VAPOR INTRUSION INVESTIGATION (VII)

154 GRAHAM AVENUE

BROOKLYN, NEW YORK 11206

PREPARED FOR

MR. FRED LEVINE

PROJECT NO. M12284

MERRITT ENVIRONMENTAL CONSULTING CORP.

77 Arkay Drive, Suite D, Hauppauge, NY 11788
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MERRITT
Environmental
Consulting Corp.

77 Arkay Drive, Suite D, Hauppauge, NY 11788
(631) 617-6200/Tel (631) 617-6201/Fax

December 12, 2014
Project: M12284

Mr. Fred Levine
21 Robert Pitt Dr, Suite 302
Monsey New Jersey 10952

RE: Vapor Intrusion Investigation
154 Graham Avenue
Brooklyn, New York 11206

Dear Mr. Levine:

As requested, Merritt Environmental Consulting Corp. ("MECC") has completed this Vapor Intrusion Investigation (the "VII") at the property located at 154 Graham Avenue (the "Site"). The Site contains one occupied three-story mixed use commercial/residential building with a footprint estimated at 2,500 square feet. The south side of Site building is attached to a three-story structure that once contained a dry cleaning operation that used perchloroethylene (PCE) on the ground floor. The intent of the VII was to determine if PCE or other related volatile organic compounds (VOCs) in vapor form have accumulated at elevated levels under the floor slab of the Site building or possibly within the structure. This investigation identified elevated levels of PCE in vapor form under the Site building floor slab and in indoor air inside the basement. The detected level of PCE in indoor air within the Site basement was reported by the laboratory at 44.1 micrograms cubic meter of air (ug/m³). The State of New York has established a 30 ug/m³ guidance value for PCE in indoor air. This information shows evidence of possible subsurface PCE contamination under the south adjoining building (or possibly under a second apparent dry cleaner located within 30 feet south of the Site). Based on the findings of this study, MECC recommends that additional investigation be conducted to determine if indoor air at upper floors contain elevated PCE concentrations (particularly in the residential apartments). Further study will also be needed to specifically identify the source of the PCE discovered by this VII. Installation of a sub-slab depressurization system may need to be completed to mitigate PCE vapor intrusion into the Site building. Further, regulatory agency reporting is advisable since the PCE concentration in indoor air exceeds the New York State guidance value for PCE in indoor air.

Background

The Site is located at the east side of Graham Avenue in an urban setting and contains one (1) three-story building on an approximately 2,500 square-foot lot. The Site building appears to cover the entire Site and contains a partial basement. The ground floor and partial basement is occupied by a small variety store and upper floors contain two residential apartments (MECC assumes these apartments are occupied). It appears that the Site has always been connected to the municipal sewer and potable water supply systems. The Site building is constructed of wood frame floor and roof decks with masonry exterior walls. The basement walls are composed of stone and mortar.

A recently completed Phase I Environmental Site Assessment (the "ESA") indicates that a historical dry cleaning operation was located within the three-story building attached to the south side of the Site. A dry cleaning service is currently located on the ground floor of the off-site structure (152 Graham Avenue). A Site representative was present during the VII field activities and said that the facility at the adjoining property currently does not operate a dry cleaning machine and is a valet service only. During the VII field activities, MECC also observed a second dry cleaner located within approximately 30 feet of the Site building on Johnson Avenue (Martinez French Dry Cleaners, 183 Johnson Avenue). MECC was unable to determine if a dry cleaning machine and accompanying PCE usage exists at this facility.

Topography and Geology

The Site surface elevation is estimated to be roughly 40 feet above mean sea level. Local surface topography has little relief with a slight downward slope to the south. Sediment beneath the Site area likely consists of a thick layer of outwash sand and gravel. Depth to the water table at the Site is likely to be approximately 30 feet to 35 feet below ground surface. Local direction of groundwater flow is estimated to be towards the east.

Scope of Work Completed

In order to determine if the adjoining historical dry cleaner (or possibly the nearby dry cleaner on Johnson Avenue) adversely impacted the environmental integrity of the Site, MECC collected two (2) sub-slab soil vapor samples, one (1) indoor air sample and one (1) outdoor air sample at the Site for laboratory analysis. The outdoor air sample ("OA1" in the attached laboratory report) was collected as a control. OA1 was collected at the northwest side of the Site building at the Graham Avenue sidewalk. The sub-slab soil vapor samples (SG1 and SG2) and the indoor air sample (IA1) were collected from the partial basement, which is estimated to be 500-600 square feet in size. These air and soil vapor samples were collected as a means of establishing if elevated levels of volatile organic vapors exist within the Site building. All field work was completed on December 3, 2014 by Mr. Frank Galdun, Project Geologist with MECC.

The sub-slab soil vapor sampling point was installed using the hand-held electric hammer drill tipped with a one-foot long masonry drill bit. The soil vapor implant was installed into the sample hole using dedicated 3/16" flexible tubing to a depth of approximately ten inches. After setting the implant at the desired depth, the flexible tubing attached to the implant was extended to ground surface, sealed with plumbers putty at floor surface and connected to the sample collection equipment. IA1 (indoor air sample) was collected in the basement within approximately five feet of the location of SG1.

All sub-slab soil vapor, indoor air and outdoor air samples were collected in accordance with the New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006 (the "Final Guidance"). All sampling was performed with a flow rate of no more than 0.2 liters of air per minute.

Soil Vapor, Indoor Air and Outdoor Air Sample Collection and Laboratory Analysis

All air and sub-slab soil vapor samples were collected into six liter summa canisters certified clean by the laboratory. Each canister was equipped with a regulator set for a two hour sampling period. All samples were analyzed at Chemtech for VOCs under EPA Method TO-15. All appropriate chain-of-custody documents were completed prior to sample shipment. Field sampling forms were also completed and are included as part of the chain-of-custody documentation. All samples were hand delivered to the laboratory within 24 hours of collection. MECC observed potential source of impact on sub-slab soil vapor or air sampling activities such as stored products containing PCE within the Site. Table 1 on the following page summarizes the laboratory report of analysis.

TABLE 1: SOIL VAPOR, INDOOR AIR AND OUTDOOR AIR SAMPLE ANALYSIS RESULTS
EPA Method TO-15, detected compounds only

Compound	SG1	SG2	IA1	OA1
Acetone	159	151	15.4	9.03
Carbon Disulfide	0.72J	4.67	ND	ND
Methylene Chloride	7.99	3.4	2.22	6.25
Chloroform	1.07J	76.7	ND	ND
2-Butanone (methyl ethyl ketone)	28.6	25.1	0.8J	0.53J
Dichlorodifluoromethane	72.2	8.41	27.2	1.63J
Chloromethane	0.43J	0.95J	1.24	1.09
Trichlorofluormethane	2.02J	1.8J	1.97J	1.57J
Chloroethane	0.5J	1.42	ND	ND
Tetrahydrofuran	0.86J	0.97J	ND	ND
1,1-Dichloroethene	ND	8.33	ND	ND
trans-1,2-Dichloroethene (1,1,1-TCA)	ND	3.05	ND	ND
1,1,1-Trichloroethane	ND	1.36	ND	ND
Trichloroethene (TCE)	13.4	1074	0.43	ND
cis-1,2-Dichloroethene	1.82J	2180	0.52J	ND
Carbon tetrachloride	0.5	0.69	0.5	0.5
Vinyl Chloride	ND	0.59	ND	ND
Tetrachloroethene (PCE)	1220	43399	44.1	2.85
Cyclohexane	2.55	7.23	0.55J	0.45J
tert-Butyl alcohol (TBA)	13.6	10.6	ND	ND
Methyl tert-butyl ether (MTBE)	0.36J	ND	ND	ND
Ethylbenzene	33.4	29.5	0.52J	ND
Benzene	2.65	13.1	1.25J	1.18J
Heptane	9.84	10.7	0.82J	0.41J
Toluene	45.6	46.4	6.41	2.0
Total Xylenes	269.5	235.7	2.13	0.87J
2,2,4-Trimethylpentane	ND	ND	0.84J	0.61J
1,3,5-Trimethylbenzene	1.87J	2.46	ND	ND
1,2,4-Trimethylbenzene	ND	8.36	0.64J	0.93J
4-Ethyltoluene	3.74	4.77	ND	ND
Hexane	9.16	8.81	3.52	2.96
Styrene	1.58J	1.75J	ND	ND
4-Methyl-2-pentanone	7.38	7.38	ND	ND

NOTES

1. All results are expressed in micrograms per cubic meter of air (ug/m³)
2. J = Concentration is approximate and is less than the quantitation limit but greater than the method detection limit (MDL)
3. "ND" Not Detected

Significantly, PCE was detected at what is considered elevated concentrations in SG1, SG2 and in IA1. The Final Guidance was used to evaluate the laboratory data. Specifically, the Final Guidance was formulated by the State of New York to address certain specific VOCs, which include PCE, trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA) and carbon tetrachloride, all of which were variously detected in the samples. The Final Guidance includes decision matrices with guidance values for these VOCs. These decision matrices are intended for use when both subs-slab soil vapor and indoor air laboratory analytical data is available, and provide recommendations based on VOC concentrations in both sub-slab soil vapor and indoor air. Table 2 summarizes the recommendations in the Final Guidance decision matrices for the four VOCs:

TABLE 2: FINAL GUIDANCE DECISION MATRIX SUMMARY

Compound	SG1	SG2	IA1	OA1	Final Guidance Recommendation
Carbon tetrachloride	0.5	0.69	0.5	0.5	Take reasonable and practical actions to identify source(s) and reduce exposures
1,1,1-Trichloroethane (1,1,1-TCA)	ND	3.05	ND	ND	No further action
Trichloroethene (TCE)	13.4	1074	0.43	ND	Mitigate
Tetrachloroethene (PCE)	1220	43399	44.1	2.85	Mitigate

NOTES
1. All results are expressed in micrograms per cubic meter of air (ug/m³)
2. "ND" Not Detected

As shown in Table 1 and Table 2, PCE was detected at high concentrations in comparison with all remaining individual VOC results. The Final Guidance indicates that Matrix 2 is applicable to PCE, which was detected above the threshold value of 1,000 micrograms per cubic liter (ug/m³) in SG1 and SG2 whereby "mitigate" is recommended. In addition the Air Guidance Value (AGV) established by the Final Guidance for PCE in indoor air is 30 ug/m³ and the PCE concentration in IA1 exceeds this AGV. PCE was also detected in the outdoor air sample, but the reported concentration of this substance is orders of magnitude lower than those reported in SG1 and SG2 (the OA1 result for PCE also does approach that detected in IA1). Ambient air quality conditions therefore should not be applied as a means of discounting the PCE levels detected inside the Site building.

The Final Guidance states that Matrix 2 is also applicable to 1,1,1-TCA and based on the laboratory data, no further action is recommended. The SG1 and SG2 laboratory results for this substance is below the Matrix 2 threshold value of 100 ug/m³ and no 1,1,1-TCA was detected in IA1 or OA1.

The Final Guidance indicates that Matrix 1 is applicable to carbon tetrachloride, which was detected in all samples. According to Matrix 1, when any carbon tetrachloride concentration in indoor air that exceeds 0.25 ug/m³ (with soil vapor values for these substances less than 5.0 ug/m³), responsible parties should, "Take reasonable and practical actions to identify source(s) and reduce exposures." Carbon tetrachloride was however detected in the outdoor air sample OA1 at a concentration similar to those detected in the remaining samples. This data could be applied as a means of establishing that indoor and sub-slab soil vapor concentrations of carbon tetrachloride are representative of ambient air quality in the area.

The Final Guidance indicates that Matrix 1 is also applicable to TCE, which was detected at concentrations in SG1 and IA1 that warrant a Matrix 1 recommendation to "mitigate."

Additional VOCs were reported in the indoor air and soil vapor samples but no regulatory guidance exists for these substances. However, all of the VOCs reported by the laboratory were detected at what are considered by MECC as low-to-trace concentrations. Further, several of the detected substances (i.e., carbon disulfide, acetone, chloroform, 2-butanone and methylene chloride) are all commonly introduced into sample media by laboratory analytical procedures and are not considered representative of actual indoor air, outdoor air, or sub-slab soil vapor conditions.

Conclusions/Recommendations

Elevated levels of PCE in vapor form were detected in the indoor air and sub-slab soil vapor samples collected by MECC at the Site. The Final Guidance recommends "mitigation" for the detected levels of PCE and TCE in indoor air and sub-slab soil vapor. Significantly PCE was detected at a concentration that exceeds the Final Guidance AGV in the indoor air sample and corrective action will be necessary.

A clear impact to Site indoor air quality by elevated concentrations of PCE was identified by this study. The source of the condition is the adjoining dry cleaner likely through historical subsurface releases of PCE in fluid form. Further investigation of indoor air quality will need to be conducted at the Site to establish the severity of the PCE detected in indoor air. Additional soil vapor sampling and laboratory analysis may also be needed. A sub-slab depressurization system may need to be installed at the Site to mitigate PCE vapor intrusion. Further, regulatory agency reporting is advisable since the PCE concentration in indoor air exceeds the Final Guidance AGV.

Limitations of the VII

The scope of the VII is intended to aid in evaluating whether additional investigation would be prudent. The tasks that comprise this VII are not exhaustive or definitive. MECC has made no independent investigation of the accuracy of these secondary sources and has assumed them to be accurate and complete. MECC does not warrant the accuracy or completeness of information provided by secondary sources (MECC has no reason to believe that the secondary sources provided or acquired during this study contain intentionally false or misleading information). MECC does not warrant that all contamination that may exist on the Site has been discovered, that the Site is suitable for any particular purpose or that the Site is clean or free of liability.
If you have any questions concerning this document, please feel free to call our office.

Sincerely,

Frank Galdun
Project Geologist

Charles G. Merritt
President/LEED AP

The following attachments are included with this document:

Attachment 1: Site location map and Site plan
Attachment 2: Laboratory report of soil, indoor air, outdoor air and soil vapor sample of analysis
Attachment 3: Photographs

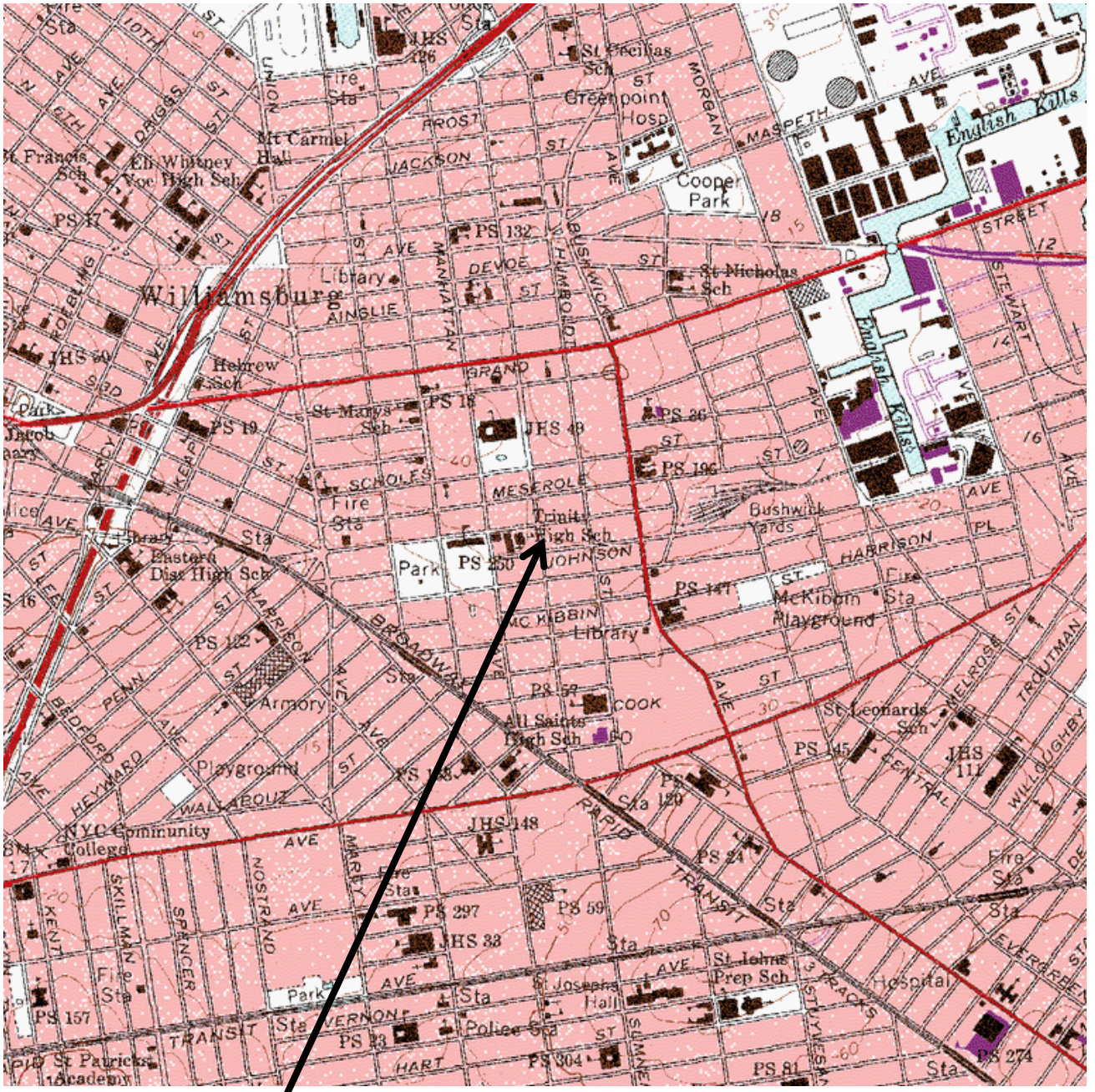
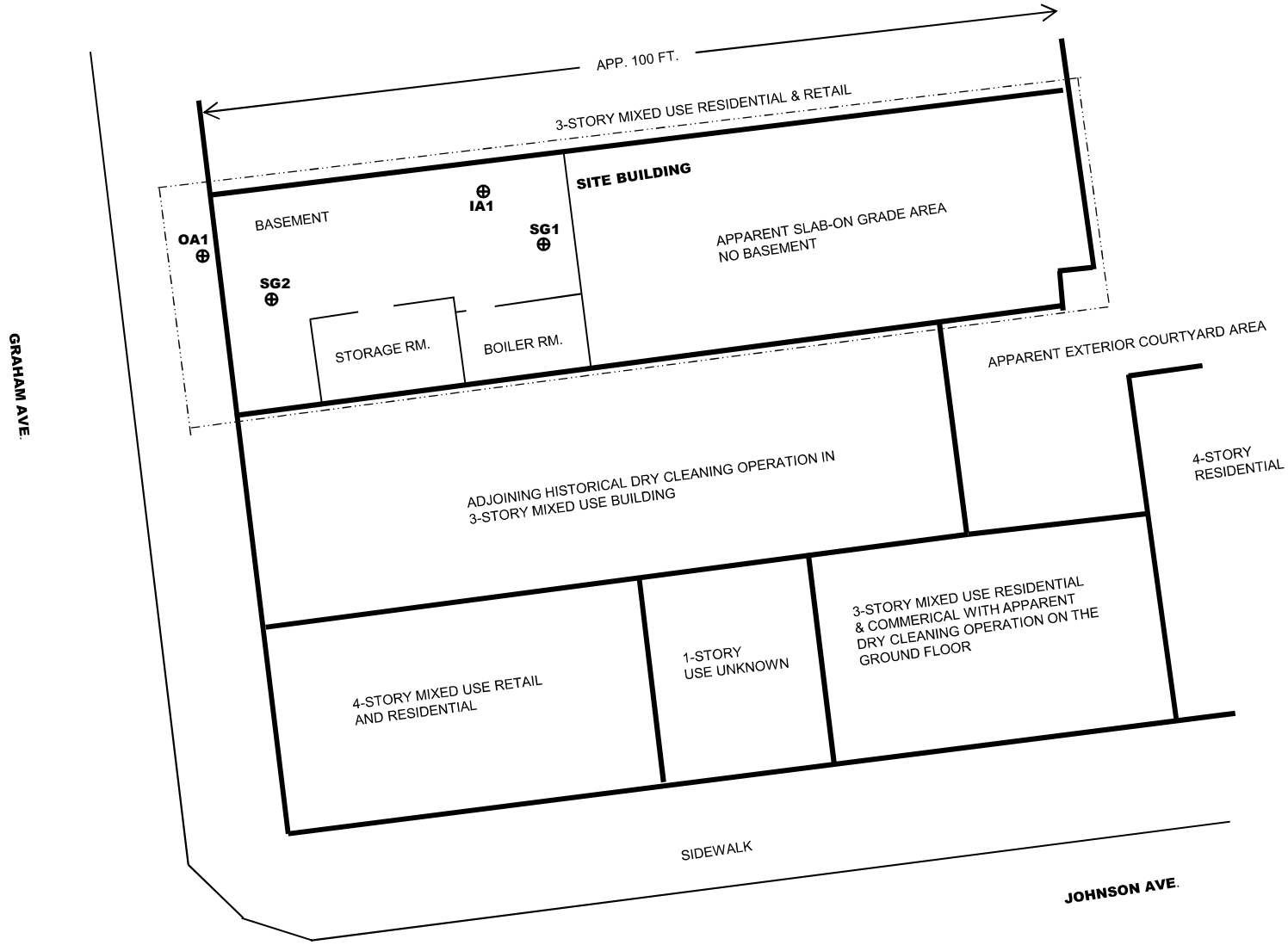


FIGURE 1: SITE LOCATION MAP **Contour Interval: 10'**	**Site Address:** **154 Graham Ave.** **Brooklyn, NY**
USGS 7.5" Quadrangle Map titled *Brooklyn, NY,* dated 1995	



SITE SKETCH: 154 GRAHAM AVE.
BROOKLYN, NY
NOT TO SCALE

INTERIOR DETAILS SHOW BASEMENT LEVEL OF THE SITE BUILDING ONLY.

N

PATTERNED LINES ENCLOSE THE SITE

⊕ DENOTES SOIL VAPOR AND AIR SAMPLE LOCATIONS

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA FOR

VOLATILE ORGANICS

PROJECT NAME : 154 GRAHAM AVE

GFE LLC

58 Nokomis Ave

Lake Hiawatha, NJ - 07034

Phone No: 646-542-3465

ORDER ID : F4978

ATTENTION : Frank Galdun

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Date : 12/10/2014

Dear Frank Galdun,

4 air samples for the **154 Graham Ave** project were received on **12/04/2014.** The analytical fax results for those samples requested for an expedited turn around time may be seen in this report. Please contact me if you have any questions or concerns regarding this report.

Regards,

Snehal Mehta

908-728-3149

snehal@chemtech.net

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : _____

Client Contact Information	Bottle Order ID : **B1412001**	Courier : HAND	3 of 4 COCs
Client ID : **GFEL01** Project ID : **All Projects**		Sampler Name(s) : FRANK GALDUN	Analysis / Matrix
Customer Name : **GFE LLC**	Project Manager **FRANK GALDUN**	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : **58 Nokomis Ave**	Phone Number : **646-542-3465**		
	Fax Number : **9733341692**		
	Site Details: 154 GRAHAM AVE BROOKLYN, NY	Batch Certified	
City : **Lake Hiawatha**			
State : **NJ**	Analysis Turnaround Time 5 DAY		
Zip Code : **07034**	Standard : ~~15 business days~~ **OR**	Data Package Type RESULTS ONLY	
Country :	Rush (Specify): 5 **Days**	EDD Type : PDF & EXCEL	

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	Can Cert ID	TO-15	Indoor/Ambinet Air	Soil Gas
562	12/3/14	0846	1046	27.5	0.5	65	65	-30	-4.3	10617	10309	6 L	50	VL023900.D	1		1

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low)

PID Readings: 0, 0

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/1/14	Canisters Received by:	Date/Time:	B1412001 - 3
Samples Relinquished by:	Date/Time:	Received by:	Date/Time:	
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/9/14 1.45	

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : _____

Client Contact Information	Bottle Order ID : **B1412001**	Courier : HAND	2 of 4 COCs
Client ID : **GFEL01** Project ID : **All Projects**		Sampler Name(s) : FRANK GALDUN	Analysis / Matrix
Customer Name : **GFE LLC**	Project Manager **FRANK GALDUN**	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : **58 Nokomis Ave**	Phone Number : **646-542-3465**		
	Fax Number : **9733341692**		
	Site Details: 134 GRAHAM AVE BROOKLYN, NY	Batch Certified	
City : **Lake Hiawatha**	Analysis Turnaround Time 5 DAY		
State : **NJ**	Standard : ~~15 business days~~ **OR**	Data Package Type : RESULTS ONLY	
Zip Code : **07034**	Rush (Specify): 5 **Days**	EDD Type : PDF & EXCEL	
Country :			

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	Can Cert ID	TO-15	Indoor/Ambinet Air	Soil Gas
SG1	12/3/14	0841	1041	30	5	65	65	-30	-4.3	10648	10199	6 L	50	VL023900.D			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low) None PID Readings: 0.0

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/1/14	Canisters Received by:	Date/Time:	B1412001 - 1
Samples Relinquished by:	Date/Time: 12/3/14	Received by:	Date/Time:	
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/4/14 1:45	

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : _____

Client Contact Information	Bottle Order ID : **B1412001**	Courier : HAND	1 of 4 COCs
Client ID : **GFEL01** Project ID :	**All Projects**	Sampler Name(s) : FRANK GALDUN	Analysis / Matrix
Customer Name : **GFE LLC**	Project Manager **FRANK GALDUN**	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : **58 Nokomis Ave**	Phone Number : **646-542-3465**		
	Fax Number : **9733341692**		
	Site Details: 154 GRAHAM AVE. BROOKLYN, NY	Batch Certified	
City : **Lake Hiawatha**			
State : **NJ**	Analysis Turnaround Time 5 DAY		
Zip Code : **07034**	Standard : ~~15 Business days~~ OR	Data Package Type : RESULTS ONLY	
Country :	Rush (Specify): 5 Days	EDD Type : PDF & EXCEL	

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	Can Cert ID	TO-15	Indoor/Ambinet Air	Soil Gas
IA1	12/3/14	~~0847~~	1047	-30	-4.5	65	65	-30	-5.5	10649	10315	6 L	50	VL023900.D	✓	✓	

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low) PID Readings: 0.0

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/1/14	Canisters Received by:	Date/Time:
Samples Relinquished by: FISH	Date/Time: 12/4/14	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/4/14 1:45

B1412001 - 4

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : _____

Client Contact Information	Bottle Order ID : **B1412001**	Courier : HAND	4 of 4 COCs
Client ID : **GFEL01** Project ID :	**All Projects**	Sampler Name(s) : FRANK GALDUN	Analysis / Matrix
Customer Name : **GFE LLC**	Project Manager **FRANK GALDUN**	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : **58 Nokomis Ave**	Phone Number : **646-542-3465**		
	Fax Number : **9733341692**	Batch Certified	
	Site Details: 154 GRAHAM AVE BROOKLYN NY		
City : **Lake Hiawatha**			
State : **NJ**	Analysis Turnaround Time 5 DAY		
Zip Code : **07034**	Standard : ~~15 business days~~ **OR**	Data Package Type : RESULTS ONLY	
Country :	Rush (Specify): 5 **Days**	EDD Type : PDF & EXCEL	

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	Can Cert ID	TO-15	Indoor/Ambinet Air	Soil Gas
OAM	12/3/14	0900	1100	25.5	0.0			-30	-3.1	10109	10307	6 L	50	VL023900.D			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start	45			
Stop	47			

GC/MS Analyst Signature (TO-15)

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low)

PID Readings: 0.0

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/4/14	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 12/4/14	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: 12/4/14 1.45

B1412001 - 2

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG2	SDG No.:	F4978
Lab Sample ID:	F4978-01	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
VL024351.D	1		12/06/14 06:56	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	1.7	8.41		0.04	0.1	0.5	ppbv
74-87-3	Chloromethane	0.46	0.95	J	0.1	0.1	0.5	ppbv
75-01-4	Vinyl Chloride	0.23	0.59		0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.1	0.39	U	0.03	0.1	0.5	ppbv
75-00-3	Chloroethane	0.54	1.42		0.1	0.1	0.5	ppbv
109-99-9	Tetrahydrofuran	0.33	0.97	J	0.1	0.1	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.32	1.8	J	0.04	0.1	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.1	0.77	U	0.04	0.1	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.04	0.1	0.5	ppbv
593-60-2	Bromoethene	0.1	0.44	U	0.03	0.1	0.5	ppbv
75-65-0	tert-Butyl alcohol	3.5	10.6		0.1	0.1	0.5	ppbv
142-82-5	Heptane	2.6	10.7		0.1	0.1	0.5	ppbv
75-35-4	1,1-Dichloroethene	2.1	8.33		0.05	0.1	0.5	ppbv
67-64-1	Acetone	65.1	154	EB	0.1	0.1	0.5	ppbv
75-15-0	Carbon Disulfide	1.5	4.67		0.05	0.1	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.05	0.1	0.5	ppbv
75-09-2	Methylene Chloride	0.98	3.4	B	0.05	0.1	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.77	3.05		0.05	0.1	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.04	0.1	0.5	ppbv
110-82-7	Cyclohexane	2.1	7.23		0.1	0.1	0.5	ppbv
78-93-3	2-Butanone	8.5	25.1		0.1	0.1	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.11	0.69		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	280	1110	E	0.05	0.1	0.5	ppbv
67-66-3	Chloroform	16.3	79.6	E	0.02	0.1	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.25	1.36		0.03	0.03	0.03	ppbv
540-84-1	2,2,4-Trimethylpentane	0.1	0.47	U	0.04	0.1	0.5	ppbv
71-43-2	Benzene	4.1	13.1		0.04	0.1	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.1	0.1	0.5	ppbv
79-01-6	Trichloroethene	280	1504	E	0.02	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.1	0.1	0.5	ppbv
75-27-4	Bromodichloromethane	0.1	0.67	U	0.05	0.1	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	1.8	7.38		0.05	0.1	0.5	ppbv
108-88-3	Toluene	12.3	46.4		0.05	0.1	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.1	0.1	0.5	ppbv
124-48-1	Dibromochloromethane	0.1	0.85	U	0.05	0.1	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.1	0.1	0.5	ppbv

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG2	SDG No.:	F4978
Lab Sample ID:	F4978-01	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
VL024351.D	1		12/06/14 06:56	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	1500	10171	E	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.1	0.46	U	0.1	0.1	0.5	ppbv
100-41-4	Ethyl Benzene	6.8	29.5		0.1	0.1	0.5	ppbv
179601-23-1	m/p-Xylene	39	169	E	0.1	0.2	1	ppbv
95-47-6	o-Xylene	23.9	103	E	0.1	0.1	0.5	ppbv
100-42-5	Styrene	0.41	1.75	J	0.1	0.1	0.5	ppbv
75-25-2	Bromoform	0.1	1.03	U	0.05	0.1	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.03	0.21	U	0.03	0.03	0.03	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.5	2.46		0.1	0.1	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	1.7	8.36		0.1	0.1	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	U	0.04	0.1	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	0.1	0.1	0.5	ppbv
106-99-0	1,3-Butadiene	0.1	0.22	U	0.1	0.1	0.5	ppbv
91-20-3	Naphthalene	0.1	0.52	U	0.04	0.1	0.5	ppbv
622-96-8	4-Ethyltoluene	0.97	4.77		0.1	0.1	0.5	ppbv
110-54-3	Hexane	2.5	8.81		0.04	0.1	0.5	ppbv
107-05-1	Allyl Chloride	0.1	0.31	U	0.05	0.1	0.5	ppbv
123-91-1	1,4-Dioxane	0.1	0.36	UQ	0.1	0.1	0.5	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.5	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	12.3			65 - 135		123%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1362380		6.64				
540-36-3	1,4-Difluorobenzene	2619700		8.31				
3114-55-4	Chlorobenzene-d5	2230530		13.79				

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

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG2DL	SDG No.:	F4978
Lab Sample ID:	F4978-01DL	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
VL024352.D	10		12/06/14 07:38	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	3.5	17.3	JD	0.4	1	5	ppbv
74-87-3	Chloromethane	1	2.07	UD	1	1	5	ppbv
75-01-4	Vinyl Chloride	0.3	0.77	UD	0.3	0.3	0.3	ppbv
74-83-9	Bromomethane	1	3.88	UD	0.3	1	5	ppbv
75-00-3	Chloroethane	1	2.64	UD	1	1	5	ppbv
109-99-9	Tetrahydrofuran	1	2.95	UD	1	1	5	ppbv
75-69-4	Trichlorofluoromethane	1	5.62	UD	0.4	1	5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	1	7.66	UD	0.4	1	5	ppbv
76-14-2	Dichlorotetrafluoroethane	1	6.99	UD	0.4	1	5	ppbv
593-60-2	Bromoethene	1	4.37	UD	0.3	1	5	ppbv
75-65-0	tert-Butyl alcohol	3.3	10	JD	1	1	5	ppbv
142-82-5	Heptane	2.4	9.84	JD	1	1	5	ppbv
75-35-4	1,1-Dichloroethene	2	7.93	JD	0.5	1	5	ppbv
67-64-1	Acetone	63.8	151	DB	1	1	5	ppbv
75-15-0	Carbon Disulfide	1.3	4.05	JD	0.5	1	5	ppbv
1634-04-4	Methyl tert-Butyl Ether	1	3.61	UD	0.5	1	5	ppbv
75-09-2	Methylene Chloride	2.1	7.3	JDB	0.5	1	5	ppbv
156-60-5	trans-1,2-Dichloroethene	1	3.96	UD	0.5	1	5	ppbv
75-34-3	1,1-Dichloroethane	1	4.05	UD	0.4	1	5	ppbv
110-82-7	Cyclohexane	2.4	8.26	JD	1	1	5	ppbv
78-93-3	2-Butanone	8.3	24.5	D	1	1	5	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	UD	0.3	0.3	0.3	ppbv
156-59-2	cis-1,2-Dichloroethene	750	2973	ED	0.5	1	5	ppbv
67-66-3	Chloroform	15.7	76.7	D	0.2	1	5	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	UD	0.3	0.3	0.3	ppbv
540-84-1	2,2,4-Trimethylpentane	1	4.67	UD	0.4	1	5	ppbv
71-43-2	Benzene	4.3	13.7	JD	0.4	1	5	ppbv
107-06-2	1,2-Dichloroethane	1	4.05	UD	1	1	5	ppbv
79-01-6	Trichloroethene	310	1666	ED	0.15	0.3	0.3	ppbv
78-87-5	1,2-Dichloropropane	1	4.62	UD	1	1	5	ppbv
75-27-4	Bromodichloromethane	1	6.7	UD	0.5	1	5	ppbv
108-10-1	4-Methyl-2-Pentanone	1.6	6.56	JD	0.5	1	5	ppbv
108-88-3	Toluene	11.4	43.0	D	0.5	1	5	ppbv
10061-02-6	t-1,3-Dichloropropene	1	4.54	UD	1	1	5	ppbv
10061-01-5	cis-1,3-Dichloropropene	1	4.54	UD	1	1	5	ppbv
79-00-5	1,1,2-Trichloroethane	1	5.46	UD	1	1	5	ppbv
124-48-1	Dibromochloromethane	1	8.52	UD	0.5	1	5	ppbv
106-93-4	1,2-Dibromoethane	1	7.69	UD	1	1	5	ppbv

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Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG2DL	SDG No.:	F4978
Lab Sample ID:	F4978-01DL	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
VL024352.D	10		12/06/14 07:38	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	4000	27124	ED	0.3	0.3	0.3	ppbv
108-90-7	Chlorobenzene	1	4.61	UD	1	1	5	ppbv
100-41-4	Ethyl Benzene	6.2	26.9	D	1	1	5	ppbv
179601-23-1	m/p-Xylene	34.1	148	D	1	2	10	ppbv
95-47-6	o-Xylene	20.2	87.7	D	1	1	5	ppbv
100-42-5	Styrene	1	4.26	UD	1	1	5	ppbv
75-25-2	Bromoform	1	10.3	UD	0.5	1	5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.3	2.06	UD	0.3	0.3	0.3	ppbv
95-49-8	2-Chlorotoluene	1	5.18	UD	1	1	5	ppbv
108-67-8	1,3,5-Trimethylbenzene	1	4.92	UD	1	1	5	ppbv
95-63-6	1,2,4-Trimethylbenzene	1.4	6.88	JD	1	1	5	ppbv
541-73-1	1,3-Dichlorobenzene	1	6.01	UD	1	1	5	ppbv
106-46-7	1,4-Dichlorobenzene	1	6.01	UD	1	1	5	ppbv
95-50-1	1,2-Dichlorobenzene	1	6.01	UD	1	1	5	ppbv
120-82-1	1,2,4-Trichlorobenzene	1	7.42	UD	0.4	1	5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	1	10.7	UD	1	1	5	ppbv
106-99-0	1,3-Butadiene	1	2.21	UD	1	1	5	ppbv
91-20-3	Naphthalene	1	5.24	UD	0.4	1	5	ppbv
622-96-8	4-Ethyltoluene	1	4.92	UD	1	1	5	ppbv
110-54-3	Hexane	3.3	11.6	JD	0.4	1	5	ppbv
107-05-1	Allyl Chloride	1	3.13	UD	0.5	1	5	ppbv
123-91-1	1,4-Dioxane	1	3.6	UDQ	1	1	5	ppbv
80-62-6	Methyl Methacrylate	1	4.09	UD	1	1	5	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.4			65 - 135		104%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1790990		6.63				
540-36-3	1,4-Difluorobenzene	3603290		8.3				
3114-55-4	Chlorobenzene-d5	3022650		13.72				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit

E = Value Exceeds Calibration Range

D = Dilution

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N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG2DL2	SDG No.:	F4978
Lab Sample ID:	F4978-01DL2	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
VL024373.D	600		12/09/14 01:25	VL120814

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	60	296	UD	24	60	300	ppbv
74-87-3	Chloromethane	60	123	UD	60	60	300	ppbv
75-01-4	Vinyl Chloride	18	46.0	UD	18	18	18	ppbv
74-83-9	Bromomethane	60	232	UD	18	60	300	ppbv
75-00-3	Chloroethane	60	158	UD	60	60	300	ppbv
109-99-9	Tetrahydrofuran	60	176	UD	60	60	300	ppbv
75-69-4	Trichlorofluoromethane	60	337	UD	24	60	300	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	60	459	UD	24	60	300	ppbv
76-14-2	Dichlorotetrafluoroethane	60	419	UD	24	60	300	ppbv
593-60-2	Bromoethene	60	262	UD	18	60	300	ppbv
75-65-0	tert-Butyl alcohol	60	181	UD	60	60	300	ppbv
142-82-5	Heptane	60	245	UD	60	60	300	ppbv
75-35-4	1,1-Dichloroethene	60	237	UD	30	60	300	ppbv
67-64-1	Acetone	60	142	UD	60	60	300	ppbv
75-15-0	Carbon Disulfide	60	186	UD	30	60	300	ppbv
1634-04-4	Methyl tert-Butyl Ether	60	216	UD	30	60	300	ppbv
75-09-2	Methylene Chloride	60	208	UD	30	60	300	ppbv
156-60-5	trans-1,2-Dichloroethene	60	237	UD	30	60	300	ppbv
75-34-3	1,1-Dichloroethane	60	242	UD	24	60	300	ppbv
110-82-7	Cyclohexane	60	206	UD	60	60	300	ppbv
78-93-3	2-Butanone	60	176	UD	60	60	300	ppbv
56-23-5	Carbon Tetrachloride	18	113	UD	18	18	18	ppbv
156-59-2	cis-1,2-Dichloroethene	550	2180	D	30	60	300	ppbv
67-66-3	Chloroform	60	293	UD	12	60	300	ppbv
71-55-6	1,1,1-Trichloroethane	18	98.2	UD	18	18	18	ppbv
540-84-1	2,2,4-Trimethylpentane	60	280	UD	24	60	300	ppbv
71-43-2	Benzene	60	191	UD	24	60	300	ppbv
107-06-2	1,2-Dichloroethane	60	242	UD	60	60	300	ppbv
79-01-6	Trichloroethene	200	1074	D	9	18	18	ppbv
78-87-5	1,2-Dichloropropane	60	277	UD	60	60	300	ppbv
75-27-4	Bromodichloromethane	60	401	UD	30	60	300	ppbv
108-10-1	4-Methyl-2-Pentanone	60	245	UD	30	60	300	ppbv
108-88-3	Toluene	60	226	UD	30	60	300	ppbv
10061-02-6	t-1,3-Dichloropropene	60	272	UD	60	60	300	ppbv
10061-01-5	cis-1,3-Dichloropropene	60	272	UD	60	60	300	ppbv
79-00-5	1,1,2-Trichloroethane	60	327	UD	60	60	300	ppbv
124-48-1	Dibromochloromethane	60	511	UD	30	60	300	ppbv
106-93-4	1,2-Dibromoethane	60	461	UD	60	60	300	ppbv

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG2DL2	SDG No.:	F4978
Lab Sample ID:	F4978-01DL2	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
VL024373.D	600		12/09/14 01:25	VL120814

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	6400	43399	D	18	18	18	ppbv
108-90-7	Chlorobenzene	60	276	UD	60	60	300	ppbv
100-41-4	Ethyl Benzene	60	260	UD	60	60	300	ppbv
179601-23-1	m/p-Xylene	120	521	UD	60	120	600	ppbv
95-47-6	o-Xylene	60	260	UD	60	60	300	ppbv
100-42-5	Styrene	60	255	UD	60	60	300	ppbv
75-25-2	Bromoform	60	620	UD	30	60	300	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	18	123	UD	18	18	18	ppbv
95-49-8	2-Chlorotoluene	60	310	UD	60	60	300	ppbv
108-67-8	1,3,5-Trimethylbenzene	60	294	UD	60	60	300	ppbv
95-63-6	1,2,4-Trimethylbenzene	60	294	UD	60	60	300	ppbv
541-73-1	1,3-Dichlorobenzene	60	360	UD	60	60	300	ppbv
106-46-7	1,4-Dichlorobenzene	60	360	UD	60	60	300	ppbv
95-50-1	1,2-Dichlorobenzene	60	360	UD	60	60	300	ppbv
120-82-1	1,2,4-Trichlorobenzene	60	445	UD	24	60	300	ppbv
87-68-3	Hexachloro-1,3-Butadiene	60	640	UD	60	60	300	ppbv
106-99-0	1,3-Butadiene	60	132	UD	60	60	300	ppbv
91-20-3	Naphthalene	60	314	UD	24	60	300	ppbv
622-96-8	4-Ethyltoluene	60	294	UD	60	60	300	ppbv
110-54-3	Hexane	60	211	UD	24	60	300	ppbv
107-05-1	Allyl Chloride	60	187	UD	30	60	300	ppbv
123-91-1	1,4-Dioxane	60	216	UDQ	60	60	300	ppbv
80-62-6	Methyl Methacrylate	60	245	UD	60	60	300	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11			65 - 135		110%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1546300		6.63				
540-36-3	1,4-Difluorobenzene	2921910		8.3				
3114-55-4	Chlorobenzene-d5	2469950		13.71				

U = Not Detected
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E = Value Exceeds Calibration Range

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* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG1	SDG No.:	F4978
Lab Sample ID:	F4978-02	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
VL024353.D	1		12/06/14 08:23	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	14.6	72.2		0.04	0.1	0.5	ppbv
74-87-3	Chloromethane	0.21	0.43	J	0.1	0.1	0.5	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.1	0.39	U	0.03	0.1	0.5	ppbv
75-00-3	Chloroethane	0.19	0.5	J	0.1	0.1	0.5	ppbv
109-99-9	Tetrahydrofuran	0.29	0.86	J	0.1	0.1	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.36	2.02	J	0.04	0.1	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.1	0.77	U	0.04	0.1	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.04	0.1	0.5	ppbv
593-60-2	Bromoethene	0.1	0.44	U	0.03	0.1	0.5	ppbv
75-65-0	tert-Butyl alcohol	4.5	13.6		0.1	0.1	0.5	ppbv
142-82-5	Heptane	2.4	9.84		0.1	0.1	0.5	ppbv
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.05	0.1	0.5	ppbv
67-64-1	Acetone	59.5	141	EB	0.1	0.1	0.5	ppbv
75-15-0	Carbon Disulfide	0.23	0.72	J	0.05	0.1	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	J	0.05	0.1	0.5	ppbv
75-09-2	Methylene Chloride	2.3	7.99	B	0.05	0.1	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.05	0.1	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.04	0.1	0.5	ppbv
110-82-7	Cyclohexane	0.74	2.55		0.1	0.1	0.5	ppbv
78-93-3	2-Butanone	9.7	28.6		0.1	0.1	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.08	0.5		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.46	1.82	J	0.05	0.1	0.5	ppbv
67-66-3	Chloroform	0.22	1.07	J	0.02	0.1	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
540-84-1	2,2,4-Trimethylpentane	0.1	0.47	U	0.04	0.1	0.5	ppbv
71-43-2	Benzene	0.83	2.65		0.04	0.1	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.1	0.1	0.5	ppbv
79-01-6	Trichloroethene	2.5	13.4		0.02	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.1	0.1	0.5	ppbv
75-27-4	Bromodichloromethane	0.1	0.67	U	0.05	0.1	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	1.8	7.38		0.05	0.1	0.5	ppbv
108-88-3	Toluene	12.1	45.6		0.05	0.1	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.1	0.1	0.5	ppbv
124-48-1	Dibromochloromethane	0.1	0.85	U	0.05	0.1	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.1	0.1	0.5	ppbv

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG1	SDG No.:	F4978
Lab Sample ID:	F4978-02	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
VL024353.D	1		12/06/14 08:23	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	220	1491	E	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.1	0.46	U	0.1	0.1	0.5	ppbv
100-41-4	Ethyl Benzene	7.7	33.4		0.1	0.1	0.5	ppbv
179601-23-1	m/p-Xylene	40.3	175	E	0.1	0.2	1	ppbv
95-47-6	o-Xylene	23.6	102	E	0.1	0.1	0.5	ppbv
100-42-5	Styrene	0.37	1.58	J	0.1	0.1	0.5	ppbv
75-25-2	Bromoform	0.1	1.03	U	0.05	0.1	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.03	0.21	U	0.03	0.03	0.03	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.38	1.87	J	0.1	0.1	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	1.2	5.9		0.1	0.1	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	U	0.04	0.1	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	0.1	0.1	0.5	ppbv
106-99-0	1,3-Butadiene	0.1	0.22	U	0.1	0.1	0.5	ppbv
91-20-3	Naphthalene	0.1	0.52	U	0.04	0.1	0.5	ppbv
622-96-8	4-Ethyltoluene	0.76	3.74		0.1	0.1	0.5	ppbv
110-54-3	Hexane	2.6	9.16		0.04	0.1	0.5	ppbv
107-05-1	Allyl Chloride	0.1	0.31	U	0.05	0.1	0.5	ppbv
123-91-1	1,4-Dioxane	0.1	0.36	UQ	0.1	0.1	0.5	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.5	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.1			65 - 135		101%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1977600		6.63				
540-36-3	1,4-Difluorobenzene	3981610		8.31				
3114-55-4	Chlorobenzene-d5	3351390		13.73				

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

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG1DL	SDG No.:	F4978
Lab Sample ID:	F4978-02DL	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
VL024354.D	10		12/06/14 09:06	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	28.4	140	D	0.4	1	5	ppbv
74-87-3	Chloromethane	1	2.07	UD	1	1	5	ppbv
75-01-4	Vinyl Chloride	0.3	0.77	UD	0.3	0.3	0.3	ppbv
74-83-9	Bromomethane	1	3.88	UD	0.3	1	5	ppbv
75-00-3	Chloroethane	1	2.64	UD	1	1	5	ppbv
109-99-9	Tetrahydrofuran	1	2.95	UD	1	1	5	ppbv
75-69-4	Trichlorofluoromethane	1	5.62	UD	0.4	1	5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	1	7.66	UD	0.4	1	5	ppbv
76-14-2	Dichlorotetrafluoroethane	1	6.99	UD	0.4	1	5	ppbv
593-60-2	Bromoethene	1	4.37	UD	0.3	1	5	ppbv
75-65-0	tert-Butyl alcohol	4.6	13.9	JD	1	1	5	ppbv
142-82-5	Heptane	2.2	9.02	JD	1	1	5	ppbv
75-35-4	1,1-Dichloroethene	1	3.96	UD	0.5	1	5	ppbv
67-64-1	Acetone	67.2	159	DB	1	1	5	ppbv
75-15-0	Carbon Disulfide	1	3.11	UD	0.5	1	5	ppbv
1634-04-4	Methyl tert-Butyl Ether	1	3.61	UD	0.5	1	5	ppbv
75-09-2	Methylene Chloride	3.6	12.5	JDB	0.5	1	5	ppbv
156-60-5	trans-1,2-Dichloroethene	1	3.96	UD	0.5	1	5	ppbv
75-34-3	1,1-Dichloroethane	1	4.05	UD	0.4	1	5	ppbv
110-82-7	Cyclohexane	1	3.44	UD	1	1	5	ppbv
78-93-3	2-Butanone	9.4	27.7	D	1	1	5	ppbv
56-23-5	Carbon Tetrachloride	0.3	1.89	UD	0.3	0.3	0.3	ppbv
156-59-2	cis-1,2-Dichloroethene	1	3.96	UD	0.5	1	5	ppbv
67-66-3	Chloroform	1	4.88	UD	0.2	1	5	ppbv
71-55-6	1,1,1-Trichloroethane	0.3	1.64	UD	0.3	0.3	0.3	ppbv
540-84-1	2,2,4-Trimethylpentane	1	4.67	UD	0.4	1	5	ppbv
71-43-2	Benzene	1	3.19	UD	0.4	1	5	ppbv
107-06-2	1,2-Dichloroethane	1	4.05	UD	1	1	5	ppbv
79-01-6	Trichloroethene	2.5	13.4	D	0.15	0.3	0.3	ppbv
78-87-5	1,2-Dichloropropane	1	4.62	UD	1	1	5	ppbv
75-27-4	Bromodichloromethane	1	6.7	UD	0.5	1	5	ppbv
108-10-1	4-Methyl-2-Pentanone	2	8.2	JD	0.5	1	5	ppbv
108-88-3	Toluene	11.8	44.5	D	0.5	1	5	ppbv
10061-02-6	t-1,3-Dichloropropene	1	4.54	UD	1	1	5	ppbv
10061-01-5	cis-1,3-Dichloropropene	1	4.54	UD	1	1	5	ppbv
79-00-5	1,1,2-Trichloroethane	1	5.46	UD	1	1	5	ppbv
124-48-1	Dibromochloromethane	1	8.52	UD	0.5	1	5	ppbv
106-93-4	1,2-Dibromoethane	1	7.69	UD	1	1	5	ppbv

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Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG1DL	SDG No.:	F4978
Lab Sample ID:	F4978-02DL	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
VL024354.D	10		12/06/14 09:06	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	230	1559	ED	0.3	0.3	0.3	ppbv
108-90-7	Chlorobenzene	1	4.61	UD	1	1	5	ppbv
100-41-4	Ethyl Benzene	7.6	33.0	D	1	1	5	ppbv
179601-23-1	m/p-Xylene	39.3	170	D	1	2	10	ppbv
95-47-6	o-Xylene	22.9	99.5	D	1	1	5	ppbv
100-42-5	Styrene	1	4.26	UD	1	1	5	ppbv
75-25-2	Bromoform	1	10.3	UD	0.5	1	5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.3	2.06	UD	0.3	0.3	0.3	ppbv
95-49-8	2-Chlorotoluene	1	5.18	UD	1	1	5	ppbv
108-67-8	1,3,5-Trimethylbenzene	1	4.92	UD	1	1	5	ppbv
95-63-6	1,2,4-Trimethylbenzene	1.2	5.9	JD	1	1	5	ppbv
541-73-1	1,3-Dichlorobenzene	1	6.01	UD	1	1	5	ppbv
106-46-7	1,4-Dichlorobenzene	1	6.01	UD	1	1	5	ppbv
95-50-1	1,2-Dichlorobenzene	1	6.01	UD	1	1	5	ppbv
120-82-1	1,2,4-Trichlorobenzene	1	7.42	UD	0.4	1	5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	1	10.7	UD	1	1	5	ppbv
106-99-0	1,3-Butadiene	1	2.21	UD	1	1	5	ppbv
91-20-3	Naphthalene	1	5.24	UD	0.4	1	5	ppbv
622-96-8	4-Ethyltoluene	1	4.92	UD	1	1	5	ppbv
110-54-3	Hexane	3.2	11.3	JD	0.4	1	5	ppbv
107-05-1	Allyl Chloride	1	3.13	UD	0.5	1	5	ppbv
123-91-1	1,4-Dioxane	1	3.6	UDQ	1	1	5	ppbv
80-62-6	Methyl Methacrylate	1	4.09	UD	1	1	5	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.2			65 - 135		101%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1894320		6.63				
540-36-3	1,4-Difluorobenzene	3864400		8.3				
3114-55-4	Chlorobenzene-d5	3221380		13.72				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit

E = Value Exceeds Calibration Range

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* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG1DL2	SDG No.:	F4978
Lab Sample ID:	F4978-02DL2	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
VL024374.D	40		12/09/14 02:04	VL120814

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	36.8	181	D	1.6	4	20	ppbv
74-87-3	Chloromethane	4	8.26	UD	4	4	20	ppbv
75-01-4	Vinyl Chloride	1.2	3.07	UD	1.2	1.2	1.2	ppbv
74-83-9	Bromomethane	4	15.5	UD	1.2	4	20	ppbv
75-00-3	Chloroethane	4	10.6	UD	4	4	20	ppbv
109-99-9	Tetrahydrofuran	4	11.8	UD	4	4	20	ppbv
75-69-4	Trichlorofluoromethane	4	22.5	UD	1.6	4	20	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	4	30.7	UD	1.6	4	20	ppbv
76-14-2	Dichlorotetrafluoroethane	4	28.0	UD	1.6	4	20	ppbv
593-60-2	Bromoethene	4	17.5	UD	1.2	4	20	ppbv
75-65-0	tert-Butyl alcohol	4	12.1	UD	4	4	20	ppbv
142-82-5	Heptane	4	16.4	UD	4	4	20	ppbv
75-35-4	1,1-Dichloroethene	4	15.9	UD	2	4	20	ppbv
67-64-1	Acetone	62	147	DB	4	4	20	ppbv
75-15-0	Carbon Disulfide	4	12.5	UD	2	4	20	ppbv
1634-04-4	Methyl tert-Butyl Ether	4	14.4	UD	2	4	20	ppbv
75-09-2	Methylene Chloride	4	13.9	UD	2	4	20	ppbv
156-60-5	trans-1,2-Dichloroethene	4	15.9	UD	2	4	20	ppbv
75-34-3	1,1-Dichloroethane	4	16.2	UD	1.6	4	20	ppbv
110-82-7	Cyclohexane	4	13.8	UD	4	4	20	ppbv
78-93-3	2-Butanone	4	11.8	UD	4	4	20	ppbv
56-23-5	Carbon Tetrachloride	1.2	7.55	UD	1.2	1.2	1.2	ppbv
156-59-2	cis-1,2-Dichloroethene	4	15.9	UD	2	4	20	ppbv
67-66-3	Chloroform	4	19.5	UD	0.8	4	20	ppbv
71-55-6	1,1,1-Trichloroethane	1.2	6.55	UD	1.2	1.2	1.2	ppbv
540-84-1	2,2,4-Trimethylpentane	4	18.7	UD	1.6	4	20	ppbv
71-43-2	Benzene	4	12.8	UD	1.6	4	20	ppbv
107-06-2	1,2-Dichloroethane	4	16.2	UD	4	4	20	ppbv
79-01-6	Trichloroethene	1.6	8.6	D	0.6	1.2	1.2	ppbv
78-87-5	1,2-Dichloropropane	4	18.5	UD	4	4	20	ppbv
75-27-4	Bromodichloromethane	4	26.8	UD	2	4	20	ppbv
108-10-1	4-Methyl-2-Pentanone	4	16.4	UD	2	4	20	ppbv
108-88-3	Toluene	7.2	27.1	JD	2	4	20	ppbv
10061-02-6	t-1,3-Dichloropropene	4	18.2	UD	4	4	20	ppbv
10061-01-5	cis-1,3-Dichloropropene	4	18.2	UD	4	4	20	ppbv
79-00-5	1,1,2-Trichloroethane	4	21.8	UD	4	4	20	ppbv
124-48-1	Dibromochloromethane	4	34.1	UD	2	4	20	ppbv
106-93-4	1,2-Dibromoethane	4	30.7	UD	4	4	20	ppbv

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Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	SG1DL2	SDG No.:	F4978
Lab Sample ID:	F4978-02DL2	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
VL024374.D	40		12/09/14 02:04	VL120814

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	180	1220	D	1.2	1.2	1.2	ppbv
108-90-7	Chlorobenzene	4	18.4	UD	4	4	20	ppbv
100-41-4	Ethyl Benzene	5.2	22.6	JD	4	4	20	ppbv
179601-23-1	m/p-Xylene	29.2	126	JD	4	8	40	ppbv
95-47-6	o-Xylene	18.8	81.7	JD	4	4	20	ppbv
100-42-5	Styrene	4	17.0	UD	4	4	20	ppbv
75-25-2	Bromoform	4	41.4	UD	2	4	20	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	1.2	8.24	UD	1.2	1.2	1.2	ppbv
95-49-8	2-Chlorotoluene	4	20.7	UD	4	4	20	ppbv
108-67-8	1,3,5-Trimethylbenzene	4	19.7	UD	4	4	20	ppbv
95-63-6	1,2,4-Trimethylbenzene	4	19.7	UD	4	4	20	ppbv
541-73-1	1,3-Dichlorobenzene	4	24.0	UD	4	4	20	ppbv
106-46-7	1,4-Dichlorobenzene	4	24.0	UD	4	4	20	ppbv
95-50-1	1,2-Dichlorobenzene	4	24.0	UD	4	4	20	ppbv
120-82-1	1,2,4-Trichlorobenzene	4	29.7	UD	1.6	4	20	ppbv
87-68-3	Hexachloro-1,3-Butadiene	4	42.7	UD	4	4	20	ppbv
106-99-0	1,3-Butadiene	4	8.85	UD	4	4	20	ppbv
91-20-3	Naphthalene	4	21.0	UD	1.6	4	20	ppbv
622-96-8	4-Ethyltoluene	4	19.7	UD	4	4	20	ppbv
110-54-3	Hexane	4	14.1	UD	1.6	4	20	ppbv
107-05-1	Allyl Chloride	4	12.5	UD	2	4	20	ppbv
123-91-1	1,4-Dioxane	4	14.4	UDQ	4	4	20	ppbv
80-62-6	Methyl Methacrylate	4	16.4	UD	4	4	20	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11.7			65 - 135		117%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1514550		6.63				
540-36-3	1,4-Difluorobenzene	2852380		8.3				
3114-55-4	Chlorobenzene-d5	2516750		13.71				

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

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	IA1	SDG No.:	F4978
Lab Sample ID:	F4978-03	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
VL024346.D	1		12/06/14 03:24	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	5.5	27.2		0.04	0.1	0.5	ppbv
74-87-3	Chloromethane	0.6	1.24		0.1	0.1	0.5	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.1	0.39	U	0.03	0.1	0.5	ppbv
75-00-3	Chloroethane	0.1	0.26	U	0.1	0.1	0.5	ppbv
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.1	0.1	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.35	1.97	J	0.04	0.1	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.1	0.77	U	0.04	0.1	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.04	0.1	0.5	ppbv
593-60-2	Bromoethene	0.1	0.44	U	0.03	0.1	0.5	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.5	ppbv
142-82-5	Heptane	0.2	0.82	J	0.1	0.1	0.5	ppbv
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.05	0.1	0.5	ppbv
67-64-1	Acetone	6.5	15.4	B	0.1	0.1	0.5	ppbv
75-15-0	Carbon Disulfide	0.1	0.31	U	0.05	0.1	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.05	0.1	0.5	ppbv
75-09-2	Methylene Chloride	0.64	2.22	B	0.05	0.1	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.05	0.1	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.04	0.1	0.5	ppbv
110-82-7	Cyclohexane	0.16	0.55	J	0.1	0.1	0.5	ppbv
78-93-3	2-Butanone	0.27	0.8	J	0.1	0.1	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.08	0.5		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.13	0.52	J	0.05	0.1	0.5	ppbv
67-66-3	Chloroform	0.1	0.49	U	0.02	0.1	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
540-84-1	2,2,4-Trimethylpentane	0.18	0.84	J	0.04	0.1	0.5	ppbv
71-43-2	Benzene	0.39	1.25	J	0.04	0.1	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.1	0.1	0.5	ppbv
79-01-6	Trichloroethene	0.08	0.43		0.02	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.1	0.1	0.5	ppbv
75-27-4	Bromodichloromethane	0.1	0.67	U	0.05	0.1	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.05	0.1	0.5	ppbv
108-88-3	Toluene	1.7	6.41		0.05	0.1	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.1	0.1	0.5	ppbv
124-48-1	Dibromochloromethane	0.1	0.85	U	0.05	0.1	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.1	0.1	0.5	ppbv

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Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	IA1	SDG No.:	F4978
Lab Sample ID:	F4978-03	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
VL024346.D	1		12/06/14 03:24	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	6.5	44.1		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.1	0.46	U	0.1	0.1	0.5	ppbv
100-41-4	Ethyl Benzene	0.12	0.52	J	0.1	0.1	0.5	ppbv
179601-23-1	m/p-Xylene	0.34	1.48	J	0.1	0.2	1	ppbv
95-47-6	o-Xylene	0.15	0.65	J	0.1	0.1	0.5	ppbv
100-42-5	Styrene	0.1	0.43	U	0.1	0.1	0.5	ppbv
75-25-2	Bromoform	0.1	1.03	U	0.05	0.1	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.03	0.21	U	0.03	0.03	0.03	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.13	0.64	J	0.1	0.1	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	U	0.04	0.1	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	0.1	0.1	0.5	ppbv
106-99-0	1,3-Butadiene	0.1	0.22	U	0.1	0.1	0.5	ppbv
91-20-3	Naphthalene	0.1	0.52	U	0.04	0.1	0.5	ppbv
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.1	0.1	0.5	ppbv
110-54-3	Hexane	1	3.52		0.04	0.1	0.5	ppbv
107-05-1	Allyl Chloride	0.1	0.31	U	0.05	0.1	0.5	ppbv
123-91-1	1,4-Dioxane	0.1	0.36	UQ	0.1	0.1	0.5	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.5	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.2			65 - 135		102%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1722040		6.62				
540-36-3	1,4-Difluorobenzene	3499490		8.29				
3114-55-4	Chlorobenzene-d5	2833930		13.7				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit

E = Value Exceeds Calibration Range

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J = Estimated Value
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N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	OA1	SDG No.:	F4978
Lab Sample ID:	F4978-04	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
VL024349.D	1		12/06/14 05:31	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.33	1.63	J	0.04	0.1	0.5	ppbv
74-87-3	Chloromethane	0.53	1.09		0.1	0.1	0.5	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.1	0.39	U	0.03	0.1	0.5	ppbv
75-00-3	Chloroethane	0.1	0.26	U	0.1	0.1	0.5	ppbv
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.1	0.1	0.5	ppbv
75-69-4	Trichlorofluoromethane	0.28	1.57	J	0.04	0.1	0.5	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.1	0.77	U	0.04	0.1	0.5	ppbv
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.04	0.1	0.5	ppbv
593-60-2	Bromoethene	0.1	0.44	U	0.03	0.1	0.5	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.5	ppbv
142-82-5	Heptane	0.1	0.41	J	0.1	0.1	0.5	ppbv
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.05	0.1	0.5	ppbv
67-64-1	Acetone	3.8	9.03	B	0.1	0.1	0.5	ppbv
75-15-0	Carbon Disulfide	0.1	0.31	U	0.05	0.1	0.5	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.05	0.1	0.5	ppbv
75-09-2	Methylene Chloride	1.8	6.25	B	0.05	0.1	0.5	ppbv
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.05	0.1	0.5	ppbv
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.04	0.1	0.5	ppbv
110-82-7	Cyclohexane	0.13	0.45	J	0.1	0.1	0.5	ppbv
78-93-3	2-Butanone	0.18	0.53	J	0.1	0.1	0.5	ppbv
56-23-5	Carbon Tetrachloride	0.08	0.5		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.05	0.1	0.5	ppbv
67-66-3	Chloroform	0.1	0.49	U	0.02	0.1	0.5	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
540-84-1	2,2,4-Trimethylpentane	0.13	0.61	J	0.04	0.1	0.5	ppbv
71-43-2	Benzene	0.37	1.18	J	0.04	0.1	0.5	ppbv
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.1	0.1	0.5	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.02	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.1	0.1	0.5	ppbv
75-27-4	Bromodichloromethane	0.1	0.67	U	0.05	0.1	0.5	ppbv
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.05	0.1	0.5	ppbv
108-88-3	Toluene	0.53	2		0.05	0.1	0.5	ppbv
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.5	ppbv
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.1	0.1	0.5	ppbv
124-48-1	Dibromochloromethane	0.1	0.85	U	0.05	0.1	0.5	ppbv
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.1	0.1	0.5	ppbv

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Report of Analysis

Client:	GFE LLC	Date Collected:	12/03/14
Project:	154 Graham Ave	Date Received:	12/04/14
Client Sample ID:	OA1	SDG No.:	F4978
Lab Sample ID:	F4978-04	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
VL024349.D	1		12/06/14 05:31	VL120514

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	0.42	2.85		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.1	0.46	U	0.1	0.1	0.5	ppbv
100-41-4	Ethyl Benzene	0.1	0.43	U	0.1	0.1	0.5	ppbv
179601-23-1	m/p-Xylene	0.2	0.87	J	0.1	0.2	1	ppbv
95-47-6	o-Xylene	0.1	0.43	U	0.1	0.1	0.5	ppbv
100-42-5	Styrene	0.1	0.43	U	0.1	0.1	0.5	ppbv
75-25-2	Bromoform	0.1	1.03	U	0.05	0.1	0.5	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.03	0.21	U	0.03	0.03	0.03	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.5	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.5	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.19	0.93	J	0.1	0.1	0.5	ppbv
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.5	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	U	0.04	0.1	0.5	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	0.1	0.1	0.5	ppbv
106-99-0	1,3-Butadiene	0.1	0.22	U	0.1	0.1	0.5	ppbv
91-20-3	Naphthalene	0.1	0.52	U	0.04	0.1	0.5	ppbv
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.1	0.1	0.5	ppbv
110-54-3	Hexane	0.84	2.96		0.04	0.1	0.5	ppbv
107-05-1	Allyl Chloride	0.1	0.31	U	0.05	0.1	0.5	ppbv
123-91-1	1,4-Dioxane	0.1	0.36	UQ	0.1	0.1	0.5	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.5	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.7			65 - 135		107%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1474680		6.62				
540-36-3	1,4-Difluorobenzene	2902820		8.29				
3114-55-4	Chlorobenzene-d5	2244550		13.71				

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

Photograph 1: View of the Site looking east from across Graham Avenue (three story building with yellow “99 cent” sign). The south-adjoining historical dry cleaning operation (and apparent current dry cleaning valet service) is shown at right (“Top Hat Cleaners”).

Photograph 2: Near view of the Site and adjoining Top Hat Cleaners operation looking north along the Graham Avenue sidewalk.

Photograph 3: View of the partial basement under the west side of the Site building.