



November 30, 2014

Dana Kaplan  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
47-40 21st Street  
Long Island City, NY 11101-5401

Re: 127-13 Merrick Blvd.  
Queens, New York 11413  
Site Code 241128

Dear Ms. Kaplan:

Seacliff Environmental, Inc. (Seacliff) has prepared this Site Characterization Report for the above referenced property (Figure 1). The scope of work presented in this report is based on the approved Site Characterization Work Plan dated July 13, 2011. The site characterization included the drilling of soil borings to characterize and screen soil to groundwater and the collection and analysis of soil, groundwater and sub-slab vapor samples.

#### **BACKGROUND**

127-13 Merrick Blvd, Jamaica (Tax Map Block # 12488, Portion 1) is currently occupied by a Wig and Hair business. It is one of eleven stores in a one story retail strip shopping center. A dry cleaner (Parkway Cleaners) operated at this site for at least 25 years (ceasing operations around 2005).

The group address for the complete strip mall building constructed in 1937 is 127-01 to 127-23 Merrick Blvd. The building occupies the entire street between Selover Road and Anderson Road. It is zoned for commercial use.

#### *Previous Investigations-*

As part of a potential property transaction, my previous company, JRH, was retained by the previous owner to determine if the former dry cleaning operation affected the environmental integrity of the property. JRH inspected the site on September 12, 2006. A tattoo and body



piercing business occupied the building at the time. The basement, however, was empty and unoccupied and a floor drain was identified. The floor drain was stuffed with rags and other debris. When these items were removed a strong perchloroethylene (perc) -odor was evident. Based on this observation, JRH recommended that soil and groundwater samples be collected in this area.

On September 21, 2006 soil samples were collected inside the floor drain using a hand auger with extensions. Soil samples were collected at 1.5, 4.0 and 6.0 feet below grade (defined as the top of the basement slab). The 1.5-foot sample consisted of a heterogeneous mix of rags, plastic, glass and sand with a strong perc odor. This fill was underlain by brown, medium to coarse-grained sand with sub rounded quartz pebbles and rock fragments. The sand unit was encountered at approximately 1.9 feet below grade with groundwater observed at 4.3 feet below grade. There was a strong perc-odor in the 4.0 and 6.0-foot samples collected in the native sand deposits. The 6.0-foot sample was collected from the saturated zone.

Because of the shallow water table, a two-inch diameter monitoring well was installed in the floor drain and a groundwater sample collected. Due to low clearance, the four- foot long stainless steel well point (.010 slots) was placed in the hand auger boring and driven to a depth of nine feet below the top of the basement slab. The well was finished with two-inch diameter black steel riser; cemented in place with a locking cap and protective curb box. The entire floor drain is now sealed around the top of the well casing.

Perc a/k/a tetrachloroethene was detected at 26,200 mg/kg or parts per million (ppm) in the 1.5-foot soil sample; 3,098 ppm in the 4.0-foot soil sample; and 4,737 ppm in the 6.0-foot soil sample. The groundwater sample indicated 30,827 ug/l or parts per billion (ppb) of perc.

#### SUBSURFACE INVESTIGATION

The site basement could only be accessed through stairs and a portable/remote Geoprobe<sup>TM</sup> could not be used due to lack of overhead clearance. Therefore, because of the overhead clearance issues the deepest a boring could be advanced by hand equipment was 9 to 10 feet below basement slab grade (or approximately 17 feet below street level). However, groundwater was present within 5 feet of the slab.

#### *Project Team-*

Site characterization activities were managed by James M. DeMartinis, Senior Hydrogeologist at JRH and Heather Sonnenberg (Project Engineer) with field technicians as needed. The following subcontractors were retained: Zebra Environmental Corp of Lynbrook, New York performed the drilling and well installation under JRH oversight: American Analytical Laboratories of Farmingdale, New York (NYSDOH ELAP #11418) analyzed the soil and groundwater samples: and Chemtech Laboratories of Mountainside New Jersey (NYSDOH ELAP # 11376) analyzed the soil vapor samples.



#### *Drilling of Soil Borings-*

Three soil borings were drilled through the existing concrete slab (approximately 4 inches thick) within the basement of the building. The soil boring locations (designated MW-2, MW-3 and MW-4) are shown on Figure 2 and cover the entire footprint of the building and surround the area of the former floor drain (MW-1).

Soil samples were collected using a stainless steel hand auger with extensions. The soil samples were visually characterized by a JRH engineer and 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 Attachment A.

The soil interval with the highest PID reading as well as the deepest sample was to be collected and delivered to the laboratory for analysis. However, due to overhead clearance issues, the borings ended up bottoming out at ten feet and the highest PID readings were immediately below the slab. Deeper soil screened from 2 to 10 feet below the slab showed no visual/olfactory evidence of contamination and PID readings were 0.0 ppm. Therefore, the 0 to 2- foot below slab soil sample in each boring was collected for analysis. Non-disposable sampling equipment was cleaned using distilled water and Alconox detergent with a distilled water rinse prior to the collection of each sample.

The samples were hand delivered to American Analytical Laboratories, Farmingdale, New York (NYSDOH ID #11418) for analysis. Soil samples were analyzed for TCL VOCs (EPA Method 8260C, rev. 2006), TCL SVOCs (EPA Method 8270D, rev. 2007) and TAL Metals (EPA Method 6010C, rev. 2007).

#### *Monitoring Well Installation-*

Once the maximum depth of ten feet was achieved, monitoring wells were installed in each of the three borings. The monitoring wells, designated MW-2, MW-3 and MW-4, were constructed of one-inch diameter PVC casing and .020 slot PVC screen. Each screen extend approximately five feet into the water table.

The annular space around the screen and two feet above was filled with a clean sand pack. A hydrated bentonite seal was placed directly above the sand pack and the remainder of the annular space grouted with a cement/bentonite mixture. The wells were protected in a metal curb box set in concrete at basement grade.

#### *Off-Premises Monitoring Well Installation-*

Because of the high concentrations at the former source (floor drain), JRH initially recommended additional soil and groundwater sampling in the Merrick Boulevard sidewalk outside of the building, as the regional groundwater flow direction is southwesterly. It was hoped to determine



if the groundwater contamination had reached this point and if so, define the vertical extent of perchloroethylene at this location. However, fresh utility mark outs confirmed that the sidewalk is underlain by a gas line and water main and partially by city sewer (Figure 2).

Because the two monitoring wells could not be installed immediately outside the building in the assumed direction of groundwater flow nor along Merrick Boulevard they were installed west of the former dry cleaner in the Selover Road sidewalk for the purpose of sampling and groundwater flow determination.

Two monitoring wells, designated MW-5 and MW-6, were co-located (or clustered together) in the only area where underground utilities were not present as shown on Figure 2. Continuous soil samples were collected in the two monitoring well borings using a five-foot long Macrocore™ sampler with dedicated acetate liners advanced by a Geoprobe™ to determine the presence/absence of a confining layer(s). The Macrocore™ samples were visually characterized 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 logs were prepared (Attachment A).

Both monitoring wells consist of two-inch diameter PVC casing and screen. The deeper well boring was drilled to 50 feet below grade and no confining layer was encountered. There were no PID readings measured in soil collected from this boring. The 8 to 10 foot below grade soil sample was collected for analysis because it had a slight septic-type odor.

For monitoring well MW-5, a 15- foot long screen was set at 28 to 43 feet below grade because the hole would not stay open to 50 feet due to running sand (despite multiple attempts). For the shallow well (MW-6), a ten-foot section of .020 well screen was be installed from 7 to 17 feet below grade to bridge the water table.

The annular space around the screen and two feet above was filled with a clean sand pack. A hydrated bentonite seal was placed directly above the sand pack and the remainder of the annular space grouted with a cement/bentonite mixture. The wells are protected in a metal curb box set in concrete at grade.

#### *Monitoring Well Surveying and Sampling-*

A designated measuring point on the top of each well casing was surveyed vertically by JRH to a common datum.

The six wells were purged and sampled by an experienced sampling crew on October 27, 2011. Water levels were measured and groundwater samples collected using low-flow sampling methods. Prior to sampling, each well was purged a minimum of three casing volumes with per-well dedicated 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.

Temperature, pH, dissolved oxygen, turbidity and conductivity measurements were collected and recorded after the removal of each casing volume. Well sampling logs were prepared and are provided in Attachment B. The groundwater samples were hand delivered to American Analytical Laboratories, Farmingdale, New York (NYSDOH ID #11418) for analysis. Groundwater samples were analyzed for TCL VOCs (EPA 8260), TCL SVOCs (EPA 8270) and the TAL Metals (unfiltered and filtered).

*Soil Vapor Testing-*

Three additional borings were advanced to two feet below the basement slab to install temporary sub-slab vapor sampling points (Figure 1). The temporary vapor points, designated VP-1, VP-2 and VP-3, consist of six-inch diameter stainless steel implants. PID readings were significantly elevated in the soil at the VP-1 and VP-2 locations (153 and 1335 ppm respectively).

No water was used during the installation of the temporary probes. Teflon<sup>TM</sup> lined polyethylene tubing extends 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<sup>TM</sup> 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). Helium was used as a tracer gas to confirm that the samples were not affected by ambient air. The NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006 was adhered to.

The vapor samples were collected over a 30 minute 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).

## **ANALYTICAL RESULTS**

*Soil Samples-*

The analytical results for soil samples are summarized on Tables 1, 2 and 3 and the laboratory report is presented in Attachment C. Soil analytical results were compared to 6 NYCRR Part 375-6.8 Restricted Commercial Soil Cleanup Levels (SCOs).

No VOCs were detected above SCOs. There were trace detections of several VOCs in the three

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basement soil samples. Perchloroethylene was detected at a laboratory estimated concentration of 2.4 ug/l in the sample from boring MW-4 and at 35 ug/l in the sample from boring MW-3. Methylene chloride was detected at very low concentrations in all three samples but was flagged as a laboratory contaminant because of its presence in the associated analytical method blank sample.

No SVOCs were detected in the three basement boring samples and metals concentrations did not exceed SCOs.

There were no detections of VOCs and SVOCs in the soil sample collected from the deep outside monitoring well boring, MW-5. Metals concentrations did not exceed SCOs in this sample.

*Groundwater Samples-*

Tables 4, 5, and 6 summarize the laboratory data for the six groundwater samples. The laboratory report is included in Attachment C. Groundwater analytical results were compared to the New York State Groundwater Standards specified in the NYSDEC Addendum to June 1998 Division of Water Technical and Operational Guidance Series (TOGS) No. 1.1.1.

Tetrachloroethene (also known as perchloroethylene or perc) was detected in five of the six groundwater samples. Perc was detected in the samples collected from all four basement monitoring wells as follows: MW-1 (41 ug/l); MW-2 (1.9 ug/l); MW-3 (190 ug/l); and MW-4 (35 ug/l). Perc was detected at a laboratory estimated concentration of 0.67 ug/l in the deep outside monitoring well but was not detected in the sample from the shallow outside well.

There were minor detections of petroleum constituents in some of the monitoring well samples but all at concentrations below their respective Groundwater Standards. Methylene chloride was also detected at very low concentrations but was flagged as a laboratory contaminant because of its presence in the associated analytical method blank sample.

There were minor detections of SVOCs in several of the monitoring well samples but at concentrations below their respective Groundwater Standards.

Total concentrations for some metals were detected above their respective New York State Groundwater Standards in all six samples. However, dissolved concentrations were much lower and exceedances were for manganese and sodium in the sample collected from MW-4 and iron and sodium in the sample from MW-5.

*Groundwater Flow-*

Water levels were measured in the six wells prior to purging and sampling on October 27, 2011. Using the survey data, relative groundwater elevations were obtained and are plotted on Figure 3. Unfortunately the data is anomalous and does not allow for contouring and determination of



groundwater flow. If the anomalously low elevation in MW-2 is ignored, then groundwater flow appears to be southwesterly (regional direction). Based on the groundwater elevations in the two co-located (outside) wells there appears to be a slight downward gradient.

#### *Soil Vapor Samples-*

Table 7 summarizes the laboratory data for the vapor samples. The laboratory report is included in Attachment D. Consistent with PID readings the concentrations of perchloroethylene were extremely high in the sub-slab samples collected from VP-1 and VP-2 and the laboratory had to dilute the samples.

Perc was detected undiluted at a concentration over 500,000 ug/m<sup>3</sup> in the sample from VP-1 and at a concentration of over 270,000 ug/m<sup>3</sup> in the sample from VP-2. Perc was also elevated in the sample from VP-3 (over 13,000 ug/m<sup>3</sup>). High concentrations of two perchloroethylene daughter products, cis-1, 2-dichloroethene and trichloroethylene, were also detected. A petroleum compound, 2, 2, 4 trimethylpentane, was detected in VP-2 at an elevated concentration.

The NYSDOH recommends that the average air concentration in a *residential* community not exceed 100 ug/m<sup>3</sup> of perc, considering *continuous lifetime* exposure and sensitive people. Similarly, the NYSDOH set a guideline of 5 ug/m<sup>3</sup> for trichloroethylene in air.

#### *Additional Soil Vapor Samples*

Due to the elevated levels of perc in the sub slab and indoor air samples in the 127-13 basement, sub slab and indoor air samples were collected in the two adjacent basements on June 5, 2012. The samples were designated VP-4 (east) and VP-5 (west). Elevated perc was detected in the sub slab air and in indoor air samples. These data are included in Attachment E along with a sample location map, data summary tables, and the analytical report.

## **RECOMMENDATIONS**

Because of the high perchloroethylene concentrations in sub slab vapor and documented soil contamination under the 127 - 13 basement in the area of the former floor drain, interim remedial action was recommended. This remedial action included the removal and proper disposal of contaminated soil, installation of a vapor barrier, and the design/installation of a sub-slab depressurization system for the entire strip mall. Confirmatory vapor, soil and groundwater sampling would be conducted.

Please call if you have any questions or would like to discuss the project further.



## CERTIFICATION

I, James M. DeMartinis, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Site Characterization report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

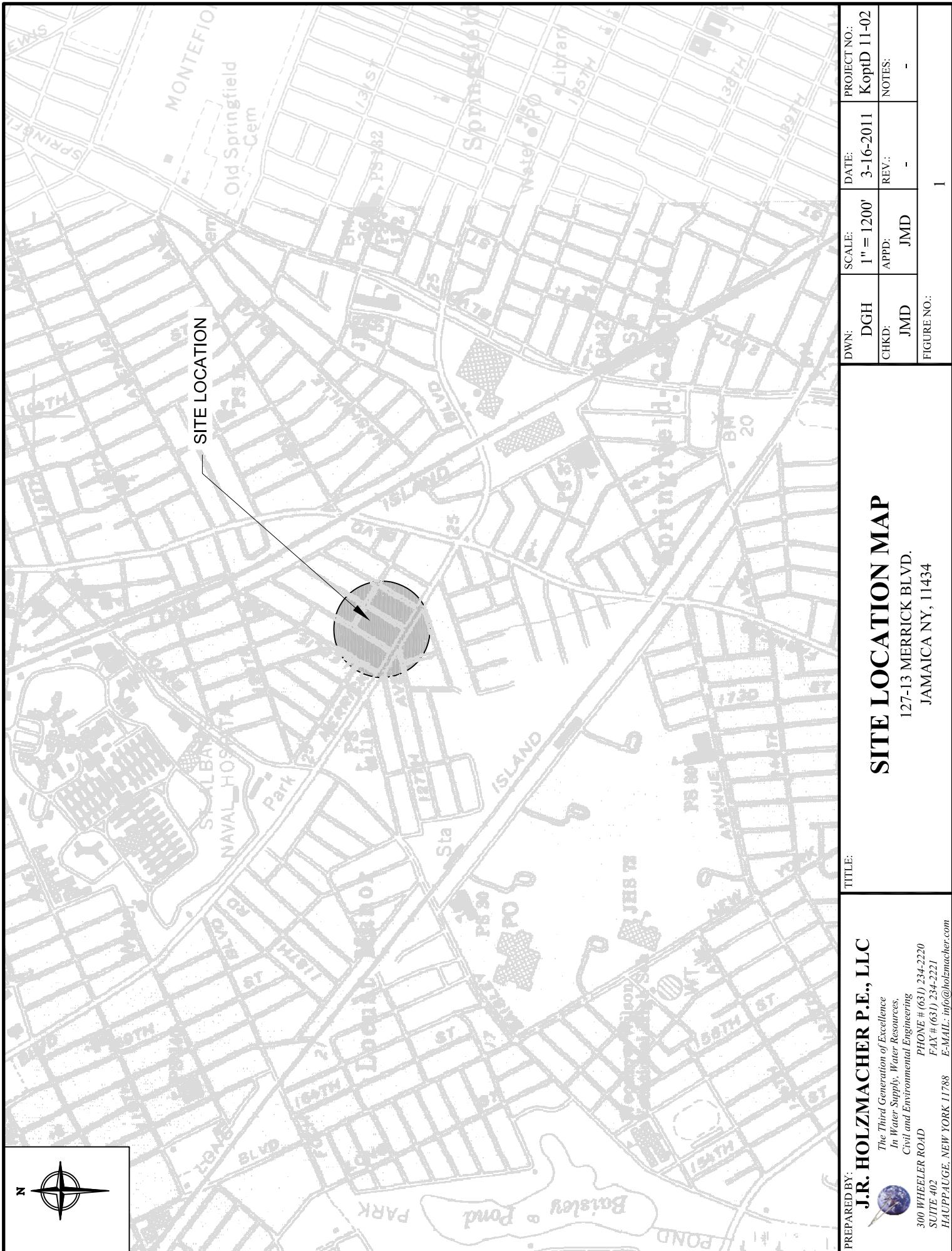
Very Truly Yours,  
**Seacliff Environmental, Inc.**

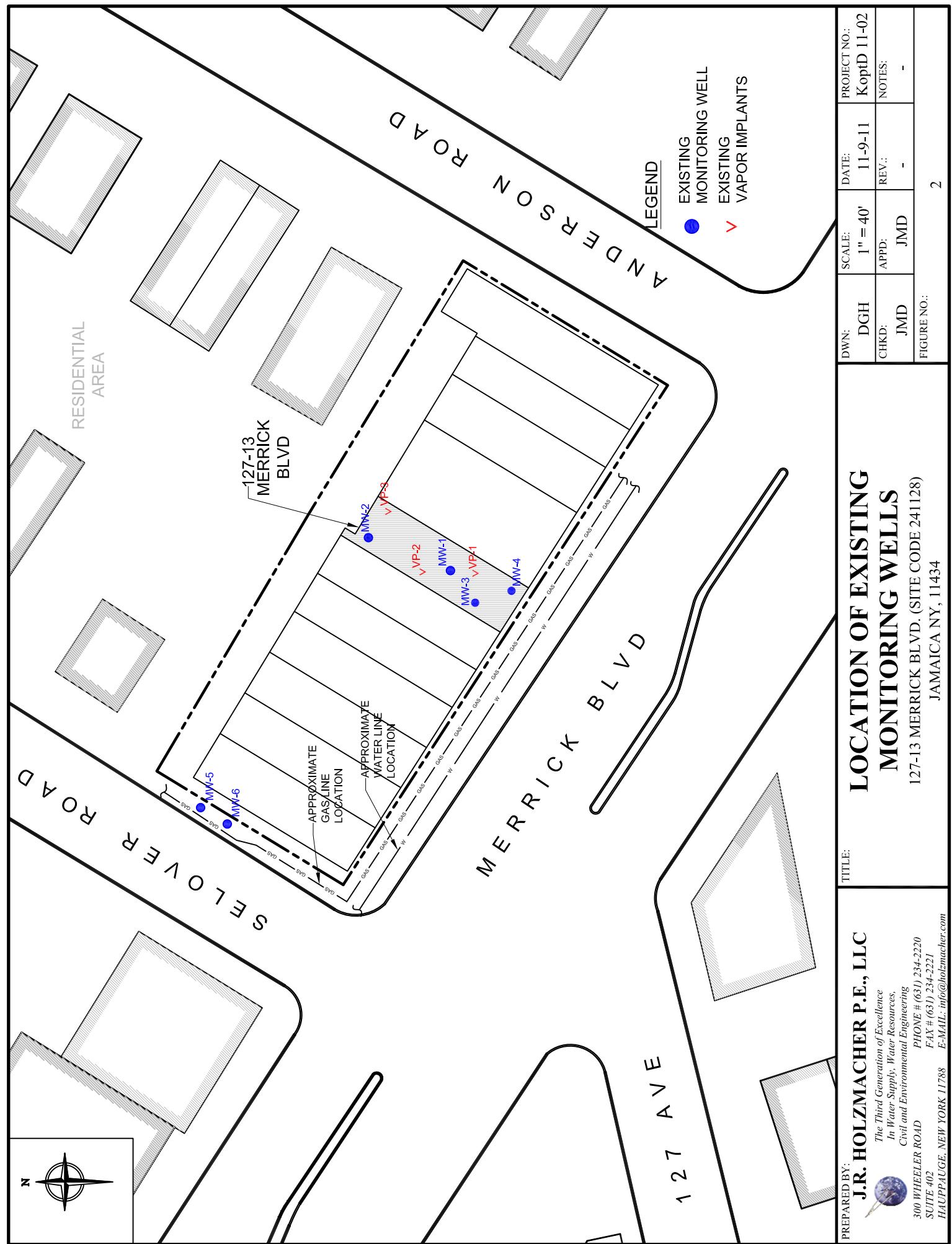
A handwritten signature in black ink that reads "James M. DeMartinis".

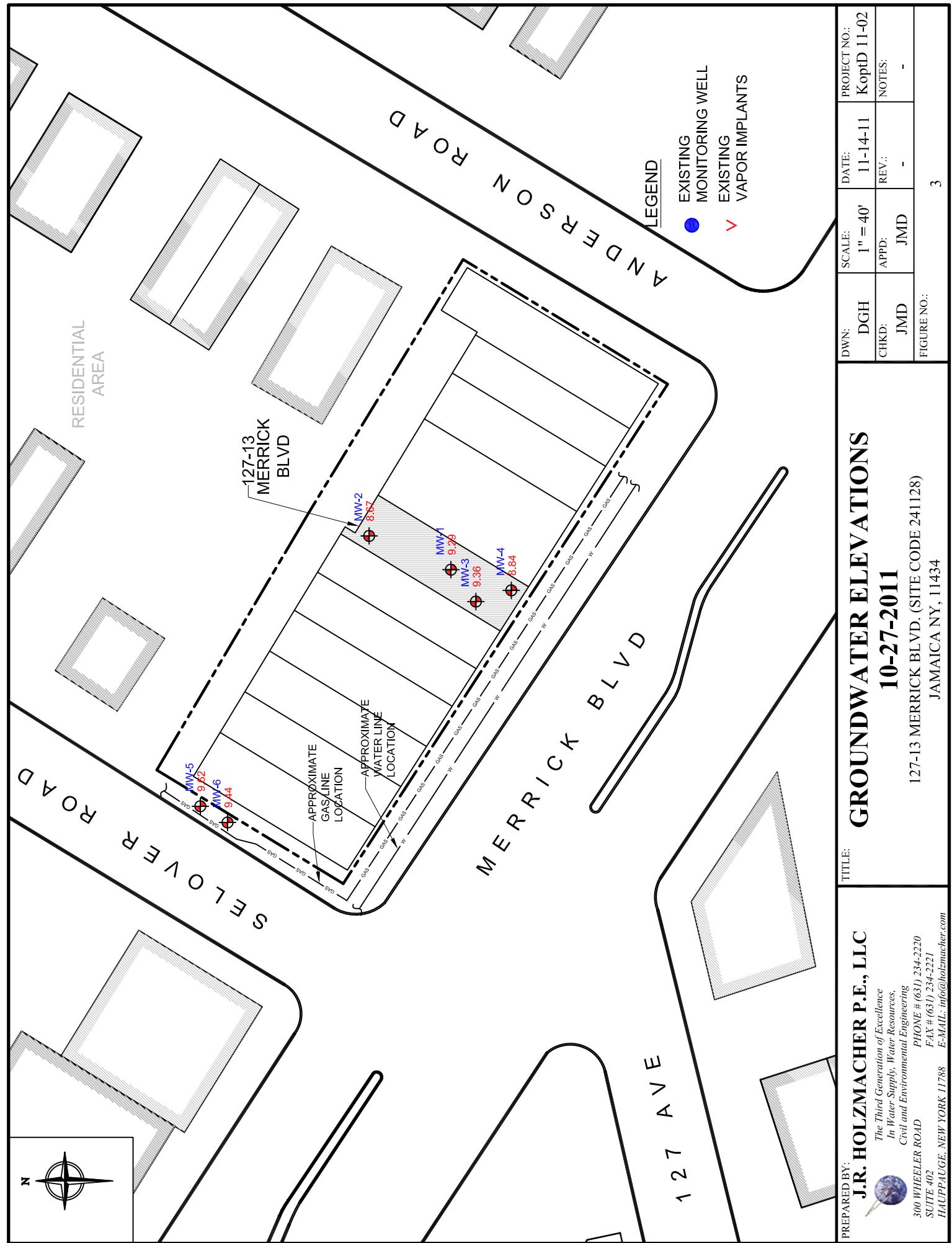
James M. DeMartinis P.G.  
Senior Hydrogeologist

CC David Koptiev

## Figures







## Tables

127-13 Merrick Blvd.  
 Queens, New York 11413  
 Site Code 241128

Table 1  
 Volatile Organic Chemicals for Soils  
 EPA Method 8260

<b>Client Sample ID:</b>		RSCOs	<b>MW-2</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-5</b>
<b>Laboratory ID:</b>						
<b>Sampling Date:</b>			<b>10/05/2011</b>	<b>10/05/2011</b>	<b>10/04/2011</b>	<b>10/05/2011</b>
<b>Analyte:</b>	<b>Units:</b>					
1,1,1,2-Tetrachloroethane	PPM	NA	ND	ND	ND	ND
1,1,1-Trichloroethane	PPM	500	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPM	0.6	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	PPM	NA	ND	ND	ND	ND
1,1,2-Trichloroethane	PPM	NA	ND	ND	ND	ND
1,1-Dichloroethane	PPM	240	ND	ND	ND	ND
1,1-Dichloroethene	PPM	500	ND	ND	ND	ND
1,1-Dichloropropene	PPM	NA	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPM	NA	ND	ND	ND	ND
1,2,3-Trichloropropane	PPM	NA	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPM	NA	ND	ND	ND	ND
1,2,4-Trichlorobenzene	PPM	NA	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPM	190	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPM	NA	ND	ND	ND	ND
1,2-Dibromoethane	PPM	NA	ND	ND	ND	ND
1,2-Dichlorobenzene	PPM	500	ND	ND	ND	ND
1,2-Dichloroethane	PPM	30	ND	ND	ND	ND
1,2-Dichloropropane	PPM	NA	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPM	190	ND	ND	ND	ND
1,3-Dichlorobenzene	PPM	280	ND	ND	ND	ND
1,3-dichloropropane	PPM	NA	ND	ND	ND	ND
1,4-Dichlorobenzene	PPM	130	ND	ND	ND	ND
1,4-Dioxane	PPM	130	ND	ND	ND	ND
2,2-Dichloropropane	PPM	NA	ND	ND	ND	ND
2-Butanone	PPM	100	ND	ND	ND	ND
2-Chloroethyl vinyl ether	PPM	NA	ND	ND	ND	ND
2-Chlorotoluene	PPM	NA	ND	ND	ND	ND
2-Hexanone	PPM	NA	ND	ND	ND	ND
2-Propanol	PPM	NA	ND	ND	ND	ND
4-Chlorotoluene	PPM	NA	ND	ND	ND	ND
4-Isopropyltoluene	PPM	10	ND	ND	ND	ND
4-Methyl-2-pentanone	PPM	1.0	ND	ND	ND	ND
Acetone	PPM	500	ND	ND	ND	ND
Acrolein	PPM	NA	ND	ND	ND	ND
Acrylonitrile	PPM	NA	ND	ND	ND	ND
Benzene	PPM	44	ND	ND	ND	ND
Bromobenzene	PPM	NA	ND	ND	ND	ND
Bromochloromethane	PPM	NA	ND	ND	ND	ND

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Table 1  
 Volatile Organic Chemicals for Soils  
 EPA Method 8260

<b>Client Sample ID:</b>		RSCOs	<b>MW-2</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-5</b>
<b>Laboratory ID:</b>						
<b>Sampling Date:</b>			<b>10/05/2011</b>	<b>10/05/2011</b>	<b>10/04/2011</b>	<b>10/05/2011</b>
<b>Analyte:</b>	<b>Units:</b>					
Bromodichloromethane	PPM	NA	ND	ND	ND	ND
Bromoform	PPM	NA	ND	ND	ND	ND
Bromomethane	PPM	NA	ND	ND	ND	ND
Carbon disulfide	PPM	2.7	ND	ND	ND	ND
Carbon tetrachloride	PPM	22	ND	ND	ND	ND
Chlorobenzene	PPM	500	ND	ND	ND	ND
Chlorodifluoromethane	PPM	NA	ND	ND	ND	1.6J
Chloroethane	PPM	NA	ND	ND	ND	ND
Chloroform	PPM	350	ND	ND	ND	ND
Chloromethane	PPM	NA	ND	ND	ND	ND
cis-1,2-Dichloroethene	PPM	500	ND	ND	ND	ND
cis-1,3-Dichloropropene	PPM	NA	ND	ND	ND	ND
Dibromochloromethane	PPM	NA	ND	ND	ND	ND
Dibromomethane	PPM	NA	ND	ND	ND	ND
Dichlorodifluoromethane	PPM	NA	ND	ND	ND	ND
Diisopropyl ether	PPM	NA	ND	ND	ND	ND
Ethanol	PPM	NA	ND	ND	ND	ND
Ethyl acetate	PPM	NA	ND	ND	ND	ND
Ethylbenzene	PPM	390	ND	ND	ND	ND
Freon-114	PPM	NA	ND	ND	ND	ND
Hexachlorobutadiene	PPM	NA	ND	ND	ND	ND
Isopropyl acetate	PPM	NA	ND	ND	ND	ND
Isopropylbenzene	PPM	2.3	ND	ND	ND	ND
m,p-Xylene	PPM	500	ND	ND	ND	ND
Methyl Acetate	PPM	NA	ND	ND	ND	ND
Methyl tert-butyl ether	PPM	500	ND	ND	ND	ND
Methylene chloride	PPM	500	0.007B	0.0071B	0.0065B	0.0087B
n-Amyl acetate	PPM	NA	ND	ND	ND	ND
Naphthalene	PPM	12	ND	ND	ND	ND
n-Butyl acetate	PPM	NA	ND	ND	ND	ND
n-Butylbenzene	PPM	12	ND	ND	ND	ND
n-Propyl acetate	PPM	NA	ND	ND	ND	ND
n-Propylbenzene	PPM	500	ND	ND	ND	ND
o-Xylene	PPM	500	ND	ND	ND	ND
p-Diethylbenzene	PPM	NA	ND	ND	ND	ND
p-Ethyltoluene	PPM	NA	ND	ND	ND	ND
sec-Butylbenzene	PPM	500	ND	ND	ND	ND
Styrene	PPM	NA	ND	ND	ND	ND

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Table 1  
Volatile Organic Chemicals for Soils  
EPA Method 8260

Client Sample ID:	RSCOs	MW-2	MW-3	MW-4	MW-5
Laboratory ID:					
Sampling Date:		10/05/2011	10/05/2011	10/04/2011	10/05/2011
Analyte:	Units:				
t-Butyl alcohol	PPM	NA	ND	ND	ND
tert-Butylbenzene	PPM	500	ND	ND	ND
Tetrachloroethene	PPM	150	ND	0.035	0.0024J
Toluene	PPM	500	ND	ND	ND
trans-1,2-Dichloroethene	PPM	500	ND	ND	ND
trans-1,3-Dichloropropene	PPM	NA	ND	ND	ND
Trichloroethene	PPM	200	ND	ND	ND
Trichlorofluoromethane	PPM	NA	ND	ND	ND
Vinyl acetate	PPM	NA	ND	ND	ND
Vinyl chloride	PPM	13	ND	ND	ND

**Notes:**

All results in ppm

ND - Not detected

NA-Not Available

J- Estimated Concentration

B- Analyte detected in blank

SCOs- Commercial Soil Cleanup

Objectives as per Part 375-6.8(b)

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

<b>Client Sample ID:</b>	<b>SCOs</b>	<b>MW-2</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-5</b>
<b>Sampling Date:</b>		<b>10/05/2011</b>	<b>10/05/2011</b>	<b>10/04/2011</b>	<b>10/05/2011</b>
<b>Analyte:</b>	<b>Units:</b>				
Acenaphthene	PPM	20	ND	ND	ND
Acenaphthylene	PPM	100	ND	ND	ND
Anthracene	PPM	100	ND	ND	ND
Benzo(a)anthracene	PPM	1	ND	ND	ND
Benzo(a)pyrene	PPM	1	ND	ND	ND
Benzo(b)fluoranthene	PPM	1	ND	ND	ND
Benzo(g,h,i)perylene	PPM	100	ND	ND	ND
Benzo(k)fluoranthene	PPM	0.8	ND	ND	ND
Chrysene	PPM	1	ND	ND	ND
Dibenzo(a,h)anthracene	PPM	0.33	ND	ND	ND
Fluoranthene	PPM	100	ND	ND	ND
Fluorene	PPM	30	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	PPM	0.5	ND	ND	ND
Phenanthrene	PPM	100	ND	ND	ND
Pyrene	PPM	100	ND	ND	ND

**Notes:**

*All results in parts per million (ppm)*

*ND - Not detected*

*SCOs- Commercial Soil Cleanup*

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

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Table 3  
 TAL Metals Analysis for Soil

<b>Client Sample ID:</b>		<b>SCOs</b>	<b>MW-2</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-5</b>
<b>Sampling Date:</b>			<b>10/05/2011</b>	<b>10/05/2011</b>	<b>10/04/2011</b>	<b>10/05/2011</b>
<b>Analyte:</b>	<b>Units:</b>					
Aluminum	PPM	SB	1440	1790	1620	850
Antimony	PPM	SB	ND	ND	ND	ND
Arsenic	PPM	16	0.414J	0.617	0.573	0.682
Barium	PPM	400	10.1	12.0	10.5	6.71
Beryllium	PPM	590	ND	ND	ND	ND
Cadmium	PPM	9.3	ND	ND	ND	ND
Calcium	PPM	SB	98.7	1060	148	431
Chromium	PPM	400	5.03	6.68	5.40	6.11
Cobalt	PPM	SB	ND	ND	ND	ND
Copper	PPM	270	3.69	5.89	5.05	3.10
Iron	PPM	SB	5520	7380	6930	5360
Lead	PPM	1000	1.43	1.87	1.61	1.80
Magnesium	PPM	SB	521	618	527	384
Manganese	PPM	10000	57.6	112	119	68.3
Mercury	PPM	2.8	0.0134	0.00651J	ND	0.0104
Nickel	PPM	310	5.59	7.74	6.57	4.33
Potassium	PPM	SB	321	394	302	232
Selenium	PPM	1500	ND	ND	ND	ND
Silver	PPM	1500	ND	ND	ND	ND
Sodium	PPM	SB	13.2	19.0	13.9	20.6
Thallium	PPM	SB	ND	ND	ND	ND
Vanadium	PPM	SB	5.05	6.39	5.62	5.85
Zinc	PPM	10000	8.62	11.9	8.56	7.23

**Notes:**

All results in parts per million (ppm)

ND - Not detected

*SCOs- Commercial Soil Cleanup*

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

127-13 Merrick Blvd.  
 Queens, New York 11413  
 Site Code 241128

Table 4  
 Volatile Organic Chemicals for GW  
 EPA Method 8260

Client Sample ID:		NYS Groundwater Standards	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	Trip Blank
Sampling Date:			10/27/2011	10/27/2011	10/27/2011	10/27/2011	10/27/2011	10/27/2011	10/27/2011
Analyte:	Units:								
1,1,1,2-Tetrachloroethane	PPB	5	ND						
1,1,1-Trichloroethane	PPB	5	ND						
1,1,2,2-Tetrachloroethane	PPB	0.2	ND						
1,1,2-Trichloro-1,2,2-trifluoroethane	PPB	1	ND						
1,1,2-Trichloroethane	PPB	5	ND						
1,1-Dichloroethane	PPB	5	ND						
1,1-Dichloroethene	PPB	5	ND						
1,1-Dichloropropene	PPB	5	ND						
1,2,3-Trichlorobenzene	PPB	5	ND						
1,2,3-Trichloropropane	PPB	0.04	ND						
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	1.7	ND	ND	ND	ND
1,2,4-Trichlorobenzene	PPB	5	ND						
1,2,4-Trimethylbenzene	PPB	5	ND						
1,2-Dibromo-3-chloropropane	PPB	0.04	ND						
1,2-Dibromoethane	PPB	5	ND						
1,2-Dichlorobenzene	PPB	3	ND						
1,2-Dichloroethane	PPB	0.6	ND						
1,2-Dichloropropane	PPB	5	ND						
1,3,5-Trimethylbenzene	PPB	5	ND						
1,3-Dichlorobenzene	PPB	3	ND						
1,3-dichloropropane	PPB	0.4	ND						
1,4-Dichlorobenzene	PPB	NR	ND						
1,4-Dioxane	PPB	3	ND						
2,2-Dichloropropane	PPB	1	ND						
2-Butanone	PPB	50*	ND						
2-Chloroethyl vinyl ether	PPB	50*	ND						
2-Chlorotoluene	PPB	5	ND						
2-Hexanone	PPB	50*	ND						
2-Propanol	PPB	7	ND						
4-Chlorotoluene	PPB	5	ND						
4-Isopropyltoluene	PPB	5	ND						
4-Methyl-2-pentanone	PPB	50*	ND						
Acetone	PPB	50*	ND						
Acrolein	PPB	20	ND						
Acrylonitrile	PPB	5	ND						
Benzene	PPB	1	ND						
Bromobenzene	PPB	5	ND						
Bromochloromethane	PPB	5	ND						
Bromodichloromethane	PPB	50*	ND						
Bromoform	PPB	50*	ND						
Bromomethane	PPB	5	ND						
Carbon disulfide	PPB	50*	ND						
Carbon tetrachloride	PPB	5	ND						
Chlorobenzene	PPB	5	ND						
Chlorodifluoromethane	PPB	50*	ND						
Chloroethane	PPB	5	ND						
Chloroform	PPB	7	ND						
Chloromethane	PPB	5	ND						
cis-1,2-Dichloroethene	PPB	5	ND						
cis-1,3-Dichloropropene	PPB	0.4	ND						
Dibromochloromethane	PPB	5	ND						
Dibromomethane	PPB	5	ND						

127-13 Merrick Blvd.  
 Queens, New York 11413  
 Site Code 241128

Table 4  
 Volatile Organic Chemicals for GW  
 EPA Method 8260

Client Sample ID:		NYS Groundwater Standards	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	Trip Blank
Sampling Date:			10/27/2011	10/27/2011	10/27/2011	10/27/2011	10/27/2011	10/27/2011	10/27/2011
Analyte:	Units:								
Dichlorodifluoromethane	PPB	5	ND						
Diisopropyl ether	PPB	50*	ND						
Ethanol	PPB	50*	ND						
Ethyl acetate	PPB	50*	ND						
Ethylbenzene	PPB	5	ND						
Freon-114	PPB	50*	ND						
Hexachlorobutadiene	PPB	0.5	ND						
Isopropyl acetate	PPB	50*	ND						
Isopropylbenzene	PPB	5	ND						
m,p-Xylene	PPB	5	ND						
Methyl Acetate	PPB	50*	ND						
Methyl tert-butyl ether	PPB	10	ND						
Methylene chloride	PPB	5	3.8B	5.0B	5.0B	5.3B	6.0B	6.3B	8.0B
n-Amyl acetate	PPB	50*	ND						
Naphthalene	PPB	10	ND						
n-Butyl acetate	PPB	50*	ND						
n-Butylbenzene	PPB	5	ND						
n-Propyl acetate	PPB	50*	ND						
n-Propylbenzene	PPB	5	ND						
o-Xylene	PPB	5	ND						
p-Diethylbenzene	PPB	50*	ND						
p-Ethyltoluene	PPB	50*	ND						
sec-Butylbenzene	PPB	5	ND						
Styrene	PPB	5	ND						
t-Butyl alcohol	PPB	50*	ND						
tert-Butylbenzene	PPB	5	ND						
Tetrachloroethene	PPB	5	41	1.9	190	35	0.67J	ND	ND
Toluene	PPB	5	ND	ND	1.1	ND	0.83J	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND						
trans-1,3-Dichloropropene	PPB	0.4	ND						
Trichloroethene	PPB	5	ND						
Trichlorofluoromethane	PPB	5	ND						
Vinyl acetate	PPB	50*	ND						
Vinyl chloride	PPB	2	ND						

**Notes:**

All results in ppm

ND - Not detected

J- Estimated Concentration

B- Analyte detected in blank

\* - Guidance Value

127-13 Merrick Blvd.  
 Queens, New York 11413  
 Site Code 241128

Table 5  
 Semi Volatile Organic Chemicals (SVOCs) for Groundwater  
 EPA Method 8270

<b>Client Sample ID:</b>		<b>NYS Groundwater Standards</b>	<b>MW-1</b>	<b>MW-2</b>	<b>MW-3</b>	<b>MW-4</b>	<b>MW-5</b>	<b>MW-6</b>
<b>Sampling Date:</b>			<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>
<b>Analyte:</b>	<b>Units:</b>							
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	PPB	5	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	PPB	5	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	PPB	10	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	PPB	4.7	ND	ND	ND	ND	ND	ND
2-Nitroaniline	PPB	5	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	PPB	5	ND	ND	ND	ND	ND	ND
3-Nitroaniline	PPB	5	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	PPB	NS	ND	ND	ND	ND	ND	ND
4-Chloroaniline	PPB	5	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	PPB	NS	ND	ND	ND	ND	ND	ND
4-Nitroaniline	PPB	5	ND	ND	ND	ND	ND	ND
Acenaphthene	PPB	20	ND	ND	0.68J	ND	ND	ND
Acenaphthylene	PPB	NS	ND	ND	ND	ND	ND	ND
Aniline	PPB	5	ND	ND	ND	ND	ND	ND
Anthracene	PPB	50	0.89J	ND	ND	ND	ND	ND
Azobenzene	PPB	5	ND	ND	ND	ND	ND	ND
Benzidine	PPB	5	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	PPB	0.002	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	PPB	NS	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	PPB	0.002	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	PPB	5	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	PPB	0.002	ND	ND	ND	ND	ND	ND
Benzyl alcohol	PPB	NS	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	PPB	NS	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	PPB	1	ND	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	PPB	NS	ND	ND	ND	ND	ND	ND
Carbazole	PPB	NS	ND	ND	ND	ND	ND	ND
Chrysene	PPB	0.002	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	PPB	NS	ND	ND	ND	ND	ND	ND
Dibenzofuran	PPB	NS	ND	ND	ND	ND	ND	ND
Fluoranthene	PPB	50	ND	ND	ND	ND	ND	ND
Fluorene	PPB	50	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	PPB	0.04	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	PPB	5	ND	ND	ND	ND	ND	ND
Hexachloroethane	PPB	5	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	PPB	0.002	ND	ND	ND	ND	ND	ND
Isophorone	PPB	50	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	10*	ND	ND	ND	ND	ND	ND
Nitrobenzene	PPB	0.4	ND	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	PPB	50	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	PPB	NS	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	PPB	50	ND	ND	ND	1.1J	ND	ND

127-13 Merrick Blvd.  
Queens, New York 11413  
Site Code 241128

Table 5  
Semi Volatile Organic Chemicals (SVOCs) for Groundwater  
EPA Method 8270

Client Sample ID:		NYS Groundwater Standards	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
<b>Sampling Date:</b>			<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>	<b>10/27/2011</b>
<b>Analyte:</b>	<b>Units:</b>							
Phenanthrene	PPB	50	0.96J	ND	0.68J	0.85J	ND	ND
Pyrene	PPB	50	ND	ND	ND	ND	ND	ND
Pyridine	PPB	50	ND	ND	ND	ND	ND	ND

**Notes:**

All results in ppb

ND - Not detected

NS - No Standard

J - Laboratory Estimated Concentration

\* - Guidance Value

127-13 Merrick Blvd.  
 Queens, New York 11413  
 Site Code 241128

Table 6  
 TAL Metals Analysis for Groundwater

Client Sample ID:		NYS Groundwater Standards	MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6		
			Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved		
<b>Sampling Date:</b>																
<b>Analyte:</b> Units:																
Aluminum	PPM	SB	6.72	0.0200	43.1	0.0360	38.3	0.0170J	129	0.0670	0.923	0.157	4.30	0.0320		
Antimony	PPM	3.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Arsenic	PPM	25.0	ND	ND	0.0230J	ND	0.0220J	ND	0.0600	ND	ND	ND	ND	ND		
Barium	PPM	1000.0	0.271	0.120	0.292	0.0600	0.430	0.107	1.09	0.113	0.132	0.181	0.107	0.0790		
Beryllium	PPM	3.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Cadmium	PPM	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Calcium	PPM	SB	28.1	30.1	48.5	45.6	32.2	30.9	43.6	32.6	28.6	40.5	32.6	33.5		
Chromium	PPM	50.0	0.102	ND	0.160	ND	0.155	ND	0.409	ND	0.0280	0.00600J	0.0440	ND		
Cobalt	PPM	SB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Copper	PPM	200.0	0.0280	ND	0.194	ND	0.190	ND	0.508	ND	0.0110J	0.00500J	ND	ND		
Iron	PPM	300.0	300	0.289	141	0.0620	131	0.0190J	546	0.141	3.96	3.38	21.3	0.0980		
Lead	PPM	25.0	0.0470	ND	0.0760	ND	0.0600	ND	0.165	ND	ND	ND	0.00800	ND		
Magnesium	PPM	35000.0	3.45	2.80	11.0	4.51	8.54	2.93	29.0	3.08	5.32	7.36	3.33	2.97		
Manganese	PPM	300.0	1.28	0.138	3.39	0.0220	3.45	0.0860	10.8	0.475	0.196	0.273	0.303	0.0510		
Mercury	PPM	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Nickel	PPM	100.0	0.0690	ND	0.176	0.0210	0.174	ND	0.427	ND	0.0270	0.0150J	ND	ND		
Potassium	PPM	SB	7.84	7.98	8.07	2.90	8.84	4.75	28.4	4.80	3.24	4.89	3.34	3.21		
Selenium	PPM	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Silver	PPM	50.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Sodium	PPM	20000.0	14.2	16.0	13.9	14.2	17.0	17.2	27.2	26.4	46.2	42.8	ND	14.4		
Thallium	PPM	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Vanadium	PPM	SB	0.0170J	ND	0.114	ND	0.0990	ND	0.407	ND	ND	ND	ND	ND		
Zinc	PPM	2000.0	0.281	0.0190J	0.481	0.0210	0.330	0.0100J	0.582	0.0110J	0.0800	0.0270	0.129	0.0200		

**Notes:**

All results in parts per million (ppm)

ND - Not detected

J - Laboratory Estimated Concentration

Table 7  
 Vapor Sampling

Sample ID	VP-1	VP-1DL	VP-2	VP-2DL	VP-3	VP-3DL
Sampling Date	10/4/2011	10/4/2011	10/4/2011	10/4/2011	10/4/2011	10/4/2011
Matrix	AIR	AIR	AIR	AIR	AIR	AIR
Dilution Factor	120	1200	60	1200	10	400
Units	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3
COMPOUND						
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	25.1	ND
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,4-Dioxane	ND	ND	ND	ND	ND	ND
2,2,4-Trimethylpentane	ND	ND	3082	3456D	ND	ND
2-Butanone	ND	ND	ND	ND	32.4	ND
2-Chlorotoluene	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	ND	ND	ND	ND	7.37J	ND
4-Methyl-2-Pentanone	ND	ND	ND	ND	18.8J	ND
Acetone	211	ND	427	ND	163	ND
Allyl Chloride	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoethene	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1308	1466JD	396	ND	36.1	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND
Dichlorotetrafluoroethane	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	8.69J	ND
Heptane	ND	ND	ND	ND	11.1J	ND
Hexachloro-1,3-Butadiene	ND	ND	ND	ND	ND	ND
Hexane	ND	ND	ND	ND	ND	ND
m/p-Xylene	ND	ND	ND	ND	32.6J	ND
Methyl Methacrylate	ND	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	12.5J	ND
o-Xylene	ND	ND	ND	ND	10.4J	ND
Styrene	ND	ND	ND	ND	ND	ND
t-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND
tert-Butyl alcohol	60.6J	ND	57.6J	ND	42.4	ND
Tetrachloroethene	515370E	1966540ED	271247E	1288430ED	13562E	52893ED

127-13 Merrick Blvd.  
 Queens, New York 11413  
 Site Code 241128

Table 7  
 Vapor Sampling

Sample ID	VP-1	VP-1DL	VP-2	VP-2DL	VP-3	VP-3DL
Sampling Date	10/4/2011	10/4/2011	10/4/2011	10/4/2011	10/4/2011	10/4/2011
Matrix	AIR	AIR	AIR	AIR	AIR	AIR
Dilution Factor	120	1200	60	1200	10	400
Units	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3
COMPOUND						
Tetrahydrofuran	ND	ND	ND	ND	10.9J	ND
Toluene	ND	ND	ND	ND	30.2	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	6986	9136D	1719	1719JD	161	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND

Total Concentration. 523935.6 10602 276928.6 5175 14171.44 52893

#### Qualifiers

- U - 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

Attachment A  
Geologic Soil-Boring Logs

# BORING LOG

Boring #: MW-2

PAGE 1 OF 1

DATE: 10/4/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Hand Auger/Slide Hammer

DEPTH DRILLED: 10-feet

DEPTH TO WATER: 4.5-feet

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	4	4.0	4.7	4 Inch thick concrete slab underlain by medium to coarse grained brown sand with gravel. No odor.
4	10	6.0	0.0	Medium to coarse grained brown sand with gravel. No odor.

## Notes:

Soil Sample collected 0-2 feet below slab.  
Monitoring well screen set from 4.5 to 9.5 feet below grade.

# BORING LOG

Boring #: MW-3

PAGE 1 OF 1

DATE: 10/5/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Hand Auger/Slide Hammer

DEPTH DRILLED: 10-feet

DEPTH TO WATER: 4.5-feet

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	4	4.0	120.99	4 Inch thick concrete slab underlain by medium to coarse grained brown sand with gravel.
4	10	6.0	0.0	Medium to coarse grained brown sand with gravel. No odor.

## Note:

Soil Sample Collected 0-2 Feet below slab.  
Monitoring well screen set from 4.5 to 9.5 feet below grade.

# BORING LOG

Boring #: B-3 (MW-4)

PAGE 1 OF 1

DATE: 10/5/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Hand Auger/Slide Hammer

DEPTH DRILLED: 10-feet

DEPTH TO WATER: 4.5-feet

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	4	4.0	2.6	4 Inch thick concrete slab underlain by medium to coarse grained brown sand with gravel.
4	10	6.0	0.0	Medium to coarse grained brown sand with gravel. No odor.

## Notes:

Soil Sample collected 0-2 feet below slab.  
Monitoring well screen set 5 to 10 feet below grade.

# BORING LOG

Boring #: MW-5

PAGE 1 OF 2

DATE: 10/5/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 50-feet

DEPTH TO WATER: 11-feet

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	5	5.0	0.0	6-inches concrete underlain by medium to fine grained brown sand with gravel. No odor.
5	10	4.0	0.0	Medium to coarse grained brown sand with gravel. No odor.
10	15	3.5	0.0	Wet, medium to coarse grained brown sand with layers of fine brown sand. Disseminated gravel. Septic-type odor?
15	20	5.0	0.0	Medium to coarse grained brown and orange wet sand, pebbles and small cobbles. No odor.
20	25	2.8	0.0	Medium to coarse brown sand, pebbles and small cobbles. No odor.

# BORING LOG

Boring #: MW-5

PAGE 2 OF 2

25	30	2.5	0.0	Medium to coarse grained brown wet sand, gravel and small cobble. No odor.
30	35	2.8	0.0	Medium to coarse grained light brown sand, trace silt and gravel. No odor.
35	40	3.0	0.0	Medium to coarse grained brown sand and gravel. No odor.
40	45	2.5	0.0	Medium to coarse grained brown sand and gravel. No odor.
45	50	2.9	0.0	Medium to coarse grained brown wet sand and gravel. No odor.

**Notes:**

**Soil Sample Collected 8-10 feet below grade.**

**Monitoring well screen set between 28 and 43 feet below grade.**

# BORING LOG

Boring #: MW-6

PAGE 1 OF 1

DATE: 10/5/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Geoprobe™

DEPTH DRILLED: 15-feet

DEPTH TO WATER: 11-feet

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	5	5.0	0.0	6-inches concrete underlain by medium to fine grained brown sand with gravel. No odor.
5	10	3.5	0.0	Moist medium to coarse grained brown sand with gravel and cobble. No odor.
10	15	3.0	0.0	Wet medium to coarse grained brown sand, fine brown sand, gravel and cobble. No odor.

## Note:

Monitoring well screen set between 7 and 17 feet below grade.

# BORING LOG

Boring #: VP-1

PAGE 1 OF 1

DATE: 10/4/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Hand Auger

DEPTH DRILLED: 2-feet

DEPTH TO WATER: N/A

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	2	2.0	153.1	4 Inch thick concrete slab underlain by medium to coarse grained brown sand with gravel. Perc odor.

# BORING LOG

Boring #: VP-2

PAGE 1 OF 1

DATE: 10/4/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Hand Auger

DEPTH DRILLED: 2-feet

DEPTH TO WATER: N/A

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	2	2.0	1335	4 Inch thick concrete slab underlain by medium to coarse grained brown sand with gravel. Perc odor.

# BORING LOG

Boring #: VP-3

PAGE 1 OF 1

DATE: 10/4/2011

CLIENT: KoptD 11-02

SITE: 127-13 Merrick Blvd.  
Jamaica, NY

DRILLER: Zebra Environmental

DRILLING METHOD: Hand Auger

DEPTH DRILLED: 2-feet

DEPTH TO WATER: N/A

## GEOLOGIC LOG

DEPTH (ft) FROM	TO	RECOVERY (ft)	PID (ppm)	SAMPLE DESCRIPTION
0	2	2.0	1.5	4 Inch thick concrete slab underlain by medium to coarse grained brown sand with gravel. No odor.

Attachment B  
Well Sampling Logs

**GROUNDWATER SAMPLING LOG**  
**127-13 Merrick Blvd.**  
**Jamaica, NY**

Well ID: MW - 1  
Date: 10/27/11  
Sampling Personnel: AJS & HS  
Weather: Rainy - 55°

**WELL INFORMATION**

Well Depth (ft): 8.10  
Water Level Depth (ft): 3.50  
Well Diameter (in): 2

**WELL WATER INFORMATION**

Length of Water Column (ft): 4.60  
Volume of Water in Well (gal): 0.75  
Total Volume Purged (gal): 3.00  
Duration of Pumping (min): 13

**EVACUATION INFORMATION**

Pump On: 11:45                          Pump Off: 11:58

Parameter	Time: 11:48	11:50	11:53	11:55				
DO (mg/L)	8.22	8.15	8.08	8.01				
Temperature (°C)	18.93	18.90	18.90	18.83				
pH	7.20	7.16	7.16	7.10				
Cond (umho's/cm)	378	381	389	397				
Turbidity (NTU)	999+	999+	999+	999+				

**GROUNDWATER SAMPLING LOG**  
**127-13 Merrick Blvd.**  
**Jamaica, NY**

Well ID: MW - 2  
Date: 10/27/11  
Sampling Personnel: AJS & HS  
Weather: Rainy - 55°

**WELL INFORMATION**

Well Depth (ft): 9.55  
Water Level Depth (ft): 3.61  
Well Diameter (in): 1

**WELL WATER INFORMATION**

Length of Water Column (ft): 5.94  
Volume of Water in Well (gal): 0.24  
Total Volume Purged (gal): 1.00  
Duration of Pumping (min): 7

**EVACUATION INFORMATION**

Pump On: 11:35                          Pump Off: 11:42

Parameter	Time: 11:36	11:37	11:38	11:39				
DO (mg/L)	9.33	9.30	9.25	9.27				
Temperature (°C)	18.37	18.36	18.37	18.35				
pH	7.21	7.16	7.14	7.10				
Cond (umho's/cm)	478	470	469	468				
Turbidity (NTU)	999+	999+	999+	999+				

**GROUNDWATER SAMPLING LOG**  
**127-13 Merrick Blvd.**  
**Jamaica, NY**

Well ID: MW - 3  
Date: 10/27/11  
Sampling Personnel: AJS & HS  
Weather: Rainy - 55°

**WELL INFORMATION**

Well Depth (ft): 9.59  
Water Level Depth (ft): 3.59  
Well Diameter (in): 1

**WELL WATER INFORMATION**

Length of Water Column (ft): 6.00  
Volume of Water in Well (gal): 0.24  
Total Volume Purged (gal): 1.00  
Duration of Pumping (min): 13

**EVACUATION INFORMATION**

Pump On: 11:20                          Pump Off: 11:33

Parameter	Time: 11:22	11:24	11:26	11:28				
DO (mg/L)	8.89	8.40	8.17	8.01				
Temperature (°C)	19.01	19.03	19.02	19.04				
pH	7.41	7.22	7.20	7.19				
Cond (umho's/cm)	430	420	419	418				
Turbidity (NTU)	999+	999+	999+	999+				

**GROUNDWATER SAMPLING LOG**  
**127-13 Merrick Blvd.**  
**Jamaica, NY**

Well ID: MW - 4  
Date: 10/27/11  
Sampling Personnel: AJS & HS  
Weather: Rainy - 55°

**WELL INFORMATION**

Well Depth (ft): 9.90  
Water Level Depth (ft): 3.71  
Well Diameter (in): 1

**WELL WATER INFORMATION**

Length of Water Column (ft): 6.19  
Volume of Water in Well (gal): 0.25  
Total Volume Purged (gal): 1.00  
Duration of Pumping (min): 9

**EVACUATION INFORMATION**

Pump On: 11:05                          Pump Off: 11:14

Parameter	Time: 11:06	11:07	11:09	11:10				
DO (mg/L)	8.67	8.47	8.37	8.35				
Temperature (°C)	19.45	19.57	19.63	19.61				
pH	7.34	7.32	7.26	7.23				
Cond (umho's/cm)	497	436	439	440				
Turbidity (NTU)	999+	999+	999+	999+				

**GROUNDWATER SAMPLING LOG**  
**127-13 Merrick Blvd.**  
**Jamaica, NY**

Well ID: MW - 5  
Date: 10/27/11  
Sampling Personnel: AJS & HS  
Weather: Rainy - 55°

**WELL INFORMATION**

Well Depth (ft): 43.30  
Water Level Depth (ft): 11.46  
Well Diameter (in): 2

**WELL WATER INFORMATION**

Length of Water Column (ft): 31.84  
Volume of Water in Well (gal): 5.19  
Total Volume Purged (gal): 16.00  
Duration of Pumping (min): 11

**EVACUATION INFORMATION**

Pump On: 10:12                          Pump Off: 10:23

Parameter	Time: 10:15	10:18	10:19	10:20				
DO (mg/L)	8.31	8.04	7.83	7.80				
Temperature (°C)	16.63	16.67	16.66	16.66				
pH	7.48	7.40	7.14	7.11				
Cond (umho's/cm)	736	721	724	721				
Turbidity (NTU)	999+	105.0	100.0	98.0				

**GROUNDWATER SAMPLING LOG**  
**127-13 Merrick Blvd.**  
**Jamaica, NY**

Well ID: MW - 6  
Date: 10/27/11  
Sampling Personnel: AJS & HS  
Weather: Rainy - 55°

**WELL INFORMATION**

Well Depth (ft): 17.30  
Water Level Depth (ft): 11.20  
Well Diameter (in): 2

**WELL WATER INFORMATION**

Length of Water Column (ft): 6.10  
Volume of Water in Well (gal): 0.99  
Total Volume Purged (gal): 5.00  
Duration of Pumping (min): 8

**EVACUATION INFORMATION**

Pump On: 10:25                          Pump Off: 10:33

Parameter	Time: 10:26	10:27	10:28	10:29				
DO (mg/L)	7.90	7.86	7.83	7.80				
Temperature (°C)	19.49	19.51	19.50	19.51				
pH	6.89	6.87	6.84	6.82				
Cond (umho's/cm)	367	371	374	373				
Turbidity (NTU)	999+	840.0	700.0	690.0				

## Attachment C

### Analytical Analysis

Tuesday, October 11, 2011

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: 127-13 Merrick Blvd., Queens, NY

Order No.: 1110050

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 4 sample(s) on 10/5/2011 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 40 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

**American Analytical Laboratories, LLC.**

**Date: 11-Oct-11**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Project:** 127-13 Merrick Blvd., Queens, NY  
**Lab Order:** 1110050

**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date Collected</b>	<b>Date Received</b>
1110050-01A	MW-4	10/4/2011 2:00:00 PM	10/5/2011
1110050-01B	MW-4	10/4/2011 2:00:00 PM	10/5/2011
1110050-02A	MW-5	10/5/2011 10:30:00 AM	10/5/2011
1110050-02B	MW-5	10/5/2011 10:30:00 AM	10/5/2011
1110050-03A	MW-2	10/5/2011 2:20:00 PM	10/5/2011
1110050-03B	MW-2	10/5/2011 2:20:00 PM	10/5/2011
1110050-04A	MW-3	10/5/2011 2:30:00 PM	10/5/2011
1110050-04B	MW-3	10/5/2011 2:30:00 PM	10/5/2011



56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735  
 (631) 454-6100 • FAX (631) 454-8027  
[www.american-analytical.com](http://www.american-analytical.com)

NYSDOH  
 CTDOH  
 NDEP  
 PADEP

11418  
 PH-0205  
 NY050  
 68-573

## CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS

*JR Holzmaker*  
 Jim De Mottis

CONTACT:

PROJECT LOCATION:

*127-13 Merrick Blvd., Queens, NY*

LABORATORY ID# LAB USE ONLY	MATRIX/ TYPE	NO. OF CONTAINERS	SAMPLING		SAMPLE # - LOCATION	ANALYST'S NAME	FREQUENCY OF SAMPLE	DATE	TIME	SAMPLE NO.	SAMPLER (SIGNATURE)	SAMPLER NAME (PRINT)	SAMPLE(S) SEALED	YES / NO	CORRECT CONTAINER(S)	YES / NO	TEMPERATURE (°C)	
			DATE	TIME														
110050-01ABG	G	2	10/4/11	2pm	Mar-4													
0205	G	2	10-5-11	10:30 am	MW-5													
0305	G	2	10-5-11	2:30 pm	MW-2													
0405	S	2	10-5-11	2:30 pm	MW-3													

### COMMENTS / INSTRUCTIONS

MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS

TURNAROUND REQUIRED

STANDARD  STAT   
 (7-10 business days)

/

/

E-MAIL ADDRESS FOR RESULTS:

RELINQUISHED BY (SIGNATURE)	DATE	TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE	TIME	PRINTED NAME
<i>Matthew Somenborg</i>	10-5-11	4:50 pm	Matthew Somenborg	<i>John D'Onza</i>	10/5/11	10:15	<i>John D'Onza</i>
RELINQUISHED BY (SIGNATURE)	DATE	TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE	TIME	PRINTED NAME

WHITE-OFFICE / CANARY-LAB / PINK-SAMPLE CUSTODIAN / GOLDENROD-CLIENT

Samples must be on ICE  
 (<6°C)

# American Analytical Laboratories, LLC.

## Sample Receipt Checklist

Client Name **HOLZMACHER**Date and Time Receive **10/5/2011 4:26:18 PM**Work Order Number **1110050**RcptNo: **1**Received by **CF**

COC\_ID:

CoolerID:

Checklist completed by

Signature

Olenar 10/5/11

Date

Reviewed by

KBR

10/6/11

Date

Matrix:

Carrier name **Courier**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Adjusted?

Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section below

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_

# American Analytical Laboratories, LLC.

Date: 11-Oct-11

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	Client Sample ID:	MW-4
Lab Order:	1110050	Collection Date:	10/4/2011 2:00:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	Matrix:	SOIL
Lab ID:	1110050-01A		

## 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	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,1,1-Trichloroethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,1,2,2-Tetrachloroethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,1,2-Trichloroethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,1-Dichloroethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,1-Dichloroethene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,1-Dichloropropene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2,3-Trichlorobenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2,3-Trichloropropane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2,4,5-Tetramethylbenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2,4-Trichlorobenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2,4-Trimethylbenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2-Dibromo-3-chloropropane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2-Dibromoethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2-Dichlorobenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2-Dichloroethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,2-Dichloropropene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,3,5-Trimethylbenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,3-Dichlorobenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,3-dichloropropane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,4-Dichlorobenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
1,4-Dioxane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
2,2-Dichloropropane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
2-Butanone	U	1.65	5.5	C	µg/Kg-dry	1	10/6/2011 4:37:00 PM
2-Chloroethyl vinyl ether	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
2-Chlorotoluene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
2-Hexanone	U	1.65	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
2-Propanol	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
4-Chlorotoluene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
4-Isopropyltoluene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
4-Methyl-2-pentanone	U	1.65	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Acetone	U	1.65	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735

Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com

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: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110050  
 Project: 127-13 Merrick Blvd., Queens, NY  
 Lab ID: 1110050-01A

Client Sample ID: MW-4  
 Collection Date: 10/4/2011 2:00:00 PM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample	Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>								
Acrolein	U	2.76	11	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	Analyst: LA
Acrylonitrile	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Benzene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Bromobenzene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Bromochloromethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Bromodichloromethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Bromoform	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Bromomethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Carbon disulfide	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Carbon tetrachloride	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Chlorobenzene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Chlorodifluoromethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Chloroethane	U	0.55	5.5	C	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Chloroform	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Chloromethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
cis-1,2-Dichloroethene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
cis-1,3-Dichloropropene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Dibromochloromethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Dibromomethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Dichlorodifluoromethane	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Diisopropyl ether	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Ethanol	U	2.76	11	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Ethyl acetate	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Ethylbenzene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Freon-114	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Hexachlorobutadiene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Isopropyl acetate	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Isopropylbenzene	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
m,p-Xylene	U	1.10	11	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Methyl Acetate	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Methyl tert-butyl ether	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
Methylene chloride	6.5	0.55	5.5	B	µg/Kg-dry	1	10/6/2011 4:37:00 PM	
n-Amyl acetate	U	0.55	5.5	5.5	µg/Kg-dry	1	10/6/2011 4:37:00 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: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC

Client Sample ID: MW-4

Lab Order: 1110050

Collection Date: 10/4/2011 2:00:00 PM

Project: 127-13 Merrick Blvd., Queens, NY

Matrix: SOIL

Lab ID: 1110050-01A

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.55	5.5	C	µg/Kg-dry	1	10/6/2011 4:37:00 PM
n-Butyl acetate	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
n-Butylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
n-Propyl acetate	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
n-Propylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
o-Xylene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
p-Diethylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
p-Ethyltoluene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
sec-Butylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
Styrene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
t-Butyl alcohol	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
tert-Butylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
Tetrachloroethene	2.4	0.55	5.5	J	µg/Kg-dry	1	10/6/2011 4:37:00 PM
Toluene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
trans-1,2-Dichloroethene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
trans-1,3-Dichloropropene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
Trichloroethene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
Trichlorofluoromethane	U	0.55	5.5	C	µg/Kg-dry	1	10/6/2011 4:37:00 PM
Vinyl acetate	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
Vinyl chloride	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 4:37:00 PM
Surr: 4-Bromofluorobenzene	92.0	0	42-133		%REC	1	10/6/2011 4:37:00 PM
Surr: Dibromofluoromethane	90.3	0	50-133		%REC	1	10/6/2011 4:37:00 PM
Surr: Toluene-d8	96.5	0	53-130		%REC	1	10/6/2011 4:37:00 PM



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Qualifiers: B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
LOQ Limit of Quantitation  
PQL Practical Quantitation Limit  
U Indicates the compound was analyzed but not detected.

C Calibration %RSD/%D exceeded for non-CCC analytes  
H Holding times for preparation or analysis exceeded  
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: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110050  
 Project: 127-13 Merrick Blvd., Queens, NY  
 Lab ID: 1110050-01B

Client Sample ID: MW-4  
 Collection Date: 10/4/2011 2:00:00 PM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY					SW7471B	SW7471B	Analyst: AB
Mercury	U	0.006	0.0112		mg/Kg-dry	1	10/7/2011 11:24:06 AM
PERCENT MOISTURE				D2216			Analyst: CF
Percent Moisture	12.1	0	0	wt%		1	10/7/2011
TARGET ANALYTE LIST METALS				SW6010C	SW3050B		Analyst: JP
Aluminum	1620	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Antimony	U	0.22	0.551	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Arsenic	0.573	0.22	0.551	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Barium	10.5	0.22	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Beryllium	U	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Cadmium	U	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Calcium	148	0.22	0.551	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Chromium	5.40	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Cobalt	U	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Copper	5.05	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Iron	6930	2.21	4.41	mg/Kg-dry	10	10/7/2011 10:16:51 AM	
Lead	1.61	0.22	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Magnesium	527	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Manganese	119	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Nickel	6.57	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Potassium	302	0.22	0.551	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Selenium	U	0.22	0.551	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Silver	U	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Sodium	13.9	0.22	0.551	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Thallium	U	0.33	0.551	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Vanadium	5.62	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
Zinc	8.56	0.11	0.441	mg/Kg-dry	1	10/7/2011 10:02:29 AM	
SEMOVOLATILE SW-846 METHOD 8270 (FUEL)				SW8270D	SW3550C		Analyst: LDS
Acenaphthene	U	27.6	280	µg/Kg-dry	1	10/8/2011 1:44:00 PM	
Acenaphthylene	U	27.6	280	µg/Kg-dry	1	10/8/2011 1:44:00 PM	
Anthracene	U	27.6	280	µg/Kg-dry	1	10/8/2011 1:44:00 PM	
Benzo(a)anthracene	U	27.6	280	µg/Kg-dry	1	10/8/2011 1:44:00 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: 11-Oct-11

**ELAP ID : 11418**

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-4
<b>Lab Order:</b>	1110050	<b>Collection Date:</b>	10/4/2011 2:00:00 PM
<b>Project:</b>	127-13 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1110050-01B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (FUEL)</b>							
Benzo(a)pyrene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Benzo(b)fluoranthene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Benzo(g,h,i)perylene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Benzo(k)fluoranthene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Chrysene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Dibenzo(a,h)anthracene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Fluoranthene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Fluorene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Indeno(1,2,3-c,d)pyrene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Phenanthrene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Pyrene	U	27.6	280		µg/Kg-dry	1	10/8/2011 1:44:00 PM
Surr: 2-Fluorobiphenyl	78.3	0	21-117		%REC	1	10/8/2011 1:44:00 PM
Surr: 4-Terphenyl-d14	88.7	0	21-132		%REC	1	10/8/2011 1:44:00 PM
Surr: Nitrobenzene-d5	55.3	0	18-116		%REC	1	10/8/2011 1:44:00 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	R	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
U	T	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110050  
 Project: 127-13 Merrick Blvd., Queens, NY  
 Lab ID: 1110050-02A

Client Sample ID: MW-5  
 Collection Date: 10/5/2011 10:30:00 AM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
1,1,1,2-Tetrachloroethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,1,1-Trichloroethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,1,2,2-Tetrachloroethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,1,2-Trichloroethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,1-Dichloroethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,1-Dichloroethene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,1-Dichloropropene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2,3-Trichlorobenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2,3-Trichloropropane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2,4,5-Tetramethylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2,4-Trichlorobenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2,4-Trimethylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2-Dibromo-3-chloropropane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2-Dibromoethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2-Dichlorobenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2-Dichloroethane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,2-Dichloropropene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,3,5-Trimethylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,3-Dichlorobenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,3-dichloropropane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,4-Dichlorobenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
1,4-Dioxane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
2,2-Dichloropropane	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
2-Butanone	U	1.80	6.0	C	µg/Kg-dry	1	10/6/2011 5:09:00 PM
2-Chloroethyl vinyl ether	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
2-Chlorotoluene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
2-Hexanone	U	1.80	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
2-Propanol	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
4-Chlorotoluene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
4-Isopropyltoluene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
4-Methyl-2-pentanone	U	1.80	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Acetone	U	1.80	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 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: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110050  
 Project: 127-13 Merrick Blvd., Queens, NY  
 Lab ID: 1110050-02A

Client Sample ID: MW-5  
 Collection Date: 10/5/2011 10:30:00 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>			<b>Analyst: LA</b>
Acrolein	U	3.00	12	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Acrylonitrile	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Benzene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Bromobenzene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Bromoform	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Bromomethane	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Carbon disulfide	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Carbon tetrachloride	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Chlorobenzene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Chlorodifluoromethane	1.6	0.60	6.0	J	µg/Kg-dry	1	10/6/2011 5:09:00 PM
Chloroethane	U	0.60	6.0	C	µg/Kg-dry	1	10/6/2011 5:09:00 PM
Chloroform	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Chloromethane	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
cis-1,2-Dichloroethene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
cis-1,3-Dichloropropene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Dibromochloromethane	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Dibromomethane	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Dichlorodifluoromethane	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Diisopropyl ether	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Ethanol	U	3.00	12	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Ethyl acetate	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Ethylbenzene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Freon-114	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Hexachlorobutadiene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Isopropyl acetate	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Isopropylbenzene	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
m,p-Xylene	U	1.20	12	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Methyl Acetate	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Methyl tert-butyl ether	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 PM	
Methylene chloride	8.7	0.60	6.0	B	µg/Kg-dry	1	10/6/2011 5:09:00 PM
n-Amyl acetate	U	0.60	6.0	µg/Kg-dry	1	10/6/2011 5:09:00 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: 11-Oct-11

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-5
<b>Lab Order:</b>	1110050	<b>Collection Date:</b>	10/5/2011 10:30:00 AM
<b>Project:</b>	127-13 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1110050-02A		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.60	6.0	C	µg/Kg-dry	1	10/6/2011 5:09:00 PM
n-Butyl acetate	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
n-Butylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
n-Propyl acetate	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
n-Propylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
o-Xylene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
p-Diethylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
p-Ethyltoluene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
sec-Butylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Styrene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
t-Butyl alcohol	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
tert-Butylbenzene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Tetrachloroethene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Toluene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
trans-1,2-Dichloroethene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
trans-1,3-Dichloropropene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Trichloroethene	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Trichlorofluoromethane	U	0.60	6.0	C	µg/Kg-dry	1	10/6/2011 5:09:00 PM
Vinyl acetate	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Vinyl chloride	U	0.60	6.0		µg/Kg-dry	1	10/6/2011 5:09:00 PM
Surr: 4-Bromofluorobenzene	89.0	0	42-133		%REC	1	10/6/2011 5:09:00 PM
Surr: Dibromofluoromethane	96.0	0	50-133		%REC	1	10/6/2011 5:09:00 PM
Surr: Toluene-d8	99.0	0	53-130		%REC	1	10/6/2011 5:09:00 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: 11-Oct-11

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-5
<b>Lab Order:</b>	1110050	<b>Collection Date:</b>	10/5/2011 10:30:00 AM
<b>Project:</b>	127-13 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1110050-02B		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
Mercury	0.0104	0.005	0.00946		mg/Kg-dry	1	10/7/2011 11:26:14 AM
<b>PERCENT MOISTURE</b>							
Percent Moisture	16.1	0	0	wt%		1	10/7/2011
<b>TARGET ANALYTE LIST METALS</b>							
Aluminum	850	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Antimony	U	0.22	0.550		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Arsenic	0.682	0.22	0.550		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Barium	6.71	0.22	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Beryllium	U	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Cadmium	U	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Calcium	431	0.22	0.550		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Chromium	6.11	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Cobalt	U	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Copper	3.10	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Iron	5360	2.2	4.40		mg/Kg-dry	10	10/7/2011 10:18:54 AM
Lead	1.80	0.22	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Magnesium	384	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Manganese	68.3	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Nickel	4.33	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Potassium	232	0.22	0.550		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Selenium	U	0.22	0.550		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Silver	U	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Sodium	20.6	0.22	0.550		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Thallium	U	0.33	0.550		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Vanadium	5.85	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
Zinc	7.23	0.11	0.440		mg/Kg-dry	1	10/7/2011 10:04:33 AM
<b>SEMICVOLATILE SW-846 METHOD 8270 (FUEL)</b>							
Acenaphthene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Acenaphthylene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Anthracene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Benzo(a)anthracene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 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: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC

Client Sample ID: MW-5

Lab Order: 1110050

Collection Date: 10/5/2011 10:30:00 AM

Project: 127-13 Merrick Blvd., Queens, NY

Matrix: SOIL

Lab ID: 1110050-02B

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (FUEL)</b>							
Benzo(a)pyrene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Benzo(b)fluoranthene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Benzo(g,h,i)perylene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Benzo(k)fluoranthene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Chrysene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Dibenzo(a,h)anthracene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Fluoranthene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Fluorene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Indeno(1,2,3-c,d)pyrene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Phenanthrene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Pyrene	U	29.5	290		µg/Kg-dry	1	10/8/2011 2:08:00 PM
Surr: 2-Fluorobiphenyl	87.8	0	21-117		%REC	1	10/8/2011 2:08:00 PM
Surr: 4-Terphenyl-d14	90.1	0	21-132		%REC	1	10/8/2011 2:08:00 PM
Surr: Nitrobenzene-d5	59.9	0	18-116		%REC	1	10/8/2011 2:08:00 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 &gt;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: 11-Oct-11

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-2
<b>Lab Order:</b>	1110050	<b>Collection Date:</b>	10/5/2011 2:20:00 PM
<b>Project:</b>	127-13 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1110050-03A		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
1,1,1,2-Tetrachloroethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,1,1-Trichloroethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,1,2,2-Tetrachloroethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,1,2-Trichloroethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,1-Dichloroethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,1-Dichloroethene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,1-Dichloropropene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2,3-Trichlorobenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2,3-Trichloropropane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2,4,5-Tetramethylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2,4-Trichlorobenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2,4-Trimethylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2-Dibromo-3-chloropropane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2-Dibromoethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2-Dichlorobenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2-Dichloroethane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,2-Dichloropropene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,3,5-Trimethylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,3-Dichlorobenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,3-dichloropropane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,4-Dichlorobenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
1,4-Dioxane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
2,2-Dichloropropane	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
2-Butanone	U	1.65	5.5	C	µg/Kg-dry	1	10/6/2011 5:41:00 PM
2-Chloroethyl vinyl ether	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
2-Chlorotoluene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
2-Hexanone	U	1.65	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
2-Propanol	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
4-Chlorotoluene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
4-Isopropyltoluene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
4-Methyl-2-pentanone	U	1.65	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM
Acetone	U	1.65	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
U	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 11-Oct-11

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	Client Sample ID:	MW-2
Lab Order:	1110050	Collection Date:	10/5/2011 2:20:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	Matrix:	SOIL
Lab ID:	1110050-03A		

## 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	2.75	11	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Acrylonitrile	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Benzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Bromobenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Bromoform	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Bromochloromethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Bromodichloromethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Bromomethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Carbon disulfide	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Carbon tetrachloride	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Chlorobenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Chlorodifluoromethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Chloroethane	U	0.55	5.5	C	µg/Kg-dry	1	10/6/2011 5:41:00 PM
Chloroform	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Chloromethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
cis-1,2-Dichloroethylene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
cis-1,3-Dichloropropene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Dibromochloromethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Dibromomethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Dichlorodifluoromethane	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Diisopropyl ether	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Ethanol	U	2.75	11	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Ethyl acetate	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Ethylbenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Freon-114	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Hexachlorobutadiene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Isopropyl acetate	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Isopropylbenzene	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
m,p-Xylene	U	1.1	11	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Methyl Acetate	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Methyl tert-butyl ether	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Methylene chloride	7.0	0.55	5.5	B	µg/Kg-dry	1	10/6/2011 5:41:00 PM
n-Amyl acetate	U	0.55	5.5	µg/Kg-dry	1	10/6/2011 5:41:00 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: 11-Oct-11

**ELAP ID : 11418**

**CLIENT:** J.R. Holzmacher P.E. LLC      **Client Sample ID:** MW-2  
**Lab Order:** 1110050      **Collection Date:** 10/5/2011 2:20:00 PM  
**Project:** 127-13 Merrick Blvd., Queens, NY      **Matrix:** SOIL  
**Lab ID:** 1110050-03A

**Certificate of Results**

Analyses	Sample	Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>								
Naphthalene	U	0.55	5.5	C	µg/Kg-dry	1	10/6/2011 5:41:00 PM	Analyst: LA
n-Butyl acetate	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
n-Butylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
n-Propyl acetate	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
n-Propylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
o-Xylene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
p-Diethylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
p-Ethyltoluene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
sec-Butylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Styrene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
t-Butyl alcohol	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
tert-Butylbenzene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Tetrachloroethene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Toluene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
trans-1,2-Dichloroethene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
trans-1,3-Dichloropropene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Trichloroethene	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Trichlorofluoromethane	U	0.55	5.5	C	µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Vinyl acetate	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Vinyl chloride	U	0.55	5.5		µg/Kg-dry	1	10/6/2011 5:41:00 PM	
Surr: 4-Bromofluorobenzene	91.3	0	42-133		%REC	1	10/6/2011 5:41:00 PM	
Surr: Dibromofluoromethane	97.8	0	50-133		%REC	1	10/6/2011 5:41:00 PM	
Surr: Toluene-d8	95.8	0	53-130		%REC	1	10/6/2011 5:41:00 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: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110050  
 Project: 127-13 Merrick Blvd., Queens, NY  
 Lab ID: 1110050-03B

Client Sample ID: MW-2  
 Collection Date: 10/5/2011 2:20:00 PM  
 Matrix: SOIL

## Certificate of Results

Analyses	Sample	Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY				SW7471B		SW7471B		Analyst: AB
Mercury		0.0134	0.005	0.0103		mg/Kg-dry	1	10/7/2011 11:28:23 AM
PERCENT MOISTURE				D2216				Analyst: CF
Percent Moisture		10.9	0	0	wt%		1	10/7/2011
TARGET ANALYTE LIST METALS				SW6010C		SW3050B		Analyst: JP
Aluminum		1440	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Antimony		U	0.21	0.518		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Arsenic		0.414	0.21	0.518	J	mg/Kg-dry	1	10/7/2011 10:06:36 AM
Barium		10.1	0.21	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Beryllium		U	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Cadmium		U	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Calcium		98.7	0.21	0.518		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Chromium		5.03	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Cobalt		U	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Copper		3.69	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Iron		5520	2.07	4.14		mg/Kg-dry	10	10/7/2011 10:20:58 AM
Lead		1.43	0.21	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Magnesium		521	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Manganese		57.6	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Nickel		5.59	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Potassium		321	0.21	0.518		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Selenium		U	0.21	0.518		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Silver		U	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Sodium		13.2	0.21	0.518		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Thallium		U	0.31	0.518		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Vanadium		5.05	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
Zinc		8.62	0.10	0.414		mg/Kg-dry	1	10/7/2011 10:06:36 AM
SEMOVOLATILE SW-846 METHOD 8270 (FUEL)				SW8270D		SW3550C		Analyst: LDS
Acenaphthene		U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Acenaphthylene		U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Anthracene		U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Benzo(a)anthracene		U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 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: 11-Oct-11

**ELAP ID : 11418**

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-2
<b>Lab Order:</b>	1110050	<b>Collection Date:</b>	10/5/2011 2:20:00 PM
<b>Project:</b>	127-13 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1110050-03B		

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (FUEL)</b>							
Benzo(a)pyrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Benzo(b)fluoranthene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Benzo(g,h,i)perylene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Benzo(k)fluoranthene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Chrysene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Dibenzo(a,h)anthracene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Fluoranthene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Fluorene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Indeno(1,2,3-c,d)pyrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Phenanthrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Pyrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:01:00 PM
Surr: 2-Fluorobiphenyl	85.0	0	21-117		%REC	1	10/10/2011 4:01:00 PM
Surr: 4-Terphenyl-d14	96.2	0	21-132		%REC	1	10/10/2011 4:01:00 PM
Surr: Nitrobenzene-d5	95.9	0	18-116		%REC	1	10/10/2011 4:01:00 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: 11-Oct-11

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1110050	<b>Collection Date:</b>	10/5/2011 2:30:00 PM
<b>Project:</b>	127-13 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1110050-04A		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
1,1,1,2-Tetrachloroethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,1,1-Trichloroethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,1,2,2-Tetrachloroethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,1,2-Trichloroethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,1-Dichloroethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,1-Dichloroethene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,1-Dichloropropene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2,3-Trichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2,3-Trichloropropane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2,4,5-Tetramethylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2,4-Trichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2,4-Trimethylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2-Dibromo-3-chloropropane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2-Dibromoethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2-Dichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2-Dichloroethane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,2-Dichloropropane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,3,5-Trimethylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,3-Dichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,3-dichloropropane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,4-Dichlorobenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
1,4-Dioxane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
2,2-Dichloropropane	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
2-Butanone	U	1.73	5.8	C	µg/Kg-dry	1	10/6/2011 6:12:00 PM
2-Chloroethyl vinyl ether	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
2-Chlorotoluene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
2-Hexanone	U	1.73	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
2-Propanol	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
4-Chlorotoluene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
4-Isopropyltoluene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
4-Methyl-2-pentanone	U	1.73	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Acetone	U	1.73	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM

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Qualifiers: B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
LOQ Limit of Quantitation  
PQL Practical Quantitation Limit  
U Indicates the compound was analyzed but not detected.

C Calibration %RSD/%D exceeded for non-CCC analytes  
H Holding times for preparation or analysis exceeded  
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: 11-Oct-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110050  
 Project: 127-13 Merrick Blvd., Queens, NY  
 Lab ID: 1110050-04A

Client Sample ID: MW-3  
 Collection Date: 10/5/2011 2:30:00 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	2.88	12	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Acrylonitrile	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Benzene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Bromobenzene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Bromochloromethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Bromodichloromethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Bromoform	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Bromomethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Carbon disulfide	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Carbon tetrachloride	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Chlorobenzene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Chlorodifluoromethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Chloroethane	U	0.58	5.8	C	µg/Kg-dry	1	10/6/2011 6:12:00 PM
Chloroform	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Chloromethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
cis-1,2-Dichloroethene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
cis-1,3-Dichloropropene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Dibromochloromethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Dibromomethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Dichlorodifluoromethane	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Diisopropyl ether	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Ethanol	U	2.88	12	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Ethyl acetate	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Ethylbenzene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Freon-114	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Hexachlorobutadiene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Isopropyl acetate	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Isopropylbenzene	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
m,p-Xylene	U	1.15	12	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Methyl Acetate	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Methyl tert-butyl ether	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 PM	
Methylene chloride	7.1	0.58	5.8	B	µg/Kg-dry	1	10/6/2011 6:12:00 PM
n-Amyl acetate	U	0.58	5.8	µg/Kg-dry	1	10/6/2011 6:12:00 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
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**American Analytical Laboratories, LLC.**

Date: 11-Oct-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY  
**Lab ID:** 1110050-04A

**Client Sample ID:** MW-3  
**Collection Date:** 10/5/2011 2:30:00 PM  
**Matrix:** SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.58	5.8	C	µg/Kg-dry	1	10/6/2011 6:12:00 PM
n-Butyl acetate	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
n-Butylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
n-Propyl acetate	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
n-Propylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
o-Xylene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
p-Diethylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
p-Ethyltoluene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
sec-Butylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Styrene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
t-Butyl alcohol	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
tert-Butylbenzene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Tetrachloroethene	35	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Toluene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
trans-1,2-Dichloroethene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
trans-1,3-Dichloropropene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Trichloroethene	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Trichlorofluoromethane	U	0.58	5.8	C	µg/Kg-dry	1	10/6/2011 6:12:00 PM
Vinyl acetate	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Vinyl chloride	U	0.58	5.8		µg/Kg-dry	1	10/6/2011 6:12:00 PM
Surr: 4-Bromofluorobenzene	92.0	0	42-133		%REC	1	10/6/2011 6:12:00 PM
Surr: Dibromofluoromethane	97.0	0	50-133		%REC	1	10/6/2011 6:12:00 PM
Surr: Toluene-d8	94.0	0	53-130		%REC	1	10/6/2011 6:12:00 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: 11-Oct-11

ELAP ID : 11418

<b>CLIENT:</b>	J.R. Holzmacher P.E. LLC	<b>Client Sample ID:</b>	MW-3
<b>Lab Order:</b>	1110050	<b>Collection Date:</b>	10/5/2011 2:30:00 PM
<b>Project:</b>	127-13 Merrick Blvd., Queens, NY	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	1110050-04B		

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
Mercury	0.00651	0.005	0.0109	J	mg/Kg-dry	1	10/7/2011 11:30:30 AM
<b>PERCENT MOISTURE</b>							
Percent Moisture	13.1	0	0	wt%		1	10/7/2011
<b>TARGET ANALYTE LIST METALS</b>							
Aluminum	1790	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Antimony	U	0.22	0.551		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Arsenic	0.617	0.22	0.551		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Barium	12.0	0.22	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Beryllium	U	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Cadmium	U	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Calcium	1060	0.22	0.551		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Chromium	6.68	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Cobalt	U	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Copper	5.89	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Iron	7380	2.2	4.41		mg/Kg-dry	10	10/7/2011 10:46:09 AM
Lead	1.87	0.22	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Magnesium	618	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Manganese	112	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Nickel	7.74	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Potassium	394	0.22	0.551		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Selenium	U	0.22	0.551		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Silver	U	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Sodium	19.0	0.22	0.551		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Thallium	U	0.33	0.551		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Vanadium	6.39	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
Zinc	11.9	0.11	0.441		mg/Kg-dry	1	10/7/2011 10:08:39 AM
<b>SEMIVOLATILE SW-846 METHOD 8270 (FUEL)</b>							
Acenaphthene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Acenaphthylene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Anthracene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Benzo(a)anthracene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735

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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: 11-Oct-11

**ELAP ID : 11418**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY  
**Lab ID:** 1110050-04B

**Client Sample ID:** MW-3  
**Collection Date:** 10/5/2011 2:30:00 PM  
**Matrix:** SOIL

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (FUEL)</b>			<b>SW8270D</b>		<b>SW3550C</b>		<b>Analyst: LDS</b>
Benzo(a)pyrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Benzo(b)fluoranthene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Benzo(g,h,i)perylene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Benzo(k)fluoranthene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Chrysene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Dibenz(a,h)anthracene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Fluoranthene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Fluorene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Indeno(1,2,3-c,d)pyrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Phenanthrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Pyrene	U	27.9	280		µg/Kg-dry	1	10/10/2011 4:26:00 PM
Surr: 2-Fluorobiphenyl	77.0	0	21-117		%REC	1	10/10/2011 4:26:00 PM
Surr: 4-Terphenyl-d14	87.9	0	21-132		%REC	1	10/10/2011 4:26:00 PM
Surr: Nitrobenzene-d5	91.1	0	18-116		%REC	1	10/10/2011 4:26:00 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: 11-Oct-11

CLIENT: J.R. Holzmacher P.E. LLC

Work Order: 1110050

Project: 127-13 Merrick Blvd, Queens, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: DRY\_TAL\_MET

Sample ID:	PBS-100611A	SampType:	MBLK	TestCode:	DRY_TAL_M	Units:	mg/Kg	Prep Date:	10/6/2011	RunNo:	60123	
Client ID:	PBS	Batch ID:	33446	TestNo:	SW6010C	SW3050B		Analysis Date:	10/7/2011	SeqNo:	844187	
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:	LCSS-100611A	SampType:	LCS	TestCode:	DRY_TAL_M	Units:	mg/Kg	Prep Date:	10/6/2011	RunNo:	60123	
Client ID:	LCSS	Batch ID:	33446	TestNo:	SW6010C	SW3050B		Analysis Date:	10/7/2011	SeqNo:	844188	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.7	0.400	40.00	0	99.4	85	115					E Value above quantitation range
Antimony	40.6	0.500	40.00	0	101	85	120					H Holding times for preparation or analysis exceeded
LOQ	Limit of Quantitation											J Analyte detected below quantitation limits
												P >40% diff for detected conc between the two GC column
												LOD Limit of Detection
												PQL Practical Quantitation Limit

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 exceeded
- J Analyte detected below quantitation limits
- P >40% diff for detected conc between the two GC column
- LOD Limit of Detection
- PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC

**Work Order:** 1110050

**Project:** 127-13 Merrick Blvd, Queens, NY

**ANALYTICAL QC SUMMARY REPORT**

TestCode: DRY\_TAL\_MET

Sample ID:	LCSS-100611A	SampType:	LCS	TestCode:	DRY_TAL_M	Units:	mg/Kg	Prep Date:	10/6/2011	RunNo:	60123	
Client ID:	LCSS	Batch ID:	33446	TestNo:	SW6010C	SW3050B		Analysis Date:	10/7/2011	SeqNo:	844188	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		41.5	0.500	40.00	0	104	82	118				
Barium		41.3	0.400	40.00	0	103	87	114				
Beryllium		41.1	0.400	40.00	0	103	87	115				
Cadmium		40.5	0.400	40.00	0	101	88	112				
Calcium		40.8	0.500	40.00	0	102	84	116				
Chromium		41.4	0.400	40.00	0	104	89	113				
Cobalt		40.7	0.400	40.00	0	102	89	113				
Copper		39.6	0.400	40.00	0	99.0	88	112				
Iron		40.9	0.400	40.00	0	102	80	120				
Lead		41.8	0.400	40.00	0	105	81	119				
Magnesium		40.3	0.400	40.00	0	101	89	113				
Manganese		40.6	0.400	40.00	0	101	84	114				
Nickel		41.6	0.400	40.00	0	104	85	117				
Potassium		390	0.500	400.0	0	97.5	82	120				
Selenium		41.4	0.500	40.00	0	104	84	118				
Silver		41.1	0.400	40.00	0	103	83	115				
Sodium		42.3	0.500	40.00	0	106	81	119				
Thallium		39.9	0.500	40.00	0	99.7	83	116				
Vanadium		40.2	0.400	40.00	0	101	88	112				
Zinc		41.5	0.400	40.00	0	104	86	114				

Sample ID:	PBS-100611A	SampType:	MBLK	TestCode:	DRY_TAL_M	Units:	mg/Kg	Prep Date:	10/6/2011	RunNo:	60128	
Client ID:	PBS	Batch ID:	33446	TestNo:	SW6010C	SW3050B		Analysis Date:	10/7/2011	SeqNo:	844241	
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									

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 column	PQL	Practical Quantitation Limit

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** J.R. Holzmacher P.E. LLC

Work Order:

1110050

Project:

127-13 Merrick Blvd., Queens, NY

TestCode: DRY\_TAL\_MET

Sample ID:	PBS-100611A	SampType:	MBLK	TestCode:	DRY_TAL_M	Units:	mg/Kg	Prep Date:	10/6/2011	RunNo:	60128	
Client ID:	PBS	Batch ID:	33446	TestNo:	SW6010C	SW3050B		Analysis Date:	10/7/2011	SeqNo:	844241	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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:	LCSS-100611A	SampType:	LCS	TestCode:	DRY_TAL_M	Units:	mg/Kg	Prep Date:	10/6/2011	RunNo:	60128	
Client ID:	LCSS	Batch ID:	33446	TestNo:	SW6010C	SW3050B		Analysis Date:	10/7/2011	SeqNo:	844242	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		39.7	0.400	40.00	0	99.4	85	115				
Antimony		40.6	0.500	40.00	0	101	85	120				
Arsenic		41.5	0.500	40.00	0	104	82	118				
Barium		41.3	0.400	40.00	0	103	87	114				
Beryllium		41.1	0.400	40.00	0	103	87	115				
Cadmium		40.5	0.400	40.00	0	101	88	112				
Calcium		40.8	0.500	40.00	0	102	84	116				
Chromium		41.4	0.400	40.00	0	104	89	113				
Cobalt		40.7	0.400	40.00	0	102	89	113				
Copper		39.6	0.400	40.00	0	99.0	88	112				

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes

E Value above quantitation range

J Analyte detected below quantitation limits

P >40% diff for detected conc between the two GC column

LOD Limit of Detection

PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: DRY\_TAL\_MET

Sample ID: LCSS-100611A	SampType: LCS	TestCode: DRY_TAL_M	Units: mg/kg	Prep Date: 10/6/2011	RunNo: 60128						
Client ID: LCSS	Batch ID: 334446	TestNo: SW6010C	SW3050B	Analysis Date: 10/7/2011	SeqNo: 844242						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	40.9	0.400	40.00	0	102	80	120				
Lead	41.8	0.400	40.00	0	105	81	119				
Magnesium	40.3	0.400	40.00	0	101	89	113				
Manganese	40.6	0.400	40.00	0	101	84	114				
Nickel	41.6	0.400	40.00	0	104	85	117				
Potassium	390	0.500	400.0	0	97.5	82	120				
Selenium	38.1	0.500	40.00	0	95.2	84	118				
Silver	39.7	0.400	40.00	0	99.2	83	115				
Sodium	42.3	0.500	40.00	0	106	81	119				
Thallium	39.9	0.500	40.00	0	99.7	83	116				
Vanadium	40.2	0.400	40.00	0	101	88	112				
Zinc	41.5	0.400	40.00	0	104	86	114				

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column  
E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: DRY8270FUEL\_SOIL

Sample ID: MB-33451	SampType: MBLK	TestCode: DRY8270FUE	Units: µg/Kg	Prep Date: 10/7/2011	RunNo: 60146						
Client ID: PBS	Batch ID: 33451	TestNo: SW8270D	SW3550C	Analysis Date: 10/8/2011	SeqNo: 844627						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	U	250									
Acenaphthylene	U	250									
Anthracene	U	250									
Benzo(a)anthracene	U	250									
Benzo(a)pyrene	U	250									
Benzo(b)fluoranthene	U	250									
Benzo(g,h,i)perylene	U	250									
Benzo(k)fluoranthene	U	250									
Chrysene	U	250									
Dibenz(a,h)anthracene	U	250									
Fluoranthene	U	250									
Fluorene	U	250									
Indeno(1,2,3-c,d)pyrene	U	250									
Phenanthrene	U	250									
Pyrene	U	250									
Surr: 2-Fluorobiphenyl	950	995.5			95.4	21	117				
Surr: 4-Terphenyl-d14	950	995.5			95.4	21	132				
Surr: Nitrobenzene-d5	670	995.5			67.5	18	116				

Sample ID: LCS-33451	SampType: LCS	TestCode: DRY8270FUE	Units: µg/Kg	Prep Date: 10/7/2011	RunNo: 60146						
Client ID: LCSS	Batch ID: 33451	TestNo: SW8270D	SW3550C	Analysis Date: 10/8/2011	SeqNo: 844628						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1600	250	1973	0	78.6	38	122				
Pyrene	1200	250	1973	0	62.6	39	123				
Surr: 2-Fluorobiphenyl	800	996.7	996.7		81.4	21	117				
Surr: 4-Terphenyl-d14	900	996.7	996.7		91.0	21	132				
Surr: Nitrobenzene-d5	600	996.7	996.7		60.7	18	116				

**Qualifiers:**    **B** Analyte detected in the associated Method Blank  
                   **H** Holding times for preparation or analysis exceeded  
                   **LOQ** Limit of Quantitation

**C** Calibration %RSD/%D exceeded for non-CCC analytes  
                   **J** Analyte detected below quantitation limits  
                   **P** >40% diff for detected conc between the two GC column

**E** Value above quantitation range  
                   **LOD** Limit of Detection  
                   **PQL** Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** DryFull8260\_Soil

Sample ID:	V624LCS-100611HS	SampType:	LCS	TestCode:	DryFull8260_	Units:	µg/Kg	Prep Date:	10/6/2011	RunNo:	60147	
Client ID:	LCSS	Batch ID:	R60147	TestNo:	SW8260C			Analysis Date:	10/6/2011	SeqNo:	844633	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane		40	5.0	50.00	0	79.8	40	125				
1,1,2,2-Tetrachloroethane		50	5.0	50.00	0	100	41	130				
1,1,2-Trichloroethane		46	5.0	50.00	0	92.3	43	121				
1,1-Dichloroethane		39	5.0	50.00	0	77.9	42	126				
1,1-Dichloroethene		42	5.0	50.00	0	83.8	40	126				
1,2-Dichlorobenzene		41	5.0	50.00	0	81.8	41	122				
1,2-Dichloroethane		40	5.0	50.00	0	80.2	42	133				
1,2-Dichloropropane		42	5.0	50.00	0	84.4	41	128				
1,3-Dichlorobenzene		42	5.0	50.00	0	84.6	45	119				
1,4-Dichlorobenzene		41	5.0	50.00	0	82.6	46	121				
2-Chloroethyl vinyl ether		43	5.0	50.00	0	86.3	30	135				
Benzene		40	5.0	50.00	0	79.2	35	123				
Bromodichloromethane		41	5.0	50.00	0	81.9	37	130				
Bromoform		47	5.0	50.00	0	94.6	43	121				
Bromomethane		25	5.0	50.00	0	50.9	32	130				
Carbon tetrachloride		40	5.0	50.00	0	79.7	37	134				
Chlorobenzene		41	5.0	50.00	0	82.3	40	124				
Chloroethane		26	5.0	50.00	0	51.3	35	141				
Chloroform		38	5.0	50.00	0	75.8	36	126				
Chloromethane		28	5.0	50.00	0	55.8	42	141				
cis-1,3-Dichloropropene		41	5.0	50.00	0	81.8	30	130				
Dibromochloromethane		43	5.0	50.00	0	85.5	43	125				
Ethylbenzene		47	5.0	50.00	0	94.4	44	122				
Methylene chloride		38	5.0	50.00	0	76.8	32	132				
Tetrachloroethene		37	5.0	50.00	0	73.8	31	120				
Toluene		45	5.0	50.00	0	90.2	42	124				
trans-1,2-Dichloroethene		38	5.0	50.00	0	75.8	38	122				
trans-1,3-Dichloropropene		41	5.0	50.00	0	81.8	45	123				
Trichloroethene		43	5.0	50.00	0	86.3	46	124				
Trichlorofluoromethane		52	5.0	50.00	0	104	45	137				
Vinyl chloride		39	5.0	50.00	0	78.8	46	139				

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
E Value above quantitation range  
J Analyte detected below quantitation limits  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode: DryFull8260\_Soil**

Sample ID:	V6241-CS-100611HS	SampType:	LCS	TestCode:	DryFull8260_	Units:	µg/Kg	Prep Date:	10/6/2011	RunNo:	60147	
Client ID:	LCSS	Batch ID:	R60147	TestNo:	SW8260C			Analysis Date:	10/6/2011	SeqNo:	844633	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene		51		50.00		102	42	133				
Surr: Dibromofluoromethane		50		50.00		100	50	133				
Surr: Toluene-d8		50		50.00		99.6	53	130				

Sample ID:	VBLK-100611HS	SampType:	MBLK	TestCode:	DryFull8260_	Units:	µg/Kg	Prep Date:	10/6/2011	RunNo:	60147	
Client ID:	PBS	Batch ID:	R60147	TestNo:	SW8260C			Analysis Date:	10/6/2011	SeqNo:	844634	
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		5.0						
1,1,1-Trichloroethane		U		5.0		5.0						
1,1,2,2-Tetrachloroethane		U		5.0		5.0						
1,1,2-Trichloro-1,2,2-trifluoroethane		U		5.0		5.0						
1,1,2-Trichloroethane		U		5.0		5.0						
1,1-Dichloroethane		U		5.0		5.0						
1,1-Dichloroethene		U		5.0		5.0						
1,1-Dichloropropene		U		5.0		5.0						
1,2,3-Trichlorobenzene		U		5.0		5.0						
1,2,3-Trichloropropane		U		5.0		5.0						
1,2,4,5-Tetramethylbenzene		U		5.0		5.0						
1,2,4-Trichlorobenzene		U		5.0		5.0						
1,2,4-Trimethylbenzene		U		5.0		5.0						
1,2-Dibromo-3-chloropropane		U		5.0		5.0						
1,2-Dibromoethane		U		5.0		5.0						
1,2-Dichlorobenzene		U		5.0		5.0						
1,2-Dichloroethane		U		5.0		5.0						
1,2-Dichloropropane		U		5.0		5.0						
1,3,5-Trimethylbenzene		U		5.0		5.0						
1,3-Dichlorobenzene		U		5.0		5.0						
1,3-dichloropropane		U		5.0		5.0						
1,4-Dichlorobenzene		U		5.0		5.0						
1,4-Dioxane		U		5.0		5.0						

**Qualifiers:**    B Analyte detected in the associated Method Blank  
                   H Holding times for preparation or analysis exceeded  
                   LOQ Limit of Quantitation

C Calibration %RSD%D exceeded for non-CCC analytes  
                   J Analyte detected below quantitation limits  
                   P >40% diff for detected conc between the two GC column

E Value above quantitation range  
                   LOD Limit of Detection  
                   PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd, Queens, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260\_Soil

Sample ID:	VBLK-100611HS	SampType:	MBLK	TestCode:	DryFull8260_	Units:	µg/Kg	Prep Date:	10/6/2011	RunNo:	60147	
Client ID:	PBS	Batch ID:	R60147	TestNo:	SW8260C			Analysis Date:	10/6/2011	SeqNo:	844634	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane		U	5.0	5.0								C
2-Butanone		U	5.0	5.0								
2-Chloroethyl vinyl ether		U	5.0	5.0								
2-Chlorotoluene		U	5.0	5.0								
2-Hexanone		U	5.0	5.0								
2-Propanol		U	5.0	5.0								
4-Chlorotoluene		U	5.0	5.0								
4-Isopropyltoluene		U	5.0	5.0								
4-Methyl-2-pentanone		U	5.0	5.0								
Acetone		U	5.0	5.0								
Acrolein		U	10	5.0								
Acrylonitrile		U	5.0	5.0								
Benzene		U	5.0	5.0								
Bromobenzene		U	5.0	5.0								
Bromoform		U	5.0	5.0								
Bromomethane		U	5.0	5.0								
Bromodichloromethane		U	5.0	5.0								
Carbon disulfide		U	5.0	5.0								
Carbon tetrachloride		U	5.0	5.0								
Chlorobenzene		U	5.0	5.0								
Chlorodifluoromethane		U	5.0	5.0								
Chloroethane		U	5.0	5.0								
Chloroform		U	5.0	5.0								
Chloromethane		U	5.0	5.0								
cis-1,2-Dichloroethene		U	5.0	5.0								
cis-1,3-Dichloropropene		U	5.0	5.0								
Dibromochloromethane		U	5.0	5.0								
Dibromomethane		U	5.0	5.0								
Dichlorofluoromethane		U	5.0	5.0								
Disopropyl ether		U	5.0	5.0								

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column  
E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd, Queens, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260 Soil

Sample ID: VBLK-100611HS	Samp Type: MBLK	TestCode: DryFull8260_	Units: µg/Kg	Prep Date: 10/6/2011	RunNo: 60147						
Client ID: PBS	Batch ID: R60147	TestNo: SW3290C		Analysis Date: 10/6/2011	SeqNo: 844634						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethanol	U	10	U	U	J	5.0	5.0	5.0	100	10	C
Ethyl acetate	U	5.0	U	U							
Ethylbenzene	U	5.0	U	U							
Freon-114	U	5.0	U	U							
Hexachlorobutadiene	U	5.0	U	U							
Isopropyl acetate	U	5.0	U	U							
Isopropylbenzene	U	5.0	U	U							
m,p-Xylene	10	U	U	U							
Methyl Acetate	U	5.0	U	U							
Methyl tert-butyl ether	U	5.0	U	U							
Methylene chloride	3.3	5.0	U	U							
n-Amyl acetate	U	5.0	U	U							
Naphthalene	U	5.0	U	U							
n-Butyl acetate	U	5.0	U	U							
n-Butylbenzene	U	5.0	U	U							
n-Propyl acetate	U	5.0	U	U							
n-Propylbenzene	U	5.0	U	U							
o-Xylene	U	5.0	U	U							
p-Diethylbenzene	U	5.0	U	U							
p-Ethyltoluene	U	5.0	U	U							
sec-Butylbenzene	U	5.0	U	U							
Styrene	U	5.0	U	U							
t-Butyl alcohol	U	5.0	U	U							
tert-Butylbenzene	U	5.0	U	U							
Tetrachloroethene	U	5.0	U	U							
Toluene	U	5.0	U	U							
trans-1,2-Dichloroethene	U	5.0	U	U							
trans-1,3-Dichloropropene	U	5.0	U	U							
Trichloroethene	U	5.0	U	U							
Trichlorofluoromethane	U	5.0	U	U							
Vinyl acetate	U	5.0	U	U							

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

**C** Calibration %RSD/%D exceeded for non-CCC analytes  
**J** Analyte detected below quantitation limits  
**P** >40% diff for detected conc between the two GC column  
**E** Value above quantitation range  
**LOD** Limit of Detection  
**PQL** Practical Quantitation Limit

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY

**TestCode:** DryFull8260\_Soil

Sample ID:	VBLK-100611HS	SampType:	MBLK	TestCode:	DryFull8260_	Units:	µg/Kg	Prep Date:	10/6/2011	RunNo:	60147	
Client ID:	PBS	Batch ID:	R60147	TestNo:	SW8260C			Analysis Date:	10/6/2011	SeqNo:	844634	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride		U	5.0	50.00		93.7	42	133				
Surr: 4-Bromofluorobenzene		47		50.00		106	50	133				
Surr: Dibromofluoromethane		53		50.00		97.9	53	130				
Surr: Toluene-d8		49		50.00								

**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 column   **PQL** Practical Quantitation Limit

11  
12

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd, Queens, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: DRYHG\_S

Sample ID:	LCSS-100711A	SampType:	LCS	TestCode:	DRYHG_S	Units:	mg/Kg	Prep Date:	10/7/2011	RunNo:	60132	
Client ID:	LCSS	Batch ID:	33464	TestNo:	SW7471B			Analysis Date:	10/7/2011	SeqNo:	844342	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.198	0.0100	0.2000	0	98.8	80	120				
<b>Sample ID: PBS-100711A</b>		<b>SampType:</b> MBLK	<b>TestCode:</b> DRYHG_S	<b>Units:</b> mg/Kg					<b>Prep Date:</b> 10/7/2011	<b>RunNo:</b> 60132		
Client ID:	PBS	Batch ID:	33464	TestNo:	SW7471B				Analysis Date:	10/7/2011	SeqNo:	844343
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		U	0.0100									

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

# American Analytical Laboratories, LLC.

Date: 11-Oct-11

## ANALYTICAL QC SUMMARY REPORT

CLIENT: J.R. Holzmacher P.E. LLC

Work Order: 1110050

Project: 127-13 Merrick Blvd., Queens, NY

TestCode: DRY8270FUEL\_SOIL

Sample ID: 1110050-04B-MS	SampType: MS	TestCode: DRY8270FUE	Units: µg/Kg-dry	Prep Date: 10/7/2011	RunNo: 60146						
Client ID: MW-3	Batch ID: 33451	TestNo: SW8270D	SW3550C	Analysis Date: 10/10/2011	SeqNo: 844897						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2000	280	2217	0	91.3	21	123				
Pyrene	1500	280	2217	0	67.4	21	137				
Surr: 2-Fluorobiphenyl	860		1109		77.6	21	117				
Surr: 4-Terphenyl-d14	1000		1109		94.6	21	132				
Surr: Nitrobenzene-d5	940		1109		84.5	18	116				

Sample ID: 1110050-04B-MSD	SampType: MSD	TestCode: DRY8270FUE	Units: µg/Kg-dry	Prep Date: 10/7/2011	RunNo: 60146						
Client ID: MW-3	Batch ID: 33451	TestNo: SW8270D	SW3550C	Analysis Date: 10/10/2011	SeqNo: 844898						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2000	270	2198	0	88.8	21	123	2024	3.65	20	
Pyrene	1500	270	2198	0	68.3	21	137	1495	0.370	20	
Surr: 2-Fluorobiphenyl	940		1099		85.7	21	117		0	0	
Surr: 4-Terphenyl-d14	1000		1099		94.7	21	132		0	0	
Surr: Nitrobenzene-d5	1100		1099		98.7	18	116		0	0	

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd, Queens, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode: DryFull8260\_Soil**

Sample ID: 1110050-04AMS	SampType: MS	TestCode: DryFull8260_	Units: µg/Kg-dry	Prep Date:	RunNo: 60147						
Client ID: MW-3	Batch ID: R60147	TestNo: SW8260C	Analysis Date:	SeqNo: 844639							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	49	5.8	57.54	0	84.8	26	108				
1,1,2,2-Tetrachloroethane	35	5.8	57.54	0	60.0	18	109				
1,1,2-Trichloroethane	40	5.8	57.54	0	69.7	21	105				
1,1-Dichloroethane	45	5.8	57.54	0	78.2	28	108				
1,1-Dichloroethene	48	5.8	57.54	0	84.1	24	110				
1,2-Dichlorobenzene	44	5.8	57.54	0	75.8	18	108				
1,2-Dichloroethane	35	5.8	57.54	0	60.3	21	105				
1,2-Dichloropropane	46	5.8	57.54	0	80.7	29	107				
1,3-Dichlorobenzene	49	5.8	57.54	0	84.4	20	115				
1,4-Dichlorobenzene	47	5.8	57.54	0	82.1	21	117				
2-Chloroethyl vinyl ether	33	5.8	57.54	0	56.5	18	113				
Benzene	47	5.8	57.54	0	82.2	30	103				
Bromodichloromethane	43	5.8	57.54	0	74.3	22	106				
Bromoform	37	5.8	57.54	0	64.3	20	113				
Bromomethane	36	5.8	57.54	0	62.7	20	109				
Carbon tetrachloride	49	5.8	57.54	0	85.9	23	111				
Chlorobenzene	50	5.8	57.54	0	87.3	27	117				
Chloroethane	66	5.8	57.54	0	114	30	130				
Chloroform	44	5.8	57.54	0	77.0	24	112				
Chloromethane	31	5.8	57.54	0	53.7	21	110				
cis-1,3-Dichloropropene	42	5.8	57.54	0	73.6	20	104				
Dibromochloromethane	39	5.8	57.54	0	67.0	22	104				
Ethylbenzene	61	5.8	57.54	0	105	30	115				
Methylene chloride	42	5.8	57.54	7.091	61.0	22	104				
Tetrachloroethene	86	5.8	57.54	35.03	88.8	20	103				
Toluene	57	5.8	57.54	0	98.9	20	115				
trans-1,2-Dichloroethene	47	5.8	57.54	0	81.2	23	107				
trans-1,3-Dichloropropene	42	5.8	57.54	0	73.6	20	105				
Trichloroethene	58	5.8	57.54	0	101	22	138				
Trichlorofluoromethane	55	5.8	57.54	0	96.2	22	131				
Vinyl chloride	44	5.8	57.54	0	77.2	25	107				

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column  
E Value above quantitation range  
B LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** DryFull8260\_Soil

Sample ID:	1110050-04AMSD	SampType:	MS	TestCode:	DryFull8260	Units:	µg/Kg-dry	Prep Date:		RunNo:	60147	
Client ID:	MW-3	Batch ID:	R60147	TestNo:	SW8260C			Analysis Date:	10/6/2011	SeqNo:	844639	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene		55		57.54		95.4	42	133				
Surr: Dibromofluoromethane		48		57.54		84.2	50	133				
Surr: Toluene-d8		57		57.54		99.6	53	130				
Sample ID:	1110050-04AMSD	SampType:	MSD	TestCode:	DryFull8260	Units:	µg/Kg-dry	Prep Date:		RunNo:	60147	
Client ID:	MW-3	Batch ID:	R60147	TestNo:	SW8260C			Analysis Date:	10/6/2011	SeqNo:	844640	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane		43		57.54		0	73.9	26	108	48.81	13.8	20
1,1,2,2-Tetrachloroethane		34		57.54		0	58.6	18	109	34.51	2.36	20
1,1,2-Trichloroethane		36		57.54		0	62.7	21	105	40.10	10.6	20
1,1-Dichloroethane		40		57.54		0	69.4	28	108	45.01	11.9	20
1,1-Dichloroethene		46		57.54		0	79.6	24	110	48.37	5.45	20
1,2-Dichlorobenzene		41		57.54		0	70.8	18	108	43.62	6.88	20
1,2-Dichloroethane		31		57.54		0	53.8	21	105	34.68	11.4	20
1,2-Dichloropropane		42		57.54		0	73.6	29	107	46.46	9.25	20
1,3-Dichlorobenzene		46		57.54		0	79.7	20	115	48.58	5.80	20
1,4-Dichlorobenzene		45		57.54		0	77.6	21	117	47.26	5.66	20
2-Chloroethyl vinyl ether		30		57.54		0	51.6	18	113	32.52	9.18	20
Benzene		42		57.54		0	72.8	30	103	47.27	12.1	20
Bromodichloromethane		39		57.54		0	67.2	22	106	42.73	10.0	20
Bromoform		35		57.54		0	60.3	20	113	37.01	6.52	20
Bromomethane		37		57.54		0	64.5	20	109	36.05	2.96	20
Carbon tetrachloride		43		57.54		0	74.8	23	111	49.41	13.7	20
Chlorobenzene		45		57.54		0	78.0	27	117	50.24	11.2	20
Chloroethane		56		57.54		0	97.5	30	130	65.57	15.5	20
Chloroform		40		57.54		0	68.7	24	112	44.28	11.4	20
Chloromethane		30		57.54		0	52.6	21	110	30.90	2.07	20
cis-1,3-Dichloropropene		38		57.54		0	66.2	20	104	42.35	10.6	20
Dibromochloromethane		34		57.54		0	59.2	22	104	38.55	12.4	20
Ethylbenzene		56		57.54		0	97.2	30	115	60.60	8.06	20

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

**C:** Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

**E:** Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd., Queens, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260\_Soil

Sample ID: 1110050-04AM/SD	Samp Type: MSD	TestCode: DryFull8260_	Units: µg/kg-dry	Prep Date:		RunNo: 60147					
Client ID: MW-3	Batch ID: R60147	TestNo: SW8260C		Analysis Date:	10/6/2011	SeqNo: 844640					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	38	5.8	57.54	7.091	53.8	22	104	42.21	10.3	20	B
Tetrachloroethene	72	5.8	57.54	35.03	64.7	20	103	86.14	17.5	20	
Toluene	52	5.8	57.54	0	90.4	20	115	56.93	9.00	20	
trans-1,2-Dichloroethene	41	5.8	57.54	0	71.9	23	107	46.74	12.2	20	
trans-1,3-Dichloropropene	38	5.8	57.54	0	66.2	20	106	42.34	10.6	20	
Trichloroethene	51	5.8	57.54	0	88.9	22	138	57.97	12.5	20	
Trichlorofluoromethane	52	5.8	57.54	0	90.4	22	131	55.35	6.24	20	C
Vinyl chloride	43	5.8	57.54	0	75.5	25	107	44.40	2.15	20	
Surr: 4-Bromofluorobenzene	55		57.54		94.8	42	133		0	0	
Surr: Dibromofluoromethane	48		57.54		84.2	50	133		0	0	
Surr: Toluene-d8	58		57.54		101	53	130		0	0	

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	P	>40% diff for detected conc between the two GC column	PQL	Practical Quantitation Limit		
		Limit of Quantitation				

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110050  
**Project:** 127-13 Merrick Blvd, Queens, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: DRYHG\_S

Sample ID: 1110042-06B-MS	SampType: MS	TestCode: DRYHG_S	Units: mg/Kg-dry	Prep Date: 10/7/2011	RunNo: 60132						
Client ID: ZZZZZZ	Batch ID: 33464	TestNo: SW7471B	SW7471B	Analysis Date: 10/7/2011	SeqNo: 844367						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.195	0.00960	0.1920	0	102	80	120				

Sample ID: 1110042-06B-MSD	SampType: MSD	TestCode: DRYHG_S	Units: mg/Kg-dry	Prep Date: 10/7/2011	RunNo: 60132						
Client ID: ZZZZZZ	Batch ID: 33464	TestNo: SW7471B	SW7471B	Analysis Date: 10/7/2011	SeqNo: 844368						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.190	0.00951	0.1902	0	99.8	80	120	0.1953	2.89	20	

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

Thursday, November 03, 2011

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: Merrick Blvd, Jamaica, NY

**Replacement Workorder**

Lori Beyer 11/3/11  
Signature Date

Dear Jim DeMartinis:

Order No.: 1110189

American Analytical Laboratories, LLC. received 7 sample(s) on 10/27/2011 for the analyses presented in the following report.

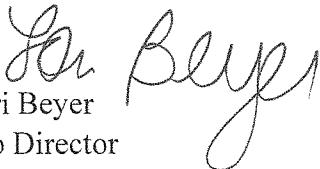
Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

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 67 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

**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

CLIENT: J.R. Holzmacher P.E. LLC  
Project: Merrick Blvd, Jamaica, NY  
Lab Order: 1110189

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1110189-01A	MW-6	10/27/2011 10:30:00 AM	10/27/2011
1110189-01B	MW-6	10/27/2011 10:30:00 AM	10/27/2011
1110189-01C	MW-6	10/27/2011 10:30:00 AM	10/27/2011
1110189-01D	MW-6	10/27/2011 10:30:00 AM	10/27/2011
1110189-02A	MW-5	10/27/2011 10:21:00 AM	10/27/2011
1110189-02B	MW-5	10/27/2011 10:21:00 AM	10/27/2011
1110189-02C	MW-5	10/27/2011 10:21:00 AM	10/27/2011
1110189-02D	MW-5	10/27/2011 10:21:00 AM	10/27/2011
1110189-03A	MW-4	10/27/2011 11:15:00 AM	10/27/2011
1110189-03B	MW-4	10/27/2011 11:15:00 AM	10/27/2011
1110189-03C	MW-4	10/27/2011 11:15:00 AM	10/27/2011
1110189-03D	MW-4	10/27/2011 11:15:00 AM	10/27/2011
1110189-04A	MW-3	10/27/2011 11:30:00 AM	10/27/2011
1110189-04B	MW-3	10/27/2011 11:30:00 AM	10/27/2011
1110189-04C	MW-3	10/27/2011 11:30:00 AM	10/27/2011
1110189-04D	MW-3	10/27/2011 11:30:00 AM	10/27/2011
1110189-05A	MW-2	10/27/2011 11:40:00 AM	10/27/2011
1110189-05B	MW-2	10/27/2011 11:40:00 AM	10/27/2011
1110189-05C	MW-2	10/27/2011 11:40:00 AM	10/27/2011
1110189-05D	MW-2	10/27/2011 11:40:00 AM	10/27/2011
1110189-06A	MW-1	10/27/2011 11:50:00 AM	10/27/2011
1110189-06B	MW-1	10/27/2011 11:50:00 AM	10/27/2011
1110189-06C	MW-1	10/27/2011 11:50:00 AM	10/27/2011
1110189-06D	MW-1	10/27/2011 11:50:00 AM	10/27/2011
1110189-07A	Trip Blank	10/27/2011	10/27/2011



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NYSDOH  
CTDOH  
NJDEP  
BADEB  
11418  
PH-0205  
NY050  
68-573

## CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT									
CLIENT NAME/ADDRESS <i>J.R. Holzraher</i>	CONTACT: <i>Jim DeMateris</i>	SAMPLER (SIGNATURE) <i>Heather Sonnenberg</i>	SAMPLE(S) SEALED <input checked="" type="checkbox"/> YES / <input type="checkbox"/> NO	CORRECT CONTAINER(S) <input checked="" type="checkbox"/> YES / <input type="checkbox"/> NO	TEMPERATURE (°C) 4.0				
PROJECT LOCATION: <i>Morich Bluff Fenonia, NY</i>	LABORATORY ID# LAB USE ONLY <i>110187-01ABCW</i>	MATRIX TYPE NO. OF CONTAINERS <i>SLABOW</i> <i>03ABC000</i> <i>0YABCW</i> <i>0SABC00</i> <i>06ABCW</i> <i>07A</i>	SAMPLING DATE TIME <i>10-23 10:00 AM</i> <i>10-21 PM</i> <i>11:50 AM</i> <i>11:30 AM</i> <i>11:40 AM</i> <i>11:50 AM</i> <i>11:40 PM</i>	SAMPLE # - LOCATION <i>MW-6</i> <i>MW-5</i> <i>MW-4</i> <i>MW-3</i> <i>MW-2</i> <i>MW-1</i> <i>Top plant</i>	ANALYSIS REQUIRED <i>B260 MWU</i> <i>B276 MWL</i> <i>T111 MWL</i> <i>T111 MWL</i> <i>T111 MWL</i> <i>T111 MWL</i> <i>T111 MWL</i>				
COMMENTS / INSTRUCTIONS									
MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS TYPE G=GRAB; C=COMPOSITE					RELINQUISHED BY (SIGNATURE) <i>Heather Sonnenberg</i>	DATE <i>10-27-11</i>	PRINTED NAME <i>Heather Sonnenberg</i>	RECEIVED BY LAB (SIGNATURE) <i>P. Main</i>	DATE / TIME <i>10/27/11 / 11:11pm</i>
RELINQUISHED BY (SIGNATURE) <i>Heather Sonnenberg</i>					DATE <i>10-27-11</i>	PRINTED NAME <i>P. Main</i>	RECEIVED BY LAB (SIGNATURE) <i>P. Main</i>	DATE / TIME <i>10/27/11 / 11:11pm</i>	
Samples must be on ICE (<6° C)									
					TURNAROUND REQUIRED STANDARD <input checked="" type="checkbox"/> STAT <input type="checkbox"/> (7-10 business days)	BY / /	E-MAIL ADDRESS FOR RESULTS:		
							<i>P. Main</i>		

# American Analytical Laboratories, LLC.

## Sample Receipt Checklist

Client Name HOLZMACHER

Date and Time Receive 10/27/2011 1:29:32 PM

Work Order Number 1110189

RcptNo: 1

Received by PM

COC\_ID:

CoolerID:

Checklist completed b

Signature

10/27/11

Date

Reviewed by

Initials

10/27/11

Date

Matrix

Carrier name Client

Shipping container/coolier in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/coolier?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Adjusted \_\_\_\_\_

Checked b \_\_\_\_\_

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-01A

Client Sample ID: MW-6  
 Collection Date: 10/27/2011 10:30:00 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	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,1,1-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,1,2,2-Tetrachloroethane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,1,2-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,1-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,1-Dichloroethene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,1-Dichloropropene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2,3-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2,3-Trichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2,4,5-Tetramethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2,4-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2,4-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2-Dibromo-3-chloropropane	U	1	2.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2-Dibromoethane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,2-Dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,3,5-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,3-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,3-dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,4-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
1,4-Dioxane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
2,2-Dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
2-Butanone	U	1.2	2.5	µg/L	1	10/31/2011 1:52:00 PM	
2-Chloroethyl vinyl ether	U	1	2.0	µg/L	1	10/31/2011 1:52:00 PM	
2-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
2-Hexanone	U	1.2	2.5	µg/L	1	10/31/2011 1:52:00 PM	
2-Propanol	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
4-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
4-Isopropyltoluene	U	0.5	1.0	µg/L	1	10/31/2011 1:52:00 PM	
4-Methyl-2-pentanone	U	1.2	2.5	µg/L	1	10/31/2011 1:52:00 PM	
Acetone	U	1.2	2.5	µg/L	1	10/31/2011 1:52:00 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-01A

Client Sample ID: MW-6  
 Collection Date: 10/27/2011 10:30:00 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>		Analyst: LA
Acrolein	U	2.5	5.0	μg/L			1	10/31/2011 1:52:00 PM
Acrylonitrile	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Benzene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Bromobenzene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Bromochloromethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Bromodichloromethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Bromoform	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Bromomethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Carbon disulfide	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Carbon tetrachloride	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Chlorobenzene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Chlorodifluoromethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Chloroethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Chloroform	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Chloromethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
cis-1,2-Dichloroethene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
cis-1,3-Dichloropropene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Dibromochloromethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Dibromomethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Dichlorodifluoromethane	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Diisopropyl ether	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Ethanol	U	2.5	5.0	μg/L			1	10/31/2011 1:52:00 PM
Ethyl acetate	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Ethylbenzene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Freon-114	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Hexachlorobutadiene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Isopropyl acetate	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Isopropylbenzene	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
m,p-Xylene	U	1	2.0	μg/L			1	10/31/2011 1:52:00 PM
Methyl Acetate	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Methyl tert-butyl ether	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM
Methylene chloride	6.3	0.5	1.0	μg/L	B		1	10/31/2011 1:52:00 PM
n-Amyl acetate	U	0.5	1.0	μg/L			1	10/31/2011 1:52:00 PM

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Qualifiers: B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 LOQ Limit of Quantitation  
 PQL Practical Quantitation Limit  
 U Indicates the compound was analyzed but not detected.

C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis exceeded  
 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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-01A

**Client Sample ID:** MW-6  
**Collection Date:** 10/27/2011 10:30:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
n-Butyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
n-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
n-Propylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
o-Xylene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
p-Ethyltoluene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
sec-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Styrene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
t-Butyl alcohol	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
tert-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Tetrachloroethene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Toluene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
trans-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
trans-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Trichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Trichlorofluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Vinyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Vinyl chloride	U	0.5	1.0		µg/L	1	10/31/2011 1:52:00 PM
Surr: 4-Bromofluorobenzene	97.4	0	63-123	%REC		1	10/31/2011 1:52:00 PM
Surr: Dibromofluoromethane	105	0	68-124	%REC		1	10/31/2011 1:52:00 PM
Surr: Toluene-d8	97.6	0	67-125	%REC		1	10/31/2011 1:52:00 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: 03-Nov-11

**ELAP ID : 11418**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-01B

**Client Sample ID:** MW-6  
**Collection Date:** 10/27/2011 10:30:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
1,2,4-Trichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
1,2-Dichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
1,3-Dichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
1,4-Dichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
2,4-Dinitrotoluene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
2,6-Dinitrotoluene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
2-Chloronaphthalene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
2-Methylnaphthalene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
2-Nitroaniline	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
3,3'-Dichlorobenzidine	U	1	10	µg/L	1	11/2/2011 11:09:00 AM	
3-Nitroaniline	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
4-Bromophenyl phenyl ether	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
4-Chloroaniline	U	1	10	µg/L	1	11/2/2011 11:09:00 AM	
4-Chlorophenyl phenyl ether	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
4-Nitroaniline	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Acenaphthene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Acenaphthylene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Aniline	U	1	10	µg/L	1	11/2/2011 11:09:00 AM	
Anthracene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Azobenzene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Benzidine	U	1	10	µg/L	1	11/2/2011 11:09:00 AM	
Benzo(a)anthracene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Benzo(a)pyrene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Benzo(b)fluoranthene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Benzo(g,h,i)perylene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Benzo(k)fluoranthene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Benzyl alcohol	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Bis(2-chloroethoxy)methane	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Bis(2-chloroethyl)ether	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Bis(2-chloroisopropyl)ether	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Carbazole	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Chrysene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 AM	
Dibenzo(a,h)anthracene	U	0.5	5.0	µg/L	1	11/2/2011 11:09:00 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		



**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-01B

**Client Sample ID:** MW-6  
**Collection Date:** 10/27/2011 10:30:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
Dibenzofuran	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Fluoranthene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Fluorene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Hexachlorobenzene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Hexachlorobutadiene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Hexachlorocyclopentadiene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Hexachloroethane	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Isophorone	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Naphthalene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Nitrobenzene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
N-Nitrosodimethylamine	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
N-Nitrosodi-n-propylamine	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
N-Nitrosodiphenylamine	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Phenanthrene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Pyrene	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Pyridine	U	0.5	5.0	μg/L		1	11/2/2011 11:09:00 AM
Surr: 2-Fluorobiphenyl	90.8	0	20-131	%REC		1	11/2/2011 11:09:00 AM
Surr: 4-Terphenyl-d14	88.1	0	22-132	%REC		1	11/2/2011 11:09:00 AM
Surr: Nitrobenzene-d5	94.4	0	19-133	%REC		1	11/2/2011 11:09:00 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		



# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
Lab Order: 1110189  
Project: Merrick Blvd, Jamaica, NY  
Lab ID: 1110189-01C

Client Sample ID: MW-6  
Collection Date: 10/27/2011 10:30:00 AM  
Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			E245.1				Analyst: AB
Mercury	U 0.0001	0.000200		mg/L		1	10/28/2011 12:06:44 PM
TARGET ANALYTE LIST METALS			E200.7	SW3010A			Analyst: JP
Aluminum	4.30	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Antimony	U 0.005	0.0200		mg/L		1	10/28/2011 11:00:29 AM
Arsenic	U 0.01	0.0250		mg/L		1	10/28/2011 11:00:29 AM
Barium	0.107	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Beryllium	U 0.005	0.0200		mg/L		1	10/28/2011 11:00:29 AM
Cadmium	U 0.005	0.0100		mg/L		1	10/28/2011 11:00:29 AM
Calcium	32.6	0.005	0.0250	mg/L		1	10/28/2011 11:00:29 AM
Chromium	0.0440	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Cobalt	U 0.005	0.0200		mg/L		1	10/28/2011 11:00:29 AM
Copper	0.0230	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Iron	21.3	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Lead	0.00800	0.005	0.0150	J mg/L		1	10/28/2011 11:00:29 AM
Magnesium	3.33	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Manganese	0.303	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Nickel	0.0280	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 AM
Potassium	3.34	0.05	0.100	mg/L		1	10/28/2011 11:00:29 AM
Selenium	U 0.01	0.0250		mg/L		1	10/28/2011 11:00:29 AM
Silver	U 0.005	0.0200		mg/L		1	10/28/2011 11:00:29 AM
Sodium	13.9	0.005	0.0300	mg/L		1	10/28/2011 11:00:29 AM
Thallium	U 0.01	0.0150		mg/L		1	10/28/2011 11:00:29 AM
Vanadium	0.0110	0.005	0.0200	J mg/L		1	10/28/2011 11:00:29 AM
Zinc	0.129	0.005	0.0200	mg/L		1	10/28/2011 11:00:29 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-01D

Client Sample ID: MW-6  
 Collection Date: 10/27/2011 10:30:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>							
Mercury	U 0.0001	0.000200		mg/L		1	10/28/2011 11:40:58 AM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>							
		E245.1	E200.7	SW3005A	SW3005A		Analyst: AB
Aluminum	0.0320	0.005	0.0200	mg/L		1	10/28/2011 10:03:29 AM
Antimony	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Arsenic	U 0.01	0.0250		mg/L		1	10/28/2011 10:03:29 AM
Barium	0.0790	0.005	0.0200	mg/L		1	10/28/2011 10:03:29 AM
Beryllium	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Cadmium	U 0.005	0.0100		mg/L		1	10/28/2011 10:03:29 AM
Calcium	33.5	0.005	0.0250	mg/L		1	10/28/2011 10:03:29 AM
Chromium	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Cobalt	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Copper	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Iron	0.0980	0.005	0.0200	mg/L		1	10/28/2011 10:03:29 AM
Lead	U 0.005	0.0150		mg/L		1	10/28/2011 10:03:29 AM
Magnesium	2.97	0.005	0.0200	mg/L		1	10/28/2011 10:03:29 AM
Manganese	0.0510	0.005	0.0200	mg/L		1	10/28/2011 10:03:29 AM
Nickel	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Potassium	3.21	0.05	0.100	mg/L		1	10/28/2011 10:03:29 AM
Selenium	U 0.01	0.0250		mg/L		1	10/28/2011 10:03:29 AM
Silver	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Sodium	14.4	0.005	0.0300	mg/L		1	10/28/2011 10:03:29 AM
Thallium	U 0.01	0.0150		mg/L		1	10/28/2011 10:03:29 AM
Vanadium	U 0.005	0.0200		mg/L		1	10/28/2011 10:03:29 AM
Zinc	0.0200	0.005	0.0200	mg/L		1	10/28/2011 10:03:29 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
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# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-02A

Client Sample ID: MW-5  
 Collection Date: 10/27/2011 10:21:00 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	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,1,1-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,1,2,2-Tetrachloroethane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,1,2-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,1-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,1-Dichloroethene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,1-Dichloropropene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2,3-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2,3-Trichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2,4,5-Tetramethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2,4-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2,4-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2-Dibromo-3-chloropropane	U	1	2.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2-Dibromoethane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,2-Dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,3,5-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,3-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,3-dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,4-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
1,4-Dioxane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
2,2-Dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
2-Butanone	U	1.2	2.5	µg/L	1	10/31/2011 2:18:00 PM	
2-Chloroethyl vinyl ether	U	1	2.0	µg/L	1	10/31/2011 2:18:00 PM	
2-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
2-Hexanone	U	1.2	2.5	µg/L	1	10/31/2011 2:18:00 PM	
2-Propanol	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
4-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
4-Isopropyltoluene	U	0.5	1.0	µg/L	1	10/31/2011 2:18:00 PM	
4-Methyl-2-pentanone	U	1.2	2.5	µg/L	1	10/31/2011 2:18:00 PM	
Acetone	U	1.2	2.5	µg/L	1	10/31/2011 2:18:00 PM	

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 J Analyte detected below quantitation limits  
 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  
 H Holding times for preparation or analysis exceeded  
 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-02A

Client Sample ID: MW-5  
 Collection Date: 10/27/2011 10:21:00 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>		Analyst: LA
Acrolein	U	2.5	5.0		µg/L	1	10/31/2011 2:18:00 PM
Acrylonitrile	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Benzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Bromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Bromodichloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Bromoform	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Bromomethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Carbon disulfide	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Carbon tetrachloride	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Chlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Chlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Chloroethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Chloroform	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Chloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
cis-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
cis-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Dibromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Dibromomethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Dichlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Diisopropyl ether	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Ethanol	U	2.5	5.0		µg/L	1	10/31/2011 2:18:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Ethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Freon-114	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Hexachlorobutadiene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Isopropyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Isopropylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
m,p-Xylene	U	1	2.0		µg/L	1	10/31/2011 2:18:00 PM
Methyl Acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Methyl tert-butyl ether	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Methylene chloride	6.0	0.5	1.0	B	µg/L	1	10/31/2011 2:18:00 PM
n-Amyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
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# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-02A

Client Sample ID: MW-5  
 Collection Date: 10/27/2011 10:21:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
n-Butyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
n-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
n-Propylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
o-Xylene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
p-Ethyltoluene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
sec-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Styrene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
t-Butyl alcohol	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
tert-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Tetrachloroethene	0.67	0.5	1.0	J	µg/L	1	10/31/2011 2:18:00 PM
Toluene	0.83	0.5	1.0	J	µg/L	1	10/31/2011 2:18:00 PM
trans-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
trans-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Trichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Trichlorofluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Vinyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Vinyl chloride	U	0.5	1.0		µg/L	1	10/31/2011 2:18:00 PM
Surr: 4-Bromofluorobenzene	95.3	0	63-123		%REC	1	10/31/2011 2:18:00 PM
Surr: Dibromofluoromethane	110	0	68-124		%REC	1	10/31/2011 2:18:00 PM
Surr: Toluene-d8	98.4	0	67-125		%REC	1	10/31/2011 2:18:00 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: 03-Nov-11

**ELAP ID : 11418**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-02B

**Client Sample ID:** MW-5  
**Collection Date:** 10/27/2011 10:21:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
1,2,4-Trichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
1,2-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
1,3-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
1,4-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
2,4-Dinitrotoluene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
2,6-Dinitrotoluene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
2-Chloronaphthalene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
2-Methylnaphthalene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
2-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
3,3'-Dichlorobenzidine	U	1	10	µg/L		1	11/2/2011 11:34:00 AM
3-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
4-Bromophenyl phenyl ether	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
4-Chloroaniline	U	1	10	µg/L		1	11/2/2011 11:34:00 AM
4-Chlorophenyl phenyl ether	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
4-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Acenaphthene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Acenaphthylene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Aniline	U	1	10	µg/L		1	11/2/2011 11:34:00 AM
Anthracene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Azobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Benzidine	U	1	10	µg/L		1	11/2/2011 11:34:00 AM
Benzo(a)anthracene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Benzo(a)pyrene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Benzo(b)fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Benzo(g,h,i)perylene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Benzo(k)fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Benzyl alcohol	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Bis(2-chloroethoxy)methane	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Bis(2-chloroethyl)ether	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Bis(2-chloroisopropyl)ether	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Carbazole	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Chrysene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Dibenzo(a,h)anthracene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM

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# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-02B

Client Sample ID: MW-5  
 Collection Date: 10/27/2011 10:21:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
Dibenzofuran	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Fluorene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Hexachlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Hexachlorobutadiene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Hexachlorocyclopentadiene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Hexachloroethane	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Isophorone	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Naphthalene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Nitrobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
N-Nitrosodimethylamine	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
N-Nitrosodi-n-propylamine	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
N-Nitrosodiphenylamine	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Phenanthrene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Pyrene	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Pyridine	U	0.5	5.0	µg/L		1	11/2/2011 11:34:00 AM
Surr: 2-Fluorobiphenyl	94.7	0	20-131	%REC		1	11/2/2011 11:34:00 AM
Surr: 4-Terphenyl-d14	88.7	0	22-132	%REC		1	11/2/2011 11:34:00 AM
Surr: Nitrobenzene-d5	95.7	0	19-133	%REC		1	11/2/2011 11:34:00 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
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# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-02C

**Client Sample ID:** MW-5  
**Collection Date:** 10/27/2011 10:21:00 AM  
**Matrix:** LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
Mercury	U	0.0001	0.000200		mg/L	1	10/28/2011 12:08:52 PM
<b>TARGET ANALYTE LIST METALS</b>							
			E200.7		SW3010A		Analyst: JP
Aluminum	0.923	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Antimony	U	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Arsenic	U	0.01	0.0250		mg/L	1	10/28/2011 11:02:47 AM
Barium	0.132	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Beryllium	U	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Cadmium	U	0.005	0.0100		mg/L	1	10/28/2011 11:02:47 AM
Calcium	28.6	0.005	0.0250		mg/L	1	10/28/2011 11:02:47 AM
Chromium	0.0280	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Cobalt	U	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Copper	0.0110	0.005	0.0200	J	mg/L	1	10/28/2011 11:02:47 AM
Iron	3.96	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Lead	U	0.005	0.0150		mg/L	1	10/28/2011 11:02:47 AM
Magnesium	5.32	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Manganese	0.196	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Nickel	0.0270	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Potassium	3.24	0.05	0.100		mg/L	1	10/28/2011 11:02:47 AM
Selenium	U	0.01	0.0250		mg/L	1	10/28/2011 11:02:47 AM
Silver	U	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Sodium	46.2	0.05	0.300		mg/L	10	10/28/2011 11:36:45 AM
Thallium	U	0.01	0.0150		mg/L	1	10/28/2011 11:02:47 AM
Vanadium	U	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM
Zinc	0.0800	0.005	0.0200		mg/L	1	10/28/2011 11:02:47 AM

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**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-02D

**Client Sample ID:** MW-5  
**Collection Date:** 10/27/2011 10:21:00 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: AB</b>
Mercury	U 0.0001	0.000200			mg/L	1	10/28/2011 11:43:06 AM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>			<b>E200.7</b>		<b>SW3005A</b>		<b>Analyst: JP</b>
Aluminum	0.157	0.005	0.0200		mg/L	1	10/28/2011 10:05:46 AM
Antimony	U 0.005	0.0200			mg/L	1	10/28/2011 10:05:46 AM
Arsenic	U 0.01	0.0250			mg/L	1	10/28/2011 10:05:46 AM
Barium	0.181	0.005	0.0200		mg/L	1	10/28/2011 10:05:46 AM
Beryllium	U 0.005	0.0200			mg/L	1	10/28/2011 10:05:46 AM
Cadmium	U 0.005	0.0100			mg/L	1	10/28/2011 10:05:46 AM
Calcium	40.5	0.005	0.0250		mg/L	1	10/28/2011 10:05:46 AM
Chromium	0.00600	0.005	0.0200	J	mg/L	1	10/28/2011 10:05:46 AM
Cobalt	U 0.005	0.0200			mg/L	1	10/28/2011 10:05:46 AM
Copper	0.00500	0.005	0.0200	J	mg/L	1	10/28/2011 10:05:46 AM
Iron	3.38	0.005	0.0200		mg/L	1	10/28/2011 10:05:46 AM
Lead	U 0.005	0.0150			mg/L	1	10/28/2011 10:05:46 AM
Magnesium	7.36	0.005	0.0200		mg/L	1	10/28/2011 10:05:46 AM
Manganese	0.273	0.005	0.0200		mg/L	1	10/28/2011 10:05:46 AM
Nickel	0.0150	0.005	0.0200	J	mg/L	1	10/28/2011 10:05:46 AM
Potassium	4.89	0.05	0.100		mg/L	1	10/28/2011 10:05:46 AM
Selenium	U 0.01	0.0250			mg/L	1	10/28/2011 10:05:46 AM
Silver	U 0.005	0.0200			mg/L	1	10/28/2011 10:05:46 AM
Sodium	42.8	0.005	0.0300		mg/L	1	10/28/2011 10:05:46 AM
Thallium	U 0.01	0.0150			mg/L	1	10/28/2011 10:05:46 AM
Vanadium	U 0.005	0.0200			mg/L	1	10/28/2011 10:05:46 AM
Zinc	0.0270	0.005	0.0200		mg/L	1	10/28/2011 10:05:46 AM

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**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-03A

**Client Sample ID:** MW-4  
**Collection Date:** 10/27/2011 11:15:00 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	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,1,1-Trichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,1,2,2-Tetrachloroethane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,1,2-Trichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,1-Dichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,1-Dichloroethene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,1-Dichloropropene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2,3-Trichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2,3-Trichloropropane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2,4,5-Tetramethylbenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2,4-Trichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2,4-Trimethylbenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2-Dibromo-3-chloropropane	U	1	2.0	µg/L		1	10/31/2011 2:44:00 PM
1,2-Dibromoethane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2-Dichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2-Dichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,2-Dichloropropene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,3,5-Trimethylbenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,3-Dichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,3-dichloropropane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,4-Dichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
1,4-Dioxane	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
2,2-Dichloropropene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
2-Butanone	U	1.2	2.5	µg/L		1	10/31/2011 2:44:00 PM
2-Chloroethyl vinyl ether	U	1	2.0	µg/L		1	10/31/2011 2:44:00 PM
2-Chlorotoluene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
2-Hexanone	U	1.2	2.5	µg/L		1	10/31/2011 2:44:00 PM
2-Propanol	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
4-Chlorotoluene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
4-Isopropyltoluene	U	0.5	1.0	µg/L		1	10/31/2011 2:44:00 PM
4-Methyl-2-pentanone	U	1.2	2.5	µg/L		1	10/31/2011 2:44:00 PM
Acetone	U	1.2	2.5	µg/L		1	10/31/2011 2:44:00 PM

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LOQ	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
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# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-03A

Client Sample ID: MW-4  
 Collection Date: 10/27/2011 11:15:00 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>
Acrolein	U	2.5	5.0		µg/L	1	10/31/2011 2:44:00 PM
Acrylonitrile	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Benzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Bromoform	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Bromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Bromodichloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Bromoform	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Bromomethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Carbon disulfide	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Carbon tetrachloride	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Chlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Chlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Chloroethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Chloroform	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Chloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
cis-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
cis-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Dibromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Dibromomethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Dichlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Diisopropyl ether	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Ethanol	U	2.5	5.0		µg/L	1	10/31/2011 2:44:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Ethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Freon-114	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Hexachlorobutadiene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Isopropyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Isopropylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
m,p-Xylene	U	1	2.0		µg/L	1	10/31/2011 2:44:00 PM
Methyl Acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Methyl tert-butyl ether	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Methylene chloride	5.3	0.5	1.0	B	µg/L	1	10/31/2011 2:44:00 PM
n-Amyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-03A

**Client Sample ID:** MW-4  
**Collection Date:** 10/27/2011 11:15:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
n-Butyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
n-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
n-Propylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
o-Xylene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
p-Ethyltoluene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
sec-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Styrene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
t-Butyl alcohol	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
tert-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Tetrachloroethene	35	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Toluene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
trans-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
trans-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Trichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Trichlorofluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Vinyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Vinyl chloride	U	0.5	1.0		µg/L	1	10/31/2011 2:44:00 PM
Surr: 4-Bromofluorobenzene	100	0	63-123		%REC	1	10/31/2011 2:44:00 PM
Surr: Dibromofluoromethane	107	0	68-124		%REC	1	10/31/2011 2:44:00 PM
Surr: Toluene-d8	101	0	67-125		%REC	1	10/31/2011 2:44:00 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-03B

Client Sample ID: MW-4  
 Collection Date: 10/27/2011 11:15:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>			<b>SW8270D</b>		<b>SW3510C</b>		<b>Analyst: LDS</b>
1,2,4-Trichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
1,2-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
1,3-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
1,4-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
2,4-Dinitrotoluene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
2,6-Dinitrotoluene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
2-Chloronaphthalene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
2-Methylnaphthalene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
2-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
3,3'-Dichlorobenzidine	U	1	10	µg/L		1	11/2/2011 11:59:00 AM
3-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
4-Bromophenyl phenyl ether	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
4-Chloroaniline	U	1	10	µg/L		1	11/2/2011 11:59:00 AM
4-Chlorophenyl phenyl ether	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
4-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Acenaphthene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Acenaphthylene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Aniline	U	1	10	µg/L		1	11/2/2011 11:59:00 AM
Anthracene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Azobenzene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Benzidine	U	1	10	µg/L		1	11/2/2011 11:59:00 AM
Benzo(a)anthracene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Benzo(a)pyrene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Benzo(b)fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Benzo(g,h,i)perylene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Benzo(k)fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Benzyl alcohol	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Bis(2-chloroethoxy)methane	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Bis(2-chloroethyl)ether	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Bis(2-chloroisopropyl)ether	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Carbazole	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Chrysene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM
Dibenz(a,h)anthracene	U	0.5	5.0	µg/L		1	11/2/2011 11:59:00 AM

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**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

**ELAP ID : 11418**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-03B

**Client Sample ID:** MW-4  
**Collection Date:** 10/27/2011 11:15:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

<b>Analyses</b>	<b>Sample Result</b>	<b>LOD</b>	<b>LOQ</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date/Time Analyzed</b>
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
Dibenzofuran	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Fluoranthene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Fluorene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Hexachlorobenzene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Hexachlorobutadiene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Hexachlorocyclopentadiene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Hexachloroethane	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Isophorone	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Naphthalene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Nitrobenzene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
N-Nitrosodimethylamine	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
N-Nitrosodi-n-propylamine	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
N-Nitrosodiphenylamine	1.1	0.5	5.0	J	µg/L	1	11/2/2011 11:59:00 AM
Phenanthrene	0.85	0.5	5.0	J	µg/L	1	11/2/2011 11:59:00 AM
Pyrene	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Pyridine	U	0.5	5.0		µg/L	1	11/2/2011 11:59:00 AM
Surr: 2-Fluorobiphenyl	91.1	0	20-131		%REC	1	11/2/2011 11:59:00 AM
Surr: 4-Terphenyl-d14	93.1	0	22-132		%REC	1	11/2/2011 11:59:00 AM
Surr: Nitrobenzene-d5	90.9	0	19-133		%REC	1	11/2/2011 11:59:00 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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-03C

**Client Sample ID:** MW-4  
**Collection Date:** 10/27/2011 11:15:00 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: AB
Mercury	U 0.0001	0.000200		mg/L		1	10/28/2011 12:11:05 PM
<b>TARGET ANALYTE LIST METALS</b>			<b>E200.7</b>		<b>SW3010A</b>		Analyst: JP
Aluminum	129	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Antimony	U	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Arsenic	0.0600	0.01	0.0250	mg/L		1	10/28/2011 11:22:55 AM
Barium	1.09	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Beryllium	U	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Cadmium	U	0.005	0.0100	mg/L		1	10/28/2011 11:22:55 AM
Calcium	43.6	0.005	0.0250	mg/L		1	10/28/2011 11:22:55 AM
Chromium	0.409	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Cobalt	U	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Copper	0.508	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Iron	546	0.05	0.200	mg/L		10	10/28/2011 11:39:03 AM
Lead	0.165	0.005	0.0150	mg/L		1	10/28/2011 11:22:55 AM
Magnesium	29.0	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Manganese	10.8	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Nickel	0.427	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Potassium	28.4	0.05	0.100	mg/L		1	10/28/2011 11:22:55 AM
Selenium	U	0.01	0.0250	mg/L		1	10/28/2011 11:22:55 AM
Silver	U	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Sodium	27.2	0.005	0.0300	mg/L		1	10/28/2011 11:22:55 AM
Thallium	U	0.01	0.0150	mg/L		1	10/28/2011 11:22:55 AM
Vanadium	0.407	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 AM
Zinc	0.582	0.005	0.0200	mg/L		1	10/28/2011 11:22:55 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-03D

Client Sample ID: MW-4  
 Collection Date: 10/27/2011 11:15:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>							
Mercury	U 0.0001	0.000200			mg/L	1	10/28/2011 11:45:14 AM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>							
		E245.1	E200.7		SW3005A		Analyst: AB
Aluminum	0.0670	0.005	0.0200		mg/L	1	10/28/2011 10:08:04 AM
Antimony	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Arsenic	U 0.01	0.0250			mg/L	1	10/28/2011 10:08:04 AM
Barium	0.113	0.005	0.0200		mg/L	1	10/28/2011 10:08:04 AM
Beryllium	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Cadmium	U 0.005	0.0100			mg/L	1	10/28/2011 10:08:04 AM
Calcium	32.6	0.005	0.0250		mg/L	1	10/28/2011 10:08:04 AM
Chromium	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Cobalt	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Copper	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Iron	0.141	0.005	0.0200		mg/L	1	10/28/2011 10:08:04 AM
Lead	U 0.005	0.0150			mg/L	1	10/28/2011 10:08:04 AM
Magnesium	3.08	0.005	0.0200		mg/L	1	10/28/2011 10:08:04 AM
Manganese	0.475	0.005	0.0200		mg/L	1	10/28/2011 10:08:04 AM
Nickel	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Potassium	4.80	0.05	0.100		mg/L	1	10/28/2011 10:08:04 AM
Selenium	U 0.01	0.0250			mg/L	1	10/28/2011 10:08:04 AM
Silver	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Sodium	26.4	0.005	0.0300		mg/L	1	10/28/2011 10:08:04 AM
Thallium	U 0.01	0.0150			mg/L	1	10/28/2011 10:08:04 AM
Vanadium	U 0.005	0.0200			mg/L	1	10/28/2011 10:08:04 AM
Zinc	0.0110	0.005	0.0200	J	mg/L	1	10/28/2011 10:08:04 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-04A

Client Sample ID: MW-3  
 Collection Date: 10/27/2011 11:30:00 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	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,1,1-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,1,2,2-Tetrachloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,1,2-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,1-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,1-Dichloroethene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,1-Dichloropropene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2,3-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2,3-Trichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2,4,5-Tetramethylbenzene	1.7	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2,4-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2,4-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2-Dibromo-3-chloropropane	U	1	2.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2-Dibromoethane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,2-Dichloropropene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,3,5-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,3-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,3-dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,4-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
1,4-Dioxane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
2,2-Dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
2-Butanone	U	1.2	2.5	µg/L	1	10/31/2011 3:10:00 PM		
2-Chloroethyl vinyl ether	U	1	2.0	µg/L	1	10/31/2011 3:10:00 PM		
2-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
2-Hexanone	U	1.2	2.5	µg/L	1	10/31/2011 3:10:00 PM		
2-Propanol	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
4-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
4-Isopropyltoluene	U	0.5	1.0	µg/L	1	10/31/2011 3:10:00 PM		
4-Methyl-2-pentanone	U	1.2	2.5	µg/L	1	10/31/2011 3:10:00 PM		
Acetone	U	1.2	2.5	µg/L	1	10/31/2011 3:10:00 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-04A

Client Sample ID: MW-3  
 Collection Date: 10/27/2011 11:30:00 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>		Analyst: LA
Acrolein	U	2.5	5.0		µg/L	1	10/31/2011 3:10:00 PM
Acrylonitrile	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Benzene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Bromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Bromodichloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Bromoform	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Bromomethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Carbon disulfide	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Carbon tetrachloride	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Chlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Chlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Chloroethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Chloroform	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Chloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
cis-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
cis-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Dibromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Dibromomethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Dichlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Diisopropyl ether	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Ethanol	U	2.5	5.0		µg/L	1	10/31/2011 3:10:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Ethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Freon-114	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Hexachlorobutadiene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Isopropyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Isopropylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
m,p-Xylene	U	1	2.0		µg/L	1	10/31/2011 3:10:00 PM
Methyl Acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Methyl tert-butyl ether	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 PM
Methylene chloride	5.0	0.5	1.0	B	µg/L	1	10/31/2011 3:10:00 PM
n-Amyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:10:00 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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-04A

**Client Sample ID:** MW-3  
**Collection Date:** 10/27/2011 11:30:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
n-Butyl acetate	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
n-Butylbenzene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
n-Propyl acetate	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
n-Propylbenzene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
o-Xylene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
p-Diethylbenzene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
p-Ethyltoluene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
sec-Butylbenzene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Styrene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
t-Butyl alcohol	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
tert-Butylbenzene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Tetrachloroethene	190	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Toluene	1.1	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
trans-1,2-Dichloroethene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
trans-1,3-Dichloropropene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Trichloroethene	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Trichlorofluoromethane	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Vinyl acetate	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Vinyl chloride	U	0.5	1.0	μg/L		1	10/31/2011 3:10:00 PM
Surr: 4-Bromofluorobenzene	96.6	0	63-123	%REC		1	10/31/2011 3:10:00 PM
Surr: Dibromofluoromethane	105	0	68-124	%REC		1	10/31/2011 3:10:00 PM
Surr: Toluene-d8	97.2	0	67-125	%REC		1	10/31/2011 3:10:00 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
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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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-04B

Client Sample ID: MW-3  
 Collection Date: 10/27/2011 11:30:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							<b>Analyst: LDS</b>
1,2,4-Trichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
1,2-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
1,3-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
1,4-Dichlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
2,4-Dinitrotoluene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
2,6-Dinitrotoluene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
2-Chloronaphthalene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
2-Methylnaphthalene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
2-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
3,3'-Dichlorobenzidine	U	1	10	µg/L		1	11/2/2011 12:24:00 PM
3-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
4-Bromophenyl phenyl ether	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
4-Chloroaniline	U	1	10	µg/L		1	11/2/2011 12:24:00 PM
4-Chlorophenyl phenyl ether	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
4-Nitroaniline	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Acenaphthene	0.68	0.5	5.0	J	µg/L	1	11/2/2011 12:24:00 PM
Acenaphthylene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Aniline	U	1	10	µg/L		1	11/2/2011 12:24:00 PM
Anthracene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Azobenzene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Benzidine	U	1	10	µg/L		1	11/2/2011 12:24:00 PM
Benzo(a)anthracene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Benzo(a)pyrene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Benzo(b)fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Benzo(g,h,i)perylene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Benzo(k)fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Benzyl alcohol	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Bis(2-chloroethoxy)methane	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Bis(2-chloroethyl)ether	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Bis(2-chloroisopropyl)ether	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Carbazole	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Chrysene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 PM
Dibenzo(a,h)anthracene	U	0.5	5.0	µg/L		1	11/2/2011 12:24:00 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	L	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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-04B

**Client Sample ID:** MW-3  
**Collection Date:** 10/27/2011 11:30:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
Dibenzofuran	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Fluoranthene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Fluorene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Hexachlorobenzene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Hexachlorobutadiene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Hexachlorocyclopentadiene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Hexachloroethane	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Isophorone	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Naphthalene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Nitrobenzene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
N-Nitrosodimethylamine	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
N-Nitrosodi-n-propylamine	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
N-Nitrosodiphenylamine	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Phenanthrene	0.68	0.5	5.0	J	μg/L	1	11/2/2011 12:24:00 PM
Pyrene	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Pyridine	U	0.5	5.0	μg/L		1	11/2/2011 12:24:00 PM
Surr: 2-Fluorobiphenyl	97.8	0	20-131	%REC		1	11/2/2011 12:24:00 PM
Surr: 4-Terphenyl-d14	96.4	0	22-132	%REC		1	11/2/2011 12:24:00 PM
Surr: Nitrobenzene-d5	97.5	0	19-133	%REC		1	11/2/2011 12:24:00 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-04C

Client Sample ID: MW-3  
 Collection Date: 10/27/2011 11:30:00 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: AB
Mercury	U	0.0001	0.000200		mg/L	1	10/28/2011 12:13:13 PM
<b>TARGET ANALYTE LIST METALS</b>			<b>E200.7</b>		<b>SW3010A</b>		Analyst: JP
Aluminum	38.3	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Antimony	U	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Arsenic	0.0220	0.01	0.0250	J	mg/L	1	10/28/2011 11:25:13 AM
Barium	0.430	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Beryllium	U	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Cadmium	U	0.005	0.0100		mg/L	1	10/28/2011 11:25:13 AM
Calcium	32.2	0.005	0.0250		mg/L	1	10/28/2011 11:25:13 AM
Chromium	0.155	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Cobalt	U	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Copper	0.190	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Iron	131	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Lead	0.0600	0.005	0.0150		mg/L	1	10/28/2011 11:25:13 AM
Magnesium	8.54	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Manganese	3.45	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Nickel	0.174	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Potassium	8.84	0.05	0.100		mg/L	1	10/28/2011 11:25:13 AM
Selenium	U	0.01	0.0250		mg/L	1	10/28/2011 11:25:13 AM
Silver	U	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Sodium	17.0	0.005	0.0300		mg/L	1	10/28/2011 11:25:13 AM
Thallium	U	0.01	0.0150		mg/L	1	10/28/2011 11:25:13 AM
Vanadium	0.0990	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 AM
Zinc	0.330	0.005	0.0200		mg/L	1	10/28/2011 11:25:13 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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-04D

**Client Sample ID:** MW-3  
**Collection Date:** 10/27/2011 11:30:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>			E245.1				Analyst: AB
Mercury	U 0.0001	0.000200			mg/L	1	10/28/2011 11:47:21 AM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>			E200.7				Analyst: JP
Aluminum	0.0170	0.005	0.0200	J	mg/L	1	10/28/2011 10:10:23 AM
Antimony	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Arsenic	U 0.01	0.0250			mg/L	1	10/28/2011 10:10:23 AM
Barium	0.107	0.005	0.0200		mg/L	1	10/28/2011 10:10:23 AM
Beryllium	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Cadmium	U 0.005	0.0100			mg/L	1	10/28/2011 10:10:23 AM
Calcium	30.9	0.005	0.0250		mg/L	1	10/28/2011 10:10:23 AM
Chromium	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Cobalt	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Copper	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Iron	0.0190	0.005	0.0200	J	mg/L	1	10/28/2011 10:10:23 AM
Lead	U 0.005	0.0150			mg/L	1	10/28/2011 10:10:23 AM
Magnesium	2.93	0.005	0.0200		mg/L	1	10/28/2011 10:10:23 AM
Manganese	0.0860	0.005	0.0200		mg/L	1	10/28/2011 10:10:23 AM
Nickel	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Potassium	4.75	0.05	0.100		mg/L	1	10/28/2011 10:10:23 AM
Selenium	U 0.01	0.0250			mg/L	1	10/28/2011 10:10:23 AM
Silver	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Sodium	17.2	0.005	0.0300		mg/L	1	10/28/2011 10:10:23 AM
Thallium	U 0.01	0.0150			mg/L	1	10/28/2011 10:10:23 AM
Vanadium	U 0.005	0.0200			mg/L	1	10/28/2011 10:10:23 AM
Zinc	0.0100	0.005	0.0200	J	mg/L	1	10/28/2011 10:10:23 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	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-05A

Client Sample ID: MW-2  
 Collection Date: 10/27/2011 11:40:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
				SW8260C			Analyst: LA
1,1,1,2-Tetrachloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,1,1-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,1,2,2-Tetrachloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,1,2-Trichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,1-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,1-Dichloroethene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,1-Dichloropropene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2,3-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2,3-Trichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2,4,5-Tetramethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2,4-Trichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2,4-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2-Dibromo-3-chloropropane	U	1	2.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2-Dibromoethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2-Dichloroethane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,2-Dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,3,5-Trimethylbenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,3-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,3-dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,4-Dichlorobenzene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
1,4-Dioxane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
2,2-Dichloropropane	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
2-Butanone	U	1.2	2.5	µg/L	1	10/31/2011 3:35:00 PM	
2-Chloroethyl vinyl ether	U	1	2.0	µg/L	1	10/31/2011 3:35:00 PM	
2-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
2-Hexanone	U	1.2	2.5	µg/L	1	10/31/2011 3:35:00 PM	
2-Propanol	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
4-Chlorotoluene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
4-Isopropyltoluene	U	0.5	1.0	µg/L	1	10/31/2011 3:35:00 PM	
4-Methyl-2-pentanone	U	1.2	2.5	µg/L	1	10/31/2011 3:35:00 PM	
Acetone	U	1.2	2.5	µg/L	1	10/31/2011 3:35:00 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
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PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
	U	Indicates the compound was analyzed but not detected.		

# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-05A

Client Sample ID: MW-2  
 Collection Date: 10/27/2011 11:40:00 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>		Analyst: LA
Acrolein	U	2.5	5.0		µg/L	1	10/31/2011 3:35:00 PM
Acrylonitrile	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Benzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Bromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Bromodichloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Bromoform	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Bromomethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Carbon disulfide	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Carbon tetrachloride	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Chlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Chlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Chloroethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Chloroform	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Chloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
cis-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
cis-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Dibromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Dibromomethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Dichlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Diisopropyl ether	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Ethanol	U	2.5	5.0		µg/L	1	10/31/2011 3:35:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Ethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Freon-114	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Hexachlorobutadiene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Isopropyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Isopropylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
m,p-Xylene	U	1	2.0		µg/L	1	10/31/2011 3:35:00 PM
Methyl Acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Methyl tert-butyl ether	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Methylene chloride	5.0	0.5	1.0	B	µg/L	1	10/31/2011 3:35:00 PM
n-Amyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-05A

Client Sample ID: MW-2  
 Collection Date: 10/27/2011 11:40:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
n-Butyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
n-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
n-Propylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
o-Xylene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
p-Ethyltoluene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
sec-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Styrene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
t-Butyl alcohol	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
tert-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Tetrachloroethene	1.9	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Toluene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
trans-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
trans-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Trichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Trichlorofluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Vinyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Vinyl chloride	U	0.5	1.0		µg/L	1	10/31/2011 3:35:00 PM
Surr: 4-Bromofluorobenzene	95.3	0	63-123		%REC	1	10/31/2011 3:35:00 PM
Surr: Dibromofluoromethane	105	0	68-124		%REC	1	10/31/2011 3:35:00 PM
Surr: Toluene-d8	95.6	0	67-125		%REC	1	10/31/2011 3:35:00 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	L	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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-05B

Client Sample ID: MW-2  
 Collection Date: 10/27/2011 11:40:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
1,2,4-Trichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
1,2-Dichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
1,3-Dichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
1,4-Dichlorobenzene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
2,4-Dinitrotoluene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
2,6-Dinitrotoluene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
2-Chloronaphthalene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
2-Methylnaphthalene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
2-Nitroaniline	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
3,3'-Dichlorobenzidine	U	1	10	µg/L	1	11/2/2011 12:49:00 PM	
3-Nitroaniline	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
4-Bromophenyl phenyl ether	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
4-Chloroaniline	U	1	10	µg/L	1	11/2/2011 12:49:00 PM	
4-Chlorophenyl phenyl ether	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
4-Nitroaniline	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Acenaphthene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Acenaphthylene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Aniline	U	1	10	µg/L	1	11/2/2011 12:49:00 PM	
Anthracene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Azobenzene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Benzidine	U	1	10	µg/L	1	11/2/2011 12:49:00 PM	
Benzo(a)anthracene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Benzo(a)pyrene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Benzo(b)fluoranthene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Benzo(g,h,i)perylene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Benzo(k)fluoranthene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Benzyl alcohol	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Bis(2-chloroethoxy)methane	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Bis(2-chloroethyl)ether	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Bis(2-chloroisopropyl)ether	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Carbazole	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Chrysene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	
Dibenzo(a,h)anthracene	U	0.5	5.0	µg/L	1	11/2/2011 12:49:00 PM	

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Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
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LOQ	L	Limit of Quantitation	P	>40% diff for detected conc between the two GC columns
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**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-05B

**Client Sample ID:** MW-2  
**Collection Date:** 10/27/2011 11:40:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
Dibenzofuran	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Fluoranthene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Fluorene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Hexachlorobenzene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Hexachlorobutadiene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Hexachlorocyclopentadiene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Hexachloroethane	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Isophorone	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Naphthalene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Nitrobenzene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
N-Nitrosodimethylamine	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
N-Nitrosodi-n-propylamine	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
N-Nitrosodiphenylamine	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Phenanthrene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Pyrene	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Pyridine	U	0.5	5.0	µg/L		1	11/2/2011 12:49:00 PM
Surr: 2-Fluorobiphenyl	92.9	0	20-131	%REC		1	11/2/2011 12:49:00 PM
Surr: 4-Terphenyl-d14	93.0	0	22-132	%REC		1	11/2/2011 12:49:00 PM
Surr: Nitrobenzene-d5	92.7	0	19-133	%REC		1	11/2/2011 12:49:00 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
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PQL	P	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
U	U	Indicates the compound was analyzed but not detected.		

**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

**ELAP ID : 11418**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-05C

**Client Sample ID:** MW-2  
**Collection Date:** 10/27/2011 11:40:00 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: AB
Mercury	U	0.0001	0.000200		mg/L	1	10/28/2011 12:15:22 PM
<b>TARGET ANALYTE LIST METALS</b>			<b>E200.7</b>		<b>SW3010A</b>		Analyst: JP
Aluminum	43.1	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Antimony	U	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Arsenic	0.0230	0.01	0.0250	J	mg/L	1	10/28/2011 11:27:32 AM
Barium	0.292	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Beryllium	U	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Cadmium	U	0.005	0.0100		mg/L	1	10/28/2011 11:27:32 AM
Calcium	48.5	0.005	0.0250		mg/L	1	10/28/2011 11:27:32 AM
Chromium	0.160	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Cobalt	U	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Copper	0.194	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Iron	141	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Lead	0.0760	0.005	0.0150		mg/L	1	10/28/2011 11:27:32 AM
Magnesium	11.0	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Manganese	3.39	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Nickel	0.176	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Potassium	8.07	0.05	0.100		mg/L	1	10/28/2011 11:27:32 AM
Selenium	U	0.01	0.0250		mg/L	1	10/28/2011 11:27:32 AM
Silver	U	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Sodium	13.9	0.005	0.0300		mg/L	1	10/28/2011 11:27:32 AM
Thallium	U	0.01	0.0150		mg/L	1	10/28/2011 11:27:32 AM
Vanadium	0.114	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM
Zinc	0.481	0.005	0.0200		mg/L	1	10/28/2011 11:27:32 AM

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<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%ID 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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-05D

**Client Sample ID:** MW-2  
**Collection Date:** 10/27/2011 11:40:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>			E245.1				Analyst: AB
Mercury	U 0.0001	0.000200		mg/L	1		10/28/2011 11:49:34 AM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>			E200.7				Analyst: JP
Aluminum	0.0360	0.005	0.0200	mg/L	1		10/28/2011 10:12:42 AM
Antimony	U 0.005	0.0200		mg/L	1		10/28/2011 10:12:42 AM
Arsenic	U 0.01	0.0250		mg/L	1		10/28/2011 10:12:42 AM
Barium	0.0600	0.005	0.0200	mg/L	1		10/28/2011 10:12:42 AM
Beryllium	U 0.005	0.0200		mg/L	1		10/28/2011 10:12:42 AM
Cadmium	U 0.005	0.0100		mg/L	1		10/28/2011 10:12:42 AM
Calcium	45.6	0.005	0.0250	mg/L	1		10/28/2011 10:12:42 AM
Chromium	U 0.005	0.0200		mg/L	1		10/28/2011 10:12:42 AM
Cobalt	U 0.005	0.0200		mg/L	1		10/28/2011 10:12:42 AM
Copper	U 0.005	0.0200		mg/L	1		10/28/2011 10:12:42 AM
Iron	0.0620	0.005	0.0200	mg/L	1		10/28/2011 10:12:42 AM
Lead	U 0.005	0.0150		mg/L	1		10/28/2011 10:12:42 AM
Magnesium	4.51	0.005	0.0200	mg/L	1		10/28/2011 10:12:42 AM
Manganese	0.0220	0.005	0.0200	mg/L	1		10/28/2011 10:12:42 AM
Nickel	0.0210	0.005	0.0200	mg/L	1		10/28/2011 10:12:42 AM
Potassium	2.90	0.05	0.100	mg/L	1		10/28/2011 10:12:42 AM
Selenium	U 0.01	0.0250		mg/L	1		10/28/2011 10:12:42 AM
Silver	U 0.005	0.0200		mg/L	1		10/28/2011 10:12:42 AM
Sodium	14.2	0.005	0.0300	mg/L	1		10/28/2011 10:12:42 AM
Thallium	U 0.01	0.0150		mg/L	1		10/28/2011 10:12:42 AM
Vanadium	U 0.005	0.0200		mg/L	1		10/28/2011 10:12:42 AM
Zinc	0.0210	0.005	0.0200	mg/L	1		10/28/2011 10:12:42 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-06A

Client Sample ID: MW-1  
 Collection Date: 10/27/2011 11:50:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
1,1,1,2-Tetrachloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,1,1-Trichloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,1,2,2-Tetrachloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,1,2-Trichloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,1-Dichloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,1-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,1-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2,3-Trichlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2,3-Trichloropropane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2,4,5-Tetramethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2,4-Trichlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2,4-Trimethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2-Dibromo-3-chloropropane	U	1	2.0		µg/L	1	10/31/2011 4:01:00 PM
1,2-Dibromoethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2-Dichlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2-Dichloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,2-Dichloropropane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,3,5-Trimethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,3-Dichlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,3-dichloropropane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,4-Dichlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
1,4-Dioxane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
2,2-Dichloropropane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
2-Butanone	U	1.2	2.5		µg/L	1	10/31/2011 4:01:00 PM
2-Chloroethyl vinyl ether	U	1	2.0		µg/L	1	10/31/2011 4:01:00 PM
2-Chlorotoluene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
2-Hexanone	U	1.2	2.5		µg/L	1	10/31/2011 4:01:00 PM
2-Propanol	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
4-Chlorotoluene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
4-Isopropyltoluene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
4-Methyl-2-pentanone	U	1.2	2.5		µg/L	1	10/31/2011 4:01:00 PM
Acetone	U	1.2	2.5		µg/L	1	10/31/2011 4:01:00 PM

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Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes
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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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-06A

Client Sample ID: MW-1  
 Collection Date: 10/27/2011 11:50:00 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>		Analyst: LA
Acrolein	U	2.5	5.0		µg/L	1	10/31/2011 4:01:00 PM
Acrylonitrile	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Benzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Bromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Bromodichloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Bromoform	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Bromomethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Carbon disulfide	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Carbon tetrachloride	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Chlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Chlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Chloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Chloroform	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Chloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
cis-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
cis-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Dibromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Dibromomethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Dichlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Diisopropyl ether	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Ethanol	U	2.5	5.0		µg/L	1	10/31/2011 4:01:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Ethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Freon-114	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Hexachlorobutadiene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Isopropyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Isopropylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
m,p-Xylene	U	1	2.0		µg/L	1	10/31/2011 4:01:00 PM
Methyl Acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Methyl tert-butyl ether	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Methylene chloride	3.8	0.5	1.0	B	µg/L	1	10/31/2011 4:01:00 PM
n-Amyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM

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Qualifiers: B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 LOQ Limit of Quantitation  
 PQL Practical Quantitation Limit  
 U Indicates the compound was analyzed but not detected.

C Calibration %RSD/%D exceeded for non-CCC analytes  
 H Holding times for preparation or analysis exceeded  
 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: 03-Nov-11

**ELAP ID : 11418**

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-06A

**Client Sample ID:** MW-1  
**Collection Date:** 10/27/2011 11:50:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
n-Butyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
n-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
n-Propylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
o-Xylene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
p-Ethyltoluene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
sec-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Styrene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
t-Butyl alcohol	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
tert-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Tetrachloroethene	41	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Toluene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
trans-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
trans-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Trichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Trichlorofluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Vinyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Vinyl chloride	U	0.5	1.0		µg/L	1	10/31/2011 4:01:00 PM
Surr: 4-Bromofluorobenzene	95.3	0	63-123		%REC	1	10/31/2011 4:01:00 PM
Surr: Dibromofluoromethane	107	0	68-124		%REC	1	10/31/2011 4:01:00 PM
Sur: Toluene-d8	96.9	0	67-125		%REC	1	10/31/2011 4:01:00 PM

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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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# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-06B

Client Sample ID: MW-1  
 Collection Date: 10/27/2011 11:50:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>			<b>SW8270D</b>		<b>SW3510C</b>		<b>Analyst: LDS</b>
1,2,4-Trichlorobenzene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
1,2-Dichlorobenzene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
1,3-Dichlorobenzene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
1,4-Dichlorobenzene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
2,4-Dinitrotoluene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
2,6-Dinitrotoluene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
2-Chloronaphthalene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
2-Methylnaphthalene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
2-Nitroaniline	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
3,3'-Dichlorobenzidine	U	1	10	μg/L		1	11/2/2011 1:14:00 PM
3-Nitroaniline	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
4-Bromophenyl phenyl ether	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
4-Chloroaniline	U	1	10	μg/L		1	11/2/2011 1:14:00 PM
4-Chlorophenyl phenyl ether	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
4-Nitroaniline	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Acenaphthene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Acenaphthylene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Aniline	U	1	10	μg/L		1	11/2/2011 1:14:00 PM
Anthracene	0.89	0.5	5.0	J	μg/L	1	11/2/2011 1:14:00 PM
Azobenzene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Benzidine	U	1	10	μg/L		1	11/2/2011 1:14:00 PM
Benzo(a)anthracene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Benzo(a)pyrene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Benzo(b)fluoranthene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Benzo(g,h,i)perylene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Benzo(k)fluoranthene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Benzyl alcohol	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Bis(2-chloroethoxy)methane	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Bis(2-chloroethyl)ether	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Bis(2-chloroisopropyl)ether	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Carbazole	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Chrysene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM
Dibenzo(a,h)anthracene	U	0.5	5.0	μg/L		1	11/2/2011 1:14:00 PM

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 LOQ Limit of Quantitation  
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- C** Calibration %RSD/%D exceeded for non-CCC analytes  
**H** Holding times for preparation or analysis exceeded  
**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: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-06B

**Client Sample ID:** MW-1  
**Collection Date:** 10/27/2011 11:50:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270 (BN)</b>							
Dibenzofuran	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Fluoranthene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Fluorene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Hexachlorobenzene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Hexachlorobutadiene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Hexachlorocyclopentadiene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Hexachloroethane	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Indeno(1,2,3-c,d)pyrene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Isophorone	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Naphthalene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Nitrobenzene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
N-Nitrosodimethylamine	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
N-Nitrosodi-n-propylamine	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
N-Nitrosodiphenylamine	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Phenanthrene	0.96	0.5	5.0	J	μg/L	1	11/2/2011 1:14:00 PM
Pyrene	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Pyridine	U	0.5	5.0	μg/L	1	11/2/2011 1:14:00 PM	
Surr: 2-Fluorobiphenyl	84.4	0	20-131	%REC	1	11/2/2011 1:14:00 PM	
Surr: 4-Terphenyl-d14	88.6	0	22-132	%REC	1	11/2/2011 1:14:00 PM	
Surr: Nitrobenzene-d5	80.0	0	19-133	%REC	1	11/2/2011 1:14:00 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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-06C

Client Sample ID: MW-1  
 Collection Date: 10/27/2011 11:50:00 AM  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY</b>							
Mercury	U	0.0001	0.000200		mg/L	1	10/28/2011 12:17:30 PM
<b>TARGET ANALYTE LIST METALS</b>							
			E200.7	SW3010A			Analyst: JP
Aluminum	6.72	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Antimony	U	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Arsenic	U	0.01	0.0250	mg/L	1	10/28/2011 11:29:50 AM	
Barium	0.271	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Beryllium	U	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Cadmium	U	0.005	0.0100	mg/L	1	10/28/2011 11:29:50 AM	
Calcium	28.1	0.005	0.0250	mg/L	1	10/28/2011 11:29:50 AM	
Chromium	0.102	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Cobalt	U	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Copper	0.0280	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Iron	300	0.05	0.200	mg/L	10	10/28/2011 11:43:10 AM	
Lead	0.0470	0.005	0.0150	mg/L	1	10/28/2011 11:29:50 AM	
Magnesium	3.45	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Manganese	1.28	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Nickel	0.0690	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Potassium	7.84	0.05	0.100	mg/L	1	10/28/2011 11:29:50 AM	
Selenium	U	0.01	0.0250	mg/L	1	10/28/2011 11:29:50 AM	
Silver	U	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 AM	
Sodium	14.2	0.005	0.0300	mg/L	1	10/28/2011 11:29:50 AM	
Thallium	U	0.01	0.0150	mg/L	1	10/28/2011 11:29:50 AM	
Vanadium	0.0170	0.005	0.0200	J	mg/L	1	10/28/2011 11:29:50 AM
Zinc	0.281	0.005	0.0200	mg/L	1	10/28/2011 11:29:50 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
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**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-06D

**Client Sample ID:** MW-1  
**Collection Date:** 10/27/2011 11:50:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>MERCURY-DISSOLVED</b>							
Mercury	U 0.0001	0.000200			mg/L	1	10/28/2011 11:51:42 AM
<b>TARGET ANALYTE LIST METALS-DISSOLVED</b>							
		E245.1	E200.7	SW3005A			Analyst: AB
Aluminum	0.0200	0.005	0.0200	mg/L	1	10/28/2011 10:28:52 AM	
Antimony	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Arsenic	U 0.01	0.0250		mg/L	1	10/28/2011 10:28:52 AM	
Barium	0.120	0.005	0.0200	mg/L	1	10/28/2011 10:28:52 AM	
Beryllium	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Cadmium	U 0.005	0.0100		mg/L	1	10/28/2011 10:28:52 AM	
Calcium	30.1	0.005	0.0250	mg/L	1	10/28/2011 10:28:52 AM	
Chromium	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Cobalt	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Copper	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Iron	0.289	0.005	0.0200	mg/L	1	10/28/2011 10:28:52 AM	
Lead	U 0.005	0.0150		mg/L	1	10/28/2011 10:28:52 AM	
Magnesium	2.80	0.005	0.0200	mg/L	1	10/28/2011 10:28:52 AM	
Manganese	0.138	0.005	0.0200	mg/L	1	10/28/2011 10:28:52 AM	
Nickel	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Potassium	7.98	0.05	0.100	mg/L	1	10/28/2011 10:28:52 AM	
Selenium	U 0.01	0.0250		mg/L	1	10/28/2011 10:28:52 AM	
Silver	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Sodium	16.0	0.005	0.0300	mg/L	1	10/28/2011 10:28:52 AM	
Thallium	U 0.01	0.0150		mg/L	1	10/28/2011 10:28:52 AM	
Vanadium	U 0.005	0.0200		mg/L	1	10/28/2011 10:28:52 AM	
Zinc	0.0190	0.005	0.0200	J mg/L	1	10/28/2011 10:28:52 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
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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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# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Lab Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY  
**Lab ID:** 1110189-07A

**Client Sample ID:** Trip Blank  
**Collection Date:** 10/27/2011  
**Matrix:** LIQUID

## Certificate of Results

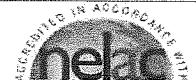
Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
				<b>SW8260C</b>			<b>Analyst: LA</b>
1,1,1,2-Tetrachloroethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,1,1-Trichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,1,2,2-Tetrachloroethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,1,2-Trichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,1-Dichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,1-Dichloroethene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,1-Dichloropropene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2,3-Trichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2,3-Trichloropropane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2,4,5-Tetramethylbenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2,4-Trichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2,4-Trimethylbenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2-Dibromo-3-chloropropane	U	1	2.0	µg/L		1	10/31/2011 4:28:00 PM
1,2-Dibromoethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2-Dichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2-Dichloroethane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,2-Dichloropropane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,3,5-Trimethylbenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,3-Dichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,3-dichloropropane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,4-Dichlorobenzene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
1,4-Dioxane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
2,2-Dichloropropane	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
2-Butanone	U	1.2	2.5	µg/L		1	10/31/2011 4:28:00 PM
2-Chloroethyl vinyl ether	U	1	2.0	µg/L		1	10/31/2011 4:28:00 PM
2-Chlorotoluene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
2-Hexanone	U	1.2	2.5	µg/L		1	10/31/2011 4:28:00 PM
2-Propanol	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
4-Chlorotoluene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
4-Isopropyltoluene	U	0.5	1.0	µg/L		1	10/31/2011 4:28:00 PM
4-Methyl-2-pentanone	U	1.2	2.5	µg/L		1	10/31/2011 4:28:00 PM
Acetone	U	1.2	2.5	µg/L		1	10/31/2011 4:28:00 PM

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**Qualifiers:**    B Analyte detected in the associated Method Blank  
                   E Value above quantitation range  
                   J Analyte detected below quantitation limits  
                   LOQ Limit of Quantitation  
                   PQL Practical Quantitation Limit  
                   U Indicates the compound was analyzed but not detected.

C Calibration %RSD/%D exceeded for non-CCC analytes  
                   H Holding times for preparation or analysis exceeded  
                   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: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-07A

Client Sample ID: Trip Blank  
 Collection Date: 10/27/2011  
 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	2.5	5.0		µg/L	1	10/31/2011 4:28:00 PM
Acrylonitrile	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Benzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Bromobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Bromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Bromodichloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Bromoform	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Bromomethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Carbon disulfide	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Carbon tetrachloride	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Chlorobenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Chlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Chloroethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Chloroform	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Chloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
cis-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
cis-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Dibromochloromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Dibromomethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Dichlorodifluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Diisopropyl ether	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Ethanol	U	2.5	5.0		µg/L	1	10/31/2011 4:28:00 PM
Ethyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Ethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Freon-114	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Hexachlorobutadiene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Isopropyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Isopropylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
m,p-Xylene	U	1	2.0		µg/L	1	10/31/2011 4:28:00 PM
Methyl Acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Methyl tert-butyl ether	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Methylene chloride	8.0	0.5	1.0	B	µg/L	1	10/31/2011 4:28:00 PM
n-Amyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM

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 E Value above quantitation range  
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C Calibration %RSD/%D exceeded for non-CCC analytes  
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 P >40% diff for detected conc between the two GC columns  
 S Spike Recovery outside accepted recovery limits



# American Analytical Laboratories, LLC.

Date: 03-Nov-11

ELAP ID : 11418

CLIENT: J.R. Holzmacher P.E. LLC  
 Lab Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY  
 Lab ID: 1110189-07A

Client Sample ID: Trip Blank  
 Collection Date: 10/27/2011  
 Matrix: LIQUID

## Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260</b>							
Naphthalene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
n-Butyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
n-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
n-Propyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
n-Propylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
o-Xylene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
p-Diethylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
p-Ethyltoluene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
sec-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Styrene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
t-Butyl alcohol	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
tert-Butylbenzene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Tetrachloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Toluene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
trans-1,2-Dichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
trans-1,3-Dichloropropene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Trichloroethene	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Trichlorofluoromethane	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Vinyl acetate	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Vinyl chloride	U	0.5	1.0		µg/L	1	10/31/2011 4:28:00 PM
Surr: 4-Bromofluorobenzene	100	0	63-123		%REC	1	10/31/2011 4:28:00 PM
Surr: Dibromofluoromethane	107	0	68-124		%REC	1	10/31/2011 4:28:00 PM
Surr: Toluene-d8	100	0	67-125		%REC	1	10/31/2011 4:28:00 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
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	PQL	Practical Quantitation Limit	S	Spike Recovery outside accepted recovery limits
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American Analytical Laboratories, LLC.

Date: 03-Nov-11

CLIENT: J.R. Holzmacher P.E. LLC

Work Order: 1110189

Project: Merrick Blvd, Jamaica, NY

**ANALYTICAL QC SUMMARY REPORT**

TestCode: 8270BN\_W

Sample ID: MB-33701	SampType: MBLK	TestCode: 8270BN_W	Units: µg/L	Prep Date: 10/28/2011	RunNo: 60502						
Client ID: PBW	Batch ID: 33701	TestNo: SW8270D	SW3510C	Analysis Date: 11/2/2011	SeqNo: 850685						
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-Dinitrotoluene	U	5.0									
2,6-Dinitrotoluene	U	5.0									
2-Chloronaphthalene	U	5.0									
2-Methylnaphthalene	U	5.0									
2-Nitroaniline	U	5.0									
3,3'-Dichlorobenzidine	10	U									
3-Nitroaniline	U	5.0									
4-Bromophenyl phenyl ether	U	5.0									
4-Chloroaniline	U	10	U								
4-Chlorophenyl phenyl ether	U	5.0									
4-Nitroaniline	U	5.0									
Acenaphthene	U	5.0									
Acenaphthylene	U	5.0									
Aniline	U	10	U								
Anthracene	U	5.0									
Azobenzene	U	5.0									
Benzidine	U	10	U								
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									
Benzyl alcohol	U	5.0									
Bis(2-chloroethoxy)methane	U	5.0									
Bis(2-chloroethyl)ether	U	5.0									
Bis(2-chloroisopropyl)ether	U	5.0									
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	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC column	PQL	Practical Quantitation Limit					

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270BN\_W

Sample ID: MB-33701	SampType: MBLK	TestCode: 8270BN_W	Units: µg/L	Prep Date: 10/28/2011	RunNo: 60502						
Client ID: PBW	Batch ID: 33701	TestNo: SW8270D	SW3510C	Analysis Date: 11/2/2011	SeqNo: 850635						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl)phthalate	U	5.0									
Butyl benzyl phthalate	U	5.0									
Carbazole	U	5.0									
Chrysene	U	5.0									
Dibenz(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									
Hexachlorocyclopentadiene	U	5.0									
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									
Phenanthrene	U	5.0									
Pyrene	U	5.0									
Pyridine	U										
Surr: 2-Fluorobiphenyl	17		20.00			83.3	20	131			
Surr: 4-Terphenyl-d14	17		20.00			86.0	22	132			
Surr: Nitrobenzene-d5	17		20.00			87.3	19	133			

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270BN\_W

Sample ID:	LCS-33701	SampType:	LCS	TestCode:	8270BN_W	Units:	µg/L		Prep Date:	10/28/2011	RunNo:	60502
Client ID:	LCSW	Batch ID:	33701	TestNo:	SW8270D	SW3510C			Analysis Date:	11/2/2011	SeqNo:	850686
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene		32	5.0	40.00	0	80.2	38	124				
1,3-Dichlorobenzene		29	5.0	40.00	0	73.1	33	126				
1,4-Dichlorobenzene		30	5.0	40.00	0	74.2	35	123				
2,4-Dinitrotoluene		32	5.0	40.00	0	80.6	32	137				
Acenaphthene		30	5.0	40.00	0	75.2	47	127				
N-Nitrosodi-n-propylamine		32	5.0	40.00	0	80.7	41	135				
Pyrene		27	5.0	40.00	0	66.9	35	127				
Surr: 2-Fluorobiphenyl		16		20.00		80.2	20	131				
Surr: 4-Terphenyl-d14		19		20.00		92.5	22	132				
Surr: Nitrobenzene-d5		17		20.00		86.4	19	133				
Sample ID:	LCSD-33701	SampType:	LCSD	TestCode:	8270BN_W	Units:	µg/L		Prep Date:	10/28/2011	RunNo:	60502
Client ID:	LCSS02	Batch ID:	33701	TestNo:	SW8270D	SW3510C			Analysis Date:	11/2/2011	SeqNo:	850687
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene		32	5.0	40.00	0	80.4	38	124	32.10	0.189	20	
1,3-Dichlorobenzene		30	5.0	40.00	0	75.4	33	126	29.23	3.13	20	
1,4-Dichlorobenzene		31	5.0	40.00	0	76.6	35	123	29.67	3.17	20	
2,4-Dinitrotoluene		30	5.0	40.00	0	74.4	32	137	32.24	7.96	20	
Acenaphthene		32	5.0	40.00	0	79.5	47	127	30.07	5.64	20	
N-Nitrosodi-n-propylamine		35	5.0	40.00	0	86.6	41	135	32.26	7.07	20	
Pyrene		26	5.0	40.00	0	64.2	35	127	26.76	4.18	20	
Surr: 2-Fluorobiphenyl		17		20.00		83.8	20	131		0	0	
Surr: 4-Terphenyl-d14		17		20.00		82.9	22	132		0	0	
Surr: Nitrobenzene-d5		18		20.00		87.8	19	133		0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

**C** Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

**E** Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

CLIENT: J.R. Holzmacher P.E. LLC

Work Order: 1110189

Project: Merrick Blvd, Jamaica, NY

# ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID:	V624LCS-10311YYW	SampType:	LCS	TestCode:	Full8260_W	Units:	µg/L	Prep Date:	10/31/2011	RunNo:	60557	
Client ID:	LCSW	Batch ID:	R60557	TestNo:	SW8260C			Analysis Date:	10/31/2011	SeqNo:	850506	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane		49	1.0	50.00	0	97.3	38	136				
1,1,2,2-Tetrachloroethane		49	1.0	50.00	0	97.9	50	124				
1,1,2-Trichloroethane		45	1.0	50.00	0	90.6	52	128				
1,1-Dichloroethane		42	1.0	50.00	0	84.3	55	123				
1,1-Dichloroethene		49	1.0	50.00	0	98.7	48	128				
1,2-Dichlorobenzene		50	1.0	50.00	0	99.4	59	123				
1,2-Dichloroethane		45	1.0	50.00	0	89.9	52	129				
1,2-Dichloropropane		44	1.0	50.00	0	87.5	58	124				
1,3-Dichlorobenzene		49	1.0	50.00	0	97.7	51	124				
1,4-Dichlorobenzene		49	1.0	50.00	0	97.9	54	128				
2-Chloroethyl vinyl ether		43	2.0	50.00	0	86.3	25	141				
Benzene		45	1.0	50.00	0	91.0	53	131				
Bromodichloromethane		47	1.0	50.00	0	93.4	54	126				
Bromoform		52	1.0	50.00	0	104	53	127				
Bromomethane		36	1.0	50.00	0	71.0	42	150				
Carbon tetrachloride		50	1.0	50.00	0	99.3	46	135				
Chlorobenzene		48	1.0	50.00	0	96.6	53	121				
Chloroethane		27	1.0	50.00	0	54.2	40	145				
Chloroform		48	1.0	50.00	0	95.2	41	135				
Chloromethane		40	1.0	50.00	0	80.3	32	149				
cis-1,3-Dichloropropene		47	1.0	50.00	0	94.8	46	128				
Dibromochloromethane		48	1.0	50.00	0	97.0	42	124				
Ethylbenzene		49	1.0	50.00	0	97.8	52	135				
Methylene chloride		43	1.0	50.00	0	85.6	35	137				
Tetrachloroethene		39	1.0	50.00	0	77.9	26	126				
Toluene		45	1.0	50.00	0	89.5	51	130				
trans-1,2-Dichloroethene		46	1.0	50.00	0	92.2	49	125				
trans-1,3-Dichloropropene		46	1.0	50.00	0	92.8	43	125				
Trichloroethene		47	1.0	50.00	0	94.9	47	127				
Trichlorofluoromethane		46	1.0	50.00	0	91.2	50	152				
Vinyl chloride		42	1.0	50.00	0	83.5	50	149				

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range

LOD Limit of Detection

PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

Project: Full82260 W  
TestCode: Merrick Blvd, Jamaica, NY

<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	Analytes detected below quantitation limits	LOD	Limit of Detection
LQO	I	Limit of Quantitation	P	>40% diff for detected conc between the two GC column	POI	Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** Full8260\_W

Sample ID: VBLK-103111YW	Samp Type: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 10/31/2011	RunNo: 60557						
Client ID: PBW	Batch ID: R60557	TestNo: SW8260C		Analysis Date: 10/31/2011	SeqNo: 850507						
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	2.0									
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	2.5									
Acrolein	U	5.0									
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									
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									
Diisopropyl ether	U	1.0									

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 column	PQL	Practical Quantitation Limit	

**CLIENT:** J.R. Holznacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: VBLK-103111YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 10/31/2011	RunNo: 60557						
Client ID: PBW	Batch ID: R60557	TestNo: SW8260C		Analysis Date: 10/31/2011	SeqNo: 850507						
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	1.0									
Isopropylbenzene	U	1.0									
m,p-Xylene	U	2.0									
Methyl Acetate	U	1.0									
Methyl tert-butyl ether	U	1.0									
Methylene chloride	U	5.2	1.0								
n-Amyl acetate	U	1.0									
Naphthalene	U	1.0									
n-Butyl acetate	U	1.0									
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	1.0									
tert-Butylbenzene	U	1.0									
Tetrachloroethene	U	1.0									
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	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 column	PQL	Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: VBLK-10311YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 10/31/2011	RunNo: 60557						
Client ID: PBW	Batch ID: R60557	TestNo: SW8260C		Analysis Date: 10/31/2011	SeqNo: 850507						
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	48		50.00		96.7	63	123				
Surr: Dibromofluoromethane	53		50.00		105	68	124				
Surr: Toluene-d8	49		50.00		98.6	67	125				
Sample ID: V6241LCS-10311YW	SampType: LCS	TestCode: Full8260_W	Units: µg/L	Prep Date: 10/31/2011	RunNo: 60557						
Client ID: LCSW	Batch ID: R60557A	TestNo: SW8260C		Analysis Date: 10/31/2011	SeqNo: 850512						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	49	1.0	50.00	0	98.9	38	136				
1,1,2,2-Tetrachloroethane	51	1.0	50.00	0	102	50	124				
1,1,2-Trichloroethane	49	1.0	50.00	0	98.2	52	128				
1,1-Dichloroethane	44	1.0	50.00	0	87.3	55	123				
1,1-Dichloroethene	51	1.0	50.00	0	102	48	128				
1,2-Dichlorobenzene	50	1.0	50.00	0	99.2	59	123				
1,2-Dichloroethane	46	1.0	50.00	0	92.1	52	129				
1,2-Dichloropropane	44	1.0	50.00	0	87.2	58	124				
1,3-Dichlorobenzene	50	1.0	50.00	0	99.5	51	124				
1,4-Dichlorobenzene	50	1.0	50.00	0	99.7	54	128				
2-Chloroethyl vinyl ether	48	2.0	50.00	0	96.7	25	141				
Benzene	46	1.0	50.00	0	91.7	53	131				
Bromodichloromethane	47	1.0	50.00	0	93.5	54	126				
Bromoform	51	1.0	50.00	0	102	53	127				
Bromomethane	28	1.0	50.00	0	55.6	42	150				
Carbon tetrachloride	51	1.0	50.00	0	101	46	135				
Chlorobenzene	49	1.0	50.00	0	97.1	53	121				
Chloroethane	25	1.0	50.00	0	49.3	40	145				
Chloroform	48	1.0	50.00	0	95.4	41	135				
Chloromethane	31	1.0	50.00	0	62.0	32	149				
cis-1,3-Dichloropropene	49	1.0	50.00	0	98.8	46	128				
Dibromochloromethane	50	1.0	50.00	0	100	42	124				

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** Full8260\_W

Sample ID:	V624LCS-103111YW	SampType:	LCS	TestCode:	Full8260_W	Units:	µg/L	Prep Date:	10/31/2011	RunNo:	60557	
Client ID:	LCSW		Batch ID:	R60557A	TestNo:	SW8260C		Analysis Date:	10/31/2011	SeqNo:	850512	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	50	1.0	50.00	0	100	52	135					B
Methylene chloride	42	1.0	50.00	0	83.2	35	137					
Tetrachloroethene	40	1.0	50.00	0	80.2	26	126					
Toluene	47	1.0	50.00	0	94.3	51	130					
trans-1,2-Dichloroethene	46	1.0	50.00	0	92.6	49	125					
trans-1,3-Dichloropropene	47	1.0	50.00	0	93.5	43	125					
Trichloroethene	50	1.0	50.00	0	99.3	47	127					
Trichlorofluoromethane	51	1.0	50.00	0	102	50	152					
Vinyl chloride	48	1.0	50.00	0	95.9	50	149					
Surr: 4-Bromofluorobenzene	49		50.00		97.3	63	123					
Surr: Dibromofluoromethane	51		50.00		103	68	124					
Surr: Toluene-d8	49		50.00		97.5	67	125					

Sample ID:	VBLK-103111YW	SampType:	MBLK	TestCode:	Full8260_W	Units:	µg/L	Prep Date:	10/31/2011	RunNo:	60557	
Client ID:	PBW		Batch ID:	R60557A	TestNo:	SW8260C		Analysis Date:	10/31/2011	SeqNo:	850513	
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										

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation  
C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column  
E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: VBLK-103111YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 10/31/2011	RunNo: 60557						
Client ID: PBW	Batch ID: R60557A	TestNo: SW8260C		Analysis Date: 10/31/2011	SeqNo: 850513						
Analyte	Result	PQL	SPK value	SPK Ref Val	%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	2.0									
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	2.5									
Acrolein	U	5.0									
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									

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 column	PQL	Practical Quantitation Limit	

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** Full8260\_W

Sample ID: VBLK-103111YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 10/31/2011	RunNo: 60557						
Client ID: PBW	Batch ID: R60557A	TestNo: SW8260C		Analysis Date: 10/31/2011	SeqNo: 850513						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	U	U	1.0								
Chloroform	U	U	1.0								
Chloromethane	U	U	1.0								
cis-1,2-Dichloroethene	U	U	1.0								
cis-1,3-Dichloropropene	U	U	1.0								
Dibromochloromethane	U	U	1.0								
Dibromomethane	U	U	1.0								
Dichlorodifluoromethane	U	U	1.0								
Diisopropyl ether	U	U	1.0								
Ethanol	5.0	U	U	5.0							
Ethyl acetate	U	U	1.0								
Ethylbenzene	U	U	1.0								
Freon-114	U	U	1.0								
Hexachlorobutadiene	U	U	1.0								
Isopropyl acetate	U	U	1.0								
Isopropylbenzene	U	U	1.0								
m,p-Xylene	U	U	2.0								
Methyl Acetate	U	U	1.0								
Methyl tert-butyl ether	U	U	1.0								
Methylene chloride	4.8	U	1.0								
n-Amyl acetate	U	U	1.0								
Naphthalene	U	U	1.0								
n-Butyl acetate	U	U	1.0								
n-Butylbenzene	U	U	1.0								
n-Propyl acetate	U	U	1.0								
n-Propylbenzene	U	U	1.0								
o-Xylene	U	U	1.0								
p-Diethylbenzene	U	U	1.0								
p-Ethyltoluene	U	U	1.0								
sec-Butylbenzene	U	U	1.0								
Styrene	U	U	1.0								

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calibration %RSD/%D exceeded for non-CCC analytes	E	Value above quantitation range
H	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	LOQ	Limit of Quantitation	P	>40% diff for detected conc between the two GC column	PQL	Practical Quantitation Limit



**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260\_W

Sample ID: VBLK-103111YW	SampType: MBLK	TestCode: Full8260_W	Units: µg/L	Prep Date: 10/31/2011	RunNo: 60557						
Client ID: PBW	Batch ID: R60557A	TestNo: SW8260C		Analysis Date: 10/31/2011	SeqNo: 850513						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
t-Butyl alcohol	U	1.0									
tert-Butylbenzene	U	1.0									
Tetrachloroethene	U	1.0									
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	48	50.00				96.5	63	123			
Surr: Dibromofluoromethane	53	50.00				106	68	124			
Surr: Toluene-d8	48	50.00				96.6	67	125			

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD>%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**CLIENT:** J.R. Holznacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: HG\_W

Sample ID: LCSW-102811A	SampType: LCS	TestCode: HG_W	Units: mg/L	Prep Date:	RunNo: 60477						
Client ID: LCSW	Batch ID: R60477	TestNo: E245.1		Analysis Date:	SeqNo: 849565						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00355	0.000200	0.004000	0	88.8	80	120				
Sample ID: PBW-102811A	SampType: MBLK	TestCode: HG_W	Units: mg/L	Prep Date:	RunNo: 60477						
Client ID: PBW	Batch ID: R60477	TestNo: E245.1		Analysis Date:	SeqNo: 849566						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	U	0.000200									

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation  
  
**C** Calibration %RSD/%D exceeded for non-CCC analytes  
**J** Analyte detected below quantitation limits  
**P** >40% diff for detected conc between the two GC column  
  
**E** Value above quantitation range  
**LOD** Limit of Detection  
**PQL** Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

**TestCode: ICP\_TAL\_D**

Sample ID:	PBW-102711AD	SampType:	MBLK	TestCode:	ICP_TAL_D	Units:	mg/L	Prep Date:	10/27/2011	RunNo:	60506	
Client ID:	PBW	Batch ID:	33658	TestNo:	E200.7	SW3005A		Analysis Date:	10/28/2011	SeqNo:	850166	
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:	LCSW-102711AD	SampType:	LCS	TestCode:	ICP_TAL_D	Units:	mg/L	Prep Date:	10/27/2011	RunNo:	60506	
Client ID:	LCSW	Batch ID:	33658	TestNo:	E200.7	SW3005A		Analysis Date:	10/28/2011	SeqNo:	850167	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		2.09	0.0200	2.000	0	105	75	123				
Antimony		2.00	0.0200	2.000	0	100	73	121				
Arsenic		2.01	0.0250	2.000	0	101	80	121				
Barium		2.06	0.0200	2.000	0	103	80	120				

**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 column    PQL Practical Quantitation Limit

CLIENT: J.R. Holzmacher P.E. LLC  
 Work Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: ICP\_TAL\_D

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	Prep Date: 10/27/2011		RunNo: 60506	
									Analysis Date: 10/28/2011	SeqNo: 850167		
Sample ID: LCSW-102711AD	SampType: LCS	Batch ID: 33558	TestNo: E200.7	SW3005A					%RPD	RPDLimit	Qual	
Beryllium	2.01	0.0200	2.000	0	101	78	123					
Cadmium	2.00	0.0100	2.000	0	100	77	122					
Calcium	2.02	0.0250	2.000	0	101	80	122					
Chromium	2.01	0.0200	2.000	0	100	80	121					
Cobalt	2.01	0.0200	2.000	0	100	78	120					
Copper	2.02	0.0200	2.000	0	101	76	122					
Iron	2.05	0.0200	2.000	0	102	78	123					
Lead	2.00	0.0150	2.000	0	100	79	121					
Magnesium	2.00	0.0200	2.000	0	100	78	122					
Manganese	2.00	0.0200	2.000	0	100	76	121					
Nickel	2.00	0.0200	2.000	0	100	77	121					
Potassium	20.2	0.100	20.00	0	101	77	121					
Selenium	2.01	0.0250	2.000	0	100	79	121					
Silver	2.13	0.0200	2.000	0	106	73	123					
Sodium	2.17	0.0300	2.000	0	109	72	128					
Thallium	2.02	0.0150	2.000	0	101	75	121					
Vanadium	2.01	0.0200	2.000	0	101	79	120					
Zinc	2.01	0.0200	2.000	0	101	79	122					

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 column    PQL Practical Quantitation Limit

CLIENT: J.R. Holznacher P.E. LLC  
 Work Order: 1110189  
 Project: Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: ICP\_TAL\_W

Sample ID: PBW-102711A	SampType: MBLK	TestCode: ICP_TAL_W	Units: mg/L	Prep Date: 10/27/2011	RunNo: 60506						
Client ID: PBW	Batch ID: 33655	TestNo: E200.7	SW3010A	Analysis Date: 10/28/2011	SeqNo: 849891						
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: LCSW-102711A	SampType: LCS	TestCode: ICP_TAL_W	Units: mg/L	Prep Date: 10/27/2011	RunNo: 60506						
Client ID: LCSW	Batch ID: 33655	TestNo: E200.7	SW3010A	Analysis Date: 10/28/2011	SeqNo: 849892						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.03	0.0200	2.000	0	101	75	123				
Antimony	1.99	0.0200	2.000	0	99.4	73	121				
Arsenic	2.01	0.0250	2.000	0	100	80	121				
Barium	2.09	0.0200	2.000	0	104	80	120				

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
 J Analyte detected below quantitation limits  
 P >40% diff for detected conc between the two GC column

E Value above quantitation range  
 LOD Limit of Detection  
 PQL Practical Quantitation Limit

**CLIENT:** J.R. Holzmacher P.E. LLC  
**Work Order:** 1110189  
**Project:** Merrick Blvd, Jamaica, NY

## ANALYTICAL QC SUMMARY REPORT

TestCode: ICP\_TAL\_W

Sample ID: LCSW-102711A	SampType: LCS	TestCode: ICP_TAL_W	Units: mg/L	Prep Date: 10/27/2011	RunNo: 60506						
Client ID: LCSW	Batch ID: 33655	TestNo: E200.7	SW3010A	Analysis Date: 10/28/2011	SegNo: 849892						
Analyte	Result	PQL	SPK Value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	2.00	0.0200	2.000	0	100	78	123				
Cadmium	2.00	0.0100	2.000	0	99.9	77	122				
Calcium	2.04	0.0250	2.000	0	102	80	122				
Chromium	2.00	0.0200	2.000	0	100	80	121				
Cobalt	2.00	0.0200	2.000	0	99.9	78	120				
Copper	2.02	0.0200	2.000	0	101	76	122				
Iron	2.06	0.0200	2.000	0	103	78	123				
Lead	2.00	0.0150	2.000	0	100	79	121				
Magnesium	2.01	0.0200	2.000	0	101	78	122				
Manganese	2.00	0.0200	2.000	0	99.9	76	121				
Nickel	1.98	0.0200	2.000	0	98.9	77	121				
Potassium	20.2	0.100	20.00	0	101	77	121				
Selenium	1.99	0.0250	2.000	0	99.4	79	121				
Silver	2.13	0.0200	2.000	0	106	73	123				
Sodium	2.19	0.0300	2.000	0	110	72	128				
Thallium	2.04	0.0150	2.000	0	102	75	121				
Vanadium	2.01	0.0200	2.000	0	100	79	120				
Zinc	1.99	0.0200	2.000	0	99.4	79	122				

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
LOQ Limit of Quantitation

C Calibration %RSD/%D exceeded for non-CCC analytes  
J Analyte detected below quantitation limits  
P >40% diff for detected conc between the two GC column

E Value above quantitation range  
LOD Limit of Detection  
PQL Practical Quantitation Limit

**American Analytical Laboratories, LLC.**

Date: 03-Nov-11

CLIENT: J.R. Holzmacher P.E. LLC

Work Order: 1110189

Project: Merrick Blvd, Jamaica, NY

**ANALYTICAL QC SUMMARY REPORT**

TestCode: HG\_W

Sample ID:	1110189-06C-MS	SampType:	MS	TestCode:	HG_W	Units:	mg/L	Prep Date:		RunNo:	60477	
Client ID:	MW-1	Batch ID:	R60477	TestNo:	E245.1			Analysis Date:	10/28/2011	SeqNo:	849575	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.00358	0.000200	0.004000	0	89.5	75	125				
Sample ID:	1110189-06C-MSD	SampType:	MSD	TestCode:	HG_W	Units:	mg/L	Prep Date:		RunNo:	60477	
Client ID:	MW-1	Batch ID:	R60477	TestNo:	E245.1			Analysis Date:	10/28/2011	SeqNo:	849576	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.00363	0.000200	0.004000	0	90.8	75	125	0.003580	1.39	20	

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 column PQL Practical Quantitation Limit

Attachment D  
Soil Vapor Analysis

## **DATA PACKAGE**

### **VOLATILE ORGANICS**

**PROJECT NAME : KOPTD 11-02**

**J.R.HOLZMACHER P.E., LLC**  
**300 Wheeler Avenue**  
**Suite 402**  
**Hauppauge, NY - 11788**  
**Phone No: 6312342220**

**ORDER ID : C4103**  
**ATTENTION : Heather Sonnenberg**



**DoD ELAP**



284 Sheffield Street, Mountainside, New Jersey 07092 Phone: 908 789 8900 Fax: 908 789 8922

# COVER PAGE

## Cover Page

**Order ID :** C4103

**Project ID :** KoptD 11-02

**Client :** J.R.Holzmacher P.E., LLC

**Lab Sample Number**

C4103-01  
C4103-02  
C4103-03

**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 : \_\_\_\_\_



284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

## QA/QC DELIVERABLES CHECKLIST

Project Number:\_\_C4103

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      NA
I.     Report Cover Page, Laboratory Certification and Field Sample To Lab Sample ID Cross Reference	<u>✓</u> _
II.    Table of Contents	<u>✓</u> _
III.   Chain of Custody Documents	<u>✓</u> _
IV.    Methodology Summaries	<u>✓</u> _
V.     Laboratory Chronicle and Hold Time Checks	<u>✓</u> _
VI.    Case Narrative	<u>✓</u> _
VII.   Tabulated Analytical Results	<u>✓</u> _
VIII.   Initial and Continuing Calibration Information	<u>      </u> <u>✓</u> _
IX.    Tune and Internal Standard Area Summaries (GC/MS)	<u>      </u> <u>✓</u> _
X.     Quality Control Summary Reports	<u>✓</u> _ <u>      </u>
XI.    Surrogate Recovery Summary	<u>✓</u> _ <u>      </u>
XII.   Raw Data Chromatogram, Blank Samples and QC when applicable	<u>✓</u> _ <u>      </u>
XIII.   Subcontract Data	<u>      </u> <u>✓</u> _

---

QA/QC Data Reviewer

10/15/11  
Date

NJDEP Certification No. 20012

NYSDOH Certification No. 11376

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284 Sheffield Street, Mountainside, New Jersey 07092 Phone: 908 789 8900 Fax: 908 789 8922

# CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, New Jersey 07042 Phone : 908 789 8900 Fax : 908 789 8922

Client/Contact Information	Bottle Order ID :	B1109185	Courier :		of	COCS
Customer Name : J.R.Holzmacher P.E., LLC	Project ID :	KoptD 11-02	Sampler Name(s) : <i>J.R. Holzmacher</i>	Analysis	Matrix	

Address : 300 Wheeler Avenue	Phone Number :	6312342220
City : Hauppauge	Fax Number :	6312342221
State : NY	Site Details:	

Zip Code : 11788	Analysis Turnaround Time	Standard : 15 business days	Rush (Specify): Days	EDD Type :

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field (^Hg)	Can Vacuum in Field (^Hg) (Start)	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/Ambinet Air	Soil Gas
								-30	-2.2	10778	10280	6 L	200	VLO14385.D	✓		

## Temperature (Fahrenheit)

GC/MS Analyst Signature (TO-15)  
*[Signature]*

\*\* Submittal of this COC indicates approval of the analysis based on existing conditions.

Start	Ambient	Maximum	Minimum
Stop	Ambient	Maximum	Minimum

## Pressure (inches of Hg)

Please follow the instructions on the back of this COC.

## Special Instructions/QC Requirements &amp; Comments :

PID Readings:

## Sampling site (State):

Quick Connector required : N/S

Canisters Shipped by: *[Signature]*

Date/Time: 10/11/11 9:10

Canisters Received by: *[Signature]*

Date/Time: 10/11/11 9:10

Received by: *[Signature]*Samples Relinquished by: *[Signature]*

Date/Time: 10/11/11 9:10

Received by: *[Signature]*

Date/Time: 10/11/11 9:10

B1109185 - 2

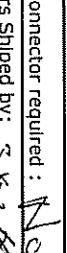
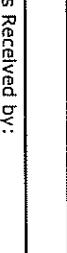
*[Signature]* 9:10 AM 10/11/11  
9:10 AM 10/11/11

Client Contact Information		Bottle Order ID :	<b>B1109185</b>	Courier :			of	COCs									
Client ID :	<b>JRH001</b>	Project ID :	<b>KoptD 11-02</b>	Sampler Name(s) :	<i>Heather Sonnenberg</i>	<i>MP-1</i>	Analysis	Matrix									
Customer Name :	<b>J.R.Holzmacher P.E., LLC</b>	Project Manager :	<b>Heather sonnenberg</b>	Phone Number :	<b>6312342220</b>												
Address :	<b>300 Wheeler Avenue</b>	Fax Number :	<b>6312342221</b>	<b>AIR ANALYSIS</b> <b>CHAIN-OF-CUSTODY</b>													
City :	<b>Suite 402</b>	Site Details:															
State :	<b>NY</b>	Analysis Turnaround Time															
Zip Code :	<b>11788</b>	Standard :	<b>15 business days</b>	Rush (Specify):	<b>Days</b>	EDD Type :											
Country :		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 (m³/min)	Can Cert ID	TO-15	Indoor/Amblinet Air	Soil Gas
						-30	-2.2	10645	10279	6 L	200	VLO14385.D	✓				
Temperature (Fahrenheit)																	
	Ambient	Maximum	Minimum														
	Start																
	Stop																
Pressure (inches of Hg)																	
	Ambient	Maximum	Minimum														
	Start																
	Stop																
PID Readings:																	
Suspected Contamination:		High	Medium	Low													
Sampling site (State):																	
Quick Connector required :	<input checked="" type="checkbox"/>	Date/Time:	<b>09/13/11</b>	Canisters Received by:				Date/Time:									
Canisters Shipped by:	<i>J.R. Holzmacher</i>	Date/Time:	<b>09/13/11</b>	Received by:				Date/Time:									
Samples Relinquished by:	<i>J.R. Holzmacher</i>	Date/Time:	<b>09/13/11</b>	Received by:				Date/Time:									
Relinquished by:	<i>Patricia</i>	Date/Time:	<b>09/13/11 9:10</b>	Received by:	<i>Heather Sonnenberg</i>			Date/Time:	<b>10/01/11 9:10</b>								

\*\* Submittal of this COC indicates approval of the analysis based on existing conditions.

Please follow the instructions on the back of this COC.

284 Sheffield Street, Mountainside, New Jersey 07042 Phone : 908 789 8900 Fax : 908 789 8922

Client Contact Information		Bottle Order ID :	B1109185	Courier :												
Client ID :	JRH001	Project ID :	KoptD 11-02	Sampler Name(s)	V.P.Z	Analysis	of	Matrix								
Customer Name :	J.R.Holzmacher P.E., LLC	Project Manager :	Heather sonnenberg													
Address :	300 Wheeler Avenue	Phone Number :	6312342220	AIR ANALYSIS												
City :	Hauppauge	Fax Number :	6312342221	CHAIN-OF-CUSTODY												
State :	NY	Analysis Turnaround Time		Data Package Type :												
Zip Code :	11788	Standard :	15 business days	EDD Type :												
Country :	Rush (Specify):		Days													
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/Ambinet Air
						-30	-2.2	10648	10407	6 L	200	VLO14385.D			Soil Gas	
Temperature (Fahrenheit)																
	Ambient	Maximum	Minimum	GC/MS Analyst Signature (TO-15)												
Start																
Stop																
Pressure (Inches of Hg)																
	Ambient	Maximum	Minimum	** Submittal of this COC indicates approval of the analysis based on existing conditions.												
Start																
Stop																
Special Instructions/QC Requirements & Comments :																
Suspected Contamination:		High	Medium	Low	PID Readings:											
Sampling site (State):																
Quick Connector required :																
Canisters Shipped by: 		Date/Time: 12/11/11	Canisters Received by:		Date/Time:		Canisters Received by:		Date/Time:		Canisters Received by:		Date/Time:			
Samples Relinquished by: 		Date/Time: 12/11/11	Received by:		Date/Time:		Received by:		Date/Time:		Received by:		Date/Time:			
Relinquished by: 		Date/Time: 12/11/11	Received by: 		Date/Time:		Received by: 		Date/Time:		Received by: 		Date/Time: 10/11/11			

Please follow the instructions on the back of this COC.

\*\* Submittal of this COC indicates approval of the analysis based on existing conditions.



**CHEMTECH**

284 Sheffield Street, Mountainside, NJ 07042 P: (908) 789-8900 F: (908) 789-8922

Client Sample ID #: VP-2

Client Name:

Project Name: Kopt D 11-D2

Date: 10-4-2011 Time: 10:35 AM

Analysis: TO-15

Comments:

Storage Location: Air Lab

Sample: C4103-C4103-02

Date of Disposal:

Cust Sample: VP-2

B1109181

**CHEMTECH**

284 Sheffield Street, Mountainside, NJ 07042 P: (908) 789-8900 F: (908) 789-8922

Client Sample ID #: VP-1

Client Name:

Project Name: Kopt D 11-D2

Date: 10-4-2011 Time: 10:25 AM

Analysis: TO-15

Comments:

Storage Location: Air Lab

Sample: C4103-C4103-01

Disposal:

Cust Sample: VP-1

B1109181

**CHEMTECH**

284 Sheffield Street, Mountainside, NJ 07042 P: (908) 789-8900 F: (908) 789-8922

Client Sample ID #: VP-3

Client Name:

Project Name: Kopt D 11-D2

Date: 10-4-2011 Time: 10:40 AM

Analysis: TO-15

Comments:

Storage Location: Air Lab

CHEMTECH'S

Date Received:

Sample: C4103-C4103-03

Cust Sample: VP-3

B1109181



284 Sheffield Street Mountainside NJ 07092 Tel. 908-789-8

## Laboratory Certification

<b>State</b>	<b>License No.</b>
New Jersey	20012
New York	11376
Connecticut	PH-0649
Maryland	296
Massachusetts	M-NJ503
Maine	NJ0503
Oklahoma	9705
Pennsylvania	68-548
Rhode Island	LAO00259
Texas	T10470448-10-1

Other:

DOD ELAP	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038

QA Control Code: A2070148

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following "Result 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. This is the detection limit attainable for this particular sample based on any concentration or dilution that may have been required.   |
| <b>ND</b> | Indicates the compound was analyzed for but was not detected  |
| <b>J</b>  | Indicates an estimated value. This flag is used:<br>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)<br>(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 3ug/L was calculated, report as 3 J. |
| <b>B</b>  | Indicates the analyte was found in the blank as well as the sample.   |
| <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.  |
| <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. 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.   |

**APPENDIX A****QA REVIEW GENERAL DOCUMENTATION**

Project #: \_\_\_\_\_ C4103 \_\_\_\_\_

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 and 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 reviewed for manual integration requirements

1<sup>st</sup> Level QA Review Signature: \_\_\_\_\_ HIRAL PATEL \_\_\_\_\_ Date: 10/15/2011 \_\_\_\_\_2<sup>nd</sup> Level QA Review Signature: \_\_\_\_\_ Date: \_\_\_\_\_



284 Sheffield Street, Mountainside, New Jersey 07092 Phone: 908 789 8900 Fax: 908 789 8922

METHODOLOGY  
REVIEW  
&  
LABORATORY  
CHRONICLE

**LAB CHRONICLE**

<b>OrderID:</b> C4103	<b>OrderDate:</b> 10/11/2011 3:49:47 PM
<b>Client:</b> J.R.Holzmacher P.E., LLC	<b>Project:</b> KoptD 11-02
<b>Contact:</b> Heather Sonnenberg	<b>Location:</b> Air Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
C4103-01	VP-1	AIR			10/04/11			10/11/11
			TO-15	TO-15			10/12/11	
C4103-01DL	VP-1DL	AIR			10/04/11			10/11/11
			TO-15	TO-15			10/12/11	
C4103-02	VP-2	AIR			10/04/11			10/11/11
			TO-15	TO-15			10/12/11	
C4103-02DL	VP-2DL	AIR			10/04/11			10/11/11
			TO-15	TO-15			10/12/11	
C4103-03	VP-3	AIR			10/04/11			10/11/11
			TO-15	TO-15			10/12/11	
C4103-03DL	VP-3DL	AIR			10/04/11			10/11/11
			TO-15	TO-15			10/12/11	



284 Sheffield Street, Mountainside, New Jersey 07092 Phone: 908 789 8900 Fax: 908 789 8922

# CASE NARRATIVE

## CASE NARRATIVE

**J.R.Holzmacher P.E., LLC**

**Project Name: KoptD 11-02**

**Project # N/A**

**Chemtech Project # C4103**

**Test Name: TO-15**

### **A. Number of Samples and Date of Receipt:**

3 Air samples were received on 10/11/2011.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: TO-15 and VOCMS Group3. 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 except for VP-1, VP-2.

The Retention Times were acceptable for all samples.

The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

Samples VP-1, VP-2 and VP-3 were diluted due to bad matrices.

Samples VP-1, VP-2 and VP-3 were diluted due to high concentrations.

### **E. Additional Comments:**

Sample VP-3 bad matrix,no straight run first run 10X,for Tetrachloroethene report "E" flag,sample#VP-1 & VP-2 bad matrix 10X . Tetrachloroethene report "E" flag. No further dilution can be done.

### **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\_\_\_\_\_

# TABULATED ANALYTICAL RESULTS

## GC/MS VOLATILE ORGANICS

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	4.8	U	23.73		
tert-Butyl alcohol	75-65-0	74.12	20	J	60.63		
Chloromethane	74-87-3	50.49	7.2	U	14.87		
Methyl Methacrylate	80-62-6	100.117	12	U	49.14		
Vinyl Chloride	75-01-4	62.5	8.4	U	21.47		
Bromomethane	74-83-9	94.94	3.6	U	13.98		
Chloroethane	75-00-3	64.52	8.4	U	22.17		
Trichlorofluoromethane	75-69-4	137.4	4.8	U	26.97		
Dichlorotetrafluoroethane	76-14-2	170.9	4.8	U	33.55		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	4.8	U	36.79		
Bromoethene	593-60-2	106.9	3.6	U	15.74		
Heptane	142-82-5	100.2	7.2	U	29.51		
1,1-Dichloroethene	75-35-4	96.94	6	U	23.79		
Acetone	67-64-1	58.08	89		211.42		
Carbon Disulfide	75-15-0	76.14	6	U	18.68		
Methyl tert-Butyl Ether	1634-04-4	88.15	6	U	21.63		
Methylene Chloride	75-09-2	84.94	6	U	20.84		
Allyl Chloride	107-05-1	76.53	6	U	18.78		
trans-1,2-Dichloroethene	156-60-5	96.94	7.2	U	28.55		
1,1-Dichloroethane	75-34-3	98.96	4.8	U	19.43		
Cyclohexane	110-82-7	84.16	9.6	U	33.04		
2-Butanone	78-93-3	72.11	12	U	35.39		
Carbon Tetrachloride	56-23-5	153.8	4.8	U	30.19		
cis-1,2-Dichloroethene	156-59-2	96.94	330		1308.39		
Chloroform	67-66-3	119.4	2.4	U	11.72		
1,4-Dioxane	123-91-1	88.12	11	U	39.64		
1,1,1-Trichloroethane	71-55-6	133.4	4.8	U	26.19		
Tetrahydrofuran	109-99-9	72.11	9.6	U	28.31		
2,2,4-Trimethylpentane	540-84-1	114.2	4.8	U	22.42		
Benzene	71-43-2	78.11	4.8	U	15.33		
1,2-Dichloroethane	107-06-2	98.96	8.4	U	34		
Trichloroethene	79-01-6	131.4	1300		6986.5		
1,2-Dichloropropane	78-87-5	113	7.2	U	33.28		
Bromodichloromethane	75-27-4	163.8	6	U	40.2		
4-Methyl-2-Pentanone	108-10-1	100.2	7.2	U	29.51		
Toluene	108-88-3	92.14	6	U	22.61		
t-1,3-Dichloropropene	10061-02-6	111	8.4	U	38.13		
cis-1,3-Dichloropropene	10061-01-5	111	7.2	U	32.69		
1,1,2-Trichloroethane	79-00-5	133.4	9.6	U	52.38		
Dibromochloromethane	124-48-1	208.3	6	U	51.12		
1,2-Dibromoethane	106-93-4	187.9	8.4	U	64.55		
Tetrachloroethene	127-18-4	165.8	76000	E	515370.1		
Chlorobenzene	108-90-7	112.6	11	U	50.66		
Ethyl Benzene	100-41-4	106.2	9.6	U	41.7		
m/p-Xylene	179601-23	106.2	13	U	56.47		
o-Xylene	95-47-6	106.2	8.4	U	36.49		
Styrene	100-42-5	104.1	8.4	U	35.76		
Bromoform	75-25-2	252.8	6	U	62.04		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	12	U	82.4		
2-Chlorotoluene	95-49-8	126.6	12	U	62.13		
1,3,5-Trimethylbenzene	108-67-8	120.2	11	U	54.08		

Project: KoptD 11-02

Field ID Number: VP-1

Laboratory ID Number: C4103-01

**TARGET ANALYTES -  
AIR RESULTS**

Sampling Date: 10/04/11

Analysis Date: 10/12/11

1,2,4-Trimethylbenzene	95-63-6	120.2	12	U	58.99		
4-Ethyltoluene	622-96-8	120.2	9.6	U	47.2		
1,3-Dichlorobenzene	541-73-1	147	9.6	U	57.72		
1,4-Dichlorobenzene	106-46-7	147	7.2	U	43.29		
1,2-Dichlorobenzene	95-50-1	147	8.4	U	50.5		
1,2,4-Trichlorobenzene	120-82-1	181.5	4.8	U	35.63		
Hexachloro-1,3-Butadiene	87-68-3	260.8	9.6	U	102.4		
1,3-Butadiene	106-99-0	54.09	11	U	24.33		
Hexane	110-54-3	86.17	4.8	U	16.92		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodif	75-71-8	120.9	48	U	237.35		
tert-Butyl a	75-65-0	74.12	120	U	363.78		
Chlorometh	74-87-3	50.49	72	U	148.68		
Methyl Met	80-62-6	100.117	120	U	491.37		
Vinyl Chlor	75-01-4	62.5	84	U	214.72		
Bromometh	74-83-9	94.94	36	U	139.79		
Chloroetha	75-00-3	64.52	84	U	221.66		
Trichloroflu	75-69-4	137.4	48	U	269.74		
Dichlorotet	76-14-2	170.9	48	U	335.51		
1,1,2-Trich	76-13-1	187.4	48	U	367.9		
Bromoethe	593-60-2	106.9	36	U	157.4		
Heptane	142-82-5	100.2	72	U	295.07		
1,1-Dichlor	75-35-4	96.94	60	U	237.89		
Acetone	67-64-1	58.08	120	U	285.06		
Carbon Dis	75-15-0	76.14	60	U	186.85		
Methyl tert	1634-04-4	88.15	60	U	216.32		
Methylene	75-09-2	84.94	60	U	208.44		
Allyl Chlorid	107-05-1	76.53	60	U	187.8		
trans-1,2-D	156-60-5	96.94	72	U	285.47		
1,1-Dichlor	75-34-3	98.96	48	U	194.28		
Cyclohexan	110-82-7	84.16	96	U	330.44		
2-Butanone	78-93-3	72.11	120	U	353.91		
Carbon Tel	56-23-5	153.8	48	U	301.94		
cis-1,2-Dic	156-59-2	96.94	370	JD	1466.99		
Chloroform	67-66-3	119.4	24	U	117.2		
1,4-Dioxan	123-91-1	88.12	110	U	396.45		
1,1,1-Trich	71-55-6	133.4	48	U	261.89		
Tetrahydro	109-99-9	72.11	96	U	283.13		
2,2,4-Trime	540-84-1	114.2	48	U	224.2		
Benzene	71-43-2	78.11	48	U	153.34		
1,2-Dichlor	107-06-2	98.96	84	U	339.99		
Trichloroet	79-01-6	131.4	1700	D	9136.2		
1,2-Dichlor	78-87-5	113	72	U	332.76		
Bromodich	75-27-4	163.8	60	U	401.96		
4-Methyl-2-	108-10-1	100.2	72	U	295.07		
Toluene	108-88-3	92.14	60	U	226.11		
t-1,3-Dichlo	10061-02-6	111	84	U	381.35		
cis-1,3-Dic	10061-01-5	111	72	U	326.87		
1,1,2-Trich	79-00-5	133.4	96	U	523.78		
Dibromoch	124-48-1	208.3	60	U	511.17		
1,2-Dibrom	106-93-4	187.9	84	U	645.55		
Tetrachlor	127-18-4	165.8	290000	ED	1966544		
Chlorobenz	108-90-7	112.6	110	U	506.58		
Ethyl Benz	100-41-4	106.2	96	U	416.98		
m/p-Xylene	179601-23	106.2	130	U	564.66		
o-Xylene	95-47-6	106.2	84	U	364.86		
Styrene	100-42-5	104.1	84	U	357.64		
Bromoform	75-25-2	252.8	60	U	620.37		
1,1,2,2-Tet	79-34-5	167.9	120	U	824.05		
2-Chlorotol	95-49-8	126.6	120	U	621.35		
1,3,5-Trime	108-67-8	120.2	110	U	540.78		

Project: KoptD 11-02

Field ID Number: VP-1DL

Laboratory ID Number: C4103-01DL

**TARGET ANALYTES -  
AIR RESULTS**

Sampling Date: 10/04/11

Analysis Date: 10/12/11

1,2,4-Trime	95-63-6	120.2	120	U	589.94		
4-Ethyltolu	622-96-8	120.2	96	U	471.95		
1,3-Dichlor	541-73-1	147	96	U	577.18		
1,4-Dichlor	106-46-7	147	72	U	432.88		
1,2-Dichlor	95-50-1	147	84	U	505.03		
1,2,4-Trich	120-82-1	181.5	48	U	356.32		
Hexachlор	87-68-3	260.8	96	U	1024		
1,3-Butadi	106-99-0	54.09	110	U	243.35		
Hexane	110-54-3	86.17	48	U	169.17		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodif	75-71-8	120.9	2.4	U	11.87		
tert-Butyl a	75-65-0	74.12	19	J	57.6		
Chlorometh	74-87-3	50.49	3.6	U	7.43		
Methyl Met	80-62-6	100.117	6	U	24.57		
Vinyl Chlor	75-01-4	62.5	4.2	U	10.74		
Bromometh	74-83-9	94.94	1.8	U	6.99		
Chloroetha	75-00-3	64.52	4.2	U	11.08		
Trichloroflu	75-69-4	137.4	2.4	U	13.49		
Dichlorotet	76-14-2	170.9	2.4	U	16.78		
1,1,2-Trich	76-13-1	187.4	2.4	U	18.4		
Bromoethe	593-60-2	106.9	1.8	U	7.87		
Heptane	142-82-5	100.2	3.6	U	14.75		
1,1-Dichlor	75-35-4	96.94	3	U	11.89		
Acetone	67-64-1	58.08	180		427.58		
Carbon Dis	75-15-0	76.14	3	U	9.34		
Methyl tert	1634-04-4	88.15	3	U	10.82		
Methylene	75-09-2	84.94	3	U	10.42		
Allyl Chlorid	107-05-1	76.53	3	U	9.39		
trans-1,2-D	156-60-5	96.94	3.6	U	14.27		
1,1-Dichlor	75-34-3	98.96	2.4	U	9.71		
Cyclohexan	110-82-7	84.16	4.8	U	16.52		
2-Butanone	78-93-3	72.11	6	U	17.7		
Carbon Tel	56-23-5	153.8	2.4	U	15.1		
cis-1,2-Dic	156-59-2	96.94	100		396.48		
Chloroform	67-66-3	119.4	1.2	U	5.86		
1,4-Dioxan	123-91-1	88.12	5.4	U	19.46		
1,1,1-Trich	71-55-6	133.4	2.4	U	13.09		
Tetrahydro	109-99-9	72.11	4.8	U	14.16		
2,2,4-Trime	540-84-1	114.2	660		3082.7		
Benzene	71-43-2	78.11	2.4	U	7.67		
1,2-Dichlor	107-06-2	98.96	4.2	U	17		
Trichloroet	79-01-6	131.4	320		1719.75		
1,2-Dichlor	78-87-5	113	3.6	U	16.64		
Bromodich	75-27-4	163.8	3	U	20.1		
4-Methyl-2-	108-10-1	100.2	3.6	U	14.75		
Toluene	108-88-3	92.14	3	U	11.31		
t-1,3-Dichlo	10061-02-6	111	4.2	U	19.07		
cis-1,3-Dic	10061-01-5	111	3.6	U	16.34		
1,1,2-Trich	79-00-5	133.4	4.8	U	26.19		
Dibromoch	124-48-1	208.3	3	U	25.56		
1,2-Dibrom	106-93-4	187.9	4.2	U	32.28		
Tetrachlor	127-18-4	165.8	40000	E	271247.4		
Chlorobenz	108-90-7	112.6	5.4	U	24.87		
Ethyl Benz	100-41-4	106.2	4.8	U	20.85		
m/p-Xylene	179601-23	106.2	6.6	U	28.67		
o-Xylene	95-47-6	106.2	4.2	U	18.24		
Styrene	100-42-5	104.1	4.2	U	17.88		
Bromoform	75-25-2	252.8	3	U	31.02		
1,1,2,2-Tet	79-34-5	167.9	6	U	41.2		
2-Chlorotol	95-49-8	126.6	6	U	31.07		
1,3,5-Trime	108-67-8	120.2	5.4	U	26.55		

Project: KoptD 11-02

Field ID Number: VP-2

Laboratory ID Number: C4103-02

**TARGET ANALYTES -  
AIR RESULTS**

Sampling Date: 10/04/11

Analysis Date: 10/12/11

1,2,4-Trime	95-63-6	120.2	6	U	29.5		
4-Ethyltolu	622-96-8	120.2	4.8	U	23.6		
1,3-Dichlor	541-73-1	147	4.8	U	28.86		
1,4-Dichlor	106-46-7	147	3.6	U	21.64		
1,2-Dichlor	95-50-1	147	4.2	U	25.25		
1,2,4-Trich	120-82-1	181.5	2.4	U	17.82		
Hexachlор	87-68-3	260.8	4.8	U	51.2		
1,3-Butadi	106-99-0	54.09	5.4	U	11.95		
Hexane	110-54-3	86.17	2.4	U	8.46		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodif	75-71-8	120.9	48	U	237.35		
tert-Butyl a	75-65-0	74.12	120	U	363.78		
Chlorometh	74-87-3	50.49	72	U	148.68		
Methyl Met	80-62-6	100.117	120	U	491.37		
Vinyl Chlor	75-01-4	62.5	84	U	214.72		
Bromometh	74-83-9	94.94	36	U	139.79		
Chloroetha	75-00-3	64.52	84	U	221.66		
Trichloroflu	75-69-4	137.4	48	U	269.74		
Dichlorotet	76-14-2	170.9	48	U	335.51		
1,1,2-Trich	76-13-1	187.4	48	U	367.9		
Bromoethe	593-60-2	106.9	36	U	157.4		
Heptane	142-82-5	100.2	72	U	295.07		
1,1-Dichlor	75-35-4	96.94	60	U	237.89		
Acetone	67-64-1	58.08	120	U	285.06		
Carbon Dis	75-15-0	76.14	60	U	186.85		
Methyl tert	1634-04-4	88.15	60	U	216.32		
Methylene	75-09-2	84.94	60	U	208.44		
Allyl Chlorid	107-05-1	76.53	60	U	187.8		
trans-1,2-D	156-60-5	96.94	72	U	285.47		
1,1-Dichlor	75-34-3	98.96	48	U	194.28		
Cyclohexan	110-82-7	84.16	96	U	330.44		
2-Butanone	78-93-3	72.11	120	U	353.91		
Carbon Tel	56-23-5	153.8	48	U	301.94		
cis-1,2-Dic	156-59-2	96.94	72	U	285.47		
Chloroform	67-66-3	119.4	24	U	117.2		
1,4-Dioxan	123-91-1	88.12	110	U	396.45		
1,1,1-Trich	71-55-6	133.4	48	U	261.89		
Tetrahydro	109-99-9	72.11	96	U	283.13		
2,2,4-Trime	540-84-1	114.2	740	D	3456.36		
Benzene	71-43-2	78.11	48	U	153.34		
1,2-Dichlor	107-06-2	98.96	84	U	339.99		
Trichloroet	79-01-6	131.4	320	JD	1719.75		
1,2-Dichlor	78-87-5	113	72	U	332.76		
Bromodich	75-27-4	163.8	60	U	401.96		
4-Methyl-2-	108-10-1	100.2	72	U	295.07		
Toluene	108-88-3	92.14	60	U	226.11		
t-1,3-Dichlo	10061-02-6	111	84	U	381.35		
cis-1,3-Dic	10061-01-5	111	72	U	326.87		
1,1,2-Trich	79-00-5	133.4	96	U	523.78		
Dibromoch	124-48-1	208.3	60	U	511.17		
1,2-Dibrom	106-93-4	187.9	84	U	645.55		
Tetrachlor	127-18-4	165.8	190000	ED	1288425		
Chlorobenz	108-90-7	112.6	110	U	506.58		
Ethyl Benz	100-41-4	106.2	96	U	416.98		
m/p-Xylene	179601-23	106.2	130	U	564.66		
o-Xylene	95-47-6	106.2	84	U	364.86		
Styrene	100-42-5	104.1	84	U	357.64		
Bromoform	75-25-2	252.8	60	U	620.37		
1,1,2,2-Tet	79-34-5	167.9	120	U	824.05		
2-Chlorotol	95-49-8	126.6	120	U	621.35		
1,3,5-Trime	108-67-8	120.2	110	U	540.78		

Project: KoptD 11-02

Field ID Number: VP-2DL

Laboratory ID Number: C4103-02DL

**TARGET ANALYTES -  
AIR RESULTS**

Sampling Date: 10/04/11

Analysis Date: 10/12/11

1,2,4-Trime	95-63-6	120.2	120	U	589.94		
4-Ethyltolu	622-96-8	120.2	96	U	471.95		
1,3-Dichlor	541-73-1	147	96	U	577.18		
1,4-Dichlor	106-46-7	147	72	U	432.88		
1,2-Dichlor	95-50-1	147	84	U	505.03		
1,2,4-Trich	120-82-1	181.5	48	U	356.32		
Hexachlор	87-68-3	260.8	96	U	1024		
1,3-Butadi	106-99-0	54.09	110	U	243.35		
Hexane	110-54-3	86.17	48	U	169.17		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodif	75-71-8	120.9	0.4	U	1.98		
tert-Butyl a	75-65-0	74.12	14		42.44		
Chloromet	74-87-3	50.49	0.6	U	1.24		
Methyl Met	80-62-6	100.117	1	U	4.09		
Vinyl Chlor	75-01-4	62.5	0.7	U	1.79		
Bromomet	74-83-9	94.94	0.3	U	1.16		
Chloroetha	75-00-3	64.52	0.7	U	1.85		
Trichloroflu	75-69-4	137.4	0.4	U	2.25		
Dichlorotet	76-14-2	170.9	0.4	U	2.8		
1,1,2-Trich	76-13-1	187.4	0.4	U	3.07		
Bromoethe	593-60-2	106.9	0.3	U	1.31		
Heptane	142-82-5	100.2	2.7	J	11.07		
1,1-Dichlor	75-35-4	96.94	0.5	U	1.98		
Acetone	67-64-1	58.08	69		163.91		
Carbon Dis	75-15-0	76.14	0.5	U	1.56		
Methyl tert	1634-04-4	88.15	0.5	U	1.8		
Methylene	75-09-2	84.94	3.6	J	12.51		
Allyl Chlorid	107-05-1	76.53	0.5	U	1.57		
trans-1,2-D	156-60-5	96.94	0.6	U	2.38		
1,1-Dichlor	75-34-3	98.96	0.4	U	1.62		
Cyclohexan	110-82-7	84.16	0.8	U	2.75		
2-Butanone	78-93-3	72.11	11		32.44		
Carbon Tel	56-23-5	153.8	0.4	U	2.52		
cis-1,2-Dic	156-59-2	96.94	9.1		36.08		
Chloroform	67-66-3	119.4	0.2	U	0.98		
1,4-Dioxan	123-91-1	88.12	0.9	U	3.24		
1,1,1-Trich	71-55-6	133.4	0.4	U	2.18		
Tetrahydro	109-99-9	72.11	3.7	J	10.91		
2,2,4-Trime	540-84-1	114.2	0.4	U	1.87		
Benzene	71-43-2	78.11	0.4	U	1.28		
1,2-Dichlor	107-06-2	98.96	0.7	U	2.83		
Trichloroet	79-01-6	131.4	30		161.23		
1,2-Dichlor	78-87-5	113	0.6	U	2.77		
Bromodich	75-27-4	163.8	0.5	U	3.35		
4-Methyl-2-	108-10-1	100.2	4.6	J	18.85		
Toluene	108-88-3	92.14	8		30.15		
t-1,3-Dichlo	10061-02-6	111	0.7	U	3.18		
cis-1,3-Dic	10061-01-5	111	0.6	U	2.72		
1,1,2-Trich	79-00-5	133.4	0.8	U	4.36		
Dibromoch	124-48-1	208.3	0.5	U	4.26		
1,2-Dibrom	106-93-4	187.9	0.7	U	5.38		
Tetrachlor	127-18-4	165.8	2000	E	13562.37		
Chlorobenz	108-90-7	112.6	0.9	U	4.14		
Ethyl Benz	100-41-4	106.2	2	J	8.69		
m/p-Xylene	179601-23	106.2	7.5	J	32.58		
o-Xylene	95-47-6	106.2	2.4	J	10.42		
Styrene	100-42-5	104.1	0.7	U	2.98		
Bromoform	75-25-2	252.8	0.5	U	5.17		
1,1,2,2-Tet	79-34-5	167.9	1	U	6.87		
2-Chlorotol	95-49-8	126.6	1	U	5.18		
1,3,5-Trime	108-67-8	120.2	1.4	J	6.88		

Project: KoptD 11-02

Field ID Number: VP-3

Laboratory ID Number: C4103-03

**TARGET ANALYTES -  
AIR RESULTS**

Sampling Date: 10/04/11

Analysis Date: 10/12/11

1,2,4-Trime	95-63-6	120.2	5.1		25.07		
4-Ethyltolu	622-96-8	120.2	1.5	J	7.37		
1,3-Dichlor	541-73-1	147	0.8	U	4.81		
1,4-Dichlor	106-46-7	147	0.6	U	3.61		
1,2-Dichlor	95-50-1	147	0.7	U	4.21		
1,2,4-Trich	120-82-1	181.5	0.4	U	2.97		
Hexachlор	87-68-3	260.8	0.8	U	8.53		
1,3-Butadi	106-99-0	54.09	0.9	U	1.99		
Hexane	110-54-3	86.17	0.4	U	1.41		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodif	75-71-8	120.9	16	U	79.12		
tert-Butyl a	75-65-0	74.12	40	U	121.26		
Chloromet	74-87-3	50.49	24	U	49.56		
Methyl Met	80-62-6	100.117	40	U	163.79		
Vinyl Chlor	75-01-4	62.5	28	U	71.57		
Bromomet	74-83-9	94.94	12	U	46.6		
Chloroetha	75-00-3	64.52	28	U	73.89		
Trichloroflu	75-69-4	137.4	16	U	89.91		
Dichlorotet	76-14-2	170.9	16	U	111.84		
1,1,2-Trich	76-13-1	187.4	16	U	122.63		
Bromoethe	593-60-2	106.9	12	U	52.47		
Heptane	142-82-5	100.2	24	U	98.36		
1,1-Dichlor	75-35-4	96.94	20	U	79.3		
Acetone	67-64-1	58.08	40	U	95.02		
Carbon Dis	75-15-0	76.14	20	U	62.28		
Methyl tert	1634-04-4	88.15	20	U	72.11		
Methylene	75-09-2	84.94	20	U	69.48		
Allyl Chlorid	107-05-1	76.53	20	U	62.6		
trans-1,2-D	156-60-5	96.94	24	U	95.16		
1,1-Dichlor	75-34-3	98.96	16	U	64.76		
Cyclohexan	110-82-7	84.16	32	U	110.15		
2-Butanone	78-93-3	72.11	40	U	117.97		
Carbon Tel	56-23-5	153.8	16	U	100.65		
cis-1,2-Dic	156-59-2	96.94	24	U	95.16		
Chloroform	67-66-3	119.4	8	U	39.07		
1,4-Dioxan	123-91-1	88.12	36	U	129.75		
1,1,1-Trich	71-55-6	133.4	16	U	87.3		
Tetrahydro	109-99-9	72.11	32	U	94.38		
2,2,4-Trime	540-84-1	114.2	16	U	74.73		
Benzene	71-43-2	78.11	16	U	51.11		
1,2-Dichlor	107-06-2	98.96	28	U	113.33		
Trichloroet	79-01-6	131.4	16	U	85.99		
1,2-Dichlor	78-87-5	113	24	U	110.92		
Bromodich	75-27-4	163.8	20	U	133.99		
4-Methyl-2-	108-10-1	100.2	24	U	98.36		
Toluene	108-88-3	92.14	20	U	75.37		
t-1,3-Dichlo	10061-02-6	111	28	U	127.12		
cis-1,3-Dic	10061-01-5	111	24	U	108.96		
1,1,2-Trich	79-00-5	133.4	32	U	174.59		
Dibromoch	124-48-1	208.3	20	U	170.39		
1,2-Dibrom	106-93-4	187.9	28	U	215.18		
Tetrachlor	127-18-4	165.8	7800	ED	52893.25		
Chlorobenz	108-90-7	112.6	36	U	165.79		
Ethyl Benz	100-41-4	106.2	32	U	138.99		
m/p-Xylene	179601-23	106.2	44	U	191.12		
o-Xylene	95-47-6	106.2	28	U	121.62		
Styrene	100-42-5	104.1	28	U	119.21		
Bromoform	75-25-2	252.8	20	U	206.79		
1,1,2,2-Tet	79-34-5	167.9	40	U	274.68		
2-Chlorotol	95-49-8	126.6	40	U	207.12		
1,3,5-Trime	108-67-8	120.2	36	U	176.98		

Project: KoptD 11-02

Field ID Number: VP-3DL

Laboratory ID Number: C4103-03DL

**TARGET ANALYTES -  
AIR RESULTS**

Sampling Date: 10/04/11

Analysis Date: 10/12/11

1,2,4-Trime	95-63-6	120.2	40	U	196.65		
4-Ethyltolu	622-96-8	120.2	32	U	157.32		
1,3-Dichlor	541-73-1	147	32	U	192.39		
1,4-Dichlor	106-46-7	147	24	U	144.29		
1,2-Dichlor	95-50-1	147	28	U	168.34		
1,2,4-Trich	120-82-1	181.5	16	U	118.77		
Hexachlор	87-68-3	260.8	32	U	341.33		
1,3-Butadi	106-99-0	54.09	36	U	79.64		
Hexane	110-54-3	86.17	16	U	56.39		

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-1	SDG No.:	C4103
Lab Sample ID:	C4103-01	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
VL014902.D	120		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	4.8	23.7	U	60	4.8	ppbv
75-65-0	tert-Butyl alcohol	20	7275	J	60	12	ppbv
74-87-3	Chloromethane	7.2	14.9	U	60	7.2	ppbv
80-62-6	Methyl Methacrylate	12	49.1	U	60	12	ppbv
75-01-4	Vinyl Chloride	8.4	21.5	U	60	8.4	ppbv
74-83-9	Bromomethane	3.6	14.0	U	60	3.6	ppbv
75-00-3	Chloroethane	8.4	22.2	U	60	8.4	ppbv
75-69-4	Trichlorodifluoromethane	4.8	27.0	U	60	4.8	ppbv
76-14-2	Dichlorotetrafluoroethane	4.8	33.6	U	60	4.8	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	4.8	36.8	U	60	4.8	ppbv
593-60-2	Bromoethene	3.6	15.7	U	60	3.6	ppbv
142-82-5	Heptane	7.2	29.5	U	60	7.2	ppbv
75-35-4	1,1-Dichloroethene	6	23.8	U	60	6	ppbv
67-64-1	Acetone	89	25369		60	12	ppbv
75-15-0	Carbon Disulfide	6	18.7	U	60	6	ppbv
1634-04-4	Methyl tert-Butyl Ether	6	21.6	U	60	6	ppbv
75-09-2	Methylene Chloride	6	20.8	U	60	6	ppbv
107-05-1	Allyl Chloride	6	18.8	U	60	6	ppbv
156-60-5	trans-1,2-Dichloroethene	7.2	28.6	U	60	7.2	ppbv
75-34-3	1,1-Dichloroethane	4.8	19.4	U	60	4.8	ppbv
110-82-7	Cyclohexane	9.6	33.0	U	60	9.6	ppbv
78-93-3	2-Butanone	12	35.4	U	60	12	ppbv
56-23-5	Carbon Tetrachloride	4.8	30.2	U	60	4.8	ppbv
156-59-2	cis-1,2-Dichloroethene	330	157007		60	7.2	ppbv
67-66-3	Chloroform	2.4	11.7	U	60	2.4	ppbv
123-91-1	1,4-Dioxane	11	39.6	U	60	11	ppbv
71-55-6	1,1,1-Trichloroethane	4.8	26.2	U	60	4.8	ppbv
109-99-9	Tetrahydrofuran	9.6	28.3	U	60	9.6	ppbv
540-84-1	2,2,4-Trimethylpentane	4.8	22.4	U	60	4.8	ppbv
71-43-2	Benzene	4.8	15.3	U	60	4.8	ppbv
107-06-2	1,2-Dichloroethane	8.4	34	U	60	8.4	ppbv
79-01-6	Trichloroethene	1300	838380		60	4.8	ppbv
78-87-5	1,2-Dichloropropane	7.2	33.3	U	60	7.2	ppbv
75-27-4	Bromodichloromethane	6	40.2	U	60	6	ppbv
108-10-1	4-Methyl-2-Pentanone	7.2	29.5	U	60	7.2	ppbv
108-88-3	Toluene	6	22.6	U	60	6	ppbv
10061-02-6	t-1,3-Dichloropropene	8.4	38.1	U	60	8.4	ppbv
10061-01-5	cis-1,3-Dichloropropene	7.2	32.7	U	60	7.2	ppbv

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-1	SDG No.:	C4103
Lab Sample ID:	C4103-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL014902.D	120		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	9.6	52.4	U	60	9.6	ppbv
124-48-1	Dibromochloromethane	6	51.1	U	60	6	ppbv
106-93-4	1,2-Dibromoethane	8.4	64.6	U	60	8.4	ppbv
127-18-4	Tetrachloroethene	76000	61844417	E	60	3.6	ppbv
108-90-7	Chlorobenzene	11	50.7	U	60	11	ppbv
100-41-4	Ethyl Benzene	9.6	41.7	U	60	9.6	ppbv
179601-23-1	m/p-Xylene	13	56.5	U	120	13	ppbv
95-47-6	o-Xylene	8.4	36.5	U	60	8.4	ppbv
100-42-5	Styrene	8.4	35.8	U	60	8.4	ppbv
75-25-2	Bromoform	6	62.0	U	60	6	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	12	82.4	U	60	12	ppbv
95-49-8	2-Chlorotoluene	12	62.1	U	60	12	ppbv
108-67-8	1,3,5-Trimethylbenzene	11	54.1	U	60	11	ppbv
95-63-6	1,2,4-Trimethylbenzene	12	59.0	U	60	12	ppbv
622-96-8	4-Ethyltoluene	9.6	47.2	U	60	9.6	ppbv
541-73-1	1,3-Dichlorobenzene	9.6	57.7	U	60	9.6	ppbv
106-46-7	1,4-Dichlorobenzene	7.2	43.3	U	60	7.2	ppbv
95-50-1	1,2-Dichlorobenzene	8.4	50.5	U	60	8.4	ppbv
120-82-1	1,2,4-Trichlorobenzene	4.8	35.6	U	60	4.8	ppbv
87-68-3	Hexachloro-1,3-Butadiene	9.6	102	U	60	9.6	ppbv
106-99-0	1,3-Butadiene	11	24.3	U	60	11	ppbv
110-54-3	Hexane	4.8	16.9	U	60	4.8	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	11.5	115%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	2697150	6.37
540-36-3	1,4-Difluorobenzene	6784680	7.93
3114-55-4	Chlorobenzene-d5	5276760	12.99

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

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-1	SDG No.:	C4103
Lab Sample ID:	C4103-01	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
VL014902.D	120		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
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**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-1DL	SDG No.:	C4103
Lab Sample ID:	C4103-01DL	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
VL014903.D	1200		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	48	237	U	600	48	ppbv
75-65-0	tert-Butyl alcohol	120	363	U	600	120	ppbv
74-87-3	Chloromethane	72	148	U	600	72	ppbv
80-62-6	Methyl Methacrylate	120	491	U	600	120	ppbv
75-01-4	Vinyl Chloride	84	214	U	600	84	ppbv
74-83-9	Bromomethane	36	139	U	600	36	ppbv
75-00-3	Chloroethane	84	221	U	600	84	ppbv
75-69-4	Trichlorofluoromethane	48	269	U	600	48	ppbv
76-14-2	Dichlorotetrafluoroethane	48	335	U	600	48	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	48	367	U	600	48	ppbv
593-60-2	Bromoethene	36	157	U	600	36	ppbv
142-82-5	Heptane	72	295	U	600	72	ppbv
75-35-4	1,1-Dichloroethene	60	237	U	600	60	ppbv
67-64-1	Acetone	120	285	U	600	120	ppbv
75-15-0	Carbon Disulfide	60	186	U	600	60	ppbv
1634-04-4	Methyl tert-Butyl Ether	60	216	U	600	60	ppbv
75-09-2	Methylene Chloride	60	208	U	600	60	ppbv
107-05-1	Allyl Chloride	60	187	U	600	60	ppbv
156-60-5	trans-1,2-Dichloroethene	72	285	U	600	72	ppbv
75-34-3	1,1-Dichloroethane	48	194	U	600	48	ppbv
110-82-7	Cyclohexane	96	330	U	600	96	ppbv
78-93-3	2-Butanone	120	353	U	600	120	ppbv
56-23-5	Carbon Tetrachloride	48	301	U	600	48	ppbv
156-59-2	cis-1,2-Dichloroethene	370	1760382	JD	600	72	ppbv
67-66-3	Chloroform	24	117	U	600	24	ppbv
123-91-1	1,4-Dioxane	110	396	U	600	110	ppbv
71-55-6	1,1,1-Trichloroethane	48	261	U	600	48	ppbv
109-99-9	Tetrahydrofuran	96	283	U	600	96	ppbv
540-84-1	2,2,4-Trimethylpentane	48	224	U	600	48	ppbv
71-43-2	Benzene	48	153	U	600	48	ppbv
107-06-2	1,2-Dichloroethane	84	339	U	600	84	ppbv
79-01-6	Trichloroethene	1700	10963435	D	600	48	ppbv
78-87-5	1,2-Dichloropropane	72	332	U	600	72	ppbv
75-27-4	Bromodichloromethane	60	401	U	600	60	ppbv
108-10-1	4-Methyl-2-Pentanone	72	295	U	600	72	ppbv
108-88-3	Toluene	60	226	U	600	60	ppbv
10061-02-6	t-1,3-Dichloropropene	84	381	U	600	84	ppbv
10061-01-5	cis-1,3-Dichloropropene	72	326	U	600	72	ppbv

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-1DL	SDG No.:	C4103
Lab Sample ID:	C4103-01DL	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
VL014903.D	1200		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	96	523	U	600	96	ppbv
124-48-1	Dibromochloromethane	60	511	U	600	60	ppbv
106-93-4	1,2-Dibromoethane	84	645	U	600	84	ppbv
127-18-4	Tetrachloroethene	290000	2359852760	ED	600	36	ppbv
108-90-7	Chlorobenzene	110	506	U	600	110	ppbv
100-41-4	Ethyl Benzene	96	416	U	600	96	ppbv
179601-23-1	m/p-Xylene	130	564	U	1200	130	ppbv
95-47-6	o-Xylene	84	364	U	600	84	ppbv
100-42-5	Styrene	84	357	U	600	84	ppbv
75-25-2	Bromoform	60	620	U	600	60	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	120	824	U	600	120	ppbv
95-49-8	2-Chlorotoluene	120	621	U	600	120	ppbv
108-67-8	1,3,5-Trimethylbenzene	110	540	U	600	110	ppbv
95-63-6	1,2,4-Trimethylbenzene	120	589	U	600	120	ppbv
622-96-8	4-Ethyltoluene	96	471	U	600	96	ppbv
541-73-1	1,3-Dichlorobenzene	96	577	U	600	96	ppbv
106-46-7	1,4-Dichlorobenzene	72	432	U	600	72	ppbv
95-50-1	1,2-Dichlorobenzene	84	505	U	600	84	ppbv
120-82-1	1,2,4-Trichlorobenzene	48	356	U	600	48	ppbv
87-68-3	Hexachloro-1,3-Butadiene	96	1024	U	600	96	ppbv
106-99-0	1,3-Butadiene	110	243	U	600	110	ppbv
110-54-3	Hexane	48	169	U	600	48	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	11.1	111%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	2432870	6.37
540-36-3	1,4-Difluorobenzene	6229930	7.93
3114-55-4	Chlorobenzene-d5	5537050	12.93

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

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-1DL	SDG No.:	C4103
Lab Sample ID:	C4103-01DL	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
VL014903.D	1200		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
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**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 10/04/11  
 Project: KoptD 11-02 Date Received: 10/11/11  
 Client Sample ID: VP-2 SDG No.: C4103  
 Lab Sample ID: C4103-02 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
VL014900.D	60		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.4	11.9	U	30	2.4	ppbv
75-65-0	tert-Butyl alcohol	19	3455	J	30	6	ppbv
74-87-3	Chloromethane	3.6	7.43	U	30	3.6	ppbv
80-62-6	Methyl Methacrylate	6	24.6	U	30	6	ppbv
75-01-4	Vinyl Chloride	4.2	10.7	U	30	4.2	ppbv
74-83-9	Bromomethane	1.8	6.99	U	30	1.8	ppbv
75-00-3	Chloroethane	4.2	11.1	U	30	4.2	ppbv
75-69-4	Trichlorofluoromethane	2.4	13.5	U	30	2.4	ppbv
76-14-2	Dichlorotetrafluoroethane	2.4	16.8	U	30	2.4	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	2.4	18.4	U	30	2.4	ppbv
593-60-2	Bromoethene	1.8	7.87	U	30	1.8	ppbv
142-82-5	Heptane	3.6	14.8	U	30	3.6	ppbv
75-35-4	1,1-Dichloroethene	3	11.9	U	30	3	ppbv
67-64-1	Acetone	180	25654		30	6	ppbv
75-15-0	Carbon Disulfide	3	9.34	U	30	3	ppbv
1634-04-4	Methyl tert-Butyl Ether	3	10.8	U	30	3	ppbv
75-09-2	Methylene Chloride	3	10.4	U	30	3	ppbv
107-05-1	Allyl Chloride	3	9.39	U	30	3	ppbv
156-60-5	trans-1,2-Dichloroethene	3.6	14.3	U	30	3.6	ppbv
75-34-3	1,1-Dichloroethane	2.4	9.71	U	30	2.4	ppbv
110-82-7	Cyclohexane	4.8	16.5	U	30	4.8	ppbv
78-93-3	2-Butanone	6	17.7	U	30	6	ppbv
56-23-5	Carbon Tetrachloride	2.4	15.1	U	30	2.4	ppbv
156-59-2	cis-1,2-Dichloroethene	100	23788		30	3.6	ppbv
67-66-3	Chloroform	1.2	5.86	U	30	1.2	ppbv
123-91-1	1,4-Dioxane	5.4	19.5	U	30	5.4	ppbv
71-55-6	1,1,1-Trichloroethane	2.4	13.1	U	30	2.4	ppbv
109-99-9	Tetrahydrofuran	4.8	14.2	U	30	4.8	ppbv
540-84-1	2,2,4-Trimethylpentane	660	184961		30	2.4	ppbv
71-43-2	Benzene	2.4	7.67	U	30	2.4	ppbv
107-06-2	1,2-Dichloroethane	4.2	17	U	30	4.2	ppbv
79-01-6	Trichloroethene	320	103185		30	2.4	ppbv
78-87-5	1,2-Dichloropropane	3.6	16.6	U	30	3.6	ppbv
75-27-4	Bromodichloromethane	3	20.1	U	30	3	ppbv
108-10-1	4-Methyl-2-Pentanone	3.6	14.8	U	30	3.6	ppbv
108-88-3	Toluene	3	11.3	U	30	3	ppbv
10061-02-6	t-1,3-Dichloropropene	4.2	19.1	U	30	4.2	ppbv
10061-01-5	cis-1,3-Dichloropropene	3.6	16.3	U	30	3.6	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 10/04/11  
 Project: KoptD 11-02 Date Received: 10/11/11  
 Client Sample ID: VP-2 SDG No.: C4103  
 Lab Sample ID: C4103-02 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
VL014900.D	60		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	4.8	26.2	U	30	4.8	ppbv
124-48-1	Dibromochloromethane	3	25.6	U	30	3	ppbv
106-93-4	1,2-Dibromoethane	4.2	32.3	U	30	4.2	ppbv
127-18-4	Tetrachloroethene	40000	16274846	E	30	1.8	ppbv
108-90-7	Chlorobenzene	5.4	24.9	U	30	5.4	ppbv
100-41-4	Ethyl Benzene	4.8	20.8	U	30	4.8	ppbv
179601-23-1	m/p-Xylene	6.6	28.7	U	60	6.6	ppbv
95-47-6	o-Xylene	4.2	18.2	U	30	4.2	ppbv
100-42-5	Styrene	4.2	17.9	U	30	4.2	ppbv
75-25-2	Bromoform	3	31.0	U	30	3	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	6	41.2	U	30	6	ppbv
95-49-8	2-Chlorotoluene	6	31.1	U	30	6	ppbv
108-67-8	1,3,5-Trimethylbenzene	5.4	26.6	U	30	5.4	ppbv
95-63-6	1,2,4-Trimethylbenzene	6	29.5	U	30	6	ppbv
622-96-8	4-Ethyltoluene	4.8	23.6	U	30	4.8	ppbv
541-73-1	1,3-Dichlorobenzene	4.8	28.9	U	30	4.8	ppbv
106-46-7	1,4-Dichlorobenzene	3.6	21.6	U	30	3.6	ppbv
95-50-1	1,2-Dichlorobenzene	4.2	25.2	U	30	4.2	ppbv
120-82-1	1,2,4-Trichlorobenzene	2.4	17.8	U	30	2.4	ppbv
87-68-3	Hexachloro-1,3-Butadiene	4.8	51.2	U	30	4.8	ppbv
106-99-0	1,3-Butadiene	5.4	12.0	U	30	5.4	ppbv
110-54-3	Hexane	2.4	8.46	U	30	2.4	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	11.6	116%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	2783300	6.37
540-36-3	1,4-Difluorobenzene	7047200	7.93
3114-55-4	Chlorobenzene-d5	5386330	13.01

U = Not Detected

J = Estimated Value

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

MDL = Method Detection Limit

N = Presumptive Evidence of a Compound

E = Value Exceeds Calibration Range

\* = Values outside of QC limits

D = Dilution

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-2	SDG No.:	C4103
Lab Sample ID:	C4103-02	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
VL014900.D	60		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
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**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 10/04/11  
 Project: KoptD 11-02 Date Received: 10/11/11  
 Client Sample ID: VP-2DL SDG No.: C4103  
 Lab Sample ID: C4103-02DL 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
VL014901.D	1200		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	48	237	U	600	48	ppbv
75-65-0	tert-Butyl alcohol	120	363	U	600	120	ppbv
74-87-3	Chloromethane	72	148	U	600	72	ppbv
80-62-6	Methyl Methacrylate	120	491	U	600	120	ppbv
75-01-4	Vinyl Chloride	84	214	U	600	84	ppbv
74-83-9	Bromomethane	36	139	U	600	36	ppbv
75-00-3	Chloroethane	84	221	U	600	84	ppbv
75-69-4	Trichlorodifluoromethane	48	269	U	600	48	ppbv
76-14-2	Dichlorotetrafluoroethane	48	335	U	600	48	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	48	367	U	600	48	ppbv
593-60-2	Bromoethene	36	157	U	600	36	ppbv
142-82-5	Heptane	72	295	U	600	72	ppbv
75-35-4	1,1-Dichloroethene	60	237	U	600	60	ppbv
67-64-1	Acetone	120	285	U	600	120	ppbv
75-15-0	Carbon Disulfide	60	186	U	600	60	ppbv
1634-04-4	Methyl tert-Butyl Ether	60	216	U	600	60	ppbv
75-09-2	Methylene Chloride	60	208	U	600	60	ppbv
107-05-1	Allyl Chloride	60	187	U	600	60	ppbv
156-60-5	trans-1,2-Dichloroethene	72	285	U	600	72	ppbv
75-34-3	1,1-Dichloroethane	48	194	U	600	48	ppbv
110-82-7	Cyclohexane	96	330	U	600	96	ppbv
78-93-3	2-Butanone	120	353	U	600	120	ppbv
56-23-5	Carbon Tetrachloride	48	301	U	600	48	ppbv
156-59-2	cis-1,2-Dichloroethene	72	285	U	600	72	ppbv
67-66-3	Chloroform	24	117	U	600	24	ppbv
123-91-1	1,4-Dioxane	110	396	U	600	110	ppbv
71-55-6	1,1,1-Trichloroethane	48	261	U	600	48	ppbv
109-99-9	Tetrahydrofuran	96	283	U	600	96	ppbv
540-84-1	2,2,4-Trimethylpentane	740	4147631	D	600	48	ppbv
71-43-2	Benzene	48	153	U	600	48	ppbv
107-06-2	1,2-Dichloroethane	84	339	U	600	84	ppbv
79-01-6	Trichloroethene	320	2063705	JD	600	48	ppbv
78-87-5	1,2-Dichloropropane	72	332	U	600	72	ppbv
75-27-4	Bromodichloromethane	60	401	U	600	60	ppbv
108-10-1	4-Methyl-2-Pentanone	72	295	U	600	72	ppbv
108-88-3	Toluene	60	226	U	600	60	ppbv
10061-02-6	t-1,3-Dichloropropene	84	381	U	600	84	ppbv
10061-01-5	cis-1,3-Dichloropropene	72	326	U	600	72	ppbv

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-2DL	SDG No.:	C4103
Lab Sample ID:	C4103-02DL	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
VL014901.D	1200		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	96	523	U	600	96	ppbv
124-48-1	Dibromochloromethane	60	511	U	600	60	ppbv
106-93-4	1,2-Dibromoethane	84	645	U	600	84	ppbv
127-18-4	Tetrachloroethene	190000	1546110429	ED	600	36	ppbv
108-90-7	Chlorobenzene	110	506	U	600	110	ppbv
100-41-4	Ethyl Benzene	96	416	U	600	96	ppbv
179601-23-1	m/p-Xylene	130	564	U	1200	130	ppbv
95-47-6	o-Xylene	84	364	U	600	84	ppbv
100-42-5	Styrene	84	357	U	600	84	ppbv
75-25-2	Bromoform	60	620	U	600	60	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	120	824	U	600	120	ppbv
95-49-8	2-Chlorotoluene	120	621	U	600	120	ppbv
108-67-8	1,3,5-Trimethylbenzene	110	540	U	600	110	ppbv
95-63-6	1,2,4-Trimethylbenzene	120	589	U	600	120	ppbv
622-96-8	4-Ethyltoluene	96	471	U	600	96	ppbv
541-73-1	1,3-Dichlorobenzene	96	577	U	600	96	ppbv
106-46-7	1,4-Dichlorobenzene	72	432	U	600	72	ppbv
95-50-1	1,2-Dichlorobenzene	84	505	U	600	84	ppbv
120-82-1	1,2,4-Trichlorobenzene	48	356	U	600	48	ppbv
87-68-3	Hexachloro-1,3-Butadiene	96	1024	U	600	96	ppbv
106-99-0	1,3-Butadiene	110	243	U	600	110	ppbv
110-54-3	Hexane	48	169	U	600	48	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	11.3		113%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	2689090	6.37
540-36-3	1,4-Difluorobenzene	6712600	7.93
3114-55-4	Chlorobenzene-d5	5783800	12.93

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

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-2DL	SDG No.:	C4103
Lab Sample ID:	C4103-02DL	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
VL014901.D	1200		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
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**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-3	SDG No.:	C4103
Lab Sample ID:	C4103-03	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
VL014898.D	10		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	0.4	1.98	U	5	0.4	ppbv
75-65-0	tert-Butyl alcohol	14	424		5	1	ppbv
74-87-3	Chloromethane	0.6	1.24	U	5	0.6	ppbv
80-62-6	Methyl Methacrylate	1	4.09	U	5	1	ppbv
75-01-4	Vinyl Chloride	0.7	1.79	U	5	0.7	ppbv
74-83-9	Bromomethane	0.3	1.16	U	5	0.3	ppbv
75-00-3	Chloroethane	0.7	1.85	U	5	0.7	ppbv
75-69-4	Trichlorodifluoromethane	0.4	2.25	U	5	0.4	ppbv
76-14-2	Dichlorotetrafluoroethane	0.4	2.8	U	5	0.4	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.4	3.07	U	5	0.4	ppbv
593-60-2	Bromoethene	0.3	1.31	U	5	0.3	ppbv
142-82-5	Heptane	2.7	110	J	5	0.6	ppbv
75-35-4	1,1-Dichloroethene	0.5	1.98	U	5	0.5	ppbv
67-64-1	Acetone	69	1639		5	1	ppbv
75-15-0	Carbon Disulfide	0.5	1.56	U	5	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.5	1.8	U	5	0.5	ppbv
75-09-2	Methylene Chloride	3.6	125	J	5	0.5	ppbv
107-05-1	Allyl Chloride	0.5	1.57	U	5	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.6	2.38	U	5	0.6	ppbv
75-34-3	1,1-Dichloroethane	0.4	1.62	U	5	0.4	ppbv
110-82-7	Cyclohexane	0.8	2.75	U	5	0.8	ppbv
78-93-3	2-Butanone	11	324		5	1	ppbv
56-23-5	Carbon Tetrachloride	0.4	2.52	U	5	0.4	ppbv
156-59-2	cis-1,2-Dichloroethene	9.1	360		5	0.6	ppbv
67-66-3	Chloroform	0.2	0.98	U	5	0.2	ppbv
123-91-1	1,4-Dioxane	0.9	3.24	U	5	0.9	ppbv
71-55-6	1,1,1-Trichloroethane	0.4	2.18	U	5	0.4	ppbv
109-99-9	Tetrahydrofuran	3.7	109	J	5	0.8	ppbv
540-84-1	2,2,4-Trimethylpentane	0.4	1.87	U	5	0.4	ppbv
71-43-2	Benzene	0.4	1.28	U	5	0.4	ppbv
107-06-2	1,2-Dichloroethane	0.7	2.83	U	5	0.7	ppbv
79-01-6	Trichloroethene	30	1612		5	0.4	ppbv
78-87-5	1,2-Dichloropropane	0.6	2.77	U	5	0.6	ppbv
75-27-4	Bromodichloromethane	0.5	3.35	U	5	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	4.6	188	J	5	0.6	ppbv
108-88-3	Toluene	8	301		5	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.7	3.18	U	5	0.7	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.6	2.72	U	5	0.6	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 10/04/11  
 Project: KoptD 11-02 Date Received: 10/11/11  
 Client Sample ID: VP-3 SDG No.: C4103  
 Lab Sample ID: C4103-03 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
VL014898.D	10		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	0.8	4.36	U	5	0.8	ppbv
124-48-1	Dibromochloromethane	0.5	4.26	U	5	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.7	5.38	U	5	0.7	ppbv
127-18-4	Tetrachloroethene	2000	135623	E	5	0.3	ppbv
108-90-7	Chlorobenzene	0.9	4.14	U	5	0.9	ppbv
100-41-4	Ethyl Benzene	2	86.9	J	5	0.8	ppbv
179601-23-1	m/p-Xylene	7.5	325	J	10	1.1	ppbv
95-47-6	o-Xylene	2.4	104	J	5	0.7	ppbv
100-42-5	Styrene	0.7	2.98	U	5	0.7	ppbv
75-25-2	Bromoform	0.5	5.17	U	5	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	1	6.87	U	5	1	ppbv
95-49-8	2-Chlorotoluene	1	5.18	U	5	1	ppbv
108-67-8	1,3,5-Trimethylbenzene	1.4	68.8	J	5	0.9	ppbv
95-63-6	1,2,4-Trimethylbenzene	5.1	250		5	1	ppbv
622-96-8	4-Ethyltoluene	1.5	73.7	J	5	0.8	ppbv
541-73-1	1,3-Dichlorobenzene	0.8	4.81	U	5	0.8	ppbv
106-46-7	1,4-Dichlorobenzene	0.6	3.61	U	5	0.6	ppbv
95-50-1	1,2-Dichlorobenzene	0.7	4.21	U	5	0.7	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.4	2.97	U	5	0.4	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.8	8.53	U	5	0.8	ppbv
106-99-0	1,3-Butadiene	0.9	1.99	U	5	0.9	ppbv
110-54-3	Hexane	0.4	1.41	U	5	0.4	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	11.4	114%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	2846300	6.37
540-36-3	1,4-Difluorobenzene	6987790	7.93
3114-55-4	Chlorobenzene-d5	5978280	12.93

U = Not Detected

J = Estimated Value

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

MDL = Method Detection Limit

N = Presumptive Evidence of a Compound

E = Value Exceeds Calibration Range

\* = Values outside of QC limits

D = Dilution

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-3	SDG No.:	C4103
Lab Sample ID:	C4103-03	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
VL014898.D	10		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
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**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 10/04/11  
 Project: KoptD 11-02 Date Received: 10/11/11  
 Client Sample ID: VP-3DL SDG No.: C4103  
 Lab Sample ID: C4103-03DL 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
VL014899.D	400		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	16	79.1	U	200	16	ppbv
75-65-0	tert-Butyl alcohol	40	121	U	200	40	ppbv
74-87-3	Chloromethane	24	49.6	U	200	24	ppbv
80-62-6	Methyl Methacrylate	40	163	U	200	40	ppbv
75-01-4	Vinyl Chloride	28	71.6	U	200	28	ppbv
74-83-9	Bromomethane	12	46.6	U	200	12	ppbv
75-00-3	Chloroethane	28	73.9	U	200	28	ppbv
75-69-4	Trichlorofluoromethane	16	89.9	U	200	16	ppbv
76-14-2	Dichlorotetrafluoroethane	16	111	U	200	16	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	16	122	U	200	16	ppbv
593-60-2	Bromoethene	12	52.5	U	200	12	ppbv
142-82-5	Heptane	24	98.4	U	200	24	ppbv
75-35-4	1,1-Dichloroethene	20	79.3	U	200	20	ppbv
67-64-1	Acetone	40	95.0	U	200	40	ppbv
75-15-0	Carbon Disulfide	20	62.3	U	200	20	ppbv
1634-04-4	Methyl tert-Butyl Ether	20	72.1	U	200	20	ppbv
75-09-2	Methylene Chloride	20	69.5	U	200	20	ppbv
107-05-1	Allyl Chloride	20	62.6	U	200	20	ppbv
156-60-5	trans-1,2-Dichloroethene	24	95.2	U	200	24	ppbv
75-34-3	1,1-Dichloroethane	16	64.8	U	200	16	ppbv
110-82-7	Cyclohexane	32	110	U	200	32	ppbv
78-93-3	2-Butanone	40	117	U	200	40	ppbv
56-23-5	Carbon Tetrachloride	16	100	U	200	16	ppbv
156-59-2	cis-1,2-Dichloroethene	24	95.2	U	200	24	ppbv
67-66-3	Chloroform	8	39.1	U	200	8	ppbv
123-91-1	1,4-Dioxane	36	129	U	200	36	ppbv
71-55-6	1,1,1-Trichloroethane	16	87.3	U	200	16	ppbv
109-99-9	Tetrahydrofuran	32	94.4	U	200	32	ppbv
540-84-1	2,2,4-Trimethylpentane	16	74.7	U	200	16	ppbv
71-43-2	Benzene	16	51.1	U	200	16	ppbv
107-06-2	1,2-Dichloroethane	28	113	U	200	28	ppbv
79-01-6	Trichloroethene	16	86.0	U	200	16	ppbv
78-87-5	1,2-Dichloropropane	24	110	U	200	24	ppbv
75-27-4	Bromodichloromethane	20	133	U	200	20	ppbv
108-10-1	4-Methyl-2-Pentanone	24	98.4	U	200	24	ppbv
108-88-3	Toluene	20	75.4	U	200	20	ppbv
10061-02-6	t-1,3-Dichloropropene	28	127	U	200	28	ppbv
10061-01-5	cis-1,3-Dichloropropene	24	108	U	200	24	ppbv

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	10/04/11
Project:	KoptD 11-02	Date Received:	10/11/11
Client Sample ID:	VP-3DL	SDG No.:	C4103
Lab Sample ID:	C4103-03DL	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
VL014899.D	400		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	32	174	U	200	32	ppbv
124-48-1	Dibromochloromethane	20	170	U	200	20	ppbv
106-93-4	1,2-Dibromoethane	28	215	U	200	28	ppbv
127-18-4	Tetrachloroethene	7800	21157300	ED	200	12	ppbv
108-90-7	Chlorobenzene	36	165	U	200	36	ppbv
100-41-4	Ethyl Benzene	32	138	U	200	32	ppbv
179601-23-1	m/p-Xylene	44	191	U	400	44	ppbv
95-47-6	o-Xylene	28	121	U	200	28	ppbv
100-42-5	Styrene	28	119	U	200	28	ppbv
75-25-2	Bromoform	20	206	U	200	20	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	40	274	U	200	40	ppbv
95-49-8	2-Chlorotoluene	40	207	U	200	40	ppbv
108-67-8	1,3,5-Trimethylbenzene	36	176	U	200	36	ppbv
95-63-6	1,2,4-Trimethylbenzene	40	196	U	200	40	ppbv
622-96-8	4-Ethyltoluene	32	157	U	200	32	ppbv
541-73-1	1,3-Dichlorobenzene	32	192	U	200	32	ppbv
106-46-7	1,4-Dichlorobenzene	24	144	U	200	24	ppbv
95-50-1	1,2-Dichlorobenzene	28	168	U	200	28	ppbv
120-82-1	1,2,4-Trichlorobenzene	16	118	U	200	16	ppbv
87-68-3	Hexachloro-1,3-Butadiene	32	341	U	200	32	ppbv
106-99-0	1,3-Butadiene	36	79.6	U	200	36	ppbv
110-54-3	Hexane	16	56.4	U	200	16	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	11.4	114%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	3217750	6.37
540-36-3	1,4-Difluorobenzene	8024690	7.93
3114-55-4	Chlorobenzene-d5	6751980	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



# QUALITY CONTROL SUMMARY REPORTS

## GC/MS VOLATILE ORGANICS

## WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Client: J.R.Holzmacher P.E., LLCLab Code: CHEM CASE No.: C4103 SAS No.: C4103 SDG NO.: C4103Analytical Method: EPA SW846 TO-15

	Lab Sample ID.	Client Sample NO.	SMC1 (BFB) #	SMC2 0 #	SMC3 0 #	SMC4 0 #	TOT OUT
01	VBL1011A	VBL1011A	110	0	0	0	0
02	BSL1011A	BSL1011A	88	0	0	0	0
03	C4103-03	VP-3	114	0	0	0	0
04	C4103-03DL	VP-3DL	114	0	0	0	0
05	C4103-02	VP-2	116	0	0	0	0
06	C4103-02DL	VP-2DL	113	0	0	0	0
07	C4103-01	VP-1	115	0	0	0	0
08	C4103-01DL	VP-1DL	111	0	0	0	0

## QC LIMITS

SMC1 (BFB) = 1-Bromo-4-Fluorobenzene (65-135)

SMC2 () = (0-0)

SMC3 () = (0-0)

SMC4 () = (0-0)

# Column to be used to flag recovery values

\* Values outside of contract required QC Limits

## 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: C4103 SAS No : C4103 SDG No: C4103  
 Matrix Spike - EPA Sample No : BSL1011A Analytical Method: EPA SW846 TO-15 Datafile : VL014889.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS QC % LIMITS REC# REC
Dichlorodifluoromethane	10		9.4	94 (70-130)
Ethanol	10		7.3	73 (70-130)
tert-Butyl alcohol	10		11	110 (70-130)
Chloromethane	10		9.4	94 (70-130)
Methyl Methacrylate	10		12	120 (70-130)
Vinyl Chloride	10		10	100 (70-130)
Bromomethane	10		9.9	99 (70-130)
Chloroethane	10		9.7	97 (70-130)
Trichlorofluoromethane	10		9.7	97 (70-130)
Isopropyl Alcohol	10		9.8	98 (70-130)
Dichlorotetrafluoroethane	10		9.3	93 (70-130)
1,1,2-Trichlorotrifluoroethane	10		9.7	97 (70-130)
Bromoethene	10		11	110 (70-130)
Heptane	10		11	110 (70-130)
1,1-Dichloroethene	10		10	100 (70-130)
Acetone	10		9.0	90 (70-130)
Carbon Disulfide	10		10	100 (70-130)
Methyl tert-Butyl Ether	10		11	110 (70-130)
Methylene Chloride	10		9.4	94 (70-130)
Allyl Chloride	10		11	110 (70-130)
trans-1,2-Dichloroethene	10		10	100 (70-130)
1,1-Dichloroethane	10		9.6	96 (70-130)
Cyclohexane	10		11	110 (70-130)
2-Butanone	10		10	100 (70-130)
Carbon Tetrachloride	10		9.5	95 (70-130)
cis-1,2-Dichloroethene	10		11	110 (70-130)
Chloroform	10		9.5	95 (70-130)
1,4-Dioxane	10		8.8	88 (70-130)
1,1,1-Trichloroethane	10		10	100 (70-130)
Tetrahydrofuran	10		12	120 (70-130)
2,2,4-Trimethylpentane	10		9.9	99 (70-130)
Benzene	10		11	110 (70-130)
1,2-Dichloroethane	10		9.8	98 (70-130)
Trichloroethene	10		10	100 (70-130)
1,2-Dichloropropane	10		10	100 (70-130)
Bromodichloromethane	10		9.6	96 (70-130)
4-Methyl-2-Pentanone	10		11	110 (70-130)
Toluene	10		11	110 (70-130)
t-1,3-Dichloropropene	10		12	120 (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: C4103 SAS No : C4103 SDG No: C4103  
 Matrix Spike - EPA Sample No : BSL1011A Analytical Method: EPA SW846 TO-15 Datafile : VL014889.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC#	QC LIMITS REC
cis-1,3-Dichloropropene	10		12	120	(70-130)
1,1,2-Trichloroethane	10		9.7	97	(70-130)
Dibromochloromethane	10		10	100	(70-130)
1,2-Dibromoethane	10		10	100	(70-130)
Tetrachloroethene	10		10	100	(70-130)
Chlorobenzene	10		8.0	80	(70-130)
Ethyl Benzene	10		9.8	98	(70-130)
m/p-Xylene	20		18	90	(70-130)
o-Xylene	10		8.8	88	(70-130)
Styrene	10		11	110	(70-130)
Bromoform	10		10	100	(70-130)
1,1,2,2-Tetrachloroethane	10		7.6	76	(70-130)
2-Chlorotoluene	10		9.4	94	(70-130)
1,3,5-Trimethylbenzene	10		9.3	93	(70-130)
1,2,4-Trimethylbenzene	10		8.3	83	(70-130)
4-Ethyltoluene	10		9.5	95	(70-130)
1,3-Dichlorobenzene	10		7.6	76	(70-130)
1,4-Dichlorobenzene	10		8.3	83	(70-130)
1,2-Dichlorobenzene	10		8.3	83	(70-130)
1,2,4-Trichlorobenzene	10		9.4	94	(70-130)
Hexachloro-1,3-Butadiene	10		7.6	76	(70-130)
1,3-Butadiene	10		10	100	(70-130)
Hexane	10		10	100	(70-130)

RPD : 0 Out of 62 outside limits

Spike Recovery : 0 Out of 62 outside limits

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Comments: \_\_\_\_\_

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 11-02 Date Received:  
 Client Sample ID: BSL1011A SDG No.: C4103  
 Lab Sample ID: BSL1011A 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
VL014889.D	1		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	9.4	46.5		0.5	0.04	ppbv
75-65-0	tert-Butyl alcohol	11	33.4		0.5	0.1	ppbv
74-87-3	Chloromethane	9.4	19.4		0.5	0.06	ppbv
80-62-6	Methyl Methacrylate	12	49.1		0.5	0.1	ppbv
75-01-4	Vinyl Chloride	10	25.6		0.5	0.07	ppbv
74-83-9	Bromomethane	9.9	38.4		0.5	0.03	ppbv
75-00-3	Chloroethane	9.7	25.6		0.5	0.07	ppbv
75-69-4	Trichlorofluoromethane	9.7	54.5		0.5	0.04	ppbv
76-14-2	Dichlorotetrafluoroethane	9.3	65		0.5	0.04	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	9.7	74.4		0.5	0.04	ppbv
593-60-2	Bromoethene	11	48.1		0.5	0.03	ppbv
142-82-5	Heptane	11	45.1		0.5	0.06	ppbv
75-35-4	1,1-Dichloroethene	10	39.6		0.5	0.05	ppbv
67-64-1	Acetone	9	21.4		0.5	0.1	ppbv
75-15-0	Carbon Disulfide	10	31.1		0.5	0.05	ppbv
1634-04-4	Methyl tert-Butyl Ether	11	39.7		0.5	0.05	ppbv
75-09-2	Methylene Chloride	9.4	32.7		0.5	0.05	ppbv
107-05-1	Allyl Chloride	11	34.4		0.5	0.05	ppbv
156-60-5	trans-1,2-Dichloroethene	10	39.6		0.5	0.06	ppbv
75-34-3	1,1-Dichloroethane	9.6	38.9		0.5	0.04	ppbv
110-82-7	Cyclohexane	11	37.9		0.5	0.08	ppbv
78-93-3	2-Butanone	10	29.5		0.5	0.1	ppbv
56-23-5	Carbon Tetrachloride	9.5	59.8		0.5	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	11	43.6		0.5	0.06	ppbv
67-66-3	Chloroform	9.5	46.4		0.5	0.02	ppbv
123-91-1	1,4-Dioxane	8.8	31.7		0.5	0.09	ppbv
71-55-6	1,1,1-Trichloroethane	10	54.6		0.5	0.04	ppbv
109-99-9	Tetrahydrofuran	12	35.4		0.5	0.08	ppbv
540-84-1	2,2,4-Trimethylpentane	9.9	46.2		0.5	0.04	ppbv
71-43-2	Benzene	11	35.1		0.5	0.04	ppbv
107-06-2	1,2-Dichloroethane	9.8	39.7		0.5	0.07	ppbv
79-01-6	Trichloroethene	10	53.7		0.5	0.04	ppbv
78-87-5	1,2-Dichloropropane	10	46.2		0.5	0.06	ppbv
75-27-4	Bromodichloromethane	9.6	64.3		0.5	0.05	ppbv
108-10-1	4-Methyl-2-Pentanone	11	45.1		0.5	0.06	ppbv
108-88-3	Toluene	11	41.4		0.5	0.05	ppbv
10061-02-6	t-1,3-Dichloropropene	12	54.5		0.5	0.07	ppbv
10061-01-5	cis-1,3-Dichloropropene	12	54.5		0.5	0.06	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 11-02 Date Received:  
 Client Sample ID: BSL1011A SDG No.: C4103  
 Lab Sample ID: BSL1011A 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
VL014889.D	1		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	9.7	52.9		0.5	0.08	ppbv
124-48-1	Dibromochloromethane	10	85.2		0.5	0.05	ppbv
106-93-4	1,2-Dibromoethane	10	76.8		0.5	0.07	ppbv
127-18-4	Tetrachloroethene	10	67.8		0.5	0.03	ppbv
108-90-7	Chlorobenzene	8	36.8		0.5	0.09	ppbv
100-41-4	Ethyl Benzene	9.8	42.6		0.5	0.08	ppbv
179601-23-1	m/p-Xylene	18	78.2		1	0.11	ppbv
95-47-6	o-Xylene	8.8	38.2		0.5	0.07	ppbv
100-42-5	Styrene	11	46.8		0.5	0.07	ppbv
75-25-2	Bromoform	10	103		0.5	0.05	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	7.6	52.2		0.5	0.1	ppbv
95-49-8	2-Chlorotoluene	9.4	48.7		0.5	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	9.3	45.7		0.5	0.09	ppbv
95-63-6	1,2,4-Trimethylbenzene	8.3	40.8		0.5	0.1	ppbv
622-96-8	4-Ethyltoluene	9.5	46.7		0.5	0.08	ppbv
541-73-1	1,3-Dichlorobenzene	7.6	45.7		0.5	0.08	ppbv
106-46-7	1,4-Dichlorobenzene	8.3	49.9		0.5	0.06	ppbv
95-50-1	1,2-Dichlorobenzene	8.3	49.9		0.5	0.07	ppbv
120-82-1	1,2,4-Trichlorobenzene	9.4	69.8		0.5	0.04	ppbv
87-68-3	Hexachloro-1,3-Butadiene	7.6	81.1		0.5	0.08	ppbv
106-99-0	1,3-Butadiene	10	22.1		0.5	0.09	ppbv
110-54-3	Hexane	10	35.2		0.5	0.04	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	8.79	88%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	2955090	6.38
540-36-3	1,4-Difluorobenzene	7824820	7.94
3114-55-4	Chlorobenzene-d5	8566580	12.92

U = Not Detected

J = Estimated Value

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

MDL = Method Detection Limit

N = Presumptive Evidence of a Compound

E = Value Exceeds Calibration Range

\* = Values outside of QC limits

D = Dilution

## VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBL1011A

Lab Name: CHEMTECHContract: JRHO01Lab Code: CHEMCase No.: C4103SAS No.: C4103 SDG NO.: C4103Lab File ID: VL014888.DLab Sample ID: VBL1011ADate Analyzed: 10/12/2011Time Analyzed: 04:30GC Column: RTX-1 ID: 0.32 (mm)Heated Purge: (Y/N) NInstrument 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
BSL1011A	BSL1011A	VL014889.D	10/12/2011
VP-3	C4103-03	VL014898.D	10/12/2011
VP-3DL	C4103-03DL	VL014899.D	10/12/2011
VP-2	C4103-02	VL014900.D	10/12/2011
VP-2DL	C4103-02DL	VL014901.D	10/12/2011
VP-1	C4103-01	VL014902.D	10/12/2011
VP-1DL	C4103-01DL	VL014903.D	10/12/2011

COMMENTS:

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**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 11-02 Date Received:  
 Client Sample ID: VBL1011A SDG No.: C4103  
 Lab Sample ID: VBL1011A 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
VL014888.D	1		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	0.04	0.2	U	0.5	0.04	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.5	0.1	ppbv
74-87-3	Chloromethane	0.06	0.12	U	0.5	0.06	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.5	0.1	ppbv
75-01-4	Vinyl Chloride	0.07	0.18	U	0.5	0.07	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.5	0.03	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.5	0.07	ppbv
75-69-4	Trichlorodifluoromethane	0.04	0.22	U	0.5	0.04	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.5	0.04	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.5	0.04	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.5	0.03	ppbv
142-82-5	Heptane	0.06	0.25	U	0.5	0.06	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.5	0.05	ppbv
67-64-1	Acetone	0.1	0.24	U	0.5	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.5	0.05	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.5	0.05	ppbv
75-09-2	Methylene Chloride	0.05	0.17	U	0.5	0.05	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.5	0.05	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.5	0.06	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.5	0.04	ppbv
110-82-7	Cyclohexane	0.08	0.28	U	0.5	0.08	ppbv
78-93-3	2-Butanone	0.1	0.29	U	0.5	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.04	0.25	U	0.5	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.5	0.06	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.5	0.02	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.5	0.09	ppbv
71-55-6	1,1,1-Trichloroethane	0.04	0.22	U	0.5	0.04	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.5	0.08	ppbv
540-84-1	2,2,4-Trimethylpentane	0.04	0.19	U	0.5	0.04	ppbv
71-43-2	Benzene	0.04	0.13	U	0.5	0.04	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.5	0.07	ppbv
79-01-6	Trichloroethene	0.04	0.21	U	0.5	0.04	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.5	0.06	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.5	0.05	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.5	0.06	ppbv
108-88-3	Toluene	0.05	0.19	U	0.5	0.05	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.5	0.07	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.5	0.06	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 11-02 Date Received:  
 Client Sample ID: VBL1011A SDG No.: C4103  
 Lab Sample ID: VBL1011A 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
VL014888.D	1		10/12/11	vl101111

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	RL	MDL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.5	0.08	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.5	0.05	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.5	0.07	ppbv
127-18-4	Tetrachloroethene	0.03	0.2	U	0.5	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.5	0.09	ppbv
100-41-4	Ethyl Benzene	0.08	0.35	U	0.5	0.08	ppbv
179601-23-1	m/p-Xylene	0.11	0.48	U	1	0.11	ppbv
95-47-6	o-Xylene	0.07	0.3	U	0.5	0.07	ppbv
100-42-5	Styrene	0.07	0.3	U	0.5	0.07	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.5	0.05	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.5	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.5	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.5	0.09	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.5	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.5	0.08	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.5	0.08	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.5	0.06	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.5	0.07	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.5	0.04	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.5	0.08	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.5	0.09	ppbv
110-54-3	Hexane	0.04	0.14	U	0.5	0.04	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	11	110%	65 - 135	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	3147290	6.37
540-36-3	1,4-Difluorobenzene	7778340	7.93
3114-55-4	Chlorobenzene-d5	7105450	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

## **HELIUM Analysis Method:**

Analyst: Samantha Grealish Date 10/21/11 Supervisor Review: MS

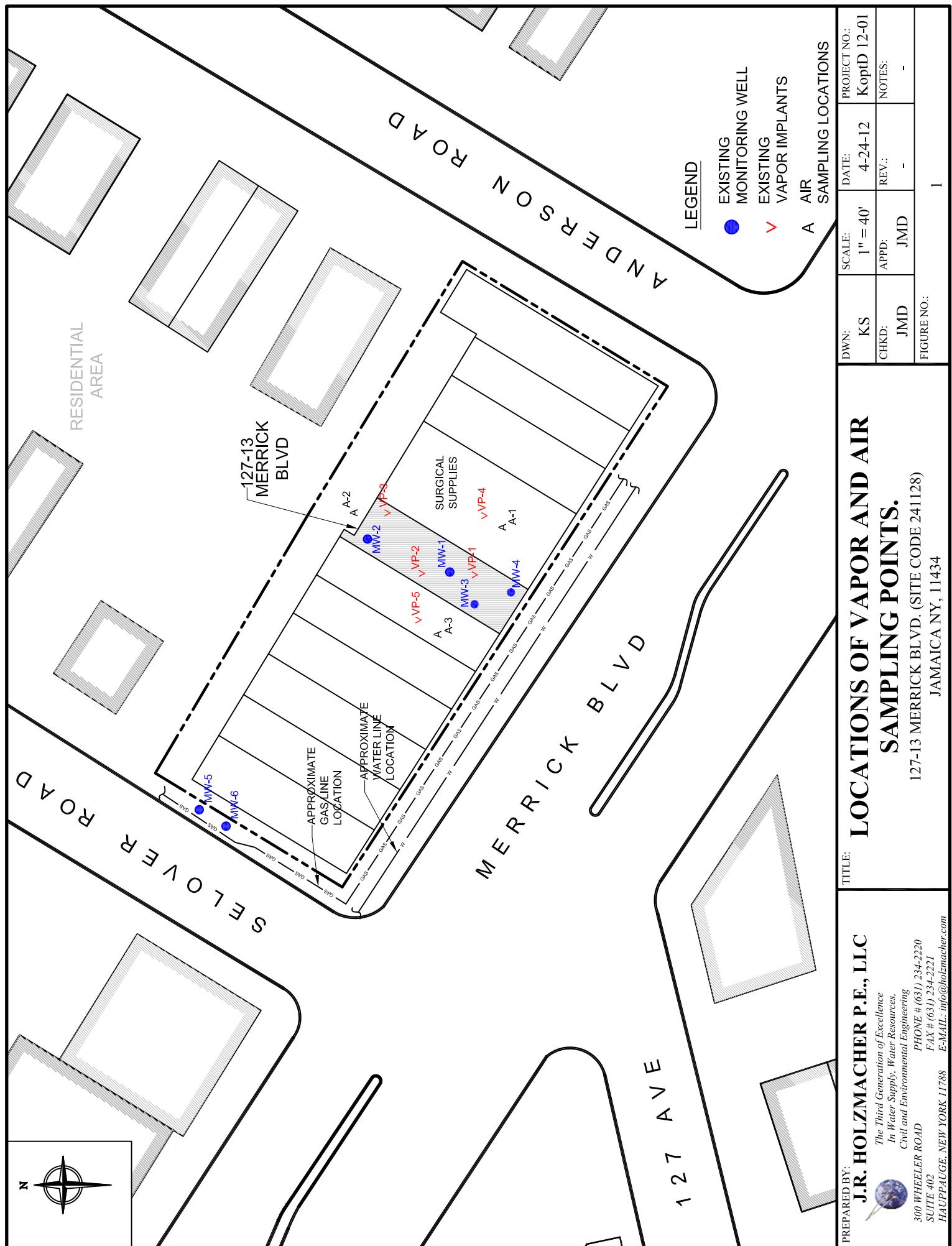


284 Sheffield Street, Mountainside, New Jersey 07092 Phone: 908 789 8900 Fax: 908 789 8922

# END OF ANALYTICAL RESULTS

## Attachment E

*Seacliff Environmental, Inc.*



Vapor Sampling

Sample ID	VP-4	VP-4DL	VP-4DL2	A-1	A-1DL	A-2	A-2DL	A-3	A-3DL	VP-5	VP-5DL
Sampling Date	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012
Matrix	AIR	AIR	AIR	AIR	AIR	AIR	AIR	AIR	AIR	AIR	AIR
Dilution Factor	1	10	100	1	10	1	10	1	40	10	1200
Units	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3
COMPOUND											
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	0.46J	ND	ND	0.46J	ND	0.61J	ND	0.46J	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	4.52	ND	ND	0.64	ND	0.69	ND	1.03	ND	41.8	ND
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.33	ND	ND	ND	ND	ND	ND	ND	ND	12.3	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.86	ND	ND	1.26	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-Trimethylpentane	1.68	ND	ND	1.03	ND	ND	ND	5.93	ND	ND	ND
2-Butanone	4.98	5.6D	ND	1.71	3.24D	1.71	ND	2.54	ND	8.26	ND
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	1.92	ND	ND	ND	ND	ND	ND	ND	ND	19.2	ND
4-Methyl-2-Pentanone	1.8	ND	ND	2.29	ND	3.65	ND	1.43	ND	ND	ND
Acetone	46.3E	52.5D	99.8D	14.1	24.7D	26.4	32.8D	<b>301E</b>	<b>634D</b>	<b>100</b>	ND
Allyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	2.43	ND	ND	0.73	ND	ND	ND	1.44	ND	11.5	ND
Bromodichloromethane	4.69	ND	ND	3.48	ND	ND	ND	ND	ND	ND	ND
Bromoethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	4.27	4.05D	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	0.5	ND	0.44	ND	0.38	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.48	ND	ND	0.87	ND	ND	ND	ND	ND	ND	ND
Chloroform	82.5E	85D	73.2D	53.2	86D	ND	ND	8.64	ND	12.2	ND
Chloromethane	3.26	3.72D	ND	1.45	ND	0.64	ND	0.58	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	144	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1.96	ND	ND	1.45	ND	1.86	ND	1.14	ND	8.95	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.78	ND	ND	1.93	ND	1.78	ND	1.73	ND	ND	ND
Dichlorotetrafluoroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	3.39	ND	ND	1.26	ND	1.74	ND	3	ND	25.6	ND
Heptane	16	13.9D	ND	17.9	24.2	25.2	20.5D	5.66	ND	38.1	ND
Hexachloro-1,3-Butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	4.76	ND	ND	3.24	ND	ND	ND	ND	ND	16.2	ND
m/p-Xylene	9.86	ND	ND	1.61	ND	1.82	ND	4.04	ND	86.4	ND
Methyl Methacrylate	3.11	ND	ND	1.06	ND	5.57	ND	<b>273E</b>	<b>209D</b>	ND	ND
Methyl tert-Butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	31.3	37.9D	ND	9.69	15.6D	0.94	6.6D	7.4	ND	92.1	ND
o-Xylene	3.43	ND	ND	0.56	ND	0.65	ND	1.48	ND	31.3	ND
Styrene	0.85	ND	ND	0.81	ND	0.98	ND	0.98	ND	ND	ND
t-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butyl alcohol	3.64	3.94D	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	3031E	<b>5547ED</b>	4333	533E	<b>718D</b>	1.7	ND	<b>956E</b>	<b>800D</b>	118671E	1227390

127-13 Merrick Blvd.  
 Queens, New York 11413  
 Site Code 241128

Vapor Sampling

Sample ID	VP-4	VP-4DL	VP-4DL2	A-1	A-1DL	A-2	A-2DL	A-3	A-3DL	VP-5	VP-5DL
Sampling Date	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/5/2012
Matrix	AIR										
Dilution Factor	1	10	100	1	10	1	10	1	40	10	1200
Units	Ug/M3										
Tetrahydrofuran	1.92	ND	ND	ND	ND	ND	ND	2.57	ND	8.85	ND
Toluene	59.2E	53.9D	45.2D	81.8E	113D	114	100D	106E	90.4D	192	ND
trans-1,2-Dichloroethene	ND										
Trichloroethene	25.3	23.1D	ND	0.59	ND	0.38	ND	2.79	ND	3106E	3418E
Trichlorofluoromethane	1.24	ND	ND	1.24	ND	1.12	ND	1.18	ND	ND	ND
Vinyl Chloride	ND										

**Qualifiers**

- U - 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

**DATA PACKAGE**

VOLATILE ORGANICS

**PROJECT NAME : KOPTD 12-01****J.R.HOLZMACHER P.E., LLC****300 Wheeler Avenue****Suite 402****Hauppauge, NY - 11788****Phone No: 6312342220****ORDER ID : D3016****ATTENTION : Heather Sonnenberg****DoD FLAP****1 of 88**

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**Cover Page****Order ID :** D3016**Project ID :** KoptD 12-01**Client :** J.R.Holzmacher P.E., LLC**Lab Sample Number**

D3016-01  
D3016-02  
D3016-03  
D3016-04  
D3016-05

**Client Sample Number**

VP-4  
A-1  
A-2  
A-3  
VP-5

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 : \_\_\_\_\_

Date: 6/15/2012

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## CASE NARRATIVE

**J.R.Holzmacher P.E., LLC**

**Project Name: KoptD 12-01**

**Project # N/A**

**Chemtech Project # D3016**

**Test Name: TO-15**

### **A. Number of Samples and Date of Receipt:**

5 Air samples were received on 06/08/2012.

### **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 except for VP-5.

The Retention Times were acceptable for all samples.

The Blank Spike for {BSL0611A} with File ID: VL017290.D met requirements for all samples except for Acetone[68%] .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration File ID VL017288.D met the requirements except for Dichlorodifluoromethane .

The Tuning criteria met requirements.

Samples VP-5 was diluted due to bad matrix.

Samples VP-4, VP-4DL, A-1, A-2, A-3 and VP-5 were diluted due to high concentrations.

### **E. Additional Comments:**

Sample VP-5DL reported with E flag for compound Tetrachloroethene.

### **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 \_\_\_\_\_

**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 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

**APPENDIX A****QA REVIEW GENERAL DOCUMENTATION****Project #:** D3016**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 Castody

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: YESHA PADIA

Date: 06/15/2012

2nd Level QA Review Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**LAB CHRONICLE**

OrderID:	D3016	OrderDate:	6/8/2012 9:53:01 AM
Client:	J.R.Holzmacher P.E., LLC	Project:	KoptD 12-01
Contact:	Heather Sonnenberg	Location:	Air Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
D3016-01	VP-4	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/09/12	
D3016-01DL	VP-4DL	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/09/12	
D3016-01DL2	VP-4DL2	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/11/12	
D3016-02	A-1	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/08/12	
D3016-02DL	A-1DL	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/08/12	
D3016-03	A-2	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/08/12	
D3016-03DL	A-2DL	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/08/12	
D3016-04	A-3	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/08/12	
D3016-04DL	A-3DL	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/11/12	
D3016-05	VP-5	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/09/12	
D3016-05DL	VP-5DL	AIR			06/05/12			06/08/12
			TO-15	TO-15			06/11/12	

**Hit Summary Sheet  
SW-846**

**SDG No.:** D3016  
**Client:** J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
<b>Client ID:</b>	A-1								
D3016-02	A-1	AIR	Dichlorodifluoromethane	0.39		0.040	0.05	0.10	ppbv
D3016-02	A-1	AIR	Chloromethane	0.70		0.060	0.05	0.10	ppbv
D3016-02	A-1	AIR	Methyl Methacrylate	0.26		0.100	0.05	0.10	ppbv
D3016-02	A-1	AIR	Chloroethane	0.33		0.070	0.05	0.10	ppbv
D3016-02	A-1	AIR	Trichlorofluoromethane	0.22		0.040	0.05	0.10	ppbv
D3016-02	A-1	AIR	1,1,2-Trichlorotrifluoroethane	0.06	J	0.040	0.05	0.10	ppbv
D3016-02	A-1	AIR	Heptane	4.36		0.060	0.05	0.10	ppbv
D3016-02	A-1	AIR	Acetone	5.94		0.100	0.05	0.10	ppbv
D3016-02	A-1	AIR	Methylene Chloride	2.79		0.050	0.05	0.10	ppbv
D3016-02	A-1	AIR	Cyclohexane	0.42		0.080	0.05	0.10	ppbv
D3016-02	A-1	AIR	2-Butanone	0.58		0.100	0.05	0.10	ppbv
D3016-02	A-1	AIR	Carbon Tetrachloride	0.08		0.030	0.02	0.04	ppbv
D3016-02	A-1	AIR	Chloroform	10.90		0.020	0.05	0.10	ppbv
D3016-02	A-1	AIR	2,2,4-Trimethylpentane	0.22		0.040	0.05	0.10	ppbv
D3016-02	A-1	AIR	Benzene	0.23		0.040	0.05	0.10	ppbv
D3016-02	A-1	AIR	Trichloroethene	0.11		0.030	0.02	0.04	ppbv
D3016-02	A-1	AIR	Bromodichloromethane	0.52		0.050	0.05	0.10	ppbv
D3016-02	A-1	AIR	4-Methyl-2-Pentanone	0.56		0.060	0.05	0.10	ppbv
D3016-02	A-1	AIR	Toluene	21.70	E	0.050	0.05	0.10	ppbv
D3016-02	A-1	AIR	Tetrachloroethene	78.60	E	0.030	0.015	0.03	ppbv
D3016-02	A-1	AIR	Ethyl Benzene	0.29		0.080	0.05	0.10	ppbv
D3016-02	A-1	AIR	m/p-Xylene	0.37		0.110	0.1	0.20	ppbv
D3016-02	A-1	AIR	o-Xylene	0.13		0.070	0.05	0.10	ppbv
D3016-02	A-1	AIR	Styrene	0.19		0.070	0.05	0.10	ppbv
D3016-02	A-1	AIR	1,2,4-Trimethylbenzene	0.13		0.100	0.05	0.10	ppbv
D3016-02	A-1	AIR	1,4-Dichlorobenzene	0.21		0.060	0.05	0.10	ppbv
D3016-02	A-1	AIR	Hexane	0.92		0.040	0.05	0.10	ppbv
<b>Total Voc :</b>				<b>131.21</b>					
<b>Total Concentration:</b>				<b>131.21</b>					
<b>Client ID:</b>	<b>A-1DL</b>								
D3016-02DL	A-1DL	AIR	Heptane	5.90	D	0.600	0.5	1.00	ppbv
D3016-02DL	A-1DL	AIR	Acetone	10.40	D	1.0	0.5	1.00	ppbv
D3016-02DL	A-1DL	AIR	Methylene Chloride	4.50	D	0.500	0.5	1.00	ppbv
D3016-02DL	A-1DL	AIR	2-Butanone	1.10	D	1.0	0.5	1.00	ppbv
D3016-02DL	A-1DL	AIR	Chloroform	17.60	D	0.200	0.5	1.00	ppbv
D3016-02DL	A-1DL	AIR	Toluene	30.10	D	0.500	0.5	1.00	ppbv
D3016-02DL	A-1DL	AIR	Tetrachloroethene	106.00	D	0.300	0.15	0.30	ppbv
<b>Total Voc :</b>				<b>175.60</b>					

**Hit Summary Sheet**  
**SW-846**

SDG No.: D3016

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
			<b>Total Concentration:</b>			<b>175.60</b>			
<b>Client ID:</b>	<b>A-2</b>								
D3016-03	A-2	AIR	Dichlorodifluoromethane	0.36		0.040	0.05	0.10	ppbv
D3016-03	A-2	AIR	Chloromethane	0.31		0.060	0.05	0.10	ppbv
D3016-03	A-2	AIR	Methyl Methacrylate	1.36		0.100	0.05	0.10	ppbv
D3016-03	A-2	AIR	Trichlorofluoromethane	0.20		0.040	0.05	0.10	ppbv
D3016-03	A-2	AIR	1,1,2-Trichlorotrifluoroethane	0.08	J	0.040	0.05	0.10	ppbv
D3016-03	A-2	AIR	Heptane	6.14		0.060	0.05	0.10	ppbv
D3016-03	A-2	AIR	Acetone	11.10		0.100	0.05	0.10	ppbv
D3016-03	A-2	AIR	Methylene Chloride	0.27		0.050	0.05	0.10	ppbv
D3016-03	A-2	AIR	Cyclohexane	0.54		0.080	0.05	0.10	ppbv
D3016-03	A-2	AIR	2-Butanone	0.58		0.100	0.05	0.10	ppbv
D3016-03	A-2	AIR	Carbon Tetrachloride	0.07		0.030	0.02	0.04	ppbv
D3016-03	A-2	AIR	Benzene	0.28		0.040	0.05	0.10	ppbv
D3016-03	A-2	AIR	Trichloroethene	0.07		0.030	0.02	0.04	ppbv
D3016-03	A-2	AIR	4-Methyl-2-Pentanone	0.89		0.060	0.05	0.10	ppbv
D3016-03	A-2	AIR	Toluene	30.50	E	0.050	0.05	0.10	ppbv
D3016-03	A-2	AIR	Tetrachloroethene	0.25		0.030	0.015	0.03	ppbv
D3016-03	A-2	AIR	Ethyl Benzene	0.40		0.080	0.05	0.10	ppbv
D3016-03	A-2	AIR	m/p-Xylene	0.42		0.110	0.1	0.20	ppbv
D3016-03	A-2	AIR	o-Xylene	0.15		0.070	0.05	0.10	ppbv
D3016-03	A-2	AIR	Styrene	0.23		0.070	0.05	0.10	ppbv
D3016-03	A-2	AIR	1,2,4-Trimethylbenzene	0.14		0.100	0.05	0.10	ppbv
			<b>Total Voc :</b>			<b>54.34</b>			
			<b>Total Concentration:</b>			<b>54.34</b>			
<b>Client ID:</b>	<b>A-2DL</b>								
D3016-03DL	A-2DL	AIR	Heptane	5.00	D	0.600	0.5	1.00	ppbv
D3016-03DL	A-2DL	AIR	Acetone	13.80	D	1.0	0.5	1.00	ppbv
D3016-03DL	A-2DL	AIR	Methylene Chloride	1.90	D	0.500	0.5	1.00	ppbv
D3016-03DL	A-2DL	AIR	Toluene	26.60	D	0.500	0.5	1.00	ppbv
			<b>Total Voc :</b>			<b>47.30</b>			
			<b>Total Concentration:</b>			<b>47.30</b>			
<b>Client ID:</b>	<b>A-3</b>								
D3016-04	A-3	AIR	Dichlorodifluoromethane	0.35		0.040	0.05	0.10	ppbv
D3016-04	A-3	AIR	Chloromethane	0.28		0.060	0.05	0.10	ppbv
D3016-04	A-3	AIR	Methyl Methacrylate	66.90	E	0.100	0.05	0.10	ppbv
D3016-04	A-3	AIR	Trichlorofluoromethane	0.21		0.040	0.05	0.10	ppbv
D3016-04	A-3	AIR	1,1,2-Trichlorotrifluoroethane	0.06	J	0.040	0.05	0.10	ppbv
D3016-04	A-3	AIR	Heptane	1.38		0.060	0.05	0.10	ppbv
D3016-04	A-3	AIR	Acetone	127.00	E	0.100	0.05	0.10	ppbv

**Hit Summary Sheet**  
**SW-846**

SDG No.: D3016

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3016-04	A-3	AIR	Methylene Chloride	2.13		0.050	0.05	0.10	ppbv
D3016-04	A-3	AIR	Cyclohexane	0.33		0.080	0.05	0.10	ppbv
D3016-04	A-3	AIR	2-Butanone	0.86		0.100	0.05	0.10	ppbv
D3016-04	A-3	AIR	Carbon Tetrachloride	0.06		0.030	0.02	0.04	ppbv
D3016-04	A-3	AIR	Chloroform	1.77		0.020	0.05	0.10	ppbv
D3016-04	A-3	AIR	Tetrahydrofuran	0.87		0.080	0.05	0.10	ppbv
D3016-04	A-3	AIR	2,2,4-Trimethylpentane	1.27		0.040	0.05	0.10	ppbv
D3016-04	A-3	AIR	Benzene	0.45		0.040	0.05	0.10	ppbv
D3016-04	A-3	AIR	Trichloroethene	0.52		0.030	0.02	0.04	ppbv
D3016-04	A-3	AIR	4-Methyl-2-Pentanone	0.35		0.060	0.05	0.10	ppbv
D3016-04	A-3	AIR	Toluene	28.20	E	0.050	0.05	0.10	ppbv
D3016-04	A-3	AIR	Tetrachloroethene	141.00	E	0.030	0.015	0.03	ppbv
D3016-04	A-3	AIR	Ethyl Benzene	0.69		0.080	0.05	0.10	ppbv
D3016-04	A-3	AIR	m/p-Xylene	0.93		0.110	0.1	0.20	ppbv
D3016-04	A-3	AIR	o-Xylene	0.34		0.070	0.05	0.10	ppbv
D3016-04	A-3	AIR	Styrene	0.23		0.070	0.05	0.10	ppbv
D3016-04	A-3	AIR	1,2,4-Trimethylbenzene	0.21		0.100	0.05	0.10	ppbv
<b>Total Voc :</b>					<b>376.39</b>				
<b>Total Concentration:</b>					<b>376.39</b>				
<b>Client ID:</b>	<b>A-3DL</b>								
D3016-04DL	A-3DL	AIR	Methyl Methacrylate	51.20	D	4.0	2	4.00	ppbv
D3016-04DL	A-3DL	AIR	Acetone	267.00	DQ	4.0	2	4.00	ppbv
D3016-04DL	A-3DL	AIR	Toluene	24.00	D	2.0	2	4.00	ppbv
D3016-04DL	A-3DL	AIR	Tetrachloroethene	118.00	D	1.2	0.6	1.20	ppbv
<b>Total Voc :</b>					<b>460.20</b>				
<b>Total Concentration:</b>					<b>460.20</b>				
<b>Client ID:</b>	<b>VP-4</b>								
D3016-01	VP-4	AIR	Dichlorodifluoromethane	0.36		0.040	0.05	0.10	ppbv
D3016-01	VP-4	AIR	tert-Butyl alcohol	1.20		0.100	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Chloromethane	1.58		0.060	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Methyl Methacrylate	0.76		0.100	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Chloroethane	0.56		0.070	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Trichlorofluoromethane	0.22		0.040	0.05	0.10	ppbv
D3016-01	VP-4	AIR	1,1,2-Trichlorotrifluoroethane	0.06	J	0.040	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Heptane	3.90		0.060	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Acetone	19.50	E	0.100	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Carbon Disulfide	1.37		0.050	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Methylene Chloride	9.01		0.050	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Cyclohexane	0.57		0.080	0.05	0.10	ppbv

**Hit Summary Sheet**  
**SW-846**

SDG No.: D3016

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3016-01	VP-4	AIR	2-Butanone	1.69		0.100	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Carbon Tetrachloride	0.08		0.030	0.02	0.04	ppbv
D3016-01	VP-4	AIR	Chloroform	16.90	E	0.020	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Tetrahydrofuran	0.65		0.080	0.05	0.10	ppbv
D3016-01	VP-4	AIR	2,2,4-Trimethylpentane	0.36		0.040	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Benzene	0.76		0.040	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Trichloroethene	4.71		0.030	0.02	0.04	ppbv
D3016-01	VP-4	AIR	Bromodichloromethane	0.70		0.050	0.05	0.10	ppbv
D3016-01	VP-4	AIR	4-Methyl-2-Pentanone	0.44		0.060	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Toluene	15.70	E	0.050	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Tetrachloroethene	447.00	E	0.030	0.015	0.03	ppbv
D3016-01	VP-4	AIR	Ethyl Benzene	0.78		0.080	0.05	0.10	ppbv
D3016-01	VP-4	AIR	m/p-Xylene	2.27		0.110	0.1	0.20	ppbv
D3016-01	VP-4	AIR	o-Xylene	0.79		0.070	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Styrene	0.20		0.070	0.05	0.10	ppbv
D3016-01	VP-4	AIR	1,3,5-Trimethylbenzene	0.27		0.090	0.05	0.10	ppbv
D3016-01	VP-4	AIR	1,2,4-Trimethylbenzene	0.92		0.100	0.05	0.10	ppbv
D3016-01	VP-4	AIR	4-Ethyltoluene	0.39		0.080	0.05	0.10	ppbv
D3016-01	VP-4	AIR	1,4-Dichlorobenzene	0.31		0.060	0.05	0.10	ppbv
D3016-01	VP-4	AIR	Hexane	1.35		0.040	0.05	0.10	ppbv
<b>Total Voc :</b>				<b>535.36</b>					
<b>Total Concentration:</b>				<b>535.36</b>					
<b>Client ID:</b>	<b>VP-4DL</b>								
D3016-01DL	VP-4DL	AIR	tert-Butyl alcohol	1.30	D	1.0	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Chloromethane	1.80	D	0.600	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Heptane	3.40	D	0.600	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Acetone	22.10	D	1.0	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Carbon Disulfide	1.30	D	0.500	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Methylene Chloride	10.90	D	0.500	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	2-Butanone	1.90	D	1.0	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Chloroform	17.40	D	0.200	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Trichloroethene	4.30	D	0.300	0.2	0.40	ppbv
D3016-01DL	VP-4DL	AIR	Toluene	14.30	D	0.500	0.5	1.00	ppbv
D3016-01DL	VP-4DL	AIR	Tetrachloroethene	818.00	ED	0.300	0.15	0.30	ppbv
<b>Total Voc :</b>				<b>896.70</b>					
<b>Total Concentration:</b>				<b>896.70</b>					
<b>Client ID:</b>	<b>VP-4DL2</b>								
D3016-01DL2	VP-4DL2	AIR	Acetone	42.00	DQ	10	5	10.0	ppbv
D3016-01DL2	VP-4DL2	AIR	Chloroform	15.00	D	2.0	5	10.0	ppbv

**Hit Summary Sheet  
SW-846**

**SDG No.:** D3016

**Client:** J.R.Holzmacher P.E., LLC

<b>Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Parameter</b>	<b>Concentration</b>	<b>C</b>	<b>MDL</b>	<b>LOD</b>	<b>RDL</b>	<b>Units</b>
D3016-01DL2	VP-4DL2	AIR	Toluene	12.00	D	5.0	5	10.0	ppbv
D3016-01DL2	VP-4DL2	AIR	Tetrachloroethene	639.00	D	3.0	1.5	3.00	ppbv
<b>Total Voc :</b>								<b>708.00</b>	
<b>Total Concentration:</b>								<b>708.00</b>	
<b>Client ID:</b>	<b>VP-5</b>								
D3016-05	VP-5	AIR	Heptane	9.30		0.600	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Acetone	42.40		1.0	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Methylene Chloride	26.50		0.500	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Cyclohexane	2.60		0.800	0.5	1.00	ppbv
D3016-05	VP-5	AIR	2-Butanone	2.80		1.0	0.5	1.00	ppbv
D3016-05	VP-5	AIR	cis-1,2-Dichloroethene	36.40		0.600	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Chloroform	2.50		0.200	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Tetrahydrofuran	3.00		0.800	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Benzene	3.60		0.400	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Trichloroethene	578.00	E	0.300	0.2	0.40	ppbv
D3016-05	VP-5	AIR	Toluene	51.10		0.500	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Tetrachloroethene	17,500.00	E	0.300	0.15	0.30	ppbv
D3016-05	VP-5	AIR	Ethyl Benzene	5.90		0.800	0.5	1.00	ppbv
D3016-05	VP-5	AIR	m/p-Xylene	19.90		1.1	1	2.00	ppbv
D3016-05	VP-5	AIR	o-Xylene	7.20		0.700	0.5	1.00	ppbv
D3016-05	VP-5	AIR	1,3,5-Trimethylbenzene	2.50		0.900	0.5	1.00	ppbv
D3016-05	VP-5	AIR	1,2,4-Trimethylbenzene	8.50		1.0	0.5	1.00	ppbv
D3016-05	VP-5	AIR	4-Ethyltoluene	3.90		0.800	0.5	1.00	ppbv
D3016-05	VP-5	AIR	Hexane	4.60		0.400	0.5	1.00	ppbv
<b>Total Voc :</b>								<b>18,310.70</b>	
<b>Total Concentration:</b>								<b>18,310.70</b>	
<b>Client ID:</b>	<b>VP-5DL</b>								
D3016-05DL	VP-5DL	AIR	Trichloroethene	636.00	D	36	24	48.0	ppbv
D3016-05DL	VP-5DL	AIR	Tetrachloroethene	181,000.00	ED	36	18	36.0	ppbv
<b>Total Voc :</b>								<b>181,636.00</b>	
<b>Total Concentration:</b>								<b>181,636.00</b>	



# SAMPLE DATA

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: VP-4 SDG No.: D3016  
 Lab Sample ID: D3016-01 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
VL017281.D	1		06/09/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.36	1.78		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	1.2	3.64		0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	1.58	3.26		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.76	3.11		0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.07	0.18	U	0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.56	1.48		0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.22	1.24		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.06	0.46	J	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	3.9	16.0		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	19.5	46.3	E	0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	1.37	4.27		0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	9.01	31.3		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.57	1.96		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	1.69	4.98		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.08	0.5		0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	16.9	82.5	E	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	0.65	1.92		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.36	1.68		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.76	2.43		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	4.71	25.3		0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.7	4.69		0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.44	1.8		0.06	0.05	0.1	ppbv
108-88-3	Toluene	15.7	59.2	E	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: VP-4 SDG No.: D3016  
 Lab Sample ID: D3016-01 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
VL017281.D	1		06/09/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	447	3031	E	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.78	3.39		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	2.27	9.86		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.79	3.43		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.2	0.85		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.27	1.33		0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.92	4.52		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.39	1.92		0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.31	1.86		0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	1.35	4.76		0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.7	65 - 135	107%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	861716	6.37
540-36-3	1,4-Difluorobenzene	1985350	7.93
3114-55-4	Chlorobenzene-d5	1742330	12.93

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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-4	SDG No.:	D3016
Lab Sample ID:	D3016-01	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
VL017281.D	1		06/09/12	VL060812

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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-4DL	SDG No.:	D3016
Lab Sample ID:	D3016-01DL	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
VL017282.D	10		06/09/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.4	1.98	U	0.4	0.5	1	ppbv
75-65-0	tert-Butyl alcohol	1.3	3.94	D	1	1	1	ppbv
74-87-3	Chloromethane	1.8	3.72	D	0.6	0.5	1	ppbv
80-62-6	Methyl Methacrylate	1	4.09	U	1	1	1	ppbv
75-01-4	Vinyl Chloride	0.7	1.79	U	0.7	0.7	0.7	ppbv
74-83-9	Bromomethane	0.3	1.16	U	0.3	0.5	1	ppbv
75-00-3	Chloroethane	0.7	1.85	U	0.7	0.5	1	ppbv
75-69-4	Trichlorofluoromethane	0.4	2.25	U	0.4	0.5	1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.4	2.8	U	0.4	0.5	1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.4	3.07	U	0.4	0.5	1	ppbv
593-60-2	Bromoethene	0.3	1.31	U	0.3	0.5	1	ppbv
142-82-5	Heptane	3.4	13.9	D	0.6	0.5	1	ppbv
75-35-4	1,1-Dichloroethene	0.5	1.98	U	0.5	0.5	1	ppbv
67-64-1	Acetone	22.1	52.5	D	1	1	1	ppbv
75-15-0	Carbon Disulfide	1.3	4.05	D	0.5	0.5	1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.5	1.8	U	0.5	0.5	1	ppbv
75-09-2	Methylene Chloride	10.9	37.9	D	0.5	0.5	1	ppbv
107-05-1	Allyl Chloride	0.5	1.57	U	0.5	0.5	1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.6	2.38	U	0.6	0.5	1	ppbv
75-34-3	1,1-Dichloroethane	0.4	1.62	U	0.4	0.5	1	ppbv
110-82-7	Cyclohexane	0.8	2.75	U	0.8	0.5	1	ppbv
78-93-3	2-Butanone	1.9	5.6	D	1	1	1	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	U	0.3	0.2	0.4	ppbv
156-59-2	cis-1,2-Dichloroethene	0.6	2.38	U	0.6	0.5	1	ppbv
67-66-3	Chloroform	17.4	85.0	D	0.2	0.5	1	ppbv
123-91-1	1,4-Dioxane	0.9	3.24	U	0.9	0.5	1	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	U	0.3	0.2	0.4	ppbv
109-99-9	Tetrahydrofuran	0.8	2.36	U	0.8	0.5	1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.4	1.87	U	0.4	0.5	1	ppbv
71-43-2	Benzene	0.4	1.28	U	0.4	0.5	1	ppbv
107-06-2	1,2-Dichloroethane	0.7	2.83	U	0.7	0.5	1	ppbv
79-01-6	Trichloroethene	4.3	23.1	D	0.3	0.2	0.4	ppbv
78-87-5	1,2-Dichloropropane	0.6	2.77	U	0.6	0.5	1	ppbv
75-27-4	Bromodichloromethane	0.5	3.35	U	0.5	0.5	1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.6	2.46	U	0.6	0.5	1	ppbv
108-88-3	Toluene	14.3	53.9	D	0.5	0.5	1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.7	3.18	U	0.7	0.5	1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.6	2.72	U	0.6	0.5	1	ppbv

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-4DL	SDG No.:	D3016
Lab Sample ID:	D3016-01DL	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
VL017282.D	10		06/09/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.8	4.36	U	0.8	0.5	1	ppbv
124-48-1	Dibromochloromethane	0.5	4.26	U	0.5	0.5	1	ppbv
106-93-4	1,2-Dibromoethane	0.7	5.38	U	0.7	0.5	1	ppbv
127-18-4	Tetrachloroethene	818	5547	ED	0.3	0.3	0.3	ppbv
108-90-7	Chlorobenzene	0.9	4.14	U	0.9	0.5	1	ppbv
100-41-4	Ethyl Benzene	0.8	3.47	U	0.8	0.5	1	ppbv
179601-23-1	m/p-Xylene	1.1	4.78	U	1.1	1	2	ppbv
95-47-6	o-Xylene	0.7	3.04	U	0.7	0.5	1	ppbv
100-42-5	Styrene	0.7	2.98	U	0.7	0.5	1	ppbv
75-25-2	Bromoform	0.5	5.17	U	0.5	0.5	1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	1	6.87	U	1	1	1	ppbv
95-49-8	2-Chlorotoluene	1	5.18	U	1	1	1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.9	4.42	U	0.9	0.5	1	ppbv
95-63-6	1,2,4-Trimethylbenzene	1	4.92	U	1	1	1	ppbv
622-96-8	4-Ethyltoluene	0.8	3.93	U	0.8	0.5	1	ppbv
541-73-1	1,3-Dichlorobenzene	0.8	4.81	U	0.8	0.5	1	ppbv
106-46-7	1,4-Dichlorobenzene	0.6	3.61	U	0.6	0.5	1	ppbv
95-50-1	1,2-Dichlorobenzene	0.7	4.21	U	0.7	0.5	1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.4	2.97	U	0.4	0.5	1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.8	8.53	U	0.8	0.5	1	ppbv
106-99-0	1,3-Butadiene	0.9	1.99	U	0.9	0.5	1	ppbv
110-54-3	Hexane	0.4	1.41	U	0.4	0.5	1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.1	65 - 135	101%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	929689	6.37
540-36-3	1,4-Difluorobenzene	2198340	7.93
3114-55-4	Chlorobenzene-d5	1897830	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-4DL	SDG No.:	D3016
Lab Sample ID:	D3016-01DL	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
VL017282.D	10		06/09/12	VL060812

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: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: VP-4DL2 SDG No.: D3016  
 Lab Sample ID: D3016-01DL2 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
VL017292.D	100		06/11/12	VL061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	4	19.8	U	4	5	10	ppbv
75-65-0	tert-Butyl alcohol	10	30.3	U	10	10	10	ppbv
74-87-3	Chloromethane	6	12.4	U	6	5	10	ppbv
80-62-6	Methyl Methacrylate	10	41.0	U	10	10	10	ppbv
75-01-4	Vinyl Chloride	7	17.9	U	7	7	7	ppbv
74-83-9	Bromomethane	3	11.6	U	3	5	10	ppbv
75-00-3	Chloroethane	7	18.5	U	7	5	10	ppbv
75-69-4	Trichlorofluoromethane	4	22.5	U	4	5	10	ppbv
76-14-2	Dichlorotetrafluoroethane	4	28.0	U	4	5	10	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	4	30.7	U	4	5	10	ppbv
593-60-2	Bromoethene	3	13.1	U	3	5	10	ppbv
142-82-5	Heptane	6	24.6	U	6	5	10	ppbv
75-35-4	1,1-Dichloroethene	5	19.8	U	5	5	10	ppbv
67-64-1	Acetone	42	99.8	DQ	10	10	10	ppbv
75-15-0	Carbon Disulfide	5	15.6	U	5	5	10	ppbv
1634-04-4	Methyl tert-Butyl Ether	5	18.0	U	5	5	10	ppbv
75-09-2	Methylene Chloride	5	17.4	U	5	5	10	ppbv
107-05-1	Allyl Chloride	5	15.6	U	5	5	10	ppbv
156-60-5	trans-1,2-Dichloroethene	6	23.8	U	6	5	10	ppbv
75-34-3	1,1-Dichloroethane	4	16.2	U	4	5	10	ppbv
110-82-7	Cyclohexane	8	27.5	U	8	5	10	ppbv
78-93-3	2-Butanone	10	29.5	U	10	10	10	ppbv
56-23-5	Carbon Tetrachloride	3	18.9	U	3	2	4	ppbv
156-59-2	cis-1,2-Dichloroethene	6	23.8	U	6	5	10	ppbv
67-66-3	Chloroform	15	73.2	D	2	5	10	ppbv
123-91-1	1,4-Dioxane	9	32.4	U	9	5	10	ppbv
71-55-6	1,1,1-Trichloroethane	3	16.4	U	3	2	4	ppbv
109-99-9	Tetrahydrofuran	8	23.6	U	8	5	10	ppbv
540-84-1	2,2,4-Trimethylpentane	4	18.7	U	4	5	10	ppbv
71-43-2	Benzene	4	12.8	U	4	5	10	ppbv
107-06-2	1,2-Dichloroethane	7	28.3	U	7	5	10	ppbv
79-01-6	Trichloroethene	3	16.1	U	3	2	4	ppbv
78-87-5	1,2-Dichloropropane	6	27.7	U	6	5	10	ppbv
75-27-4	Bromodichloromethane	5	33.5	U	5	5	10	ppbv
108-10-1	4-Methyl-2-Pentanone	6	24.6	U	6	5	10	ppbv
108-88-3	Toluene	12	45.2	D	5	5	10	ppbv
10061-02-6	t-1,3-Dichloropropene	7	31.8	U	7	5	10	ppbv
10061-01-5	cis-1,3-Dichloropropene	6	27.2	U	6	5	10	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: VP-4DL2 SDG No.: D3016  
 Lab Sample ID: D3016-01DL2 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
VL017292.D	100		06/11/12	VL061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	8	43.6	U	8	5	10	ppbv
124-48-1	Dibromochloromethane	5	42.6	U	5	5	10	ppbv
106-93-4	1,2-Dibromoethane	7	53.8	U	7	5	10	ppbv
127-18-4	Tetrachloroethene	639	4333	D	3	3	3	ppbv
108-90-7	Chlorobenzene	9	41.4	U	9	5	10	ppbv
100-41-4	Ethyl Benzene	8	34.8	U	8	5	10	ppbv
179601-23-1	m/p-Xylene	11	47.8	U	11	10	20	ppbv
95-47-6	o-Xylene	7	30.4	U	7	5	10	ppbv
100-42-5	Styrene	7	29.8	U	7	5	10	ppbv
75-25-2	Bromoform	5	51.7	U	5	5	10	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	10	68.7	U	10	10	10	ppbv
95-49-8	2-Chlorotoluene	10	51.8	U	10	10	10	ppbv
108-67-8	1,3,5-Trimethylbenzene	9	44.2	U	9	5	10	ppbv
95-63-6	1,2,4-Trimethylbenzene	10	49.2	U	10	10	10	ppbv
622-96-8	4-Ethyltoluene	8	39.3	U	8	5	10	ppbv
541-73-1	1,3-Dichlorobenzene	8	48.1	U	8	5	10	ppbv
106-46-7	1,4-Dichlorobenzene	6	36.1	U	6	5	10	ppbv
95-50-1	1,2-Dichlorobenzene	7	42.1	U	7	5	10	ppbv
120-82-1	1,2,4-Trichlorobenzene	4	29.7	U	4	5	10	ppbv
87-68-3	Hexachloro-1,3-Butadiene	8	85.3	U	8	5	10	ppbv
106-99-0	1,3-Butadiene	9	19.9	U	9	5	10	ppbv
110-54-3	Hexane	4	14.1	U	4	5	10	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.3	65 - 135	103%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	1019420	6.37
540-36-3	1,4-Difluorobenzene	2531350	7.93
3114-55-4	Chlorobenzene-d5	2195510	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-4DL2	SDG No.:	D3016
Lab Sample ID:	D3016-01DL2	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
VL017292.D	100		06/11/12	VL061112

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: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-1 SDG No.: D3016  
 Lab Sample ID: D3016-02 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
VL017275.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.39	1.93		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.7	1.45		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.26	1.06		0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.07	0.18	U	0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.33	0.87		0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.22	1.24		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.06	0.46	J	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	4.36	17.9		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	5.94	14.1		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	2.79	9.69		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.42	1.45		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.58	1.71		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.08	0.5		0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	10.9	53.2		0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.22	1.03		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.23	0.73		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.11	0.59		0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.52	3.48		0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.56	2.29		0.06	0.05	0.1	ppbv
108-88-3	Toluene	21.7	81.8	E	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-1 SDG No.: D3016  
 Lab Sample ID: D3016-02 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
VL017275.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	78.6	533	E	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.29	1.26		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.37	1.61		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.13	0.56		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.19	0.81		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.13	0.64		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.21	1.26		0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.92	3.24		0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.7	65 - 135	107%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	794653	6.37
540-36-3	1,4-Difluorobenzene	1805890	7.93
3114-55-4	Chlorobenzene-d5	1591200	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-1	SDG No.:	D3016
Lab Sample ID:	D3016-02	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
VL017275.D	1		06/08/12	VL060812

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: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-1DL SDG No.: D3016  
 Lab Sample ID: D3016-02DL 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
VL017276.D	10		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.4	1.98	U	0.4	0.5	1	ppbv
75-65-0	tert-Butyl alcohol	1	3.03	U	1	1	1	ppbv
74-87-3	Chloromethane	0.6	1.24	U	0.6	0.5	1	ppbv
80-62-6	Methyl Methacrylate	1	4.09	U	1	1	1	ppbv
75-01-4	Vinyl Chloride	0.7	1.79	U	0.7	0.7	0.7	ppbv
74-83-9	Bromomethane	0.3	1.16	U	0.3	0.5	1	ppbv
75-00-3	Chloroethane	0.7	1.85	U	0.7	0.5	1	ppbv
75-69-4	Trichlorofluoromethane	0.4	2.25	U	0.4	0.5	1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.4	2.8	U	0.4	0.5	1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.4	3.07	U	0.4	0.5	1	ppbv
593-60-2	Bromoethene	0.3	1.31	U	0.3	0.5	1	ppbv
142-82-5	Heptane	5.9	24.2	D	0.6	0.5	1	ppbv
75-35-4	1,1-Dichloroethene	0.5	1.98	U	0.5	0.5	1	ppbv
67-64-1	Acetone	10.4	24.7	D	1	1	1	ppbv
75-15-0	Carbon Disulfide	0.5	1.56	U	0.5	0.5	1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.5	1.8	U	0.5	0.5	1	ppbv
75-09-2	Methylene Chloride	4.5	15.6	D	0.5	0.5	1	ppbv
107-05-1	Allyl Chloride	0.5	1.57	U	0.5	0.5	1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.6	2.38	U	0.6	0.5	1	ppbv
75-34-3	1,1-Dichloroethane	0.4	1.62	U	0.4	0.5	1	ppbv
110-82-7	Cyclohexane	0.8	2.75	U	0.8	0.5	1	ppbv
78-93-3	2-Butanone	1.1	3.24	D	1	1	1	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	U	0.3	0.2	0.4	ppbv
156-59-2	cis-1,2-Dichloroethene	0.6	2.38	U	0.6	0.5	1	ppbv
67-66-3	Chloroform	17.6	86.0	D	0.2	0.5	1	ppbv
123-91-1	1,4-Dioxane	0.9	3.24	U	0.9	0.5	1	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	U	0.3	0.2	0.4	ppbv
109-99-9	Tetrahydrofuran	0.8	2.36	U	0.8	0.5	1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.4	1.87	U	0.4	0.5	1	ppbv
71-43-2	Benzene	0.4	1.28	U	0.4	0.5	1	ppbv
107-06-2	1,2-Dichloroethane	0.7	2.83	U	0.7	0.5	1	ppbv
79-01-6	Trichloroethene	0.3	1.61	U	0.3	0.2	0.4	ppbv
78-87-5	1,2-Dichloropropane	0.6	2.77	U	0.6	0.5	1	ppbv
75-27-4	Bromodichloromethane	0.5	3.35	U	0.5	0.5	1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.6	2.46	U	0.6	0.5	1	ppbv
108-88-3	Toluene	30.1	113	D	0.5	0.5	1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.7	3.18	U	0.7	0.5	1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.6	2.72	U	0.6	0.5	1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-1DL SDG No.: D3016  
 Lab Sample ID: D3016-02DL 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
VL017276.D	10		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.8	4.36	U	0.8	0.5	1	ppbv
124-48-1	Dibromochloromethane	0.5	4.26	U	0.5	0.5	1	ppbv
106-93-4	1,2-Dibromoethane	0.7	5.38	U	0.7	0.5	1	ppbv
127-18-4	Tetrachloroethene	106	718	D	0.3	0.3	0.3	ppbv
108-90-7	Chlorobenzene	0.9	4.14	U	0.9	0.5	1	ppbv
100-41-4	Ethyl Benzene	0.8	3.47	U	0.8	0.5	1	ppbv
179601-23-1	m/p-Xylene	1.1	4.78	U	1.1	1	2	ppbv
95-47-6	o-Xylene	0.7	3.04	U	0.7	0.5	1	ppbv
100-42-5	Styrene	0.7	2.98	U	0.7	0.5	1	ppbv
75-25-2	Bromoform	0.5	5.17	U	0.5	0.5	1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	1	6.87	U	1	1	1	ppbv
95-49-8	2-Chlorotoluene	1	5.18	U	1	1	1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.9	4.42	U	0.9	0.5	1	ppbv
95-63-6	1,2,4-Trimethylbenzene	1	4.92	U	1	1	1	ppbv
622-96-8	4-Ethyltoluene	0.8	3.93	U	0.8	0.5	1	ppbv
541-73-1	1,3-Dichlorobenzene	0.8	4.81	U	0.8	0.5	1	ppbv
106-46-7	1,4-Dichlorobenzene	0.6	3.61	U	0.6	0.5	1	ppbv
95-50-1	1,2-Dichlorobenzene	0.7	4.21	U	0.7	0.5	1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.4	2.97	U	0.4	0.5	1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.8	8.53	U	0.8	0.5	1	ppbv
106-99-0	1,3-Butadiene	0.9	1.99	U	0.9	0.5	1	ppbv
110-54-3	Hexane	0.4	1.41	U	0.4	0.5	1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10	65 - 135	100%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	855617	6.37
540-36-3	1,4-Difluorobenzene	1989070	7.93
3114-55-4	Chlorobenzene-d5	1725520	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-1DL	SDG No.:	D3016
Lab Sample ID:	D3016-02DL	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
VL017276.D	10		06/08/12	VL060812

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: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-2 SDG No.: D3016  
 Lab Sample ID: D3016-03 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
VL017279.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.36	1.78		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.31	0.64		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	1.36	5.57		0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.07	0.18	U	0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.2	1.12		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.08	0.61	J	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	6.14	25.2		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	11.1	26.4		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.27	0.94		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.54	1.86		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.58	1.71		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.07	0.44		0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.04	0.19	U	0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.28	0.89		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.07	0.38		0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.89	3.65		0.06	0.05	0.1	ppbv
108-88-3	Toluene	30.5	114	E	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-2 SDG No.: D3016  
 Lab Sample ID: D3016-03 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
VL017279.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.25	1.7		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.4	1.74		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.42	1.82		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.15	0.65		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.23	0.98		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.14	0.69		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.04	0.14	U	0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.4	65 - 135	104%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	877649	6.37
540-36-3	1,4-Difluorobenzene	2012320	7.93
3114-55-4	Chlorobenzene-d5	1710340	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-2	SDG No.:	D3016
Lab Sample ID:	D3016-03	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
VL017279.D	1		06/08/12	VL060812

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: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-2DL SDG No.: D3016  
 Lab Sample ID: D3016-03DL 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
VL017280.D	10		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.4	1.98	U	0.4	0.5	1	ppbv
75-65-0	tert-Butyl alcohol	1	3.03	U	1	1	1	ppbv
74-87-3	Chloromethane	0.6	1.24	U	0.6	0.5	1	ppbv
80-62-6	Methyl Methacrylate	1	4.09	U	1	1	1	ppbv
75-01-4	Vinyl Chloride	0.7	1.79	U	0.7	0.7	0.7	ppbv
74-83-9	Bromomethane	0.3	1.16	U	0.3	0.5	1	ppbv
75-00-3	Chloroethane	0.7	1.85	U	0.7	0.5	1	ppbv
75-69-4	Trichlorofluoromethane	0.4	2.25	U	0.4	0.5	1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.4	2.8	U	0.4	0.5	1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.4	3.07	U	0.4	0.5	1	ppbv
593-60-2	Bromoethene	0.3	1.31	U	0.3	0.5	1	ppbv
142-82-5	Heptane	5	20.5	D	0.6	0.5	1	ppbv
75-35-4	1,1-Dichloroethene	0.5	1.98	U	0.5	0.5	1	ppbv
67-64-1	Acetone	13.8	32.8	D	1	1	1	ppbv
75-15-0	Carbon Disulfide	0.5	1.56	U	0.5	0.5	1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.5	1.8	U	0.5	0.5	1	ppbv
75-09-2	Methylene Chloride	1.9	6.6	D	0.5	0.5	1	ppbv
107-05-1	Allyl Chloride	0.5	1.57	U	0.5	0.5	1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.6	2.38	U	0.6	0.5	1	ppbv
75-34-3	1,1-Dichloroethane	0.4	1.62	U	0.4	0.5	1	ppbv
110-82-7	Cyclohexane	0.8	2.75	U	0.8	0.5	1	ppbv
78-93-3	2-Butanone	1	2.95	U	1	1	1	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	U	0.3	0.2	0.4	ppbv
156-59-2	cis-1,2-Dichloroethene	0.6	2.38	U	0.6	0.5	1	ppbv
67-66-3	Chloroform	0.2	0.98	U	0.2	0.5	1	ppbv
123-91-1	1,4-Dioxane	0.9	3.24	U	0.9	0.5	1	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	U	0.3	0.2	0.4	ppbv
109-99-9	Tetrahydrofuran	0.8	2.36	U	0.8	0.5	1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.4	1.87	U	0.4	0.5	1	ppbv
71-43-2	Benzene	0.4	1.28	U	0.4	0.5	1	ppbv
107-06-2	1,2-Dichloroethane	0.7	2.83	U	0.7	0.5	1	ppbv
79-01-6	Trichloroethene	0.3	1.61	U	0.3	0.2	0.4	ppbv
78-87-5	1,2-Dichloropropane	0.6	2.77	U	0.6	0.5	1	ppbv
75-27-4	Bromodichloromethane	0.5	3.35	U	0.5	0.5	1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.6	2.46	U	0.6	0.5	1	ppbv
108-88-3	Toluene	26.6	100	D	0.5	0.5	1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.7	3.18	U	0.7	0.5	1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.6	2.72	U	0.6	0.5	1	ppbv

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-2DL	SDG No.:	D3016
Lab Sample ID:	D3016-03DL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017280.D	10		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.8	4.36	U	0.8	0.5	1	ppbv
124-48-1	Dibromochloromethane	0.5	4.26	U	0.5	0.5	1	ppbv
106-93-4	1,2-Dibromoethane	0.7	5.38	U	0.7	0.5	1	ppbv
127-18-4	Tetrachloroethene	0.3	2.03	U	0.3	0.3	0.3	ppbv
108-90-7	Chlorobenzene	0.9	4.14	U	0.9	0.5	1	ppbv
100-41-4	Ethyl Benzene	0.8	3.47	U	0.8	0.5	1	ppbv
179601-23-1	m/p-Xylene	1.1	4.78	U	1.1	1	2	ppbv
95-47-6	o-Xylene	0.7	3.04	U	0.7	0.5	1	ppbv
100-42-5	Styrene	0.7	2.98	U	0.7	0.5	1	ppbv
75-25-2	Bromoform	0.5	5.17	U	0.5	0.5	1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	1	6.87	U	1	1	1	ppbv
95-49-8	2-Chlorotoluene	1	5.18	U	1	1	1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.9	4.42	U	0.9	0.5	1	ppbv
95-63-6	1,2,4-Trimethylbenzene	1	4.92	U	1	1	1	ppbv
622-96-8	4-Ethyltoluene	0.8	3.93	U	0.8	0.5	1	ppbv
541-73-1	1,3-Dichlorobenzene	0.8	4.81	U	0.8	0.5	1	ppbv
106-46-7	1,4-Dichlorobenzene	0.6	3.61	U	0.6	0.5	1	ppbv
95-50-1	1,2-Dichlorobenzene	0.7	4.21	U	0.7	0.5	1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.4	2.97	U	0.4	0.5	1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.8	8.53	U	0.8	0.5	1	ppbv
106-99-0	1,3-Butadiene	0.9	1.99	U	0.9	0.5	1	ppbv
110-54-3	Hexane	0.4	1.41	U	0.4	0.5	1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10	65 - 135	101%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	832955	6.37
540-36-3	1,4-Difluorobenzene	1907360	7.93
3114-55-4	Chlorobenzene-d5	1661430	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-2DL	SDG No.:	D3016
Lab Sample ID:	D3016-03DL	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
VL017280.D	10		06/08/12	VL060812

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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-3	SDG No.:	D3016
Lab Sample ID:	D3016-04	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
VL017277.D	1		06/08/12	VL060812

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		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.28	0.58		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	66.9	273	E	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.07	0.18	U	0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.21	1.18		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.06	0.46	J	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	1.38	5.66		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	127	301	E	0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	2.13	7.4		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.33	1.14		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.86	2.54		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.06	0.38		0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	1.77	8.64		0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	0.87	2.57		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	1.27	5.93		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.45	1.44		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.52	2.79		0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.35	1.43		0.06	0.05	0.1	ppbv
108-88-3	Toluene	28.2	106	E	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-3 SDG No.: D3016  
 Lab Sample ID: D3016-04 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
VL017277.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	141	956	E	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.69	3		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.93	4.04		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.34	1.48		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.23	0.98		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.21	1.03		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.04	0.14	U	0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.4	65 - 135	104%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	900461	6.38
540-36-3	1,4-Difluorobenzene	2034270	7.94
3114-55-4	Chlorobenzene-d5	1773200	12.92

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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-3	SDG No.:	D3016
Lab Sample ID:	D3016-04	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
VL017277.D	1		06/08/12	VL060812

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: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-3DL SDG No.: D3016  
 Lab Sample ID: D3016-04DL 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
VL017291.D	40		06/11/12	VL061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	1.6	7.91	U	1.6	2	4	ppbv
75-65-0	tert-Butyl alcohol	4	12.1	U	4	4	4	ppbv
74-87-3	Chloromethane	2.4	4.96	U	2.4	2	4	ppbv
80-62-6	Methyl Methacrylate	51.2	209	D	4	4	4	ppbv
75-01-4	Vinyl Chloride	2.8	7.16	U	2.8	2.8	2.8	ppbv
74-83-9	Bromomethane	1.2	4.66	U	1.2	2	4	ppbv
75-00-3	Chloroethane	2.8	7.39	U	2.8	2	4	ppbv
75-69-4	Trichlorofluoromethane	1.6	8.99	U	1.6	2	4	ppbv
76-14-2	Dichlorotetrafluoroethane	1.6	11.2	U	1.6	2	4	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	12.3	U	1.6	2	4	ppbv
593-60-2	Bromoethene	1.2	5.25	U	1.2	2	4	ppbv
142-82-5	Heptane	2.4	9.84	U	2.4	2	4	ppbv
75-35-4	1,1-Dichloroethene	2	7.93	U	2	2	4	ppbv
67-64-1	Acetone	267	634	DQ	4	4	4	ppbv
75-15-0	Carbon Disulfide	2	6.23	U	2	2	4	ppbv
1634-04-4	Methyl tert-Butyl Ether	2	7.21	U	2	2	4	ppbv
75-09-2	Methylene Chloride	2	6.95	U	2	2	4	ppbv
107-05-1	Allyl Chloride	2	6.26	U	2	2	4	ppbv
156-60-5	trans-1,2-Dichloroethene	2.4	9.52	U	2.4	2	4	ppbv
75-34-3	1,1-Dichloroethane	1.6	6.48	U	1.6	2	4	ppbv
110-82-7	Cyclohexane	3.2	11.0	U	3.2	2	4	ppbv
78-93-3	2-Butanone	4	11.8	U	4	4	4	ppbv
56-23-5	Carbon Tetrachloride	1.2	7.55	U	1.2	0.8	1.6	ppbv
156-59-2	cis-1,2-Dichloroethene	2.4	9.52	U	2.4	2	4	ppbv
67-66-3	Chloroform	0.8	3.91	U	0.8	2	4	ppbv
123-91-1	1,4-Dioxane	3.6	13.0	U	3.6	2	4	ppbv
71-55-6	1,1,1-Trichloroethane	1.2	6.55	U	1.2	0.8	1.6	ppbv
109-99-9	Tetrahydrofuran	3.2	9.44	U	3.2	2	4	ppbv
540-84-1	2,2,4-Trimethylpentane	1.6	7.47	U	1.6	2	4	ppbv
71-43-2	Benzene	1.6	5.11	U	1.6	2	4	ppbv
107-06-2	1,2-Dichloroethane	2.8	11.3	U	2.8	2	4	ppbv
79-01-6	Trichloroethene	1.2	6.45	U	1.2	0.8	1.6	ppbv
78-87-5	1,2-Dichloropropane	2.4	11.1	U	2.4	2	4	ppbv
75-27-4	Bromodichloromethane	2	13.4	U	2	2	4	ppbv
108-10-1	4-Methyl-2-Pentanone	2.4	9.84	U	2.4	2	4	ppbv
108-88-3	Toluene	24	90.4	D	2	2	4	ppbv
10061-02-6	t-1,3-Dichloropropene	2.8	12.7	U	2.8	2	4	ppbv
10061-01-5	cis-1,3-Dichloropropene	2.4	10.9	U	2.4	2	4	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: A-3DL SDG No.: D3016  
 Lab Sample ID: D3016-04DL 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
VL017291.D	40		06/11/12	VL061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	3.2	17.5	U	3.2	2	4	ppbv
124-48-1	Dibromochloromethane	2	17.0	U	2	2	4	ppbv
106-93-4	1,2-Dibromoethane	2.8	21.5	U	2.8	2	4	ppbv
127-18-4	Tetrachloroethene	118	800	D	1.2	1.2	1.2	ppbv
108-90-7	Chlorobenzene	3.6	16.6	U	3.6	2	4	ppbv
100-41-4	Ethyl Benzene	3.2	13.9	U	3.2	2	4	ppbv
179601-23-1	m/p-Xylene	4.4	19.1	U	4.4	4	8	ppbv
95-47-6	o-Xylene	2.8	12.2	U	2.8	2	4	ppbv
100-42-5	Styrene	2.8	11.9	U	2.8	2	4	ppbv
75-25-2	Bromoform	2	20.7	U	2	2	4	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	4	27.5	U	4	4	4	ppbv
95-49-8	2-Chlorotoluene	4	20.7	U	4	4	4	ppbv
108-67-8	1,3,5-Trimethylbenzene	3.6	17.7	U	3.6	2	4	ppbv
95-63-6	1,2,4-Trimethylbenzene	4	19.7	U	4	4	4	ppbv
622-96-8	4-Ethyltoluene	3.2	15.7	U	3.2	2	4	ppbv
541-73-1	1,3-Dichlorobenzene	3.2	19.2	U	3.2	2	4	ppbv
106-46-7	1,4-Dichlorobenzene	2.4	14.4	U	2.4	2	4	ppbv
95-50-1	1,2-Dichlorobenzene	2.8	16.8	U	2.8	2	4	ppbv
120-82-1	1,2,4-Trichlorobenzene	1.6	11.9	U	1.6	2	4	ppbv
87-68-3	Hexachloro-1,3-Butadiene	3.2	34.1	U	3.2	2	4	ppbv
106-99-0	1,3-Butadiene	3.6	7.96	U	3.6	2	4	ppbv
110-54-3	Hexane	1.6	5.64	U	1.6	2	4	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.2	65 - 135	102%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	1110080	6.37
540-36-3	1,4-Difluorobenzene	2756620	7.93
3114-55-4	Chlorobenzene-d5	2350980	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	A-3DL	SDG No.:	D3016
Lab Sample ID:	D3016-04DL	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
VL017291.D	40		06/11/12	VL061112

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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-5	SDG No.:	D3016
Lab Sample ID:	D3016-05	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
VL017285.D	10		06/09/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.4	1.98	U	0.4	0.5	1	ppbv
75-65-0	tert-Butyl alcohol	1	3.03	U	1	1	1	ppbv
74-87-3	Chloromethane	0.6	1.24	U	0.6	0.5	1	ppbv
80-62-6	Methyl Methacrylate	1	4.09	U	1	1	1	ppbv
75-01-4	Vinyl Chloride	0.7	1.79	U	0.7	0.7	0.7	ppbv
74-83-9	Bromomethane	0.3	1.16	U	0.3	0.5	1	ppbv
75-00-3	Chloroethane	0.7	1.85	U	0.7	0.5	1	ppbv
75-69-4	Trichlorofluoromethane	0.4	2.25	U	0.4	0.5	1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.4	2.8	U	0.4	0.5	1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.4	3.07	U	0.4	0.5	1	ppbv
593-60-2	Bromoethene	0.3	1.31	U	0.3	0.5	1	ppbv
142-82-5	Heptane	9.3	38.1		0.6	0.5	1	ppbv
75-35-4	1,1-Dichloroethene	0.5	1.98	U	0.5	0.5	1	ppbv
67-64-1	Acetone	42.4	100		1	1	1	ppbv
75-15-0	Carbon Disulfide	0.5	1.56	U	0.5	0.5	1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.5	1.8	U	0.5	0.5	1	ppbv
75-09-2	Methylene Chloride	26.5	92.1		0.5	0.5	1	ppbv
107-05-1	Allyl Chloride	0.5	1.57	U	0.5	0.5	1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.6	2.38	U	0.6	0.5	1	ppbv
75-34-3	1,1-Dichloroethane	0.4	1.62	U	0.4	0.5	1	ppbv
110-82-7	Cyclohexane	2.6	8.95		0.8	0.5	1	ppbv
78-93-3	2-Butanone	2.8	8.26		1	1	1	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	U	0.3	0.2	0.4	ppbv
156-59-2	cis-1,2-Dichloroethene	36.4	144		0.6	0.5	1	ppbv
67-66-3	Chloroform	2.5	12.2		0.2	0.5	1	ppbv
123-91-1	1,4-Dioxane	0.9	3.24	U	0.9	0.5	1	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	U	0.3	0.2	0.4	ppbv
109-99-9	Tetrahydrofuran	3	8.85		0.8	0.5	1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.4	1.87	U	0.4	0.5	1	ppbv
71-43-2	Benzene	3.6	11.5		0.4	0.5	1	ppbv
107-06-2	1,2-Dichloroethane	0.7	2.83	U	0.7	0.5	1	ppbv
79-01-6	Trichloroethene	578	3106	E	0.3	0.2	0.4	ppbv
78-87-5	1,2-Dichloropropane	0.6	2.77	U	0.6	0.5	1	ppbv
75-27-4	Bromodichloromethane	0.5	3.35	U	0.5	0.5	1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.6	2.46	U	0.6	0.5	1	ppbv
108-88-3	Toluene	51.1	192		0.5	0.5	1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.7	3.18	U	0.7	0.5	1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.6	2.72	U	0.6	0.5	1	ppbv

**Report of Analysis**

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-5	SDG No.:	D3016
Lab Sample ID:	D3016-05	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
VL017285.D	10		06/09/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.8	4.36	U	0.8	0.5	1	ppbv
124-48-1	Dibromochloromethane	0.5	4.26	U	0.5	0.5	1	ppbv
106-93-4	1,2-Dibromoethane	0.7	5.38	U	0.7	0.5	1	ppbv
127-18-4	Tetrachloroethene	17500	118670	E	0.3	0.3	0.3	ppbv
108-90-7	Chlorobenzene	0.9	4.14	U	0.9	0.5	1	ppbv
100-41-4	Ethyl Benzene	5.9	25.6		0.8	0.5	1	ppbv
179601-23-1	m/p-Xylene	19.9	86.4		1.1	1	2	ppbv
95-47-6	o-Xylene	7.2	31.3		0.7	0.5	1	ppbv
100-42-5	Styrene	0.7	2.98	U	0.7	0.5	1	ppbv
75-25-2	Bromoform	0.5	5.17	U	0.5	0.5	1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	1	6.87	U	1	1	1	ppbv
95-49-8	2-Chlorotoluene	1	5.18	U	1	1	1	ppbv
108-67-8	1,3,5-Trimethylbenzene	2.5	12.3		0.9	0.5	1	ppbv
95-63-6	1,2,4-Trimethylbenzene	8.5	41.8		1	1	1	ppbv
622-96-8	4-Ethyltoluene	3.9	19.2		0.8	0.5	1	ppbv
541-73-1	1,3-Dichlorobenzene	0.8	4.81	U	0.8	0.5	1	ppbv
106-46-7	1,4-Dichlorobenzene	0.6	3.61	U	0.6	0.5	1	ppbv
95-50-1	1,2-Dichlorobenzene	0.7	4.21	U	0.7	0.5	1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.4	2.97	U	0.4	0.5	1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.8	8.53	U	0.8	0.5	1	ppbv
106-99-0	1,3-Butadiene	0.9	1.99	U	0.9	0.5	1	ppbv
110-54-3	Hexane	4.6	16.2		0.4	0.5	1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.7	65 - 135	107%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	1105980	6.37
540-36-3	1,4-Difluorobenzene	2660680	7.93
3114-55-4	Chlorobenzene-d5	1869590	13.09

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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-5	SDG No.:	D3016
Lab Sample ID:	D3016-05	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
VL017285.D	10		06/09/12	VL060812

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: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: VP-5DL SDG No.: D3016  
 Lab Sample ID: D3016-05DL 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
VL017294.D	1200		06/11/12	VL061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	48	237	U	48	60	120	ppbv
75-65-0	tert-Butyl alcohol	120	363	U	120	120	120	ppbv
74-87-3	Chloromethane	72	148	U	72	60	120	ppbv
80-62-6	Methyl Methacrylate	120	491	U	120	120	120	ppbv
75-01-4	Vinyl Chloride	84	214	U	84	84	84	ppbv
74-83-9	Bromomethane	36	139	U	36	60	120	ppbv
75-00-3	Chloroethane	84	221	U	84	60	120	ppbv
75-69-4	Trichlorofluoromethane	48	269	U	48	60	120	ppbv
76-14-2	Dichlorotetrafluoroethane	48	335	U	48	60	120	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	48	367	U	48	60	120	ppbv
593-60-2	Bromoethene	36	157	U	36	60	120	ppbv
142-82-5	Heptane	72	295	U	72	60	120	ppbv
75-35-4	1,1-Dichloroethene	60	237	U	60	60	120	ppbv
67-64-1	Acetone	120	285	UQ	120	120	120	ppbv
75-15-0	Carbon Disulfide	60	186	U	60	60	120	ppbv
1634-04-4	Methyl tert-Butyl Ether	60	216	U	60	60	120	ppbv
75-09-2	Methylene Chloride	60	208	U	60	60	120	ppbv
107-05-1	Allyl Chloride	60	187	U	60	60	120	ppbv
156-60-5	trans-1,2-Dichloroethene	72	285	U	72	60	120	ppbv
75-34-3	1,1-Dichloroethane	48	194	U	48	60	120	ppbv
110-82-7	Cyclohexane	96	330	U	96	60	120	ppbv
78-93-3	2-Butanone	120	353	U	120	120	120	ppbv
56-23-5	Carbon Tetrachloride	36	226	U	36	24	48	ppbv
156-59-2	cis-1,2-Dichloroethene	72	285	U	72	60	120	ppbv
67-66-3	Chloroform	24	117	U	24	60	120	ppbv
123-91-1	1,4-Dioxane	110	396	U	110	60	120	ppbv
71-55-6	1,1,1-Trichloroethane	36	196	U	36	24	48	ppbv
109-99-9	Tetrahydrofuran	96	283	U	96	60	120	ppbv
540-84-1	2,2,4-Trimethylpentane	48	224	U	48	60	120	ppbv
71-43-2	Benzene	48	153	U	48	60	120	ppbv
107-06-2	1,2-Dichloroethane	84	339	U	84	60	120	ppbv
79-01-6	Trichloroethene	636	3418	D	36	24	48	ppbv
78-87-5	1,2-Dichloropropane	72	332	U	72	60	120	ppbv
75-27-4	Bromodichloromethane	60	401	U	60	60	120	ppbv
108-10-1	4-Methyl-2-Pentanone	72	295	U	72	60	120	ppbv
108-88-3	Toluene	60	226	U	60	60	120	ppbv
10061-02-6	t-1,3-Dichloropropene	84	381	U	84	60	120	ppbv
10061-01-5	cis-1,3-Dichloropropene	72	326	U	72	60	120	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected: 06/05/12  
 Project: KoptD 12-01 Date Received: 06/08/12  
 Client Sample ID: VP-5DL SDG No.: D3016  
 Lab Sample ID: D3016-05DL 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
VL017294.D	1200		06/11/12	VL061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	96	523	U	96	60	120	ppbv
124-48-1	Dibromochloromethane	60	511	U	60	60	120	ppbv
106-93-4	1,2-Dibromoethane	84	645	U	84	60	120	ppbv
127-18-4	Tetrachloroethene	181000	1227394	ED	36	36	36	ppbv
108-90-7	Chlorobenzene	110	506	U	110	60	120	ppbv
100-41-4	Ethyl Benzene	96	416	U	96	60	120	ppbv
179601-23-1	m/p-Xylene	130	564	U	130	120	240	ppbv
95-47-6	o-Xylene	84	364	U	84	60	120	ppbv
100-42-5	Styrene	84	357	U	84	60	120	ppbv
75-25-2	Bromoform	60	620	U	60	60	120	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	120	824	U	120	120	120	ppbv
95-49-8	2-Chlorotoluene	120	621	U	120	120	120	ppbv
108-67-8	1,3,5-Trimethylbenzene	110	540	U	110	60	120	ppbv
95-63-6	1,2,4-Trimethylbenzene	120	589	U	120	120	120	ppbv
622-96-8	4-Ethyltoluene	96	471	U	96	60	120	ppbv
541-73-1	1,3-Dichlorobenzene	96	577	U	96	60	120	ppbv
106-46-7	1,4-Dichlorobenzene	72	432	U	72	60	120	ppbv
95-50-1	1,2-Dichlorobenzene	84	505	U	84	60	120	ppbv
120-82-1	1,2,4-Trichlorobenzene	48	356	U	48	60	120	ppbv
87-68-3	Hexachloro-1,3-Butadiene	96	1024	U	96	60	120	ppbv
106-99-0	1,3-Butadiene	110	243	U	110	60	120	ppbv
110-54-3	Hexane	48	169	U	48	60	120	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.3	65 - 135	103%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	952878	6.37
540-36-3	1,4-Difluorobenzene	2329430	7.93
3114-55-4	Chlorobenzene-d5	2020500	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:	06/05/12
Project:	KoptD 12-01	Date Received:	06/08/12
Client Sample ID:	VP-5DL	SDG No.:	D3016
Lab Sample ID:	D3016-05DL	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
VL017294.D	1200		06/11/12	VL061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
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QC  
SUMMARY

**Surrogate Summary**SDG No.: D3016Client: J.R.Holzmacher P.E., LLCAnalytical Method: EPA SW846 TO-15

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
BSL0608A	BSL0608A	1-Bromo-4-Fluorobenzene	10	9.47	95		65	135
BSL0611A	BSL0611A	1-Bromo-4-Fluorobenzene	10	9.61	96		65	135
D3016-01	VP-4	1-Bromo-4-Fluorobenzene	10	10.72	107		65	135
D3016-01DL	VP-4DL	1-Bromo-4-Fluorobenzene	10	10.11	101		65	135
D3016-01DL2	VP-4DL2	1-Bromo-4-Fluorobenzene	10	10.26	103		65	135
D3016-02	A-1	1-Bromo-4-Fluorobenzene	10	10.66	107		65	135
D3016-02DL	A-1DL	1-Bromo-4-Fluorobenzene	10	10.04	100		65	135
D3016-03	A-2	1-Bromo-4-Fluorobenzene	10	10.37	104		65	135
D3016-03DL	A-2DL	1-Bromo-4-Fluorobenzene	10	10.05	101		65	135
D3016-04	A-3	1-Bromo-4-Fluorobenzene	10	10.39	104		65	135
D3016-04DL	A-3DL	1-Bromo-4-Fluorobenzene	10	10.2	102		65	135
D3016-05	VP-5	1-Bromo-4-Fluorobenzene	10	10.74	107		65	135
D3016-05DL	VP-5DL	1-Bromo-4-Fluorobenzene	10	10.33	103		65	135
VBL0608A	VBL0608A	1-Bromo-4-Fluorobenzene	10	10.04	100		65	135
VBL0611A	VBL0611A	1-Bromo-4-Fluorobenzene	10	10.14	101		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: D3016 SAS No : D3016 SDG No: D3016  
 Matrix Spike - EPA Sample No : BSL0608A Analytical Method: EPA SW846 TO-15 Datafile : VL017266.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS QC % LIMITS REC# REC
Dichlorodifluoromethane	10.0		7.21	72 (70-130)
tert-Butyl alcohol	10.0		10.5	105 (70-130)
Chloromethane	10.0		10.4	104 (70-130)
Methyl Methacrylate	10.0		11.7	117 (70-130)
Vinyl Chloride	10.0		10.8	108 (70-130)
Bromomethane	10.0		10.3	103 (70-130)
Chloroethane	10.0		10.7	107 (70-130)
Trichlorofluoromethane	10.0		10.7	107 (70-130)
Dichlorotetrafluoroethane	10.0		10.2	102 (70-130)
1,1,2-Trichlorotrifluoroethane	10.0		10.6	106 (70-130)
Bromoethene	10.0		10.4	104 (70-130)
Heptane	10.0		10.7	107 (70-130)
1,1-Dichloroethene	10.0		10.4	104 (70-130)
Acetone	10.0		7.92	79 (70-130)
Carbon Disulfide	10.0		10.4	104 (70-130)
Methyl tert-Butyl Ether	10.0		10.8	108 (70-130)
Methylene Chloride	10.0		10.3	103 (70-130)
Allyl Chloride	10.0		10.8	108 (70-130)
trans-1,2-Dichloroethene	10.0		10.8	108 (70-130)
1,1-Dichloroethane	10.0		11.3	113 (70-130)
Cyclohexane	10.0		10.3	103 (70-130)
2-Butanone	10.0		12.2	122 (70-130)
Carbon Tetrachloride	10.0		11.8	118 (70-130)
cis-1,2-Dichloroethene	10.0		10.8	108 (70-130)
Chloroform	10.0		10.7	107 (70-130)
1,4-Dioxane	10.0		11.0	110 (70-130)
1,1,1-Trichloroethane	10.0		10.5	105 (70-130)
Tetrahydrofuran	10.0		12.2	122 (70-130)
2,2,4-Trimethylpentane	10.0		11.6	116 (70-130)
Benzene	10.0		11.2	112 (70-130)
1,2-Dichloroethane	10.0		11.7	117 (70-130)
Trichloroethene	10.0		11.4	114 (70-130)
1,2-Dichloropropane	10.0		11.4	114 (70-130)
Bromodichloromethane	10.0		11.4	114 (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: **D3016** SAS No : **D3016** SDG No: **D3016**  
 Matrix Spike - EPA Sample No : **BSL0608A** Analytical Method: **EPA SW846 TO-15** Datafile : **VL017266.D**

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS QC % LIMITS REC# REC
4-Methyl-2-Pentanone	10.0		11.8	118 (70-130)
Toluene	10.0		10.9	109 (70-130)
t-1,3-Dichloropropene	10.0		11.5	115 (70-130)
cis-1,3-Dichloropropene	10.0		11.5	115 (70-130)
1,1,2-Trichloroethane	10.0		11.3	113 (70-130)
Dibromochloromethane	10.0		11.7	117 (70-130)
1,2-Dibromoethane	10.0		11.3	113 (70-130)
Tetrachloroethene	10.0		11.3	113 (70-130)
Chlorobenzene	10.0		11.1	111 (70-130)
Ethyl Benzene	10.0		10.8	108 (70-130)
m/p-Xylene	20.0		22.3	112 (70-130)
o-Xylene	10.0		11.2	112 (70-130)
Styrene	10.0		11.3	113 (70-130)
Bromoform	10.0		11.9	119 (70-130)
1,1,2,2-Tetrachloroethane	10.0		11.7	117 (70-130)
2-Chlorotoluene	10.0		11.0	110 (70-130)
1,3,5-Trimethylbenzene	10.0		11.3	113 (70-130)
1,2,4-Trimethylbenzene	10.0		11.4	114 (70-130)
4-Ethyltoluene	10.0		11.2	112 (70-130)
1,3-Dichlorobenzene	10.0		11.6	116 (70-130)
1,4-Dichlorobenzene	10.0		11.4	114 (70-130)
1,2-Dichlorobenzene	10.0		11.4	114 (70-130)
1,2,4-Trichlorobenzene	10.0		11.1	111 (70-130)
Hexachloro-1,3-Butadiene	10.0		10.5	105 (70-130)
1,3-Butadiene	10.0		10.7	107 (70-130)
Hexane	10.0		11.0	110 (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: \_\_\_\_\_

## 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: D3016 SAS No : D3016 SDG No: D3016  
 Matrix Spike - EPA Sample No : BSL0611A Analytical Method: EPA SW846 TO-15 Datafile : VL017290.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC#	QC LIMITS REC#
Dichlorodifluoromethane	10.0		7.63	76	(70-130)
tert-Butyl alcohol	10.0		9.28	93	(70-130)
Chloromethane	10.0		9.28	93	(70-130)
Methyl Methacrylate	10.0		10.8	108	(70-130)
Vinyl Chloride	10.0		9.87	99	(70-130)
Bromomethane	10.0		9.34	93	(70-130)
Chloroethane	10.0		9.34	93	(70-130)
Trichlorofluoromethane	10.0		8.59	86	(70-130)
Dichlorotetrafluoroethane	10.0		9.00	90	(70-130)
1,1,2-Trichlorotrifluoroethane	10.0		8.62	86	(70-130)
Bromoethene	10.0		9.07	91	(70-130)
Heptane	10.0		9.69	97	(70-130)
1,1-Dichloroethene	10.0		8.89	89	(70-130)
Acetone	10.0		6.84	68*	(70-130)
Carbon Disulfide	10.0		8.38	84	(70-130)
Methyl tert-Butyl Ether	10.0		9.71	97	(70-130)
Methylene Chloride	10.0		8.11	81	(70-130)
Allyl Chloride	10.0		8.76	88	(70-130)
trans-1,2-Dichloroethene	10.0		10.1	101	(70-130)
1,1-Dichloroethane	10.0		10.2	102	(70-130)
Cyclohexane	10.0		9.82	98	(70-130)
2-Butanone	10.0		9.93	99	(70-130)
Carbon Tetrachloride	10.0		8.51	85	(70-130)
cis-1,2-Dichloroethene	10.0		9.76	98	(70-130)
Chloroform	10.0		9.48	95	(70-130)
1,4-Dioxane	10.0		9.62	96	(70-130)
1,1,1-Trichloroethane	10.0		8.99	90	(70-130)
Tetrahydrofuran	10.0		10.1	101	(70-130)
2,2,4-Trimethylpentane	10.0		9.64	96	(70-130)
Benzene	10.0		9.74	97	(70-130)
1,2-Dichloroethane	10.0		8.88	89	(70-130)
Trichloroethene	10.0		9.76	98	(70-130)
1,2-Dichloropropane	10.0		9.84	98	(70-130)
Bromodichloromethane	10.0		9.11	91	(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: D3016 SAS No : D3016 SDG No: D3016  
 Matrix Spike - EPA Sample No : BSL0611A Analytical Method: EPA SW846 TO-15 Datafile : VL017290.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS QC % LIMITS REC# REC
4-Methyl-2-Pentanone	10.0		9.60	96 (70-130)
Toluene	10.0		9.36	94 (70-130)
t-1,3-Dichloropropene	10.0		9.39	94 (70-130)
cis-1,3-Dichloropropene	10.0		9.55	96 (70-130)
1,1,2-Trichloroethane	10.0		9.54	95 (70-130)
Dibromochloromethane	10.0		9.28	93 (70-130)
1,2-Dibromoethane	10.0		9.63	96 (70-130)
Tetrachloroethene	10.0		9.45	95 (70-130)
Chlorobenzene	10.0		9.30	93 (70-130)
Ethyl Benzene	10.0		9.00	90 (70-130)
m/p-Xylene	20.0		17.9	90 (70-130)
o-Xylene	10.0		8.81	88 (70-130)
Styrene	10.0		9.44	94 (70-130)
Bromoform	10.0		9.13	91 (70-130)
1,1,2,2-Tetrachloroethane	10.0		9.18	92 (70-130)
2-Chlorotoluene	10.0		9.71	97 (70-130)
1,3,5-Trimethylbenzene	10.0		8.93	89 (70-130)
1,2,4-Trimethylbenzene	10.0		8.84	88 (70-130)
4-Ethyltoluene	10.0		9.14	91 (70-130)
1,3-Dichlorobenzene	10.0		9.01	90 (70-130)
1,4-Dichlorobenzene	10.0		9.10	91 (70-130)
1,2-Dichlorobenzene	10.0		9.02	90 (70-130)
1,2,4-Trichlorobenzene	10.0		7.92	79 (70-130)
Hexachloro-1,3-Butadiene	10.0		7.57	76 (70-130)
1,3-Butadiene	10.0		9.23	92 (70-130)
Hexane	10.0		9.89	99 (70-130)

RPD : 0 Out of 60 outside limits

Spike Recovery : 1 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.

VBL0608A

Lab Name: CHEMTECHContract: JRHO01Lab Code: CHEM Case No.: D3016SAS No.: D3016 SDG NO.: D3016Lab File ID: VL017265.DLab Sample ID: VBL0608ADate Analyzed: 06/08/2012Time Analyzed: 12:07GC Column: RTX-1 ID: 0.32 (mm)Heated Purge: (Y/N) NInstrument 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
BSL0608A	BSL0608A	VL017266.D	06/08/2012
A-1	D3016-02	VL017275.D	06/08/2012
A-1DL	D3016-02DL	VL017276.D	06/08/2012
A-3	D3016-04	VL017277.D	06/08/2012
A-2	D3016-03	VL017279.D	06/08/2012
A-2DL	D3016-03DL	VL017280.D	06/08/2012
VP-4	D3016-01	VL017281.D	06/09/2012
VP-4DL	D3016-01DL	VL017282.D	06/09/2012
VP-5	D3016-05	VL017285.D	06/09/2012

COMMENTS:

## VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBL0611A

Lab Name: CHEMTECHContract: JRHO01Lab Code: CHEMCase No.: D3016SAS No.: D3016 SDG NO.: D3016Lab File ID: VL017289.DLab Sample ID: VBL0611ADate Analyzed: 06/11/2012Time Analyzed: 14:05GC Column: RTX-1 ID: 0.32 (mm)Heated Purge: (Y/N) NInstrument 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
BSL0611A	BSL0611A	VL017290.D	06/11/2012
A-3DL	D3016-04DL	VL017291.D	06/11/2012
VP-4DL2	D3016-01DL2	VL017292.D	06/11/2012
VP-5DL	D3016-05DL	VL017294.D	06/11/2012

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: JRH001  
Lab Code: CHEM Case No.: D3016 SAS No.: D3016 SDG NO.: D3016  
Lab File ID: VL017172.D BFB Injection Date: 06/04/2012  
Instrument ID: MSVOA\_L BFB Injection Time: 11:41  
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	24.1
75	30.0 - 66.0% of mass 95	61.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	50.0 - 120.0% of mass 95	63.8
175	4.0 - 9.0% of mass 174	4.7 ( 7.4 ) 1
176	93.0 - 101.0% of mass 174	61.6 ( 96.6 ) 1
177	5.0 - 9.0% of mass 176	4 ( 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 PPBV ICC	10 PPBV ICC	VL017173.D	06/04/2012	12:21
2 PPBV ICC	2 PPBV ICC	VL017174.D	06/04/2012	13:02
1 PPBV ICC	1 PPBV ICC	VL017175.D	06/04/2012	13:41
15 PPBV ICC	15 PPBV ICC	VL017176.D	06/04/2012	14:23
0.5 PPBV ICC	0.5 PPBV ICC	VL017177.D	06/04/2012	15:01
0.1 PPBV RPT	0.1 PPBV RPT	VL017181.D	06/04/2012	18:41
0.03 PPBV RPT	0.03 PPBV RPT	VL017182.D	06/04/2012	19:20

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name:	CHEMTECH	Contract:	JRH001
Lab Code:	CHEM	Case No.:	D3016
Lab File ID:	VL017263.D	SAS No.:	D3016
Instrument ID:	MSVOA_L	BFB Injection Date:	06/08/2012
GC Column:	RTX-1 ID: 0.32 (mm)	BFB Injection Time:	10:26
		Heated Purge:	Y/N
			N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.8
75	30.0 - 66.0% of mass 95	58.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	50.0 - 120.0% of mass 95	66.8
175	4.0 - 9.0% of mass 174	5 ( 7.4 ) 1
176	93.0 - 101.0% of mass 174	64.7 ( 96.8 ) 1
177	5.0 - 9.0% of mass 176	4.2 ( 6.4 ) 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 PPBV CCC	10 PPBV CCC	VL017264.D	06/08/2012	11:08
VBL0608A	VBL0608A	VL017265.D	06/08/2012	12:07
BSL0608A	BSL0608A	VL017266.D	06/08/2012	12:46
A-1	D3016-02	VL017275.D	06/08/2012	20:26
A-1DL	D3016-02DL	VL017276.D	06/08/2012	21:07
A-3	D3016-04	VL017277.D	06/08/2012	21:48
A-2	D3016-03	VL017279.D	06/08/2012	23:13
A-2DL	D3016-03DL	VL017280.D	06/08/2012	23:53
VP-4	D3016-01	VL017281.D	06/09/2012	00:35
VP-4DL	D3016-01DL	VL017282.D	06/09/2012	01:16
VP-5	D3016-05	VL017285.D	06/09/2012	03:18

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: JRH001  
Lab Code: CHEM Case No.: D3016 SAS No.: D3016 SDG NO.: D3016  
Lab File ID: VL017287.D BFB Injection Date: 06/11/2012  
Instrument ID: MSVOA\_L BFB Injection Time: 11:35  
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	21.5
75	30.0 - 66.0% of mass 95	55.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	50.0 - 120.0% of mass 95	66.7
175	4.0 - 9.0% of mass 174	5 ( 7.6 ) 1
176	93.0 - 101.0% of mass 174	64.3 ( 96.4 ) 1
177	5.0 - 9.0% of mass 176	4.2 ( 6.6 ) 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 PPBV CCC	10 PPBV CCC	VL017288.D	06/11/2012	12:16
VBL0611A	VBL0611A	VL017289.D	06/11/2012	14:05
BSL0611A	BSL0611A	VL017290.D	06/11/2012	14:44
A-3DL	D3016-04DL	VL017291.D	06/11/2012	16:01
VP-4DL2	D3016-01DL2	VL017292.D	06/11/2012	16:42
VP-5DL	D3016-05DL	VL017294.D	06/11/2012	18:03



QC  
SAMPLE  
DATA

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 12-01 Date Received:  
 Client Sample ID: VBL0608A SDG No.: D3016  
 Lab Sample ID: VBL0608A 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
VL017265.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.04	0.2	U	0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.06	0.12	U	0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.07	0.18	U	0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.04	0.22	U	0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.06	0.25	U	0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	0.1	0.24	U	0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.05	0.17	U	0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.08	0.28	U	0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.1	0.29	U	0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.04	0.19	U	0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.04	0.13	U	0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	0.05	0.19	U	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 12-01 Date Received:  
 Client Sample ID: VBL0608A SDG No.: D3016  
 Lab Sample ID: VBL0608A 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
VL017265.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.03	0.2	U	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.08	0.35	U	0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.11	0.48	U	0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.07	0.3	U	0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.07	0.3	U	0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.04	0.14	U	0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10	65 - 135	100%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	992793	6.37
540-36-3	1,4-Difluorobenzene	2352040	7.93
3114-55-4	Chlorobenzene-d5	1961830	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 12-01	Date Received:	
Client Sample ID:	VBL0608A	SDG No.:	D3016
Lab Sample ID:	VBL0608A	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
VL017265.D	1		06/08/12	VL060812

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 12-01 Date Received:  
 Client Sample ID: VBL0611A SDG No.: D3016  
 Lab Sample ID: VBL0611A 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
VL017289.D	1		06/11/12	vl061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	0.04	0.2	U	0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.06	0.12	U	0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.07	0.18	U	0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.04	0.22	U	0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.06	0.25	U	0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	0.1	0.24	U	0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.05	0.17	U	0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.08	0.28	U	0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.1	0.29	U	0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.04	0.19	U	0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.04	0.13	U	0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	0.05	0.19	U	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 12-01 Date Received:  
 Client Sample ID: VBL0611A SDG No.: D3016  
 Lab Sample ID: VBL0611A 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
VL017289.D	1		06/11/12	vl061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.03	0.2	U	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.08	0.35	U	0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.11	0.48	U	0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.07	0.3	U	0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.07	0.3	U	0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.04	0.14	U	0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	10.1	65 - 135	101%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	1100300	6.37
540-36-3	1,4-Difluorobenzene	2840160	7.93
3114-55-4	Chlorobenzene-d5	2432100	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 12-01	Date Received:	
Client Sample ID:	VBL0611A	SDG No.:	D3016
Lab Sample ID:	VBL0611A	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
VL017289.D	1		06/11/12	vl061112

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 12-01 Date Received:  
 Client Sample ID: BSL0608A SDG No.: D3016  
 Lab Sample ID: BSL0608A 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
VL017266.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	7.21	35.6		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	10.5	31.8		0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	10.4	21.5		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	11.7	47.9		0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	10.8	27.6		0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	10.3	40		0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	10.7	28.2		0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	10.7	60.1		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	10.2	71.3		0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	10.6	81.2		0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	10.4	45.5		0.03	0.05	0.1	ppbv
142-82-5	Heptane	10.7	43.8		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	10.4	41.2		0.05	0.05	0.1	ppbv
67-64-1	Acetone	7.92	18.8		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	10.4	32.4		0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	10.8	38.9		0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	10.3	35.8		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	10.8	33.8		0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	10.8	42.8		0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	11.3	45.7		0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	10.3	35.4		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	12.2	36.0		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	11.8	74.2		0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	10.8	42.8		0.06	0.05	0.1	ppbv
67-66-3	Chloroform	10.7	52.2		0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	11	39.6		0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	10.5	57.3		0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	12.2	36.0		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	11.6	54.2		0.04	0.05	0.1	ppbv
71-43-2	Benzene	11.2	35.8		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	11.7	47.4		0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	11.4	61.3		0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	11.4	52.7		0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	11.4	76.4		0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	11.8	48.4		0.06	0.05	0.1	ppbv
108-88-3	Toluene	10.9	41.1		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	11.5	52.2		0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	11.5	52.2		0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 12-01 Date Received:  
 Client Sample ID: BSL0608A SDG No.: D3016  
 Lab Sample ID: BSL0608A 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
VL017266.D	1		06/08/12	VL060812

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	11.3	61.6		0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	11.7	99.7		0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	11.3	86.8		0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	11.3	76.6		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	11.1	51.1		0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	10.8	46.9		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	22.3	96.9		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	11.2	48.6		0.07	0.05	0.1	ppbv
100-42-5	Styrene	11.3	48.1		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	11.9	123		0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	11.7	80.3		0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	11	57.0		0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	11.3	55.6		0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	11.4	56.0		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	11.2	55.1		0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	11.6	69.7		0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	11.4	68.5		0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	11.4	68.5		0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	11.1	82.4		0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	10.5	112		0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	10.7	23.7		0.09	0.05	0.1	ppbv
110-54-3	Hexane	11	38.8		0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	9.47	65 - 135	95%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	901642	6.38
540-36-3	1,4-Difluorobenzene	2095670	7.94
3114-55-4	Chlorobenzene-d5	1941710	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 12-01	Date Received:	
Client Sample ID:	BSL0608A	SDG No.:	D3016
Lab Sample ID:	BSL0608A	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
VL017266.D	1		06/08/12	VL060812

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 12-01 Date Received:  
 Client Sample ID: BSL0611A SDG No.: D3016  
 Lab Sample ID: BSL0611A 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
VL017290.D	1		06/11/12	vl061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>								
75-71-8	Dichlorodifluoromethane	7.63	37.7		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	9.28	28.1		0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	9.28	19.2		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	10.8	44.2		0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	9.87	25.2		0.07	0.07	0.07	ppbv
74-83-9	Bromomethane	9.34	36.3		0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	9.34	24.6		0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	8.59	48.3		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	9	62.9		0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	8.62	66.1		0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	9.07	39.7		0.03	0.05	0.1	ppbv
142-82-5	Heptane	9.69	39.7		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	8.89	35.2		0.05	0.05	0.1	ppbv
67-64-1	Acetone	6.84	16.2		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	8.38	26.1		0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	9.71	35.0		0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	8.11	28.2		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	8.76	27.4		0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	10.1	40.0		0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	10.2	41.3		0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	9.82	33.8		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	9.93	29.3		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	8.51	53.5		0.03	0.02	0.04	ppbv
156-59-2	cis-1,2-Dichloroethene	9.76	38.7		0.06	0.05	0.1	ppbv
67-66-3	Chloroform	9.48	46.3		0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	9.62	34.7		0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	8.99	49.0		0.03	0.02	0.04	ppbv
109-99-9	Tetrahydrofuran	10.1	29.8		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	9.64	45.0		0.04	0.05	0.1	ppbv
71-43-2	Benzene	9.74	31.1		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	8.88	35.9		0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	9.76	52.4		0.03	0.02	0.04	ppbv
78-87-5	1,2-Dichloropropane	9.84	45.5		0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	9.11	61.0		0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	9.6	39.3		0.06	0.05	0.1	ppbv
108-88-3	Toluene	9.36	35.3		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	9.39	42.6		0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	9.55	43.4		0.06	0.05	0.1	ppbv

**Report of Analysis**

Client: J.R.Holzmacher P.E., LLC Date Collected:  
 Project: KoptD 12-01 Date Received:  
 Client Sample ID: BSL0611A SDG No.: D3016  
 Lab Sample ID: BSL0611A 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
VL017290.D	1		06/11/12	vl061112

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	9.54	52.0		0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	9.28	79.1		0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	9.63	74.0		0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	9.45	64.1		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	9.3	42.8		0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	9	39.1		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	17.9	77.8		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	8.81	38.3		0.07	0.05	0.1	ppbv
100-42-5	Styrene	9.44	40.2		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	9.13	94.4		0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	9.18	63.0		0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	9.71	50.3		0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	8.93	43.9		0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	8.84	43.5		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	9.14	44.9		0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	9.01	54.2		0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	9.1	54.7		0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	9.02	54.2		0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	7.92	58.8		0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	7.57	80.8		0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	9.23	20.4		0.09	0.05	0.1	ppbv
110-54-3	Hexane	9.89	34.9		0.04	0.05	0.1	ppbv

**SURROGATES**

460-00-4	1-Bromo-4-Fluorobenzene	9.61	65 - 135	96%	SPK: 10
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**INTERNAL STANDARDS**

74-97-5	Bromochloromethane	1048300	6.37
540-36-3	1,4-Difluorobenzene	2699180	7.94
3114-55-4	Chlorobenzene-d5	2539030	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 12-01	Date Received:	
Client Sample ID:	BSL0611A	SDG No.:	D3016
Lab Sample ID:	BSL0611A	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
VL017290.D	1		06/11/12	vl061112

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  
 Lab Code: CHEM Case No.: D3016  
 Instrument ID: MSVOA\_L  
 Heated Purge: (Y/N) N  
 GC Column: RTX-1 ID: 0.32 (mm)

Contract: JRH001  
 SAS No.: D3016 SDG No.: D3016  
 Calibration Date(s): 06/04/2012 06/04/2012  
 Calibration Time(s): 12:21 15:01

LAB FILE ID:	RRF0.50 = VL017177.D	RRF001 = VL017175.D	RRF002 = VL017174.D	RRF010 = VL017173.D	RRF015 = VL017176.D	RRF =	RRF	% RSD
COMPOUND	RRF0.50	RRF001	RRF002	RRF010	RRF015	RRF	RRF	% RSD
Dichlorodifluoromethane	3.523	3.363	3.192	3.035	2.428		3.108	13.6
tert-Butyl alcohol	2.478	2.480	2.269	2.394	2.073		2.339	7.3
Chloromethane	1.338	1.315	1.321	1.316	1.215		1.301	3.8
Methyl Methacrylate	0.446	0.455	0.458	0.495	0.500		0.471	5.3
Vinyl Chloride	1.041	1.010	1.064	1.098	1.022		1.047	3.4
Bromomethane	0.741	0.728	0.757	0.743	0.703		0.734	2.8
Chloroethane	0.477	0.471	0.469	0.470	0.442		0.466	2.9
Trichlorofluoromethane	3.310	3.342	3.379	3.306	3.104		3.288	3.3
Dichlorotetrafluoroethane	2.821	2.867	2.945	2.965	2.736		2.867	3.3
1,1,2-Trichlorotrifluoroethane	2.196	2.276	2.283	2.275	2.201		2.246	2
Bromoethene	0.852	0.877	0.866	0.890	0.848		0.866	2
Heptane	1.942	1.970	2.001	2.034	1.952		1.98	1.9
1,1-Dichloroethene	0.980	0.999	1.013	1.023	0.973		0.998	2.1
Acetone	3.105	3.005	2.939	1.873	1.791		2.543	25.6
Carbon Disulfide	3.076	3.114	3.137	3.057	2.964		3.07	2.2
Methyl tert-Butyl Ether	3.663	3.759	3.735	3.749	3.674		3.716	1.2
Methylene Chloride	1.199	1.131	1.070	1.006	0.973		1.076	8.5
Allyl Chloride	1.364	1.386	1.414	1.398	1.358		1.384	1.7
trans-1,2-Dichloroethene	0.927	0.923	0.915	0.905	0.926		0.919	1
1,1-Dichloroethane	2.075	2.169	2.128	2.089	2.098		2.112	1.8
Cyclohexane	1.338	1.383	1.415	1.418	1.385		1.388	2.3
2-Butanone	0.886	0.846	0.835	0.802	0.849		0.844	3.6
Carbon Tetrachloride	0.991	1.002	1.037	1.073	1.055		1.032	3.3
cis-1,2-Dichloroethene	1.613	1.587	1.575	1.579	1.566		1.584	1.1
Chloroform	2.607	2.661	2.662	2.657	2.562		2.63	1.7
1,4-Dioxane	0.131	0.113	0.089	0.110	0.075		0.104	20.8
1,1,1-Trichloroethane	2.703	2.781	2.838	2.864	2.728		2.783	2.5
Tetrahydrofuran	0.477	0.443	0.441	0.451	0.465		0.455	3.3
2,2,4-Trimethylpentane	2.033	1.941	1.961	2.084	2.092		2.022	3.4
Benzene	1.277	1.215	1.243	1.267	1.288		1.258	2.3
1,2-Dichloroethane	0.934	0.878	0.882	0.913	0.915		0.904	2.6
Trichloroethene	0.440	0.452	0.454	0.483	0.497		0.465	5.1
1,2-Dichloropropane	0.444	0.431	0.427	0.447	0.449		0.44	2.2

\* 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  
 Lab Code: CHEM Case No.: D3016  
 Instrument ID: MSVOA\_L  
 Heated Purge: (Y/N) N  
 GC Column: RTX-1 ID: 0.32 (mm)

Contract: JRH001  
 SAS No.: D3016 SDG No.: D3016  
 Calibration Date(s): 06/04/2012 06/04/2012  
 Calibration Time(s): 12:21 15:01

LAB FILE ID:	RRF0.50 = VL017177.D	RRF001 = VL017175.D	RRF002 = VL017174.D	RRF010 = VL017173.D	RRF015 = VL017176.D	RRF =		
COMPOUND	RRF0.50	RRF001	RRF002	RRF010	RRF015	RRF	RRF	% RSD
Bromodichloromethane	1.099	1.091	1.111	1.188	1.172		1.132	4
4-Methyl-2-Pentanone	1.053	0.994	1.011	1.062	1.064		1.037	3.1
Toluene	1.535	1.494	1.531	1.603	1.608		1.554	3.2
t-1,3-Dichloropropene	0.759	0.775	0.804	0.851	0.855		0.809	5.4
cis-1,3-Dichloropropene	0.835	0.841	0.862	0.910	0.915		0.873	4.3
1,1,2-Trichloroethane	0.490	0.482	0.495	0.521	0.531		0.504	4.2
Dibromochloromethane	0.760	0.774	0.814	0.879	0.880		0.821	6.9
1,2-Dibromoethane	0.749	0.737	0.759	0.812	0.817		0.775	4.8
Tetrachloroethene	0.471	0.472	0.486	0.513	0.519		0.492	4.5
Chlorobenzene	1.290	1.229	1.183	1.239	1.306		1.249	3.9
Ethyl Benzene	2.433	2.335	2.250	2.331	2.380		2.346	2.9
m/p-Xylene	2.045	2.016	1.938	2.045	2.093		2.027	2.8
o-Xylene	2.039	1.977	1.915	2.021	2.095		2.009	3.4
Styrene	1.166	1.162	1.141	1.223	1.271		1.193	4.5
Bromoform	0.641	0.679	0.727	0.805	0.811		0.733	10.3
1,1,2,2-Tetrachloroethane	1.203	1.169	1.124	1.227	1.292		1.203	5.3
2-Chlorotoluene	1.871	1.790	1.752	1.823	1.862		1.82	2.7
1,3,5-Trimethylbenzene	2.057	2.010	1.960	2.093	2.156		2.055	3.7
1,2,4-Trimethylbenzene	2.088	2.048	1.999	2.139	2.225		2.1	4.1
4-Ethyltoluene	2.032	1.999	1.976	2.058	2.129		2.039	2.9
1,3-Dichlorobenzene	1.171	1.133	1.104	1.128	1.202		1.148	3.4
1,4-Dichlorobenzene	1.206	1.169	1.134	1.144	1.215		1.173	3.1
1,2-Dichlorobenzene	1.166	1.135	1.087	1.119	1.181		1.137	3.3
1,2,4-Trichlorobenzene	1.072	1.017	1.010	1.003	1.055		1.031	2.9
Hexachloro-1,3-Butadiene	0.998	0.941	0.921	0.914	0.918		0.938	3.7
1,3-Butadiene	0.877	0.917	0.884	0.915	0.866		0.892	2.6
Hexane	1.642	1.623	1.672	1.658	1.651		1.649	1.1
1-Bromo-4-Fluorobenzene	0.920	0.906	0.870	0.848	0.857		0.88	3.6

\* 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.: D3016 SAS No.: D3016 SDG No.: D3016  
 Instrument ID: MSVOA\_L Calibration Date/Time: 06/08/2012 11:08  
 Lab File ID: VL017264.D Init. Calib. Date(s): 06/04/2012 06/04/2012  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 12:21 15:01  
 GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	3.108	2.184		-29.73	30
tert-Butyl alcohol	2.339	2.224		-4.92	30
Chloromethane	1.301	1.290		-0.85	30
Methyl Methacrylate	0.471	0.518		9.98	30
Vinyl Chloride	1.047	1.102		5.25	30
Bromomethane	0.734	0.734		0	30
Chloroethane	0.466	0.480		3	30
Trichlorofluoromethane	3.288	3.271		-0.52	30
Dichlorotetrafluoroethane	2.867	2.812		-1.92	30
1,1,2-Trichlorotrifluoroethane	2.246	2.252		0.27	30
Bromoethene	0.866	0.867		0.12	30
Heptane	1.98	2.019		1.97	30
1,1-Dichloroethene	0.998	0.997		-0.1	30
Acetone	2.543	1.916		-24.66	30
Carbon Disulfide	3.07	3.055		-0.49	30
Methyl tert-Butyl Ether	3.716	3.851		3.63	30
Methylene Chloride	1.076	1.024		-4.83	30
Allyl Chloride	1.384	1.425		2.96	30
trans-1,2-Dichloroethene	0.919	0.963		4.79	30
1,1-Dichloroethane	2.112	2.290		8.43	30
Cyclohexane	1.388	1.384		-0.29	30
2-Butanone	0.844	0.949		12.44	30
Carbon Tetrachloride	1.032	1.111		7.66	30
cis-1,2-Dichloroethene	1.584	1.640		3.54	30
Chloroform	2.63	2.690		2.28	30
1,4-Dioxane	0.104	0.093		-10.58	30
1,1,1-Trichloroethane	2.783	2.764		-0.68	30
Tetrahydrofuran	0.455	0.513		12.75	30
2,2,4-Trimethylpentane	2.022	2.178		7.72	30
Benzene	1.258	1.331		5.8	30
1,2-Dichloroethane	0.904	0.963		6.53	30
Trichloroethene	0.465	0.497		6.88	30
1,2-Dichloropropane	0.44	0.471		7.05	30
Bromodichloromethane	1.132	1.191		5.21	30
4-Methyl-2-Pentanone	1.037	1.108		6.85	30
Toluene	1.554	1.590		2.32	30
t-1,3-Dichloropropene	0.809	0.854		5.56	30
cis-1,3-Dichloropropene	0.873	0.927		6.19	30
1,1,2-Trichloroethane	0.504	0.528		4.76	30
Dibromochloromethane	0.821	0.884		7.67	30
1,2-Dibromoethane	0.775	0.813		4.9	30
Tetrachloroethene	0.492	0.509		3.46	30

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JRH001  
Lab Code: CHEM Case No.: D3016 SAS No.: D3016 SDG No.: D3016  
Instrument ID: MSVOA\_L Calibration Date/Time: 06/08/2012 11:08  
Lab File ID: VL017264.D Init. Calib. Date(s): 06/04/2012 06/04/2012  
Heated Purge: (Y/N) N Init. Calib. Time(s): 12:21 15:01  
GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Chlorobenzene	1.249	1.299		4	30
Ethyl Benzene	2.346	2.367		0.9	30
m/p-Xylene	2.027	2.089		3.06	30
o-Xylene	2.009	2.062		2.64	30
Styrene	1.193	1.244		4.27	30
Bromoform	0.733	0.798		8.87	30
1,1,2,2-Tetrachloroethane	1.203	1.289		7.15	30
2-Chlorotoluene	1.82	1.824		0.22	30
1,3,5-Trimethylbenzene	2.055	2.125		3.41	30
1,2,4-Trimethylbenzene	2.1	2.167		3.19	30
4-Ethyltoluene	2.039	2.081		2.06	30
1,3-Dichlorobenzene	1.148	1.215		5.84	30
1,4-Dichlorobenzene	1.173	1.231		4.94	30
1,2-Dichlorobenzene	1.137	1.187		4.4	30
1,2,4-Trichlorobenzene	1.031	1.039		0.78	30
Hexachloro-1,3-Butadiene	0.938	0.893		-4.8	30
1,3-Butadiene	0.892	0.916		2.69	30
Hexane	1.649	1.744		5.76	30
1-Bromo-4-Fluorobenzene	0.88	0.832		-5.45	30

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.: D3016 SAS No.: D3016 SDG No.: D3016  
 Instrument ID: MSVOA\_L Calibration Date/Time: 06/11/2012 12:16  
 Lab File ID: VL017288.D Init. Calib. Date(s): 06/04/2012 06/04/2012  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 12:21 15:01  
 GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	3.108	1.770		-43.05	30
tert-Butyl alcohol	2.339	2.078		-11.16	30
Chloromethane	1.301	1.234		-5.15	30
Methyl Methacrylate	0.471	0.484		2.76	30
Vinyl Chloride	1.047	1.074		2.58	30
Bromomethane	0.734	0.712		-3	30
Chloroethane	0.466	0.471		1.07	30
Trichlorofluoromethane	3.288	2.870		-12.71	30
Dichlorotetrafluoroethane	2.867	2.591		-9.63	30
1,1,2-Trichlorotrifluoroethane	2.246	2.067		-7.97	30
Bromoethene	0.866	0.825		-4.73	30
Heptane	1.98	1.957		-1.16	30
1,1-Dichloroethene	0.998	0.953		-4.51	30
Acetone	2.543	1.785		-29.81	30
Carbon Disulfide	3.07	2.905		-5.37	30
Methyl tert-Butyl Ether	3.716	3.726		0.27	30
Methylene Chloride	1.076	0.976		-9.29	30
Allyl Chloride	1.384	1.341		-3.11	30
trans-1,2-Dichloroethene	0.919	0.988		7.51	30
1,1-Dichloroethane	2.112	2.238		5.97	30
Cyclohexane	1.388	1.428		2.88	30
2-Butanone	0.844	0.861		2.01	30
Carbon Tetrachloride	1.032	0.886		-14.15	30
cis-1,2-Dichloroethene	1.584	1.599		0.95	30
Chloroform	2.63	2.522		-4.11	30
1,4-Dioxane	0.104	0.086		-17.31	30
1,1,1-Trichloroethane	2.783	2.485		-10.71	30
Tetrahydrofuran	0.455	0.476		4.62	30
2,2,4-Trimethylpentane	2.022	2.005		-0.84	30
Benzene	1.258	1.273		1.19	30
1,2-Dichloroethane	0.904	0.800		-11.5	30
Trichloroethene	0.465	0.458		-1.51	30
1,2-Dichloropropane	0.44	0.448		1.82	30
Bromodichloromethane	1.132	1.037		-8.39	30
4-Methyl-2-Pentanone	1.037	0.990		-4.53	30
Toluene	1.554	1.485		-4.44	30
t-1,3-Dichloropropene	0.809	0.753		-6.92	30
cis-1,3-Dichloropropene	0.873	0.845		-3.21	30
1,1,2-Trichloroethane	0.504	0.493		-2.18	30
Dibromochloromethane	0.821	0.763		-7.06	30
1,2-Dibromoethane	0.775	0.752		-2.97	30
Tetrachloroethene	0.492	0.470		-4.47	30

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JRH001  
Lab Code: CHEM Case No.: D3016 SAS No.: D3016 SDG No.: D3016  
Instrument ID: MSVOA\_L Calibration Date/Time: 06/11/2012 12:16  
Lab File ID: VL017288.D Init. Calib. Date(s): 06/04/2012 06/04/2012  
Heated Purge: (Y/N) N Init. Calib. Time(s): 12:21 15:01  
GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Chlorobenzene	1.249	1.176		-5.84	30
Ethyl Benzene	2.346	2.145		-8.57	30
m/p-Xylene	2.027	1.746		-13.86	30
o-Xylene	2.009	1.791		-10.85	30
Styrene	1.193	1.156		-3.1	30
Bromoform	0.733	0.676		-7.78	30
1,1,2,2-Tetrachloroethane	1.203	1.143		-4.99	30
2-Chlorotoluene	1.82	1.632		-10.33	30
1,3,5-Trimethylbenzene	2.055	1.862		-9.39	30
1,2,4-Trimethylbenzene	2.1	1.872		-10.86	30
4-Ethyltoluene	2.039	1.875		-8.04	30
1,3-Dichlorobenzene	1.148	1.039		-9.49	30
1,4-Dichlorobenzene	1.173	1.059		-9.72	30
1,2-Dichlorobenzene	1.137	1.036		-8.88	30
1,2,4-Trichlorobenzene	1.031	0.890		-13.68	30
Hexachloro-1,3-Butadiene	0.938	0.723		-22.92	30
1,3-Butadiene	0.892	0.836		-6.28	30
Hexane	1.649	1.693		2.67	30
1-Bromo-4-Fluorobenzene	0.88	0.828		-5.91	30

All other compounds must meet a minimum RRF of 0.010.



284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

# SHIPPING DOCUMENTS

Client Contact Information						Bottle Order ID : <b>B1205140</b>				Courier : <i>Leddy</i>				<u>1</u> of <u>5</u> COCs			
Client ID : <b>JRH001</b> Project ID : <b>KoptD 12-01</b>										Sampler Name(s) : <i>Heather Sonnenberg</i>				Analysis		Matrix	
Customer Name : <b>J.R.Holzmacher P.E., LLC</b>						Project Manager : <i>Heather Sonnenberg</i>				<b>AIR ANALYSIS</b> <b>CHAIN-OF-CUSTODY</b>							
Address : <b>300 Wheeler Avenue</b>						Phone Number : <b>6312342220</b>											
Suite 402						Fax Number : <b>6312342221</b>											
City : <b>Hauppauge</b>						Site Details: <i>developed retail stores w/ basement</i>											
State : <b>NY</b>						Analysis Turnaround Time <i>Std</i>											
Zip Code : <b>11788</b>						Standard : <b>15 business days</b>				Data Package Type :							
Country : <b>US</b>						Rush (Specify): <b>Days</b>				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-4	6-5-12 1:38 pm	6/7/12 1:31 pm	27	0	65°	70°	-30			10640	10314	6 L	12.5	VL017090.D	✓		✓
	Temperature (Fahrenheit)												GC/MS Analyst Signature (TO-15)  <i>Von Welch</i>				
	Ambient		Maximum		Minimum												
Start	60°F																
Stop	70°F																
	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 <i>Medium</i> Low				PID Readings: <i>N/A</i>									
Sampling site (State): <i>NY</i>																	
Quick Connector required : <i>No</i>																	
Canisters Shipped by:		Date/Time:		Canisters Received by:		Date/Time:											
Samples Relinquished by:		Date/Time:		Received by:		Date/Time:											
Relinquished by:		Date/Time:		Received by:		Date/Time:											
<b>B1205140 - 3</b>																	

Client Contact Information				Bottle Order ID : <b>B1205140</b>				Courier : <i>Std by</i>				<i>2</i> of <i>5</i> COCs							
Client ID : <b>JRH001</b> Project ID : <b>KoptD 12-01</b>								Sampler Name(s) : <i>Kathy Seawely</i>				Analysis	Matrix						
Customer Name : <b>J.R.Holzmacher P.E., LLC</b>				Project Manager :				<b>AIR ANALYSIS CHAIN-OF-CUSTODY</b>											
				Phone Number : <b>6312342220</b>															
Address : <b>300 Wheeler Avenue</b> <b>Suite 402</b>				Fax Number : <b>6312342221</b>															
City : <b>Hauppauge</b>				Site Details: <i>plexiglass retail store with basement</i>															
State : <b>NY</b>				Analysis Turnaround Time <i>Std</i>				Data Package Type :											
Zip Code : <b>11788</b>				Standard : <b>15 business days</b>															
Country : <b>US</b>				Rush (Specify): <b>Days</b>				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>A-1</i>	<i>6-5-2012 12:25 pm</i>	<i>106 pm</i>	<i>28</i>	<i>0</i>	<i>64°</i>	<i>70°</i>	<i>-30</i>			<i>10685</i>	<i>10320</i>	<i>6 L</i>	<i>12.5</i>	<i>VL017090.D</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Temperature (Fahrenheit)																			
	Ambient	Maximum		Minimum															
Start	<i>64° F</i>																		
Stop	<i>70° F</i>																		
Pressure (Inches of Hg)																			
	Ambient	Maximum		Minimum															
Start																			
Stop																			
** Submittal of this COC indicates approval of the analysis based on existing conditions.																			
Please follow the instructions on the back of this COC.																			
Special Instructions/QC Requirements & Comments :																			
Suspected Contamination:				High		<input checked="" type="radio"/> Medium		Low		PID Readings:									
Sampling site (State):				<i>NY</i>															
Quick Connector required :				<i>NO</i>															
Canisters Shipped by:		<i>FAC</i>		Date/Time:		<i>5/31/12</i>		Canisters Received by:		Date/Time:									
Samples Relinquished by:		<i>John D. Seawely</i>		Date/Time:		<i>6/3/12 13:00</i>		Received by:		Date/Time:									
Relinquished by:		<i>FedEx</i>		Date/Time:		<i>6/8/12 9:15</i>		Received by:		<i>Vin Russo</i>		<i>82 of 88</i>	<i>6/8/12 9:15</i>						

Client Contact Information					Bottle Order ID : <b>B1205140</b>				Courier : <i>Fed Ex</i>				<u>3</u> of <u>5</u> COCs				
Client ID : <b>JRHO01</b> Project ID : <b>KoptD 12-01</b>									Sampler Name(s) : <i>Heather Somberg</i>				Analysis		Matrix		
Customer Name : <b>J.R.Holzmacher P.E., LLC</b>					Project Manager : <i>Heather Somberg</i>				<b>AIR ANALYSIS CHAIN-OF-CUSTODY</b>								
Address : <b>300 Wheeler Avenue Suite 402</b>					Phone Number : <b>6312342220</b>												
					Fax Number : <b>6312342221</b>												
					Site Details: <i>Developed retail stores w/ bmt.</i>												
City : <b>Hauppauge</b>					Analysis Turnaround Time <i>5d</i>												
State : <b>NY</b>					Standard : <b>15 business days</b>				Data Package Type :								
Zip Code : <b>11788</b>					Rush (Specify): <b>Days</b>				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>H-2</i> <i>6/7/12</i>	<i>6/5/12 1:35 pm</i>	<i>1:00 PM</i>	<i>30</i>	<i>0</i>	<i>64°</i>	<i>70°</i>	<i>-30</i>		<i>10641</i>	<i>10411</i>	<i>6 L</i>	<i>12.5</i>	<i>VL017090.D</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>6-7-12 Temperature (Fahrenheit)</i>																	
	Ambient		Maximum		Minimum												
Start	<i>60°</i>																
Stop	<i>70°</i>																
GC/MS Analyst Signature (TO-15) <i>monitored</i>																	
<i>Pressure (Inches of Hg)</i>																	
	Ambient		Maximum		Minimum												
Start																	
Stop																	
** Submittal of this COC indicates approval of the analysis based on existing conditions.																	
Please follow the instructions on the back of this COC.																	
Special Instructions/QC Requirements & Comments :																	
Suspected Contamination: <input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low					PID Readings:												
Sampling site (State): <i>NY</i>																	
Quick Connector required : <i>NO</i>																	
Canisters Shipped by: <i>Fed Ex</i>		Date/Time: <i>5/3/12</i>		Canisters Received by:		Date/Time:											
Samples Relinquished by: <i>Heather Somberg</i>		Date/Time: <i>6/7/12 1:30pm</i>		Received by:		Date/Time:											
Relinquished by: <i>Fed Ex</i>		Date/Time: <i>6/8/12 9:15</i>		Received by: <i>Vin Fluor</i>		Date/Time: <i>8:30 AM</i>		Date/Time: <i>6/8/12 9:15</i>									
<b>B1205140 - 5</b>																	

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Client Contact Information					Bottle Order ID : <b>B1205140</b>				Courier : <i>Fed Ex</i>				<b>4</b> of <b>5</b> COCs				
Client ID : <b>JRH001</b> Project ID : <b>KoptD 12-01</b>									Sampler Name(s) : <i>Heather Somersby</i>				Analysis		Matrix		
Customer Name : <b>J.R.Holzmacher P.E., LLC</b>					Project Manager : <i>Heather Somersby</i>												
					Phone Number : <b>6312342220</b>												
Address : <b>300 Wheeler Avenue</b> <b>Suite 402</b>					Fax Number : <b>6312342221</b>												
					Site Details: <i>Developed retail stores with permit</i>												
City : <b>Hauppauge</b>																	
State : <b>NY</b>					Analysis Turnaround Time <i>Std</i>												
Zip Code : <b>11788</b>					Standard : <b>15 business days</b>				Data Package Type :								
Country : <b>US</b>					Rush (Specify): <b>Days</b>				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
A-3	6/5/12	2:07 pm	6/6/12 1pm	30	0	64°	70°	-30		10690	10304	6 L	12.5	VL017090.D	✓	✓	✓
Temperature (Fahrenheit)																	
	Ambient		Maximum		Minimum												
Start	64°						GC/MS Analyst Signature (TO-15) <i>Vannestel</i>										
Stop	70°																
Pressure (Inches of Hg)																	
	Ambient		Maximum		Minimum												
Start							** Submittal of this COC indicates approval of the analysis based on existing conditions.										
Stop																	
Please follow the instructions on the back of this COC.																	
Special Instructions/QC Requirements & Comments :																	
Suspected Contamination:				High	Medium	Low	PID Readings: <i>N/A</i>										
Sampling site (State): <i>NY</i>																	
Quick Connector required : <i>NO</i>																	
Canisters Shipped by: <i>Fed Ex</i>		Date/Time: <i>5/31/12</i>		Canisters Received by:				Date/Time:									
Samples Relinquished by: <i>Heather Somersby</i>		Date/Time: <i>6/3/12 3pm</i>		Received by: <i>Kim Curran</i>				Date/Time:									
Relinquished by: <i>Fed Ex</i>		Date/Time: <i>6/8/12 9:15</i>		Received by: <i>Kim Curran</i>				Date/Time:		<i>84 of 88</i>				<i>6/8/12 9:15</i>			
<b>B1205140 - 2</b>																	

Client Contact Information				Bottle Order ID : <b>B1205140</b>				Courier : <i>FedEx</i>				<i>5 of 5 COCs</i>					
Client ID : <b>JRH001</b>				Project ID : <b>KoptD 12-01</b>				Sampler Name(s) <i>Heather Somersby</i>				Analysis		Matrix			
Customer Name : <b>J.R.Holzmacher P.E., LLC</b>				Project Manager : <i>Heather Somersby</i>				Phone Number : <b>6312342220</b>				AIR ANALYSIS CHAIN-OF-CUSTODY					
Address : <b>300 Wheeler Avenue Suite 402</b>				Fax Number : <b>6312342221</b>				Site Details: <i>developed retail stores w/ Park</i>									
City : <b>Hauppauge</b>				Analysis Turnaround Time <i>Std</i>				Standard : <b>15 business days</b>				Data Package Type :					
State : <b>NY</b>				Rush (Specify): <b>Days</b>				EDD Type :									
Zip Code : <b>11788</b>				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
Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)														
<b>VP-5</b>	<b>6-5-12 2:17 pm</b>	<b>6-6-12 1pm</b>	<b>130</b>	<b>0</b>	<b>64°</b>	<b>70°</b>	<b>-30</b>		<b>10582</b>	<b>10291</b>	<b>6 L</b>	<b>12.5</b>	<b>VL017090.D</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Temperature (Fahrenheit)																	
		Ambient	Maximum	Minimum													
Start		<i>64°</i>															
Stop		<i>70°</i>															
Pressure (Inches of Hg)																	
		Ambient	Maximum	Minimum													
Start																	
Stop																	
** Submittal of this COC indicates approval of the analysis based on existing conditions.																	
Please follow the instructions on the back of this COC.																	
Special Instructions/QC Requirements & Comments :																	
Suspected Contamination: <b>High</b>				<b>Medium</b>	<b>Low</b>	PID Readings: <i>N/A</i>											
Sampling site (State): <i>NY</i>																	
Quick Connector required : <i>NO</i>				Date/Time: <i>5/3/12</i>				Canisters Received by:				Date/Time:					
Canisters Shipped by: <i>FedEx</i>				Date/Time: <i>5/3/12 3pm</i>				Received by: <i>Ym Roma</i>				Date/Time:					
Samples Relinquished by: <i>FedEx</i>				Date/Time: <i>5/8/12 9:15</i>				Received by: <i>Ym Roma</i>				Date/Time: <i>5/8/12 9:15</i>					
<i>85 of 88</i> <b>B1205140 - 1</b>																	

From: (631) 234-2220  
Pat Zalak  
J.R. HOLZMACHER P.E., LLC  
300 WHEELER ROAD SUITE 402  
HAUPPAUGE, NY 11788

Origin ID: WLMA



Ship Date: 07JUN12  
ActWgt: 6.0 LB  
CAD: 3033057/INET3250

SHIP TO: (908) 789-8900

BILL SENDER

Joe Dockery  
Chemtech, Inc.  
284 Sheffield Street

Mountainside, NJ 07092

J12101112190225

KL  
6/8/12

Delivery Address Bar Code



Ref # QUEST 04-01  
Invoice #  
PO #  
Dept #

9:15

2 of 2

FRI - 08 JUN A1

STANDARD OVERNIGHT

MPS# 7984 8455 4750  
0263

Mstr# 7984 8455 4543

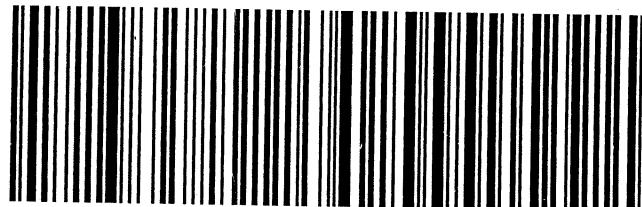
0201

07092

NJ-US

EWR

EB CDWA



512G1/793A/A278

From: (631) 234-2220  
Pat Zalak  
J.R. HOLZMACHER P.E., LLC  
300 WHEELER ROAD SUITE 402  
HAUPPAUGE, NY 11788

Origin ID: WLMA



J12101112190225

SHIP TO: (908) 789-8900

BILL SENDER

Joe Dockery  
Chemtech, Inc.  
284 Sheffield Street

Mountainside, NJ 07092

KL  
6/8/12

9:15

Ship Date: 07JUN12  
ActWgt: 25.0 LB  
CAD: 3033057/INET3250

Delivery Address Bar Code



Ref # QUEST 04-01  
Invoice #  
PO #  
Dept #

1 of 2

FRI - 08 JUN A1

STANDARD OVERNIGHT

TRK# 7984 8455 4543  
0201

## MASTER ##

07092

NJ-US

EWR

EB CDWA



512G1/793A/A278



284 Sheffield Street Mountainside NJ 07092 Tel

## Laboratory Certification

<b>State</b>	<b>License No.</b>
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

## 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: Chemtech	Location: <u>284 Sheffield Street, Mountainside, NJ 7092</u>		
Name: <u>Palak</u>	Title: <u>Sample Custodian</u>	Date Broken: <u>6/8/2012</u>	Military Time Seal Broken: <u>09:15:00</u>
Field Sample Seal No.: <u>D3016</u>	Analytical Parameter/Fraction: <u>F10-15</u>	Case No.: <u>KoptD 12-01</u>	

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
D3016-01	VP-4		
D3016-02	A-1		
D3016-03	A-2		
D3016-04	A-3		
D3016-05	VP-5		

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
6/8/12	1315	Signature <u>Palak Shah</u> Printed Name <u>Palak Shah</u>	Signature <u>S. Sankar</u> Printed Name <u>S. Sankar with analyst</u>	Air lab
		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	
		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