4-Trimethylpentane	0.25	1.17	U	0.04	0.25	0.5	ppbv
71-43-2	Benzene	0.25	0.8	U	0.04	0.25	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.25	1.01	U	0.07	0.25	0.5	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.06	ppbv
78-87-5	1,2-Dichloropropane	0.25	1.16	U	0.06	0.25	0.5	ppbv
75-27-4	Bromodichloromethane	0.25	1.67	U	0.05	0.25	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	0.25	1.02	U	0.06	0.25	0.5	ppbv
108-88-3	Toluene	0.25	0.94	U	0.05	0.25	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.25	1.13	U	0.07	0.25	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.25	1.13	U	0.06	0.25	0.5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	
Client Sample ID:	VBL0506A	SDG No.:	D2545
Lab Sample ID:	VBL0506A	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017013.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.25	1.36	U	0.08	0.25	0.5	ppbv
124-48-1	Dibromochloromethane	0.25	2.13	U	0.05	0.25	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.25	1.92	U	0.07	0.25	0.5	ppbv
127-18-4	Tetrachloroethane	0.03	0.2	U	0.03	0.03	0.06	ppbv
108-90-7	Chlorobenzene	0.25	1.15	U	0.09	0.25	0.5	ppbv
100-41-4	Ethyl Benzene	0.25	1.09	U	0.08	0.25	0.5	ppbv
179601-23-1	m/p-Xylene	0.5	2.17	U	0.11	0.5	1	ppbv
95-47-6	o-Xylene	0.25	1.09	U	0.07	0.25	0.5	ppbv
100-42-5	Styrene	0.25	1.06	U	0.07	0.25	0.5	ppbv
75-25-2	Bromoform	0.25	2.58	U	0.05	0.25	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.25	1.72	U	0.1	0.25	0.5	ppbv
95-49-8	2-Chlorotoluene	0.25	1.29	U	0.1	0.25	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.25	1.23	U	0.09	0.25	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.25	1.23	U	0.1	0.25	0.5	ppbv
622-96-8	4-Ethyltoluene	0.25	1.23	U	0.08	0.25	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.25	1.5	U	0.08	0.25	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.25	1.5	U	0.06	0.25	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.25	1.5	U	0.07	0.25	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.25	1.86	U	0.04	0.25	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.25	2.67	U	0.08	0.25	0.5	ppbv
106-99-0	1,3-Butadiene	0.25	0.55	U	0.09	0.25	0.5	ppbv
110-54-3	Hexane	0.25	0.88	U	0.04	0.25	0.5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	9.92			65 - 135		99%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2790190		6.37				
540-36-3	1,4-Difluorobenzene	6993420		7.93				
3114-55-4	Chlorobenzene-d5	6398500		12.91				

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	
Client Sample ID:	VBL0506A	SDG No.:	D2545
Lab Sample ID:	VBL0506A	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017013.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	
Client Sample ID:	BSL0506A	SDG No.:	D2545
Lab Sample ID:	BSL0506A	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400      Units:    mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017014.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	9.6	47.5		0.04	0.25	0.5	ppbv
75-65-0	tert-Butyl alcohol	9.1	27.6		0.1	0.25	0.5	ppbv
74-87-3	Chloromethane	8.8	18.2		0.06	0.25	0.5	ppbv
80-62-6	Methyl Methacrylate	11	45.0		0.1	0.25	0.5	ppbv
75-01-4	Vinyl Chloride	9	23.0		0.07	0.25	0.5	ppbv
74-83-9	Bromomethane	8.7	33.8		0.03	0.25	0.5	ppbv
75-00-3	Chloroethane	8.7	23.0		0.07	0.25	0.5	ppbv
75-69-4	Trichlorofluoromethane	8.9	50.0		0.04	0.25	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	8.9	62.2		0.04	0.25	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	8.8	67.4		0.04	0.25	0.5	ppbv
593-60-2	Bromoethene	9.2	40.2		0.03	0.25	0.5	ppbv
142-82-5	Heptane	10	41.0		0.06	0.25	0.5	ppbv
75-35-4	1,1-Dichloroethene	9.1	36.1		0.05	0.25	0.5	ppbv
67-64-1	Acetone	7.3	17.3		0.1	0.25	0.5	ppbv
75-15-0	Carbon Disulfide	9	28.0		0.05	0.25	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	10	36.0		0.05	0.25	0.5	ppbv
75-09-2	Methylene Chloride	8	27.8		0.05	0.25	0.5	ppbv
107-05-1	Allyl Chloride	9.1	28.5		0.05	0.25	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	9.8	38.9		0.06	0.25	0.5	ppbv
75-34-3	1,1-Dichloroethane	9.3	37.6		0.04	0.25	0.5	ppbv
110-82-7	Cyclohexane	10	34.4		0.08	0.25	0.5	ppbv
78-93-3	2-Butanone	9.3	27.4		0.1	0.25	0.5	ppbv
56-23-5	Carbon Tetrachloride	9.2	57.9		0.03	0.03	0.06	ppbv
156-59-2	cis-1,2-Dichloroethene	10	39.6		0.06	0.25	0.5	ppbv
67-66-3	Chloroform	9.3	45.4		0.02	0.25	0.5	ppbv
123-91-1	1,4-Dioxane	9.8	35.3		0.09	0.25	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	9.7	52.9		0.03	0.03	0.06	ppbv
109-99-9	Tetrahydrofuran	10	29.5		0.08	0.25	0.5	ppbv
540-84-1	2,2,4-Trimethylpentane	9.7	45.3		0.04	0.25	0.5	ppbv
71-43-2	Benzene	9.6	30.7		0.04	0.25	0.5	ppbv
107-06-2	1,2-Dichloroethane	9	36.4		0.07	0.25	0.5	ppbv
79-01-6	Trichloroethene	11	59.1		0.03	0.03	0.06	ppbv
78-87-5	1,2-Dichloropropane	9.5	43.9		0.06	0.25	0.5	ppbv
75-27-4	Bromodichloromethane	9.6	64.3		0.05	0.25	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	10	41.0		0.06	0.25	0.5	ppbv
108-88-3	Toluene	11	41.4		0.05	0.25	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	11	49.9		0.07	0.25	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	11	49.9		0.06	0.25	0.5	ppbv

### Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	
Client Sample ID:	BSL0506A	SDG No.:	D2545
Lab Sample ID:	BSL0506A	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017014.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	9.5	51.8		0.08	0.25	0.5	ppbv
124-48-1	Dibromochloromethane	10	85.2		0.05	0.25	0.5	ppbv
106-93-4	1,2-Dibromoethane	10	76.8		0.07	0.25	0.5	ppbv
127-18-4	Tetrachloroethane	11	74.6		0.03	0.03	0.06	ppbv
108-90-7	Chlorobenzene	9	41.4		0.09	0.25	0.5	ppbv
100-41-4	Ethyl Benzene	10	43.4		0.08	0.25	0.5	ppbv
179601-23-1	m/p-Xylene	19	82.5		0.11	0.5	1	ppbv
95-47-6	o-Xylene	9.9	43		0.07	0.25	0.5	ppbv
100-42-5	Styrene	11	46.8		0.07	0.25	0.5	ppbv
75-25-2	Bromoform	11	113		0.05	0.25	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	8.7	59.7		0.1	0.25	0.5	ppbv
95-49-8	2-Chlorotoluene	11	57.0		0.1	0.25	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	10	49.2		0.09	0.25	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	9.8	48.2		0.1	0.25	0.5	ppbv
622-96-8	4-Ethyltoluene	10	49.2		0.08	0.25	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	9.3	55.9		0.08	0.25	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	9.6	57.7		0.06	0.25	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	9.5	57.1		0.07	0.25	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	9.5	70.5		0.04	0.25	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	9.5	101		0.08	0.25	0.5	ppbv
106-99-0	1,3-Butadiene	9.3	20.6		0.09	0.25	0.5	ppbv
110-54-3	Hexane	9.4	33.1		0.04	0.25	0.5	ppbv
<b>SURROGATES</b>								
460-00-4	1-Bromo-4-Fluorobenzene	10			65 - 135		100%	SPK: 10
<b>INTERNAL STANDARDS</b>								
74-97-5	Bromochloromethane	2558830		6.37				
540-36-3	1,4-Difluorobenzene	6714690		7.94				
3114-55-4	Chlorobenzene-d5	6650550		12.91				

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 D = Dilution

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 Q = indicates LCS control criteria did not meet requirements

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-02-224Merrick Blvd. Qns NY	Date Received:	
Client Sample ID:	BSL0506A	SDG No.:	D2545
Lab Sample ID:	BSL0506A	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017014.D	1		05/06/12	VL050612

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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# CALIBRATION SUMMARY

**VOLATILE ORGANICS INITIAL CALIBRATION DATA**

Lab Name: CHEMTECH Contract: JRH001  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG No.: D2545  
 Instrument ID: MSVOA\_L Calibration Date(s): 05/06/2012 05/06/2012  
 Heated Purge: (Y/N) N Calibration Time(s): 01:34 04:13  
 GC Column: RTX-1 ID: 0.32 (mm)

LAB FILE ID:	RRF0.50 = VL017011.D	RRF001 = VL017009.D	RRF002 = VL017008.D					
	RRF010 = VL017007.D	RRF015 = VL017010.D	RRF =					
COMPOUND	RRF0.50	RRF001	RRF002	RRF010	RRF015	RRF	RRF	% RSD
Dichlorodifluoromethane	2.905	2.564	2.186	2.126	1.990		2.354	15.9
tert-Butyl alcohol	1.656	1.662	1.538	1.591	1.506		1.591	4.4
Chloromethane	1.089	1.041	1.014	0.947	0.918		1.002	6.9
Methyl Methacrylate	0.240	0.285	0.351	0.476	0.476		0.366	29.6
Vinyl Chloride	1.077	1.020	1.039	0.978	0.988		1.021	3.9
Bromomethane	0.834	0.796	0.763	0.715	0.742		0.77	6.1
Chloroethane	0.489	0.450	0.453	0.423	0.424		0.448	6
Trichlorofluoromethane	3.490	3.483	3.339	3.101	3.160		3.315	5.4
Dichlorotetrafluoroethane	2.847	2.650	2.664	2.494	2.534		2.638	5.2
1,1,2-Trichlorotrifluoroethane	2.503	2.534	2.394	2.274	2.355		2.412	4.4
Bromoethene	0.950	0.908	0.904	0.894	0.946		0.921	2.8
Heptane	1.327	1.555	1.688	1.808	1.824		1.64	12.6
1,1-Dichloroethene	1.030	1.012	1.016	0.984	1.027		1.014	1.8
Acetone	2.210	2.214	2.087	1.507	1.479		1.899	19.7
Carbon Disulfide	2.586	2.697	2.666	2.536	2.562		2.609	2.6
Methyl tert-Butyl Ether	1.953	2.146	2.451	2.743	2.801		2.419	15.2
Methylene Chloride	1.381	1.229	1.108	0.904	0.934		1.111	18.1
Allyl Chloride	0.882	0.935	0.944	0.940	0.926		0.926	2.7
trans-1,2-Dichloroethene	0.803	0.756	0.788	0.836	0.894		0.815	6.4
1,1-Dichloroethane	1.873	1.852	1.865	1.864	1.916		1.874	1.3
Cyclohexane	0.877	0.918	1.028	1.153	1.262		1.048	15.3
2-Butanone	0.677	0.702	0.774	0.807	0.752		0.742	7.1
Carbon Tetrachloride	0.765	0.805	0.794	0.874	0.894		0.826	6.7
cis-1,2-Dichloroethene	0.957	0.997	1.141	1.294	1.353		1.148	15.2
Chloroform	2.126	2.164	2.097	2.119	2.258		2.153	3
1,4-Dioxane	0.083	0.076	0.072	0.088	0.081		0.08	7.9
1,1,1-Trichloroethane	1.877	1.934	1.941	2.062	2.221		2.007	6.8
Tetrahydrofuran	0.278	0.311	0.382	0.445	0.424		0.368	19.5
2,2,4-Trimethylpentane	1.344	1.582	1.742	1.817	1.639		1.625	11.2

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JRH001  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG No.: D2545  
 Instrument ID: MSVOA\_L Calibration Date(s): 05/06/2012 05/06/2012  
 Heated Purge: (Y/N) N Calibration Time(s): 01:34 04:13  
 GC Column: RTX-1 ID: 0.32 (mm)

LAB FILE ID:		RRF0.50 = VL017011.D	RRF001 = VL017009.D	RRF002 = VL017008.D	RRF010 = VL017007.D	RRF015 = VL017010.D	RRF =		
COMPOUND	RRF0.50	RRF001	RRF002	RRF010	RRF015	RRF	RRF	% RSD	
Benzene	0.898	0.939	1.027	1.101	1.076		1.008	8.7	
1,2-Dichloroethane	0.635	0.646	0.649	0.670	0.652		0.651	2	
Trichloroethene	0.364	0.384	0.416	0.538	0.583		0.457	21.4	
1,2-Dichloropropane	0.336	0.347	0.371	0.405	0.392		0.37	7.9	
Bromodichloromethane	0.776	0.817	0.834	0.932	0.931		0.858	8.2	
4-Methyl-2-Pentanone	0.619	0.756	0.873	1.013	0.953		0.843	18.7	
Toluene	0.771	0.941	1.114	1.338	1.359		1.105	23	
t-1,3-Dichloropropene	0.335	0.405	0.510	0.649	0.662		0.512	28.3	
cis-1,3-Dichloropropene	0.407	0.484	0.597	0.749	0.753		0.598	26	
1,1,2-Trichloroethane	0.415	0.422	0.432	0.483	0.505		0.451	8.9	
Dibromochloromethane	0.581	0.652	0.678	0.853	0.914		0.736	19.2	
1,2-Dibromoethane	0.555	0.603	0.646	0.768	0.812		0.677	16.2	
Tetrachloroethene	0.321	0.344	0.374	0.502	0.564		0.421	25.2	
Chlorobenzene	1.121	1.171	1.109	1.203	1.338		1.188	7.7	
Ethyl Benzene	1.142	1.470	1.641	1.846	1.953		1.61	20	
m/p-Xylene	1.134	1.399	1.453	1.576	1.656		1.444	13.9	
o-Xylene	1.149	1.452	1.579	1.751	1.814		1.549	17.1	
Styrene	0.455	0.656	0.834	1.059	1.183		0.837	35.2	
Bromoform	0.464	0.522	0.564	0.747	0.812		0.622	24.2	
1,1,2,2-Tetrachloroethane	1.163	1.223	1.173	1.150	1.188		1.179	2.4	
2-Chlorotoluene	0.918	1.166	1.340	1.665	1.774		1.373	25.7	
1,3,5-Trimethylbenzene	1.190	1.508	1.651	1.860	1.982		1.638	18.9	
1,2,4-Trimethylbenzene	1.464	1.742	1.855	2.024	2.093		1.836	13.6	
4-Ethyltoluene	1.098	1.415	1.607	1.867	1.998		1.597	22.5	
1,3-Dichlorobenzene	1.134	1.235	1.212	1.329	1.445		1.271	9.4	
1,4-Dichlorobenzene	1.026	1.135	1.191	1.294	1.430		1.215	12.7	
1,2-Dichlorobenzene	1.026	1.125	1.163	1.266	1.398		1.195	11.9	
1,2,4-Trichlorobenzene	0.719	0.853	0.934	0.921	1.043		0.894	13.3	
Hexachloro-1,3-Butadiene	0.692	0.743	0.756	0.833	0.859		0.776	8.8	
1,3-Butadiene	0.748	0.745	0.770	0.760	0.744		0.753	1.5	
Hexane	1.336	1.403	1.462	1.447	1.462		1.422	3.8	

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JRH001  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG No.: D2545  
 Instrument ID: MSVOA\_L Calibration Date(s): 05/06/2012 05/06/2012  
 Heated Purge: (Y/N) N Calibration Time(s): 01:34 04:13  
 GC Column: RTX-1 ID: 0.32 (mm)

LAB FILE ID:	RRF0.50 = VL017011.D	RRF001 = VL017009.D	RRF002 = VL017008.D					
	RRF010 = VL017007.D	RRF015 = VL017010.D	RRF =					
COMPOUND	RRF0.50	RRF001	RRF002	RRF010	RRF015	RRF	RRF	% RSD
1-Bromo-4-Fluorobenzene	0.792	0.800	0.757	0.741	0.774		0.773	3.2

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

\* Compounds with required minimum RRF and maximum %RSD values.  
All other compounds must meet a minimum RRF of 0.010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JRHO01  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG No.: D2545  
 Instrument ID: MSVOA\_L Calibration Date/Time: 05/06/2012 01:34  
 Lab File ID: VL017007.D Init. Calib. Date(s): 05/06/2012 05/06/2012  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 02:16 04:13  
 GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	2.411	2.126		-11.82	30
tert-Butyl alcohol	1.591	1.591		0	30
Chloromethane	1.015	0.947		-6.7	30
Methyl Methacrylate	0.338	0.476		40.83	30
Vinyl Chloride	1.031	0.978		-5.14	30
Bromomethane	0.784	0.715		-8.8	30
Chloroethane	0.454	0.423		-6.83	30
Trichlorofluoromethane	3.368	3.101		-7.93	30
Dichlorotetrafluoroethane	2.674	2.494		-6.73	30
1,1,2-Trichlorotrifluoroethane	2.446	2.274		-7.03	30
Bromoethene	0.927	0.894		-3.56	30
Heptane	1.598	1.808		13.14	30
1,1-Dichloroethene	1.021	0.984		-3.62	30
Acetone	1.997	1.507		-24.54	30
Carbon Disulfide	2.628	2.536		-3.5	30
Methyl tert-Butyl Ether	2.338	2.743		17.32	30
Methylene Chloride	1.163	0.904		-22.27	30
Allyl Chloride	0.922	0.940		1.95	30
trans-1,2-Dichloroethene	0.81	0.836		3.21	30
1,1-Dichloroethane	1.876	1.864		-0.64	30
Cyclohexane	1.021	1.153		12.93	30
2-Butanone	0.726	0.807		11.16	30
Carbon Tetrachloride	0.814	0.874		7.37	30
cis-1,2-Dichloroethene	1.112	1.294		16.37	30
Chloroform	2.161	2.119		-1.94	30
1,4-Dioxane	0.078	0.088		12.82	30
1,1,1-Trichloroethane	1.993	2.062		3.46	30
Tetrahydrofuran	0.349	0.445		27.51	30
2,2,4-Trimethylpentane	1.577	1.817		15.22	30
Benzene	0.985	1.101		11.78	30
1,2-Dichloroethane	0.646	0.670		3.72	30
Trichloroethene	0.437	0.538		23.11	30
1,2-Dichloropropane	0.362	0.405		11.88	30
Bromodichloromethane	0.84	0.932		10.95	30
4-Methyl-2-Pentanone	0.8	1.013		26.63	30
Toluene	1.046	1.338		27.92	30
t-1,3-Dichloropropene	0.478	0.649		35.77	30
cis-1,3-Dichloropropene	0.56	0.749		33.75	30

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JRHO01  
 Lab Code: CHEM Case No.: D2545 SAS No.: D2545 SDG No.: D2545  
 Instrument ID: MSVOA\_L Calibration Date/Time: 05/06/2012 01:34  
 Lab File ID: VL017007.D Init. Calib. Date(s): 05/06/2012 05/06/2012  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 02:16 04:13  
 GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.444	0.483		8.78	30
Dibromochloromethane	0.706	0.853		20.82	30
1,2-Dibromoethane	0.654	0.768		17.43	30
Tetrachloroethene	0.401	0.502		25.19	30
Chlorobenzene	1.185	1.203		1.52	30
Ethyl Benzene	1.552	1.846		18.94	30
m/p-Xylene	1.411	1.576		11.69	30
o-Xylene	1.499	1.751		16.81	30
Styrene	0.782	1.059		35.42	30
Bromoform	0.59	0.747		26.61	30
1,1,2,2-Tetrachloroethane	1.187	1.150		-3.12	30
2-Chlorotoluene	1.299	1.665		28.18	30
1,3,5-Trimethylbenzene	1.583	1.860		17.5	30
1,2,4-Trimethylbenzene	1.788	2.024		13.2	30
4-Ethyltoluene	1.529	1.867		22.11	30
1,3-Dichlorobenzene	1.257	1.329		5.73	30
1,4-Dichlorobenzene	1.195	1.294		8.28	30
1,2-Dichlorobenzene	1.178	1.266		7.47	30
1,2,4-Trichlorobenzene	0.887	0.921		3.83	30
Hexachloro-1,3-Butadiene	0.762	0.833		9.32	30
1,3-Butadiene	0.752	0.760		1.06	30
Hexane	1.416	1.447		2.19	30
1-Bromo-4-Fluorobenzene	0.781	0.741		-5.12	30

All other compounds must meet a minimum RRF of 0.010.

# SHIPPING AND RECEIVING DOCUMENTATION

From: (631) 234-2220  
Pat Zalak  
J.R. HOLZMACHER P.E., LLC  
300 WHEELER ROAD SUITE 402

Origin ID: WLMA

**FedEx**  
Express



J12101112190225

Ship Date: 03MAY12  
ActWgt: 25.0 LB  
CAD: 3033057/NET3250

Delivery Address Bar Code



Ref # QUEST 04-01  
Invoice #  
PO #  
Dept #

HAUPPAUGE, NY 11788

SHIP TO: (908) 789-8900

BILL SENDER

Palak Shah  
Chemtech, Inc.  
284 Sheffield Street

Mountainside, NJ 07092

*RR 510412  
9:25*

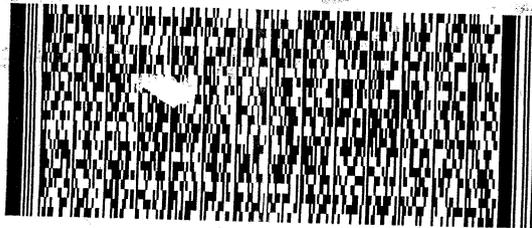
FRI - 04 MAY A1  
STANDARD OVERNIGHT

TRK# 7983 5733 6715

0201

**EB CDWA**

07092  
NJ-US  
EWR



512G36TA4/A278



284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

CHEMTECH Project No. :

D2545

Client Contact Information				Bottle Order ID : <b>B1204104</b>				Courier : <i>Fed ex</i>				1 of 3					
Client ID : <b>JRH001</b> Project ID : <b>KoptD 12-02</b>				Project Manager : <b>HEATHER SONNENBERG</b>				Sampler Name(s) : <i>Heather Sonnenberg</i>				Analysis					
Customer Name : <b>J.R.Holzmacher P.E., LLC</b>				Phone Number : <b>6312342220</b>				<b>AIR ANALYSIS CHAIN-OF-CUSTODY</b>									
Address : <b>300 Wheeler Avenue</b>				Fax Number : <b>6312342221</b>													
City : <b>Hauppauge</b>				Site Details : <i>developed site w/ existing commercial bldg &amp; paved parking</i>													
State : <b>NY</b>				Analysis Turnaround Time : <i>Standard</i>													
Zip Code : <b>11788</b>				Standard : <b>15 business days</b>				Data Package Type :									
Country : <i>US</i>				Rush (Specify): <i>N/A</i> Days				EDD Type :									
Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min)	Can Cert ID	TO-15	Indoor/Ambient Air	Soil Gas
VP-1	5-3-12	8:20 AM	12:20 PM	30	8	50°F	52°F	-30		10767	10275	6 L	25	VL016648.D	✓		
Temperature (Fahrenheit)										GC/MS Analyst Signature (TO-15) <span style="border: 1px solid black; padding: 2px;"><i>Vankuta</i></span>							
		Ambient	Maximum	Minimum													
Start	50°F																
Stop																	
Pressure (Inches of Hg)										** Submittal of this COC indicates approval of the analysis based on existing conditions.  Please follow the instructions on the back of this COC.							
		Ambient	Maximum	Minimum													
Start																	
Stop																	
Special Instructions/QC Requirements & Comments :																	
Suspected Contamination: High Medium <u>Low</u> PID Readings: <i>None</i>																	
Sampling site (State):																	
Quick Connector required : <i>NO</i>																	
Canisters Shipped by: <i>W/20/12</i>				Date/Time: <i>5/20/12</i>				Canisters Received by:				Date/Time:					
Samples Relinquished by: <i>Heather Sonnenberg</i>				Date/Time: <i>5/23/12 1:30 PM</i>				Received by:				Date/Time:					
Relinquished by: <i>FedEx</i>				Date/Time: <i>5/04/12 9:25</i>				Received by: <i>Van Linn</i>				Date/Time: <i>5/04/12 9:25</i>					

B1204104 - 1



284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

CHEMTECH Project No. : D2545

Client Contact Information				Bottle Order ID : <b>B1204104</b>				Courier : <i>Fed ex</i>				<u>2</u> of <u>3</u> COCs					
Client ID : <b>JRH001</b> Project ID : <b>KoptD 12-02</b>				Project Manager : <b>HEATHER SONNENBERG</b>				Sampler Name(s) : <i>Heather Sonnenberg</i>				Analysis		Matrix			
Customer Name : <b>J.R.Holzmacher P.E., LLC</b>				Phone Number : <b>6312342220</b>				<b>AIR ANALYSIS CHAIN-OF-CUSTODY</b>									
Address : <b>300 Wheeler Avenue Suite 402</b>				Fax Number : <b>6312342221</b>													
City : <b>Hauppauge</b>				Site Details : <i>developed site w/ existing commercial bldg &amp; paved parking</i>													
State : <b>NY</b>				Analysis Turnaround Time : <i>Standard</i>													
Zip Code : <b>11788</b>				Standard : <b>15 business days</b>				Data Package Type :				Indoor/Ambient Air		Soil Gas			
Country : <i>US</i>				Rush (Specify): <i>N/A</i> Days				EDD Type :									
Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min)	Can Cert ID	TO-15	Indoor/Ambient Air	Soil Gas
<i>VP-2</i>	<i>5-3-12</i>	<i>8:22 AM</i>	<i>12:20</i>	<i>30</i>	<i>5</i>	<i>50°F</i>	<i>50°F</i>	<i>-30</i>		<i>10522</i>	<i>10294</i>	<i>6 L</i>	<i>25</i>	<i>VL016648.D</i>	<input checked="" type="checkbox"/>		
Temperature (Fahrenheit)										GC/MS Analyst Signature (TO-15) <span style="border: 1px solid black; padding: 5px;"><i>van der...</i></span>							
		Ambient		Maximum		Minimum											
Start		<i>50°F</i>															
Stop																	
Pressure (Inches of Hg)										** Submittal of this COC indicates approval of the analysis based on existing conditions.  Please follow the instructions on the back of this COC.							
		Ambient		Maximum		Minimum											
Start																	
Stop																	
Special Instructions/QC Requirements & Comments :																	
Suspected Contamination: High Medium <u>Low</u> PID Readings: <i>None</i>																	
Sampling site (State):																	
Quick Connector required : <i>NO</i>																	
Canisters Shipped by: <i>AS</i>				Date/Time: <i>5/20/12</i>				Canisters Received by:				Date/Time:					
Samples Relinquished by: <i>AS</i>				Date/Time: <i>5/13/12 1:00 PM</i>				Received by:				Date/Time:					
Relinquished by: <i>Fed Ex</i>				Date/Time: <i>5/14/12 9:25</i>				Received by: <i>Ken Kwere</i>				Date/Time: <i>5/14/12 9:25</i>					



## Laboratory Certification

State	License No.
New Jersey	20012
New York	11376
Connecticut	PH-0649
Florida	E87935
Maryland	296
Massachusetts	M-NJ503
Oklahoma	9705
Pennsylvania	68-548
Rhode Island	LAO00259
Virginia	460220
Texas	T10470448-10-1

Other:

DOD ELAP	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038
CLP Organic Contract	EPW11030

QA Control Code: A2070148

# END OF ANALYTICAL RESULTS

**Internal Chain of Custody**

**Instructions:** Use 1 form for each 20 samples of aliquot

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample			
Laboratory: <u>Chemtech</u>		Location: <u>284 Sheffield Street, Mountainside, NJ 7092</u>	
<del>CONFIDENTIAL</del>		Title: <u>Sample Custodian</u>	
Field Sample Seal No. <u>D2545</u>		Date Broken: <u>5/4/2012</u>	Military Time Seal Broken: <u>09:25:00</u>
Case No.: <u>KoptD 12-02-224Merrick B</u>		Analytical Parameter/Fraction: <u>SUMMA Canister Rental</u>	

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
D2545-01	VP-1		
D2545-02	VP-2		
D2545-03	VP-3		

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
5/12/12	13:30	Signature <i>[Handwritten Signature]</i>	Signature <i>[Handwritten Signature]</i>	JD VOA ADV Leub
		Printed Name <u>SNEHAR</u>	Printed Name <u>[Handwritten Name]</u>	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	

Distribution: White - Original (Sent With Report)    Yellow - Contractor Archive    Pink - Sample Custodian - Interim Copy