# SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) QUARTERLY MONITORING REPORT

520 Albany Avenue Kingston, Ulster County, New York

December 8, 2014

1291 Old Post Road Ulster Park, New York 12487 (845) 658-3484 phone/(845) 658-3320 fax dtconsulting@hvc.rr.com

December 8, 2014

Krista Scibelli 111 Whalesback Road Red Hook, New York 12571

# RE: SUB-SLAB DEPRESSURIZATION SYSTEM QUARTERLY MONITORING REPORT 520 Albany Avenue

Kingston, Ulster County, New York

Dear Mrs. Scibelli:

DT Consulting Services, Inc. (DTCS) is pleased to present the attached Sub-slab Depressurization System (SSDS) Quarterly Monitoring Report as generated for the above referenced site. As required, a copy of this report will be forwarded to the New York State Department of Environmental Conservation (NYSDEC) for their review and comment. The necessity for further action is at the discretion of the NYSDEC.

If you have any questions regarding the enclosed, please feel free to contact me at (845) 658-3484. DTCS thanks you for the opportunity to work with you on this project.

Sincerely, **DT CONSULTING SERVICES, INC.** 

Deborah J. Thompson Senior Geologist / Project Manager

Cc: E. Moore, P.E./NYSDEC Region III

### SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) QUARTERLY MONITORING REPORT

### Pertaining to:

520 Albany Avenue Kingston, Ulster County, New York

### **Prepared** for:

Krista Scibelli 111 Whalesback Road Red Hook, New York 12571

### Prepared by:

Ms. Deborah J. Thompson Senior Geologist/Project Manager DT CONSULTING SERVICES, INC. 1291 Old Post Road Ulster Park, New York 12487

*Date:* December 8, 2014

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### **1.0 INTRODUCTION/SITE INFORMATION**

DT Consulting Services, Inc. (DTCS) was initially contracted by Krista Scibelli, property owner of 520 Albany Avenue, Kingston, Ulster County, New York (heretofore referenced as the Site or subject property) to perform investigative-remedial actions on-Site to quantify subsurface conditions and remediate previously detected soil contamination, respectively. Historically, the subject property was utilized as a dry cleaning establishment from the late 1950s – 1980s. The Site was renovated in 2004, having been completely updated as a used car service and sales outlet. According to facility representatives, no known underground storage tanks have ever been employed on-Site. A Site location map and a Site (base) plan (Figures 1 and 2, respectively) are included for your reference.

The approximate 0.66-acre property was improved with a single-story masonry construction office/retail building with approximately 2,579 square feet of space with paved parking areas. Up until its recent closure (November 1, 2013), the property was utilized by Eastchester Auto for retail automobile sales and service. April Between and August 2014 the property was sold, site improvements/additions conducted, and is currently operating as Artcraft Camera & Digital and Fast Signs. Artcraft Camera & Digital and Fast Signs provide printing/photography services along with sign and graphic products.

The site is bounded by Albany Avenue and Quick Check Gasoline/Convenience Store the north-northwest, single family residences directly to the south, Wrentham Street and L. T. Begnal Motor Company to the east, while Tri-Star Auto Sales, Inc. - Auto Tech is present to the west. Town roadways adjoining the site include Albany Avenue to the north-northwest and Wrentham Street to the east. Site topography is generally level and at grade with Albany Avenue. Potable water and wastewater disposal are reportedly provided by the local municipality.

### 2.0 SITE BACKGROUND/SSDS INSTALLATION

On February 4, 2013, DTCS was on-Site to perform a subsurface investigation. While performing the field survey, soil contamination was encountered as displayed by stained soils, a petroleum film and positive field readings with a Photoionization Detector or PID. This material was documented along the southwest corner of the site structure, directly down gradient of several 55-gallon drums utilized by the historical tenant, Eastchester Auto, to store waste oil. On account of the contamination encountered, DTCS notified the New York State Department of Environmental Conservation (NYSDEC) and Spill Number 12-15279 was generated for the site. Upon review of field data with the NYSDEC, the Department requested remediation of the petroleum contaminated soils documented during the February 2013 survey. Subsequent remediation (April 22, 2013) of the source materials has been performed to remedy the impacts to soil and groundwater quality. The removal and ultimate off-site disposal of 34.82 tons of contaminated soils and 1,241 gallons of captured groundwater appears to have remediated this Site impact. The Department concurred, and officially closed the spill number on September 4, 2013.

While conducting further investigation on the subject parcel in June 2013, it became apparent that historical dry cleaning operations have had an impact to the subsurface environment. To further delineate and quantify the compounds of concern, additional borings were advanced for the purpose of defining the chlorinated solvent plume within subsurface materials including soil, soil gas and groundwater beneath the site. Based upon the results of this investigation, DTCS proposed and received approval from the Department for the installation of a SSDS within the open garage space of the above referenced site (DTCS, SSDS Pilot Study and Design Report, December 17, 2013). Designed to create a negative pressure field directly beneath the site structure, two extraction points were installed below the concrete floor slab on January 7 & 8, 2014 (see Figure 2 for locations). These extraction points were created by cutting through the

concrete slab and excavating a six inch diameter hole, two feet deep. A two-inch diameter ten slot screen, eighteen inches long, connected to an appropriate length of solid riser pipe was then installed in the excavation. To provide the suction necessary to maintain the required vacuum under the floor slab, the two extraction points were interconnected to a single, sub-slab two-inch pipe traversing down the center of the garage. Vapor discharge piping was then attached to the suction side of a Rotron DR454M Regenerative Blower which was mounted to the outside of the building on the back wall. The exhaust stack for the sub-slab system was attached to the wall and extended to a height above the roof line of the Sampling ports and a fresh air bleed valve were also installed to building. facilitate the collection of air quality samples, routine monitoring of the system and to allow the introduction of diluted air into the system (as necessary). Note that all sub-slab excavations (extraction piping and discharge trench) were backfilled with <sup>1</sup>/<sub>4</sub>" washed stone and at completion, disturbed cement flooring was restored to create a tight seal. To finalize the SSDS installation, an alarm light was installed within the garage area of the site structure for a quick visual determination as to whether the system is operating. DTCS initiated the Sub-Slab Depressurization Remedial System on January 23, 2014.

### 3.0 SSDS OPERATION

As part of Site monitoring procedures, DTCS records vacuum measurements, PID readings, and performs analysis of indoor ambient and SSDS soil vapor discharge. Collected system information is as follows:

Date	Vacuum - Blower Discharge (cfm)	Vapor Concentrations (ppm)
January 23, 2014	110	115
March 7, 2014	121	1.2
April 25, 2014	115	65
August 8, 2014	112	12
November 22, 2014	111	1.4

During SSDS operation, the soil gas concentrations typically start at a maximum concentration and decrease asymptotically to steady state conditions. On account of the initial tetrachloroethylene or PERC soil gas concentration reported from the system effluent (20,000  $\mu$ g/m<sup>3</sup> on January 23, 2014); the fresh air bleed valve was opened 25% to allow the introduction of diluted air into the system prior to discharge to the atmosphere. All system components were running within acceptable thresholds during this reporting period.

### 4.0 AIR QUALITY SAMPLING

Upon initiation of the SSDS on January 23, 2014, collection and analysis of the effluent vapor was performed by DTCS. In addition to effluent sampling, indoor air within the building (office and garage areas) was sampled 24 hours after the initial startup of the system or on January 24, 2014 and monthly thereafter (March and April 2014). At the conclusion of three monthly monitoring events (January, March and April 2014), the NYSDEC has approved a quarterly sampling frequency. All vapor sampling was collected for analysis employing a six liter SUMMA canister equipped with a laboratory-calibrated flow control device to facilitate the collection of the samples for a 2-hour sample duration time. During both purging and sampling, the flow rate was restricted to less than (<) 0.2 liters per minute and connected directly to the dedicated tubing. Samples collected in Summa canisters were certified clean by the laboratory and analyzed by using USEPA Method TO-15. A sample log sheet was maintained summarizing sample identification, date and time of sample collection, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, and chain of custody protocols. Samples submitted for laboratory analyses were denoted as follows:

Sample No. 001 = Former Office Sample No. 002 = Former Garage Sample No. 003 = SSDS Effluent

The complete laboratory package may be found in Attachment A for your review.

### 4.1 Findings

Since the last monitoring period in August 2014, the Site has undergone extensive renovations and is presently being operated by Artcraft Camera & Digital/Fast Signs. Sampling performed during this monitoring period has taken place prior to normal business hours. Note however, that copying and graphic services conducted at the facility utilize solvent based machinery which resulted in the detection of numerous compounds not previously reported within indoor ambient air samples collected. The results of soil vapor sampling indicate that between eight and twenty-two volatile organic compounds or VOCs are present within the soil gas samples collected on-site during this monitoring period. A summary table of data for all chemical analytical work is included in Table 1. Based upon the comparison of reported sample concentrations verses the USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) November 2002 and the NYS Department of Health (DOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006; none of the reported compounds exceeded regulatory guidelines with the exception of Tetrachloroethylene or PERC within the SSDS effluent.

The VOC of concern, namely Tetrachloroethylene was reported at a high concentration of 7,700  $\mu$ g/m<sup>3</sup> within the SSDS effluent air stream to a low of 18  $\mu$ g/m<sup>3</sup> within the historical office area during November 2014 monitoring processes. The increase in PERC concentration within the SSDS effluent is likely the result of the temporary elimination of the ground surface/ambient-air transport

pathway created during colder, winter weather conditions. The SSDS has been efficient at mitigating the intrusion of potential vapors as the ambient air samples were reported with PERC concentrations well below regulatory guidance (see Figure 3 for comparison graph).

PERC and to a lesser extent trichloroethylene or TCE, are the main contaminants of concern. The estimated PERC removal rate was determined by multiplying a conversion factor, the measured VOC concentration, the flow rate, and the molecular weight (see equation). The actual removal rate is quantified by using the following equation:

$$R_{act} = MWQC_{act}$$

Where: Ract MV Q

R <sub>act</sub>	=	actual rate of removal (lb/hr),
MW	=	contaminant molecular weight (lb/lb-mole),
-		vapor flow rate (ft <sup>3</sup> /min),
1.581x 10 <sup>-7</sup>	=	conversion factor (lb-mole-min./ft <sup>3</sup> -ppmv-hr)C <sub>act</sub>
	=	measured vapor concentration (ppmv).

Vapor Contaminant	Total Mass Removed To Date (pounds)
VOCs by USEPA TO-15	
Tetrachloroethylene	6.15

#### 5.0 **OPERATION, MAINTENANCE AND MONITORING**

Historical evaluation of vapor data suggested that the SSDS effluent could potentially exceed the maximum permitted level for VOCs. As such; the fresh air bleed was utilized to dilute the airstream until the initial purge of the system is complete and discharge levels are within acceptable regulatory limitations.

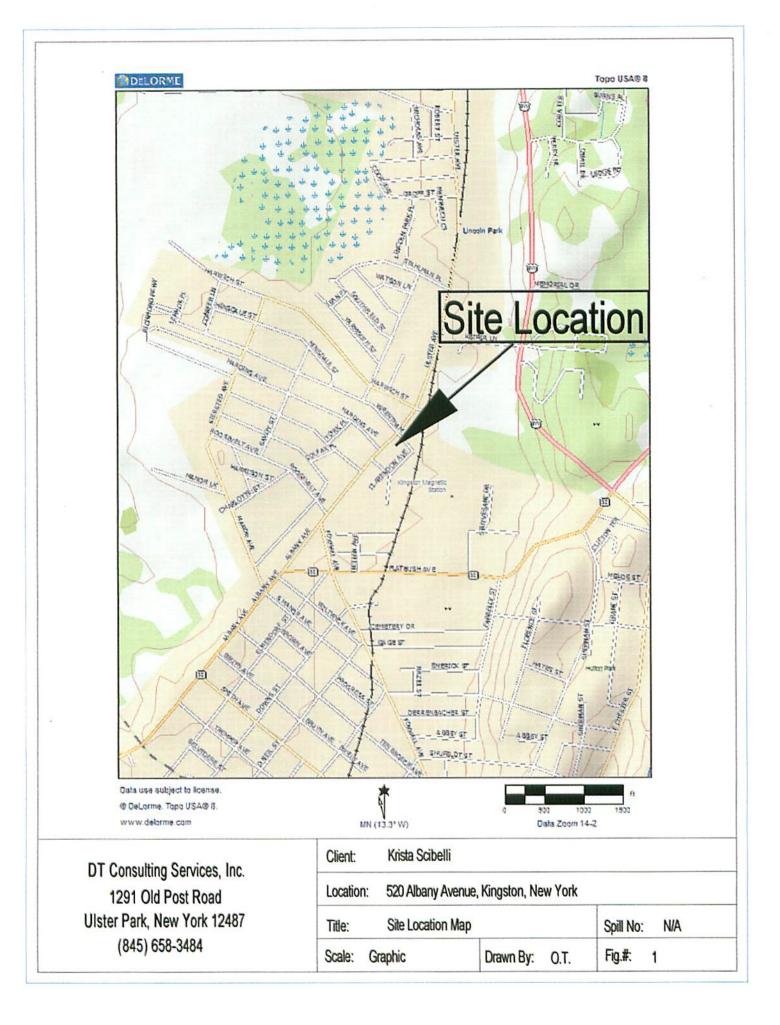
As previously discussed, the accepted monitoring locations, frequency and analytical parameters are as follows (as approved by the NYSDEC):

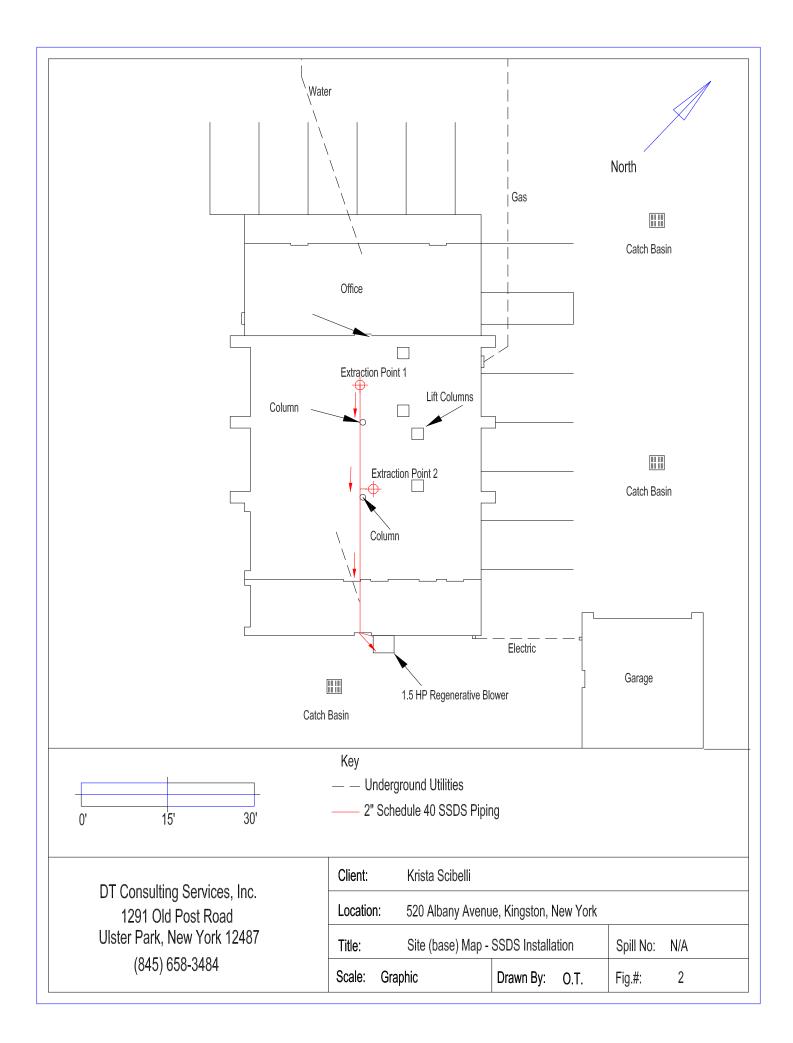
 Continuing quarterly monitoring to determine when dilution and/or treatment of extracted vapor are no longer necessary, and to support adjustments to the SSDS extraction rate based upon contaminant concentrations. Monitoring would include sampling for VOCs using SUMMA type air canisters, as well as recording of PID readings and vacuum measurements of the system. Samples collected in Summa canisters will be certified clean by the laboratory and analyzed by using USEPA Method TO-15. At the completion of sampling and laboratory testing, a quarterly monitoring report will be submitted for review and approval.

### 6.0 LIMITATIONS

DTCS has prepared this assessment using reasonable efforts in each phase of its work to determine the extent of contamination within the locations of potential environmental concern. This report is not definitive, and should not be assumed to be a complete or specific definition of all conditions above or below grade. The conclusions/recommendations set forth herein are applicable only to the facts and conditions described at the time of this report.

# **FIGURES**





### FIGURE 3 <u>Historical PERC Comparison Graph</u> 520 Albany Avenue, Kingston, New York



# **TABLES**

#### TABLE 1:

#### SUMMARY OF TO-15 VOLATILES IN AIR SAMPLES

Site: Krista Scibelli Address: 520 Albany Avenue, Kingston, New York NYSDEC Spill Numbet N/A

### Client: Krista Scibelli Address: 111 Whalesback Road Red Hook, New York 12571

Contractor: DT Consulting Services, Inc. Laboratory: York Analytical Laboratories, Inc. Stratford, CT 06615

	TARGET SHALLOW GAS	Former Office	Former Garage	SSDS Effluent
Air Guideline	CONCENTRATIONS(1)			
Values		Indoor Ambient Air	Indoor Ambient Air	Discharge
		11/21/2014	11/21/2014	11/21/2014
				14K0804
		µg/m <sup>3</sup>	µg/m³	µg/m³
ır				
NS	22000	ND	ND	ND
				ND
				ND
				ND
NS	5000	ND	ND	ND
NS	NS	ND	ND	ND
NS	2000	ND	ND	ND
NS	60	28	30	ND
NS	2	ND	ND	ND
				ND ND
				ND ND
				ND
NS	310	6.4	7.3	50
NS	50	ND	ND	ND
NS	140	ND	ND	ND
NS	2200	ND	ND	ND
NS	NS	ND	ND	ND
				ND ND
				ND
				290
				ND
				90
				ND
NS	32000	19	21	ND
NS	2200	38	42	ND
NS	110	ND	ND	ND
NS	NS	2900	3600	ND
NS	30000	ND	ND	67
				ND
				19
				ND
				ND
				ND ND
				ND ND
				ND
				7700
				ND
		92		ND
NS	700	ND	ND	7.2
NS	200	ND	ND	ND
5	220	ND	ND	ND
NS	7000	1.5	2	140
145				
NS NS	200 280	ND ND	ND ND	ND ND
	Values           μg/m³           .ir           NS           NS <tr< td=""><td>Air Guideline Values         CONCENTRATIONS(*)           µg/m³        </td><td>Air Guideline Values         CONCENTRATIONS(!)         Indoor Ambient Air 11/2/1/2014 14K0804           µg/m³         indoor Ambient Air 11/2/1/2014           ir         it           NS         22000           NS         42           NS         150           NS         ND           NS         150           NS         ND           NS         150           NS         2           NS         2           NS         2           NS         2           NS         2           NS         2           NS         100           NS         110           <td< td=""><td>Air Guideline Values         CONCENTRATIONS(*)         Indoor Ambient Air 11/21/2014 14K0804         Indoor Ambient Air 11/21/2014 14K0804           ug/m²         ug/m²         ug/m²           àr         v         v           NS         22000         ND         ND           NS         42         ND         ND           NS         5000         ND         ND           NS         5000         ND         ND           NS         5000         ND         ND           NS         2000         ND         ND           NS         60         28         30           NS         2000         ND         ND           NS         60         28         30           NS         40         ND         ND           NS         40         ND         ND           NS         60         7.3         7.9           NS         800         ND         ND           NS         1000         ND         ND           NS         1100         ND         ND           NS         500         ND         ND           NS         110         ND</td></td<></td></tr<>	Air Guideline Values         CONCENTRATIONS(*)           µg/m³	Air Guideline Values         CONCENTRATIONS(!)         Indoor Ambient Air 11/2/1/2014 14K0804           µg/m³         indoor Ambient Air 11/2/1/2014           ir         it           NS         22000           NS         42           NS         150           NS         ND           NS         150           NS         ND           NS         150           NS         2           NS         2           NS         2           NS         2           NS         2           NS         2           NS         100           NS         110           NS         110 <td< td=""><td>Air Guideline Values         CONCENTRATIONS(*)         Indoor Ambient Air 11/21/2014 14K0804         Indoor Ambient Air 11/21/2014 14K0804           ug/m²         ug/m²         ug/m²           àr         v         v           NS         22000         ND         ND           NS         42         ND         ND           NS         5000         ND         ND           NS         5000         ND         ND           NS         5000         ND         ND           NS         2000         ND         ND           NS         60         28         30           NS         2000         ND         ND           NS         60         28         30           NS         40         ND         ND           NS         40         ND         ND           NS         60         7.3         7.9           NS         800         ND         ND           NS         1000         ND         ND           NS         1100         ND         ND           NS         500         ND         ND           NS         110         ND</td></td<>	Air Guideline Values         CONCENTRATIONS(*)         Indoor Ambient Air 11/21/2014 14K0804         Indoor Ambient Air 11/21/2014 14K0804           ug/m²         ug/m²         ug/m²           àr         v         v           NS         22000         ND         ND           NS         42         ND         ND           NS         5000         ND         ND           NS         5000         ND         ND           NS         5000         ND         ND           NS         2000         ND         ND           NS         60         28         30           NS         2000         ND         ND           NS         60         28         30           NS         40         ND         ND           NS         40         ND         ND           NS         60         7.3         7.9           NS         800         ND         ND           NS         1000         ND         ND           NS         1100         ND         ND           NS         500         ND         ND           NS         110         ND

Notes:
1. Those analytes which exceeded NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006 are presented in bold type as such: 100.
2. USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)
November 2002: Table 2A Target Shallow Soil Gas Concentration - Corresponding to Target Indoor Air Concentration Where the Soil Gas to Indoor Air Attenuation Factor = 0.1.

3. ND = Non-detect.
 4. NS = No Standard.

# ATTACHMENTS

# ATTACHMENT A



# **Technical Report**

prepared for:

# **DT Consulting Services**

1291 Old Post Road Ulster Park NY, 12487 Attention: Deborah Thompson

Report Date: 11/25/2014 Client Project ID: 520 Albany Ave. Kingston NY York Project (SDG) No.: 14K0804

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

Report Date: 11/25/2014 Client Project ID: 520 Albany Ave. Kingston NY York Project (SDG) No.: 14K0804

### DT Consulting Services 1291 Old Post Road Ulster Park NY, 12487 Attention: Deborah Thompson

### **Purpose and Results**

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on November 21, 2014 and listed below. The project was identified as your project: **520** Albany Ave. Kingston NY.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	<u>Matrix</u>	<b>Date Collected</b>	Date Received
14K0804-01	1 - Farmer Office	Indoor Ambient Air	11/21/2014	11/21/2014
14K0804-02	2 - Farmer Garage	Indoor Ambient Air	11/21/2014	11/21/2014
14K0804-03	3 - SSDS Effluent	Vapor Extraction	11/21/2014	11/21/2014

### General Notes for York Project (SDG) No.: 14K0804

- 1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
- 2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
- 3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
- 4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
- 5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
- 6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
- 7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
- 8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

**Approved By:** 

**Date:** 11/25/2014



Benjamin Gulizia Laboratory Director



Client Sample ID: 1 - Farmer Office			York Sample ID:	14K0804-01
<u>York Project (SDG) No.</u> 14K0804	<u>Client Project ID</u> 520 Albany Ave. Kingston NY	<u>Matrix</u> Indoor Ambient Air	Collection Date/Time November 21, 2014 3:00 pm	Date Received 11/21/2014
			November 21, 2014 5.00 pm	11/21/2014

Log-in Notes:

### Volatile Organics, EPA TO15 Full List

Sample Prepared	by Method: EPA TO15 PREP					Damantadia			Data/Tima	Data/Tima	
CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	<b>Reference Method</b>	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.064	0.064	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
108-05-4	Vinyl acetate	ND		ug/m³	0.35	0.35	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.13	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
108-88-3	Toluene	92		ug/m³	0.38	0.38	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.29	0.29	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
127-18-4	Tetrachloroethylene	18		ug/m³	0.17	0.17	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
100-42-5	Styrene	ND		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
115-07-1	* Propylene	ND		ug/m³	0.17	0.17	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
622-96-8	* p-Ethyltoluene	19		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
179601-23-1	p- & m- Xylenes	150		ug/m³	0.87	0.87	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
95-47-6	o-Xylene	41		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
110-54-3	n-Hexane	9.1		ug/m³	0.35	0.35	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
142-82-5	n-Heptane	35		ug/m³	0.41	0.41	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-09-2	Methylene chloride	15		ug/m³	0.69	0.69	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	0.36	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
108-10-1	4-Methyl-2-pentanone	3.1		ug/m³	0.41	0.41	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
67-63-0	Isopropanol	2900	Е	ug/m³	1.7	1.7	3.536	EPA TO-15	11/24/2014 11:38	11/24/2014 22:51	ALD
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
100-41-4	Ethyl Benzene	38		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
141-78-6	* Ethyl acetate	19		ug/m³	0.72	0.72	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
110-82-7	Cyclohexane	250		ug/m³	1.2	1.2	3.536	EPA TO-15	11/24/2014 11:38	11/24/2014 22:51	ALD
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
74-87-3	Chloromethane	1.7		ug/m³	0.21	0.21	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
67-66-3	Chloroform	ND		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-00-3	Chloroethane	ND		ug/m³	0.26	0.26	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
56-23-5	Carbon tetrachloride	0.44		ug/m³	0.16	0.16	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-15-0	Carbon disulfide	ND		ug/m³	0.31	0.31	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
74-83-9	Bromomethane	ND		ug/m³	0.39	0.39	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-25-2	Bromoform	ND		ug/m³	1.0	1.0	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-27-4	Bromodichloromethane	ND		ug/m³	0.62	0.62	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
100-44-7	Benzyl chloride	ND		ug/m³	0.52	0.52	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
71-43-2	Benzene	6.4		ug/m³	0.32	0.32	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
67-64-1	Acetone	120		ug/m³	0.84	0.84	3.536	EPA TO-15	11/24/2014 11:38	11/24/2014 22:51	ALD
591-78-6	* 2-Hexanone	ND		ug/m³	0.82	0.82	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
78-93-3	2-Butanone	11		ug/m³	0.29	0.29	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
	2-Butanone RESEARCH DRIVE	STRATFOR	D, CT 06	-	0.29		203) 325-		FAX (203) 35		

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Sample Notes:



Client Sample ID: 1 - Far	mer Office		York Sample ID:	14K0804-01
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14K0804	520 Albany Ave. Kingston NY	Indoor Ambient Air	November 21, 2014 3:00 pm	11/21/2014

Volatile Organics, EPA TO15 Full List Sample Prepared by Method: EPA TO15 PREP					Log-in Notes:			<u>Sample Note</u>			
CAS No.		Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	1,4-Dioxane	ND		ug/m³	0.36	0.36	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
106-99-0	1,3-Butadiene	ND		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
108-67-8	1,3,5-Trimethylbenzene	7.3		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.70	0.70	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
95-63-6	1,2,4-Trimethylbenzene	28		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.74	0.74	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-69-4	Trichlorofluoromethane (Freon 11)	1.5		ug/m³	0.56	0.56	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	0.77	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
75-71-8	Dichlorodifluoromethane	1.7		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	0.77	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	0.80	0.80	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	0.41	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
108-90-7	Chlorobenzene	ND		ug/m³	0.46	0.46	1	EPA TO-15	11/24/2014 11:38	11/24/2014 15:43	ALD
	Surrogate Recoveries	Result		Acc	eptance Ran	ge					
460-00-4	Surrogate: p-Bromofluorobenzene	101 %			72-118						

			!	Sample	e Inform	ation						
<u>Client S</u>	ample ID: 2 - Farmer Gai	age								<u>York Sampl</u>	<u>e ID:</u> 141	K0804-02
York Project (SDG) No.		Client ]	Project II	<u>)</u>			M	latrix	Colle	ction Date/Time	Date	Received
14K0804		520 Albany Av	ve. Kings	ton NY			Indoor A	mbient Air 1	Novembe	r 21, 2014 3:00	) pm 1	1/21/2014
	Organics, EPA TO15 Full L ared by Method: EPA TO15 PREP No. Parameter	i <u>st</u> Result	Flag	Units		Reported to	Dilution		ple Note	<u>S:</u> Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.064	0.064	1	EPA TO-15		11/24/2014 11:38	11/24/2014 17:46	ALD
108-05-4	Vinyl acetate	ND		ug/m³	0.35	0.35	1	EPA TO-15		11/24/2014 11:38	11/24/2014 17:46	ALD
120 RESEARCH DRIVE		STRATFOR	STRATFORD, CT 06615					(203) 325-1371			7-0166 Page 4	of 10



<u>Client Sample ID:</u> 2 - Farmer Garage			York Sample ID:	14K0804-02
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14K0804	520 Albany Ave. Kingston NY	Indoor Ambient Air	November 21, 2014 3:00 pm	11/21/2014

	ganics, EPA TO15 Full List				<u>Log-in Notes:</u>			<u>Sample Note</u>			
Sample Prepared	l by Method: EPA TO15 PREP Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analys
9-01-6	Trichloroethylene	ND		ug/m³	0.13	0.13	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
0061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
56-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
08-88-3	Toluene	100		ug/m³	0.38	0.38	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
)9-99-9	* Tetrahydrofuran	ND		ug/m³	0.29	0.29	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
27-18-4	Tetrachloroethylene	22		ug/m³	0.17	0.17	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
00-42-5	Styrene	ND		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
15-07-1	* Propylene	ND		ug/m³	0.17	0.17	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
22-96-8	* p-Ethyltoluene	21		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
79601-23-1	p- & m- Xylenes	160		ug/m <sup>3</sup>	0.87	0.87	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
5-47-6	o-Xylene	46		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
10-54-3	n-Hexane	13		ug/m³	0.35	0.35	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
42-82-5	n-Heptane	40		ug/m³	0.41	0.41	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
5-09-2	Methylene chloride	48		ug/m³	0.69	0.69	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
534-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	0.36	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
08-10-1	4-Methyl-2-pentanone	3.4		ug/m³	0.41	0.41	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
7-63-0	Isopropanol	3600	Е	ug/m³	8.5	8.5	17.38	EPA TO-15	11/24/2014 11:38	11/25/2014 08:11	ALD
-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
00-41-4	Ethyl Benzene	42		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
41-78-6	* Ethyl acetate	21		ug/m³	0.72	0.72	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
10-82-7	Cyclohexane	280		ug/m³	6.0	6.0	17.38	EPA TO-15	11/24/2014 11:38	11/25/2014 08:11	ALD
0061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
56-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
4-87-3	Chloromethane	1.7		ug/m³	0.21	0.21	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
7-66-3	Chloroform	ND		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
5-00-3	Chloroethane	ND		ug/m³	0.26	0.26	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
6-23-5	Carbon tetrachloride	0.50		ug/m³	0.16	0.16	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
5-15-0	Carbon disulfide	ND		ug/m³	0.31	0.31	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
4-83-9	Bromomethane	ND		ug/m³	0.39	0.39	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
5-25-2	Bromoform	ND		ug/m³	1.0	1.0	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
5-27-4	Bromodichloromethane	ND		ug/m³	0.62	0.62	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
00-44-7	Benzyl chloride	ND		ug/m³	0.52	0.52	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
1-43-2	Benzene	7.3		ug/m³	0.32	0.32	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
7-64-1	Acetone	140		ug/m³	4.1	4.1	17.38	EPA TO-15	11/24/2014 11:38	11/25/2014 08:11	ALD
01-78-6	* 2-Hexanone	ND		ug/m³	0.82	0.82	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
8-93-3	2-Butanone	13		ug/m³	0.29	0.29	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
23-91-1	1,4-Dioxane	ND		ug/m³	0.36	0.36	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
06-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
41-73-1	1,3-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.60	0.60	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 35<u>7-0166</u>



Client Sample ID: 2 - Farmer Garage			York Sample ID:	14K0804-02
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14K0804	520 Albany Ave. Kingston NY	Indoor Ambient Air	November 21, 2014 3:00 pm	11/21/2014

Sample Prepared											
CAS No.		Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-99-0	1,3-Butadiene	ND		ug/m³	0.43	0.43	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
108-67-8	1,3,5-Trimethylbenzene	7.9		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.70	0.70	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
95-63-6	1,2,4-Trimethylbenzene	30		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.74	0.74	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
75-69-4	Trichlorofluoromethane (Freon 11)	2.0		ug/m³	0.56	0.56	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	0.77	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
75-71-8	Dichlorodifluoromethane	2.0		ug/m³	0.49	0.49	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	0.77	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	0.80	0.80	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	0.41	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
108-90-7	Chlorobenzene	ND		ug/m³	0.46	0.46	1	EPA TO-15	11/24/2014 11:38	11/24/2014 17:46	ALD
	Surrogate Recoveries	Result		Acc	eptance Ran	ge					
460-00-4	Surrogate: p-Bromofluorobenzene	102 %			72-118						

				Sample	e Inform	ation					
<u>Client San</u>	nple ID: 3 - SSDS Effluent								<u>York Sampl</u>	<u>e ID:</u> 14]	K0804-0
<u>York Proje</u>	ect (SDG) No.	Client	Project II	<u>D</u>			M	atrix <u>C</u>	ollection Date/Time	Date	Receive
14	4K0804	520 Albany Ave. Kingston NY Vapor Extraction No						Extraction Nover	mber 21, 2014 3:00	) pm 1	1/21/201
Volatile O	rganics, EPA TO15 Full List				<u>Log-in</u>	<u>Notes:</u>		<u>Sample N</u>	lotes:		
Sample Prepare	ed by Method: EPA TO15 PREP										
CAS No	). Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Meth	Date/Time od Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m <sup>3</sup>	1.1	1.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
108-05-4	Vinyl acetate	ND		ug/m³	6.1	6.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
79-01-6	Trichloroethylene	140		ug/m³	2.3	2.3	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	7.9	7.9	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	6.9	6.9	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
120	RESEARCH DRIVE	STRATFORD, CT 06615					203) 325-	1371	FAX (203) 35	7-0166 Page 6	of 10



Client Sample ID:	3 - SSDS Effluent
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York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14K0804	520 Albany Ave. Kingston NY	Vapor Extraction	November 21, 2014 3:00 pm	11/21/2014

	ganics, EPA TO15 Full List		Log-in Notes: <u>Sample Notes:</u>													
CAS No.	by Method: EPA TO15 PREP Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst					
108-88-3	Toluene	7.2		ug/m <sup>3</sup>	6.5	6.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
109-99-9	* Tetrahydrofuran	ND		ug/m³	5.1	5.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
127-18-4	Tetrachloroethylene	7700		ug/m³	12	12	69.52	EPA TO-15	11/24/2014 11:38	11/25/2014 09:01	ALD					
100-42-5	Styrene	ND		ug/m³	7.4	7.4	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
115-07-1	* Propylene	ND		ug/m³	3.0	3.0	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
622-96-8	* p-Ethyltoluene	ND		ug/m³	8.5	8.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
179601-23-1	p- & m- Xylenes	ND		ug/m³	15	15	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
95-47-6	o-Xylene	ND		ug/m³	7.5	7.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
110-54-3	n-Hexane	ND		ug/m³	6.1	6.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
142-82-5	n-Heptane	ND		ug/m³	7.1	7.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
75-09-2	Methylene chloride	19		ug/m³	12	12	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.3	6.3	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	7.1	7.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
67-63-0	Isopropanol	67		ug/m³	8.5	8.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
87-68-3	Hexachlorobutadiene	ND		ug/m³	19	19	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
100-41-4	Ethyl Benzene	ND		ug/m³	7.5	7.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
141-78-6	* Ethyl acetate	ND		ug/m³	13	13	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
110-82-7	Cyclohexane	90		ug/m³	6.0	6.0	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	7.9	7.9	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
156-59-2	cis-1,2-Dichloroethylene	290		ug/m³	6.9	6.9	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
74-87-3	Chloromethane	ND		ug/m³	3.6	3.6	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
67-66-3	Chloroform	ND		ug/m³	8.5	8.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
75-00-3	Chloroethane	ND		ug/m³	4.6	4.6	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
56-23-5	Carbon tetrachloride	ND		ug/m³	2.7	2.7	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
75-15-0	Carbon disulfide	ND		ug/m³	5.4	5.4	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
74-83-9	Bromomethane	ND		ug/m³	6.7	6.7	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
75-25-2	Bromoform	ND		ug/m³	18	18	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
75-27-4	Bromodichloromethane	ND		ug/m³	11	11	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
100-44-7	Benzyl chloride	ND		ug/m³	9.0	9.0	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
71-43-2	Benzene	ND		ug/m³	5.6	5.6	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
67-64-1	Acetone	50		ug/m³	4.1	4.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
591-78-6	* 2-Hexanone	ND		ug/m³	14	14	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
78-93-3	2-Butanone	ND		ug/m³	5.1	5.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
123-91-1	1,4-Dioxane	ND		ug/m³	6.3	6.3	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	10	10	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	10	10	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
106-99-0	1,3-Butadiene	ND		ug/m³	7.5	7.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.5	8.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m <sup>3</sup>	12	12	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD					

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 35<u>7-0166</u>

York Sample ID:

14K0804-03



Client Sample ID: 3 - SSDS Effluent			York Sample ID:	14K0804-03
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
14K0804	520 Albany Ave. Kingston NY	Vapor Extraction	November 21, 2014 3:00 pm	11/21/2014

Volatile Or	<u>ganics, EPA TO15 Full List</u>										
Sample Prepared	1 by Method: EPA TO15 PREP										
CAS No.	. Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	<b>Reference Method</b>	Date/Time Prepared	Date/Time Analyzed	Analyst
78-87-5	1,2-Dichloropropane	ND		ug/m³	8.0	8.0	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	7.0	7.0	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	10	10	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	8.5	8.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	13	13	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	6.9	6.9	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
75-34-3	1,1-Dichloroethane	ND		ug/m³	7.0	7.0	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	9.8	9.8	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.5	9.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	13	13	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	12	12	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.5	9.5	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
75-71-8	Dichlorodifluoromethane	ND		ug/m³	8.6	8.6	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	13	13	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	14	14	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	7.1	7.1	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
108-90-7	Chlorobenzene ND			ug/m³	8.0	8.0	17.38	EPA TO-15	11/24/2014 11:38	11/24/2014 18:37	ALD
	Surrogate Recoveries	Result		Acc	eptance Ran	ge					
460-00-4	Surrogate: p-Bromofluorobenzene	97.5 %			72-118						



#### **Notes and Definitions**

QL-03 This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows. E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate. Analyte is not certified or the state of the samples origination does not offer certification for the Analyte. NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL) ND RL. REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve. LOQ LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses. LOD LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846. METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a MDL 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods. This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located Reported to above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only. Not reported NR RPD Relative Percent Difference The data has been reported on an as-received (wet weight) basis Wet Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias. Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is Non-Dir. outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

														1										
Page of /	York Project No. 14 KOBOY	Report Type/Deliverables	CT RCP Package	NY ASP B/CLP Pkg	NJDEP Reduced Electronic Deliverables:	EDD (Specify Type) Standard Excel	Regulatory Comparison Excel Special Instructions				elow Sampling Media	6 Liter Summa canister	6 Liter Summa canister X Tedlar Bag	6 Liter Summa canister X Tedlar Bag	6 Liter Summa canister Tedlar Bag	-51-10 11 : 4º	21-14 1600	<u>م</u> ا هار						
rd - AIR		Turn-Around Time	RUSH - Next Day	RUSH - Two Day	RUSH - Four Day	Standard(5-7 Days)	Detection Limits Required ≤ 1 ug/m <sup>3</sup>	NYSDEC VI Limits	NJDEP low level	Routine Survey Other	Choose Analyzes Needed from the Menu Above and Enter Below	N										and the	eived By	Samples Received in LAB
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stody	ed on the back side o to proceed with the a is unless superseded	YOUR Project ID 520 Allanul An	lingston,	Purchase Order No.		Samples from: CT_	TOIS Volatiles and Other Gas Analyses 5 List EPA TO-14A List Tentatively Identif	Air VPH	-15 Helium	Methane OTHER	Canister Vacuum Afer Samuling (in Ha)	17	Ē	9"							1	ulle	/by uate/lime	By Date/Time
ain-of-Custody Record - AIR	NOTE: York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.	Invoice To:				ddress:	EPA TO-15 List	NYSDEC STARS List	Project Specific List by TO-15	NJDEP Target List CTDEP RCP Target List	Canister Vacuum Before Samuling (in Ha)		27"	30 "				2			100000	1 Lebera / Han	Samples Kelluduished	Samples Relinquished By
Field Cha	NOTE: York's Std sument serves as your ' ignature binds you to '	O: Company:	Address:	Phone No	Attention:	E-Mail Address:		Air Matrix Codes	INDOOR Ambient Air OUTDOOR Amb. Air	Vapor Extraction Well/ Process Gas/Effluent SOIL Vapor/Sub-Slab	AIR Matrix	AT	AI	AE				*						
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JRK Aboratories,	RCH DR. STRATFORD, CT 0661 5-1371 FAX (203) 357-0166	YOUR Information	ces t	Phone No.	Vetrah	Thempson	Clearly and healthy AlbAn less with Mode Desarguette We with rise blegen with April and	Long I II a	Collected/Authorized By	CVAN Thumpson	Sample Identification Da	er Office II	mer lavage	FATUENE								led bo		
ANALYTICAL	120 RESEARCH DR. (203) 325-1371	Company:	A ddress.	Phone No.	Contact Person:	E-Mail Address:	Print, Cleu Straffes Block with		Samples	Neb	Sam	0 Farme	DEam	3 SSNG							Pa	E9 E7 ge 10 c	10 of 10	5