



*Hudson Valley Research Park
2070 Route 52
Hopewell Junction, NY 12533-3507
D.E. Speed Z/325*

October 5, 2009

Mr. Alex G. Czuhanych
New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
625 Broadway
Albany, NY 12233-7258

Re: Data Transmittal for Indoor Air Sampling at Buildings 300 and 323
RFI Work Plan Implementation
IBM East Fishkill Facility, Hopewell Junction, New York
EPA ID No. NYD000707901

Dear Mr. Czuhanych:

The enclosed report presents the results of indoor air sampling at Buildings 300 and 323 at the IBM East Fishkill facility. These buildings comprise 2 of 11 buildings planned for sampling in accordance with IBM's RFI Work Plan dated June 15, 2009. The sampling results for other buildings will be provided in subsequent reports.

Also enclosed are the notices IBM intends to use to report the sample results to the occupants of each building sampled.

If you wish to further discuss these documents or have questions, please contact me at (845) 892-3176.

Sincerely,

A handwritten signature in black ink, appearing to read "D. E. Speed", written over a horizontal line.

David E. Speed, Ph.D.
Systems and Technology Group
International Business Machines Corporation

Attachments: Confirmatory Sampling Results – Buildings 300 and 323
Notices of Sampling Results

cc: H. Wilkie (NYSDEC)
E. Dassatti (NYSDEC)
N. Walz (NYSDOH)
G. Litwin (NYSDOH)
S. Hawkins (IBM)



SANBORN, HEAD ENGINEERING, PC

20 Foundry Street ■ Concord, NH 03301

P (603) 229-1900 ■ F (603) 229-1919

**LABORATORY DATA
CONFIRMATORY SAMPLING RESULTS
BUILDINGS 300 AND 323
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York**

Prepared for
IBM Corporation

Prepared by
Sanborn, Head Engineering, P.C.

File 2999.00
October 2009

CONFIRMATORY SAMPLING RESULTS
BUILDINGS 300 AND 323
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	SUMMARY OF FIELD AND SAMPLING ACTIVITIES	1
3.0	SUMMARY OF FIELD OBSERVATIONS AND ANALYTICAL DATA	3
3.1	Building 300	3
3.2	Building 323	4
4.0	QUALITY ASSURANCE / QUALITY CONTROL	4

TABLES

Table 1 – Summary of Sample Information
Table 2A – Building 300 Confirmatory Sampling Results
Table 2B – Building 323 Confirmatory Sampling Results

FIGURES

Figure 1 – Building 300 Confirmatory Sampling Results
Figure 2 – Building 323 Confirmatory Sampling Results

ATTACHMENTS

Attachment A – Photograph Logs for Buildings 300 and 323
Attachment B – HVAC Operations During Sampling
Attachment C – Analytical Laboratory Data Reports
Attachment D – Data Validation Reports

1.0 INTRODUCTION

This report presents a summary of observations and data of confirmatory sampling conducted at Buildings 300 and 323 at the IBM East Fishkill facility. The work was conducted as one part of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan dated June 15, 2009 (Work Plan). Buildings 300 and 323 are two of eleven buildings identified for confirmatory sampling under the Work Plan. The findings of confirmatory sampling conducted in other buildings are to be submitted in separate documents.

Buildings 300 and 323 were among the buildings identified in the Work Plan for confirmatory indoor air sampling based on one or more of the following considerations:

- The buildings overlie overburden groundwater containing volatile organic compounds (VOCs);
- The buildings are currently occupied; or
- Solvents were historically used or stored inside the building.

Samples were collected from Building 323 on July 29, 2009 and from Building 300 on July 30, 2009 by Sanborn, Head & Associates, Inc. (SHA) personnel. Descriptions of field observations and a summary of analytical data for this sampling event are presented in Section 3.

2.0 SUMMARY OF FIELD AND SAMPLING ACTIVITIES

A total of 31 indoor and ambient outdoor air samples were collected from Buildings 300 and 323. Indoor air samples were collected from the occupied level of lowest elevation in each building at heights ranging from 3.3 to 7 feet above the floor. Two ambient outdoor air samples were collected at heating, ventilation, and air conditioning (HVAC) intakes serving each building. As noted on Figure 2, at Building 323, one of these intakes was located on the roof, and the other intake was located in a below grade HVAC intake plenum (see Attachment A). At Building 300, ambient outdoor air samples were collected at air intakes on the ground level. For Quality Assurance / Quality Control (QA/QC) purposes, two field blanks, and two field duplicate¹ samples were also collected. Samples were collected at the locations depicted on Figure 1 (Building 300) and Figure 2 (Building 323). Information regarding the sample locations in each building is summarized in the table provided below as Exhibit 1.

¹ A field duplicate sample is collected at the same time and location as another sample. Collection and analysis of field duplicate samples is intended to assess the precision (repeatability) of the sampling and analysis process. A field blank is a sampling canister that is certified clean by the laboratory and filled in the field with laboratory grade nitrogen. The purpose of a field blank sample is to assess for the presence of target compounds that could be due to equipment preparation and transportation of equipment to and from the field. The field duplicate and field blank samples are submitted to the laboratory for analysis with the other samples.

Exhibit 1: Summary of Sample Locations

Building	General Building Use(s)	Areas Targeted for Sampling	# of Samples
300	Laboratories, data center, storage, and offices.	Offices, laboratories, mechanical rooms.	(10) Indoor, (2) Ambient Outdoor Air
323	Cleanroom manufacturing.	Basement sub-fab area and mechanical rooms, including electrical, slurry, and ultra pure water filtration rooms.	(17) Indoor, (2) Ambient Outdoor Air

During sampling, SHA observed the vicinity of each location for general use (e.g., offices, laboratory), floor condition (e.g., sumps, drains, cracks, staining), chemicals stored / used, and other features. Photographs of sample locations are provided in Attachment A, and field observations for each sample location are provided in Table 1.

Each building has several HVAC zones. The ground floor HVAC zones for each building are depicted on Figures 1 and 2. As presented on Table 1 and Figures 1 and 2, SHA collected ambient outdoor air samples proximate to air intakes for HVAC air handling units (AHUs) at two locations at each building.

In Building 323, outdoor air is provided to the central portion of the ground floor by six makeup air units (MAUs). The intake dampers on the MAUs are set at a fixed position; thus, the outside air changes per hour (ACH) do not vary for this portion of the ground floor. The rooms around the perimeter are served by AHUs whose intake dampers automatically modulate position to achieve set points for air temperature and/or humidity; hence, the outdoor air input into these HVAC zones varies across a defined range, along with the ACH. However, the outdoor air intake dampers are configured or programmed with a minimum open position so that sufficient outdoor air is continuously introduced to the building space. To obtain samples under conservative HVAC conditions, the outdoor air dampers on these AHUs were set at their minimum open position and not allowed to vary.

At Building 300, the outside air dampers for two of the AHUs serving areas sampled on the ground floor automatically modulate like those described for Building 323, while the intake dampers for the other two of the AHUs are fixed. The intake dampers that normally modulate were set at their minimum open position and not allowed to vary, while the dampers that are normally fixed were unchanged.

AHU outside air dampers were set at least 24 hours prior to sampling to allow equilibration prior to sample collection. To confirm that the dampers remained in a fixed position up to and during the sampling period, SHA installed nylon wire ties and masking tape on the damper actuators, which were designed to break if the damper positions change. The damper positions remained unchanged during the sampling period. Attachment B includes information about AHU damper positions during the sampling event.

Samples were collected as 8-hour, time-integrated samples using Summa® canisters (6L) in accordance with the procedures described in the RFI Work Plan, Appendix A.1. Sample canisters were deployed approximately simultaneously. We submitted the samples to Air Toxics Limited (ATL) of Folsom, California for laboratory analysis of the site-specific list of 22 VOCs by United States Environmental Protection Agency (USEPA) Method TO-15 Hi\Lo². Additional sample information, including sample collection times, initial and final canister pressures, canister identification numbers, and field screening values, is provided in Table 1.

Analytical data were provided to New Environmental Horizons, Inc. (NEH) for a third-party, independent data validation evaluation. NEH's data validation report is included as Attachment D. NEH found the data to be useable in accordance with the project data quality objectives (DQOs) subject to few minor qualifications discussed in Section 4.0.

3.0 SUMMARY OF FIELD OBSERVATIONS AND ANALYTICAL DATA

Our field observations during sampling related to building features and chemical use/presence are summarized below, and in Table 1, to provide context for the results.

A summary of validated analytical results are provided in Tables 2A (Building 300) and 2B (Building 323). The data for analytes detected in the samples are depicted on Figure 1 (Building 300) and Figure 2 (Building 323). Analytical laboratory data reports and third-party data validation reports are provided as Attachments C and D, respectively.

3.1 Building 300

The ground floor of Building 300 houses several laboratories, offices, storage space, and a data center. Solvents are currently, and have been historically, stored and used in parts of Building 300. We observed small quantities of solvents and chemicals during our sampling of the ground floor areas, including acetone and isopropylene.

Historically, several solvent-related Solid Waste Management Unit (SWMU) accumulation areas were located in and around the building (see Figure 1). The following analytes were detected in at least one of the indoor air samples at concentrations similar to those recorded for the two concurrent ambient outdoor air samples: trichloroethene, carbon tetrachloride, toluene, Freon 11, and Freon 12 (see Table 2A). The following analytes were detected in at least one of the indoor air samples but were not detected in ambient outdoor samples: benzene, ethylbenzene, m,p-xylenes, and o-xylene; however, these compounds were detected at a few micrograms per cubic meter or less. Acetone was detected in indoor air at a concentration significantly greater than that recorded for the ambient outdoor air; however, as noted on Table 1, acetone use was observed in the room where it was detected at the highest concentration (IA2005 in the PFA Lab).

² Samples were analyzed using gas chromatograph / mass spectrometry (GC/MS) techniques. Trichloroethene (TCE), vinyl chloride, and carbon tetrachloride were also analyzed in Selective Ion Monitoring (SIM) mode.

3.2 Building 323

Building 323 houses cleanroom manufacturing operations for semiconductors. The basement, or ground floor (referred to as the sub-fab), primarily houses the chemical and utility support systems for the manufacturing equipment located on the first floor, and the second floor primarily houses the HVAC systems for the manufacturing floor. We observed several chemicals during our sampling of the ground floor areas, including acids and Freons. In addition, several SWMU accumulation areas for solvent wastes are located at the locations depicted on Figure 2. As summarized on Table 1, several samples were collected from locations near concrete sumps, pits, trenches, concrete floor expansion joints, and/or pipe line floor penetrations.

The following analytes were detected in at least one of the indoor air samples at concentrations similar to that recorded for two concurrent ambient outdoor air samples: trichloroethene, carbon tetrachloride, acetone, benzene, toluene, m,p-xylenes, o-xylene, Freon 11, and Freon 12. The following analytes were detected in one or more indoor air samples but not in ambient outdoor samples: tetrachloroethene (PCE) and cis-1,2-dichloroethene. However, these compounds were detected only at concentrations of a few micrograms per cubic meter or less in two samples near the southwest corner of the building.

4.0 QUALITY ASSURANCE / QUALITY CONTROL

Analytical data were provided to NEH for a third-party independent data validation evaluation. NEH's data validation report is presented as Attachment D.

NEH's evaluation included a review of sample data, including raw data, to verify that the laboratory performed the analyses in compliance with the analytical methods required, laboratory procedures, consistency with the RFI Work Plan QA/QC requirements, and USEPA and New York State Department of Environmental Conservation (NYSDEC) guidelines for data validation of organic data. NEH prepared a Data Usability Report that summarized the quality control (QC) issues that required action (qualification of data) and compared QA/QC criteria to the DQOs described in the RFI Work Plan.

In summary, NEH found the data to be useable in accordance with the project data quality objectives subject to a few minor qualifications. The following QA/QC considerations were noted by NEH:

- A laboratory control spike (LCS – a metric used to evaluate accuracy) had a slightly low recovery (69% as compared to the 70% criteria) for 1,2,4-trichlorobenzene. As a result, the reporting limits for 1,2,4-trichlorobenzene were estimated (i.e., UJ flagged) with a low bias³.

³ The data validator determined that the sample reporting limits are likely to be biased low relative to the true value.

- The field duplicate and primary sample for Building 300 (collected at location IA1009) met all measurement performance criteria (MPC) for precision except for the relative percent difference (RPD) for acetone and toluene, which were 34.5% and 191.9%, respectively, compared to the 20% MPC. Therefore, NEH considered the results in both samples to be estimated values (i.e., J flagged) with indeterminate bias⁴. As presented on Table 2A, the reported acetone concentrations for the field duplicate and sample IA1009 were 34 and 24 $\mu\text{g}/\text{m}^3$, respectively. The reported toluene concentrations for the field duplicate and sample IA1009 were 40 and 0.83 $\mu\text{g}/\text{m}^3$, respectively. The higher of the acetone and toluene concentrations are posted on Figure 1.
- The field duplicate and primary sample for Building 323 (collected at location IA0816) met all criteria except for the RPD for acetone (37.5% compared to the 20% MPC); therefore, NEH considered the results in both samples to be estimated values (i.e., J flagged), with indeterminate bias. As presented on Table 2B, the reported acetone concentrations for the field duplicate and sample IA0816 were 38 and 26 $\mu\text{g}/\text{m}^3$, respectively. The higher acetone and concentration is provided in Figure 2.
- Acetone in sample IA1005 was reported at a level above the instrument calibration range (a metric used to evaluate accuracy) and flagged as an estimated value by the analytical laboratory. NEH qualified this result as estimated (i.e., J flagged), with an indeterminate bias. The instrument was calibrated to an upper limit of approximately 95 $\mu\text{g}/\text{m}^3$ and the reported acetone concentration was 420 $\mu\text{g}/\text{m}^3$.

S:\CONDATA\2900s\2999.00\Originals\B300_323 Data Submittal\20091005_B300_323_Confirmatory Sampling Rpt.doc

⁴ The data could be biased, but the available information does not allow the data validator to determine if the bias is high or low relative to the true value.

TABLES

TABLE 1
Summary of Sample Information
Confirmatory Sampling Results
RFI Work Plan Implementation
IBM East Fishkill Facility
Hopewell Junction, New York

Sample ID	Building Floor	Sample Matrix	Canister Number	Sample Height (ft. above floor)	Start Time (hrs)	Start Pressure (in. Hg)	Stop Time (hrs)	Stop Pressure (in. Hg)	PID (ppbv)	Temperature (°F)	Location Description	Chemicals Observed Near Sample Location	Other Observations
Building 300													
AA1010	Ground	Ambient Air	5597	NA	749	>30	1550	8.0	0	81	HVAC intake for AC-D6 at ground level	None observed	
AA1011	Ground	Ambient Air	5611	NA	737	30	1545	8.5	0	76	HVAC intake for AC-B4 and AC-B6 at ground level	None observed	
IA1000	Basement	Indoor Air	435	3.3	756	>30	1607	7.0	0	68	Electron Microscope Lab	None observed	
IA1001	Basement	Indoor Air	34212	5.3	840	>30	1640	7.0	0	69	Office	None observed	Office was unoccupied during sampling.
IA1002	Basement	Indoor Air	R-14	4.8	841	29.5	1635	5.5	0	75	Surface analysis lab	None observed	
IA1003	Basement	Indoor Air	25311	3.3	845	>30	1645	9.0	0	69	SIMS lab	None observed	
IA1004	Basement	Indoor Air	5562	3.3	745	29.5	1745	7.0	0	78	Mechanical Room	None observed	Utility penetrations
IA1005	Basement	Indoor Air	25306	7.0	819	29.5	1619	7.0	0	75	PFA lab - working lab space	Acetone, isopropylene	
IA1006	Basement	Indoor Air	10796	4.9	814	>30	1615	6.0	0	75	Office in PFA lab	None observed	
IA1007	Basement	Indoor Air	3740	4.9	756	>30	1556	9.5	0	70	Behind the reception area of the PFA lab	None observed	
IA1008	Basement	Indoor Air	33798	3.3	0820	>30	1620	8.5	0	70	Mechanical Room	Grease (machinery)	Sample is located near "industrial water sump."
IA1009	Basement	Indoor Air	96105	3.3	0802	29	1602	6.0	0	72	PFA lab - open laboratory area	None observed	
DUP35169 (IA1009 Dup)	Basement	Indoor Air	35169	3.3	0802	30	1602	9.0	0		PFA lab - open laboratory area	None observed	
Building 323													
AA0817	Roof	Ambient Air	4351	NA	0907	>30	1706	9.0	0	78	In plenum space near AHU-10 intake	None observed	
AA0818	Basement	Ambient Air	34442	NA	0851	>30	1655	7.5	0	79	In plenum space near AHU-8 intake	None observed	
IA0800	Basement	Indoor Air	34233	4.5	0824	>30	1639	8.0	0	77	East electrical room	None observed	
IA0801	Basement	Indoor Air	10780	4.8	0829	30	1638	7.0	0	79	Generator room	Oily parts on generator	Sample is located near storm water sump for subgrade HVAC air intake.
IA0802	Basement	Indoor Air	33531	5.2	0820	>30	1643	7.5	0	77	Chemical distribution (CMP)	Acids (CMP), base slurry	Some brown staining under tanks. Acid slurry drain and trenches present in room.
IA0803	Basement	Indoor Air	5359	4.0	0834	>30	1637	8.0	0	78	Ultra Pure Water room	None observed	Located near exhaust vent for nitrogen.
IA0804	Basement	Indoor Air	35246	3.5	0812	>30	1657	7.5	0	75	Sub-Fab	Freons	Located near exhaust units with CO, O ₂ , Freon, helium, ammonia, nitrogen and other gasses. Near concrete floor expansion joints.
IA0805	Basement	Indoor Air	35167	3.5	0827	>30	1646	6.5	0	75	Main slurry room (within Sub-Fab)	Copper Tu process tanks, Klebsol drums	Liquid observed in containment trench.
IA0806	Basement	Indoor Air	1582	3.5	0818	>30	1653	8.0	0	73	Sub-Fab	Chromium/phosphorus	Located near exhaust units and chromium phosphorus waste unit; near concrete floor expansion joints.

TABLE 1
Summary of Sample Information
Confirmatory Sampling Results
RFI Work Plan Implementation
IBM East Fishkill Facility
Hopewell Junction, New York

Sample ID	Building Floor	Sample Matrix	Canister Number	Sample Height (ft. above floor)	Start Time (hrs)	Start Pressure (in. Hg)	Stop Time (hrs)	Stop Pressure (in. Hg)	PID (ppbv)	Temperature (°F)	Location Description	Chemicals Observed Near Sample Location	Other Observations
IA0807	Basement	Indoor Air	5633	3.5	0821	>30	1651	7.5	0	75	Sub-Fab	Gasses	Located near air exhaust units labeled NO, nitrogen triflouride, Cl ₂ , silver, ammonia. Near concrete floor expansion joints.
IA0808	Basement	Indoor Air	1593	3.5	0858	30	1717	6.5	0	75	Sub-Fab	None observed	Located near groundwater sump. Also located near a containment trench. Nearby "North Acid Sump" for HVAC operating during sampling
IA0809	Basement	Indoor Air	5578	3.5	0903	>30	1713	8.5	0	73	Sub-Fab	Acid handling units (HNO ₃ , HF)	Located in the entryway to B323A near unused groundwater sump and "South Acid Sump."
IA0810	Basement	Indoor Air	5639	5.0	0835	>30	1701	7.0	0	75	Sub-Fab	Unlabeled process unit containing 70% GBL/30% NBA, IBM blend TMAH with surfactant	Located adjacent to air return and concrete floor expansion joint.
IA0811	Basement	Indoor Air	11870	4.5	0838	>30	1703	9.0	0	72	Sub-Fab	Freon, gasses	Located near exhaust unit controllers with Freon, helium and nitrogen.
IA0812	Basement	Indoor Air	34414	6.0	0844	>30	1706	8.5	0	76	Sub-Fab	None observed	Located near air emission control exhaust gas scrubber (nitrogen, silver, natrual gas, argon), NMP solvent.
IA0813	Basement	Indoor Air	20932	4.8	0848	>30	1711	8.0	0	74	Sub-Fab	Freon, gasses	Located near an air emission control exhaust gas scrubber with Freons, helium, nitrogen, O ₂ , CO, CL ₂ , Freon 14, Freon 318, Freon 23, methyl flouride, triflouride, CH ₂ F ₂ .
IA0814	Basement	Indoor Air	25252	3.5	0847	>30	1655	8.0	0	73	Near AHU-7 unit	None observed	Storm water sump for subgrade HVAC intake and collection sump for condensate. Yellow staining near stormwater sump.
IA0815	Basement	Indoor Air	34502	4.6	0839	>30	1649	8.0	0	74	West electrical room	None observed	
IA0816	Basement	Indoor Air	34496	3.3	0842	>30	1715	8.0	0	77	West mechanical room	None observed	Storm water sump for subgrade HVAC intake and collection sump for condensate. Yellow staining near stormwater sump.
DUP24219 (IA0816 Dup)	Basement	Indoor Air	24219	3.3	0842	>30	1715	9.5	0	77	West mechanical room	None observed	Storm water sump for subgrade HVAC intake and collection sump for condensate. Yellow staining near stormwater sump.

Notes:

1. Samples were collected on July 29-30, 2009 by Sanborn, Head & Associates, Inc. (SHA) personnel.
2. Samples were collected into 6-liter, stainless steel, pre-evacuated Summa® canisters using 8-hour metering regulators and inline 2-micron filters. Canisters and regulators were laboratory-certified clean (100% certification).
3. PID screening was conducted using a ppbRAE, calibrated to a 10 parts per million by volume (ppmv) isobutylene-in-air standard.

TABLE 2A
Building 300
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m3																													
	Sample	Field Blank			Ambient Air						Indoor Air																			
		FB2073009			AA1010			AA1011			IA1000			IA1001			IA1002			IA1003			IA1004			IA1005			IA1006	
	Location Description				HVAC Intake			HVAC Intake			Electron Microscope Lab			Unoccupied Office			Surface Analysis Lab			SIMS Lab			Mechanical Room			PFA Lab			PFA Lab	
	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias
Tetrachloroethene (PCE)	<0.88	U		<1.2	U		<1.3	U		<1.1	U		<1.1	U		<1.2	U		<1.1	U		<1.2	U		<1.2	U		<1.1	U	
Trichloroethene (TCE)	<0.14	U		1.2			<0.20	U		<0.18	U		<0.18	U		<0.18	U		<0.18	U		0.29			<0.19	U		<0.18	U	
cis-1,2-Dichloroethene (cDCE)	<0.52	U		<0.69	U		<0.74	U		<0.67	U		<0.67	U		<0.68	U		<0.67	U		<0.69	U		<0.69	U		<0.65	U	
1,1-Dichloroethene (DCE)	<0.52	U		<0.69	U		<0.74	U		<0.67	U		<0.67	U		<0.68	U		<0.67	U		<0.69	U		<0.69	U		<0.65	U	
Vinyl chloride (VC)	<0.033	U		<0.045	U		<0.048	U		<0.043	U		<0.043	U		<0.044	U		<0.043	U		<0.045	U		<0.045	U		<0.042	U	
1,1,1-Trichloroethane (TCA)	<0.71	U		<0.95	U		<1.0	U		<0.92	U		<0.92	U		<0.93	U		<0.92	U		<0.95	U		<0.95	U		<0.89	U	
Carbon tetrachloride	<0.16	U		0.42			0.60			0.64			0.67			0.66			0.66			0.60			0.56			0.58		
Methylene chloride (MeCl)	<0.90	U		<1.2	U		<1.3	U		<1.2	U		<1.2	U		<1.2	U		<1.2	U		<1.2	U		<1.2	U		<1.1	U	
Chlorobenzene	<0.60	U		<0.8	U		<0.86	U		<0.77	U		<0.77	U		<0.79	U		<0.77	U		<0.80	U		<0.80	U		<0.76	U	
1,2,4-Trichlorobenzene	<4.8	UJ	L	<6.5	U		<6.9	U		<6.2	UJ	L	<6.2	UJ	L	<6.3	UJ	L	<6.2	UJ	L	<6.5	UJ	L	<6.5	U		<6.1	U	
1,2-Dichlorobenzene	<0.78	U		<1.0	U		<1.1	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<0.99	U	
1,3-Dichlorobenzene	<0.78	U		<1.0	U		<1.1	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<0.99	U	
1,4-Dichlorobenzene	<0.78	U		<1.0	U		<1.1	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<1.0	U		<0.99	U	
Acetone	1.6			12			19			13			20			11			14			14			420	J	I	24		
Benzene	<0.42	U		<0.56	U		<0.60	U		<0.54	U		<0.54	U		<0.55	U		<0.54	U		0.69			<0.56	U		<0.52	U	
Ethylbenzene	<0.56	U		<0.76	U		<0.81	U		<0.73	U		<0.73	U		<0.74	U		<0.73	U		<0.76	U		<0.76	U		<0.71	U	
m,p-Xylene	<0.56	U		<0.76	U		<0.81	U		<0.73	U		<0.73	U		<0.74	U		<0.73	U		1.3			<0.76	U		0.80		
o-Xylene	<0.56	U		<0.76	U		<0.81	U		<0.73	U		<0.73	U		<0.74	U		<0.73	U		<0.76	U		<0.76	U		<0.71	U	
Toluene	<0.49	U		0.78			0.79			1.2			0.72			0.95			0.73			1.6			1.1			8.6		
Trichlorofluoromethane (Freon 11)	<0.73	U		1.1			1.2			1.4			1.5			1.2			1.4			1.6			3.0			2.5		
Dichlorodifluoromethane (Freon 12)	<0.64	U		2.0			2.2			1.7			2.2			2.1			2.0			2.4			3.3			3.2		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.0	U		<1.3	U		<1.4	U		<1.3	U		<1.3	U		<1.3	U		<1.3	U		<1.3	U		<1.3	U		<1.2	U	

TABLE 2A
Building 300
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m3												
	Sample	Indoor Air											
	Location Description	IA1007			IA1008			IA1009			IA1009 Dup		
		PFA Lab			Mechanical Room			PFA Lab			PFA Lab		
		Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias
Tetrachloroethene (PCE)		<1.2	U		<1.2	U		<1.1	U		<1.2	U	
Trichloroethene (TCE)		<0.20	U		<0.19	U		<0.18	U		0.24		
cis-1,2-Dichloroethene (cDCE)		<0.72	U		<0.69	U		<0.65	U		<0.71	U	
1,1-Dichloroethene (DCE)		<0.72	U		<0.69	U		<0.65	U		<0.71	U	
Vinyl chloride (VC)		<0.047	U		<0.045	U		<0.042	U		<0.046	U	
1,1,1-Trichloroethane (TCA)		<1.0	U		<0.95	U		<0.89	U		<0.98	U	
Carbon tetrachloride		0.54			0.62			0.83			0.64		
Methylene chloride (MeCl)		<1.3	U		<1.2	U		<1.1	U		<1.2	U	
Chlorobenzene		<0.84	U		<0.80	U		<0.76	U		<0.82	U	
1,2,4-Trichlorobenzene		<6.8	U		<6.5	U		<6.1	U		<6.6	U	
1,2-Dichlorobenzene		<1.1	U		<1.0	U		<0.99	U		<1.1	U	
1,3-Dichlorobenzene		<1.1	U		<1.0	U		<0.99	U		<1.1	U	
1,4-Dichlorobenzene		<1.1	U		<1.0	U		<0.99	U		<1.1	U	
Acetone		30			28			34	J	I	24	J	I
Benzene		<0.58	U		<0.56	U		0.62			<0.57	U	
Ethylbenzene		<0.79	U		<0.76	U		1.9			<0.78	U	
m,p-Xylene		<0.79	U		<0.76	U		3.0			<0.78	U	
o-Xylene		<0.79	U		<0.76	U		1.1			<0.78	U	
Toluene		0.96			0.98			40	J	I	0.83	J	I
Trichlorofluoromethane (Freon 11)		3.2			3.0			2.1			2.2		
Dichlorodifluoromethane (Freon 12)		3.5			3.3			2.6			2.6		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		<1.4	U		<1.3	U		<1.2	U		<1.4	U	

Indoor Air		
Max	Min	Median
<1.2	<1.1	ND
0.29	0.24	NA
<0.72	<0.65	ND
<0.72	<0.65	ND
<0.047	<0.042	ND
<1.0	<0.89	ND
0.83	0.54	0.64
<1.3	<1.1	ND
<0.84	<0.76	ND
<6.8	<6.1	ND
<1.1	<0.99	ND
<1.1	<0.99	ND
<1.1	<0.99	ND
420	11	24
0.69	0.62	NA
1.9	1.9	NA
3.0	0.80	1.3
1.1	1.1	NA
40	0.72	0.98
3.2	1.2	2.1
3.5	1.7	2.6
<1.4	<1.2	ND

Notes:

1. Samples were collected by SHA personnel on July 30, 2009 using 6-liter summa canisters equipped with 8-hour flow controllers.
2. The sample designation for the field duplicate sample DUP35169 is IA1009.
3. Sample analysis was completed by Air Toxics Limited (ATL) of Folsom, CA using United States Environmental Protection Agency (USEPA) Method TO-15 (Hi/Lo). Trichloroethene, vinyl chloride, and carbon tetrachloride were analyzed in Selective Ion Monitoring (SIM) mode.
4. “<” indicates a non-detection at the reporting limit shown.
5. New Environmental Horizons, Inc (NEH) performed an independent validation of the analytical data, as described in their In-Depth Data Usability Review, dated August 7, 2009 and provided as Attachment D. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data:
- “J” - The associated numerical value is an estimated quantity due to quality control criteria exceedance(s). The value is usable for project objectives with the documentation of the uncertainty, bias, and/or imprecision.
- “U” - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific reporting limit. The value is usable for project decisions as a non-detect result at the reporting limit.
- “UJ” - The compound was analyzed for, but was not detected. The sample-specific quantitation (reporting) limit is estimated. The non-detect result is usable for project objectives with documentation of the bias or uncertainty in the result.
- “L” The bias is low.
- “I” Indeterminate bias.

6. **Bold** values indicate the analyte was detected above reporting limits.
7. “Max” indicates the maximum detected concentration in the indoor air samples. For those analytes that were not detected in any of the samples, the maximum reporting limit value is presented.
- “Min” indicates the minimum detected concentration in the indoor air samples. For those analytes that were not detected in any of the samples, the minimum reporting limit value is presented. For those analytes that were detected, the reporting limit values were not considered when calculating the minimum values.
- “Median” indicates the median detected concentration in the indoor air samples. “ND” indicates that the analyte was not detected above laboratory reporting limits in any of the indoor air samples. "NA" indicates that the median was not calculated for analytes with less than three detections.

TABLE 2B
Building 323
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m3																															
	Sample	Field Blank			Ambient Air						Indoor Air																					
		Location Description				AA0817			AA0818			IA0800			IA0801			IA0802			IA0803			IA0804			IA0805			IA0806		
						HVAC Intake			HVAC Intake			East Electrical Room			Backup Generators Area			Slurry Room 2			UPW Equipment Room East			Sub-Fab Area			Main Slurry Room			Sub-Fab Area		
	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias		
Tetrachloroethene (PCE)		<1.0	U		<1.2	U		<1.2	U		<1.2	U		<1.2	U		<1.1	U		<1.1	U		<1.2	U		<1.1	U		<1.2	U		
Trichloroethene (TCE)		<0.17	U		0.80			<0.18	U		<0.19	U		<0.20	U		<0.18	U		0.25			<0.19	U		<0.18	U		<0.18	U		
cis-1,2-Dichloroethene (cDCE)		<0.61	U		<0.71	U		<0.68	U		<0.71	U		<0.72	U		<0.67	U		<0.67	U		<0.71	U		<0.65	U		<0.68	U		
1,1-Dichloroethene (DCE)		<0.61	U		<0.71	U		<0.68	U		<0.71	U		<0.72	U		<0.67	U		<0.67	U		<0.71	U		<0.65	U		<0.68	U		
Vinyl chloride (VC)		<0.04	U		<0.046	U		<0.044	U		<0.046	U		<0.047	U		<0.043	U		<0.043	U		<0.046	U		<0.042	U		<0.044	U		
1,1,1-Trichloroethane (TCA)		<0.84	U		<0.98	U		<0.93	U		<0.98	U		<1.0	U		<0.92	U		<0.92	U		<0.98	U		<0.89	U		<0.93	U		
Carbon tetrachloride		<0.20	U		0.44			0.42			0.66			0.48			0.41			0.44			0.36			0.45			0.42			
Methylene chloride (MeCl)		<1.1	U		<1.2	U		<1.2	U		<1.2	U		<1.3	U		<1.2	U		<1.2	U		<1.2	U		<1.1	U		<1.2	U		
Chlorobenzene		<0.71	U		<0.82	U		<0.79	U		<0.82	U		<0.84	U		<0.77	U		<0.77	U		<0.82	U		<0.76	U		<0.79	U		
1,2,4-Trichlorobenzene		<5.8	U		<6.6	U		<6.3	U		<6.6	U		<6.8	U		<6.2	U		<6.2	U		<6.6	U		<6.1	U		<6.3	U		
1,2-Dichlorobenzene		<0.93	U		<1.1	U		<1.0	U		<1.1	U		<1.1	U		<1.0	U		<1.0	U		<1.1	U		<0.99	U		<1.0	U		
1,3-Dichlorobenzene		<0.93	U		<1.1	U		<1.0	U		<1.1	U		<1.1	U		<1.0	U		<1.0	U		<1.1	U		<0.99	U		<1.0	U		
1,4-Dichlorobenzene		<0.93	U		<1.1	U		<1.0	U		<1.1	U		<1.1	U		<1.0	U		<1.0	U		<1.1	U		<0.99	U		<1.0	U		
Acetone		2.3			22			64			44			34			31			26			21			82			38			
Benzene		<0.50	U		0.62			0.57			0.58			<0.58	U		<0.54	U		0.62			<0.57	U		0.58			<0.55	U		
Ethylbenzene		<0.67	U		<0.78	U		<0.74	U		<0.78	U		<0.79	U		<0.73	U		<0.73	U		<0.78	U		<0.71	U		<0.74	U		
m,p-Xylene		<0.67	U		1.9			2.0			<0.78	U		<0.79	U		<0.73	U		0.95			<0.78	U		<0.71	U		<0.74	U		
o-Xylene		<0.67	U		<0.78	U		0.98			<0.78	U		<0.79	U		<0.73	U		<0.73	U		<0.78	U		<0.71	U		<0.74	U		
Toluene		<0.58	U		6.3			5.7			1.1			1.1			1.2			4.8			1.2			1.0			0.94			
Trichlorofluoromethane (Freon 11)		<0.87	U		1.6			1.3			2.1			2.4			8.8			2.2			2.6			1.7			1.5			
Dichlorodifluoromethane (Freon 12)		<0.77	U		2.4			2.1			2.9			3.2			3.3			2.4			2.4			2.5			2.3			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		<1.2	U		<1.4	U		<1.3	U		<1.4	U		<1.4	U		<1.3	U		<1.3	U		<1.4	U		<1.2	U		<1.3	U		

TABLE 2B
Building 323
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m3																											
	Sample	Indoor Air																										
		IA0807			IA0808			IA0809			IA0810			IA0811			IA0812			IA0813			IA0814			IA0815		
	Location Description	Sub-Fab Area			Sub-Fab Area			Sub-Fab Area			Sub-Fab Area			Sub-Fab Area			Sub-Fab Area			Sub-Fab Area			AHUs Area			Electric Room		
		Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias
Tetrachloroethene (PCE)		<1.2	U		<1.1	U		<1.2	U		<1.1	U		<1.1	U		<1.1	U		2.0			<1.1	U		<1.2	U	
Trichloroethene (TCE)		<0.19	U		<0.18	U		<0.19	U		<0.18	U		<0.18	U		<0.18	U		0.36			<0.18	U		<0.18	U	
cis-1,2-Dichloroethene (cDCE)		<0.69	U		<0.67	U		<0.71	U		<0.65	U		<0.67	U		<0.65	U		2.7			<0.67	U		<0.68	U	
1,1-Dichloroethene (DCE)		<0.69	U		<0.67	U		<0.71	U		<0.65	U		<0.67	U		<0.65	U		<0.68	U		<0.67	U		<0.68	U	
Vinyl chloride (VC)		<0.045	U		<0.043	U		<0.046	U		<0.042	U		<0.043	U		<0.042	U		<0.044	U		<0.043	U		<0.044	U	
1,1,1-Trichloroethane (TCA)		<0.95	U		<0.92	U		<0.98	U		<0.89	U		<0.92	U		<0.89	U		<0.93	U		<0.92	U		<0.93	U	
Carbon tetrachloride		0.48			0.38			0.63			0.33			0.43			0.44			0.45			0.45			0.40		
Methylene chloride (MeCl)		<1.2	U		<1.2	U		<1.2	U		<1.1	U		<1.2	U		<1.1	U		<1.2	U		<1.2	U		<1.2	U	
Chlorobenzene		<0.80	U		<0.77	U		<0.82	U		<0.76	U		<0.77	U		<0.76	U		<0.79	U		<0.77	U		<0.79	U	
1,2,4-Trichlorobenzene		<6.5	U		<6.2	U		<6.6	U		<6.1	U		<6.2	U		<6.1	U		<6.3	U		<6.2	U		<6.3	U	
1,2-Dichlorobenzene		<1.0	U		<1.0	U		<1.1	U		<0.99	U		<1.0	U		<0.99	U		<1.0	U		<1.0	U		<1.0	U	
1,3-Dichlorobenzene		<1.0	U		<1.0	U		<1.1	U		<0.99	U		<1.0	U		<0.99	U		<1.0	U		<1.0	U		<1.0	U	
1,4-Dichlorobenzene		<1.0	U		<1.0	U		<1.1	U		<0.99	U		<1.0	U		<0.99	U		<1.0	U		<1.0	U		<1.0	U	
Acetone		28			16			25			20			33			20			14			46			45		
Benzene		<0.56	U		<0.54	U		<0.57	U		0.53			<0.54	U		0.54			<0.55	U		0.92			0.66		
Ethylbenzene		<0.76	U		<0.73	U		<0.78	U		<0.71	U		<0.73	U		<0.71	U		<0.74	U		<0.73	U		<0.74	U	
m,p-Xylene		<0.76	U		<0.73	U		<0.78	U		<0.71	U		<0.73	U		<0.71	U		<0.74	U		<0.73	U		<0.74	U	
o-Xylene		<0.76	U		<0.73	U		<0.78	U		<0.71	U		<0.73	U		<0.71	U		<0.74	U		<0.73	U		<0.74	U	
Toluene		1.1			1.0			0.83			1.0			0.97			1.1			0.95			1.5			1.2		
Trichlorofluoromethane (Freon 11)		1.4			1.4			1.4			1.5			1.6			1.6			1.4			1.6			1.5		
Dichlorodifluoromethane (Freon 12)		2.3			2.2			2.3			2.3			2.5			2.3			2.2			2.4			2.6		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		<1.3	U		<1.3	U		<1.4	U		<1.2	U		<1.3	U		<1.2	U		<1.3	U		<1.3	U		<1.3	U	

TABLE 2B
Building 323
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m3						
	Sample	Indoor Air					
		IA0816			DUP24219		
	Location Description	AHUs Area			AHUs Area		
		Result	Qualifier	Bias	Result	Qualifier	Bias
Tetrachloroethene (PCE)		<1.1	U		<1.2	U	
Trichloroethene (TCE)		<0.18	U		<0.20	U	
cis-1,2-Dichloroethene (cDCE)		1.3			<0.72	U	
1,1-Dichloroethene (DCE)		<0.67	U		<0.72	U	
Vinyl chloride (VC)		<0.043	U		<0.047	U	
1,1,1-Trichloroethane (TCA)		<0.92	U		<1.0	U	
Carbon tetrachloride		0.52			0.52		
Methylene chloride (MeCl)		<1.2	U		<1.3	U	
Chlorobenzene		<0.77	U		<0.84	U	
1,2,4-Trichlorobenzene		<6.2	U		<6.8	U	
1,2-Dichlorobenzene		<1.0	U		<1.1	U	
1,3-Dichlorobenzene		<1.0	U		<1.1	U	
1,4-Dichlorobenzene		<1.0	U		<1.1	U	
Acetone		38	J	I	26	J	I
Benzene		<0.54	U		<0.58	U	
Ethylbenzene		<0.73	U		<0.79	U	
m,p-Xylene		<0.73	U		<0.79	U	
o-Xylene		<0.73	U		<0.79	U	
Toluene		1.4			1.5		
Trichlorofluoromethane (Freon 11)		3.2			3.0		
Dichlorodifluoromethane (Freon 12)		3.0			3.2		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		<1.3	U		<1.4	U	

Indoor Air		
Max	Min	Median
2.0	2.0	NA
0.36	0.25	NA
2.7	1.3	NA
<0.72	<0.65	ND
<0.047	<0.042	ND
<1.0	<0.89	ND
0.66	0.33	0.45
<1.3	<1.1	ND
<0.84	<0.76	ND
<6.8	<6.1	ND
<1.1	<0.99	ND
<1.1	<0.99	ND
<1.1	<0.99	ND
82	14	29.5
0.92	0.53	0.58
<0.79	<0.71	ND
0.95	0.95	NA
<0.79	<0.71	ND
4.8	0.83	1.1
8.8	1.4	1.6
3.3	2.2	2.4
<1.4	<1.2	ND

Notes:

1. Samples were collected by SHA personnel on July 29, 2009 using 6-liter summa canisters equipped with 8-hour flow controllers.
2. The sample designation for the field duplicate sample DUP24219 is IA0816.
3. Sample analysis was completed by Air Toxics Limited (ATL) of Folsom, CA using United States Environmental Protection Agency (USEPA) Method TO-15 (Hi/Lo). Trichloroethene, vinyl chloride, and carbon tetrachloride were analyzed in Selective Ion Monitoring (SIM) mode.
4. “<” indicates a non-detection at the reporting limit shown.
5. New Environmental Horizons, Inc (NEH) performed an independent validation of the analytical data, as described in their In-Depth Data Usability Review, dated August 7, 2009 and provided as Attachment D. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data:
"J" - The associated numerical value is an estimated quantity due to quality control criteria exceedance(s). The value is usable for project objectives with the documentation of the uncertainty, bias, and/or imprecision.
"U" - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific reporting limit. The value is usable for project decisions as a non-detect result at the reporting limit.
“I” Indeterminate bias.
6. **Bold** values indicate the analyte was detected above reporting limits.
7. “Max” indicates the maximum detected concentration in the indoor air samples. For those analytes that were not detected in any of the samples, the maximum reporting limit value is presented.
“Min” indicates the minimum detected concentration in the indoor air samples. For those analytes that were not detected in any of the samples, the minimum reporting limit value is presented. For those analytes that were detected, the reporting limit values were not considered when calculating the minimum values.
“Median” indicates the median detected concentration in the indoor air samples. “ND” indicates that the analyte was not detected above laboratory reporting limits in any of the indoor air samples. "NA" indicates that the median was not calculated for analytes with less than three detections.

FIGURES

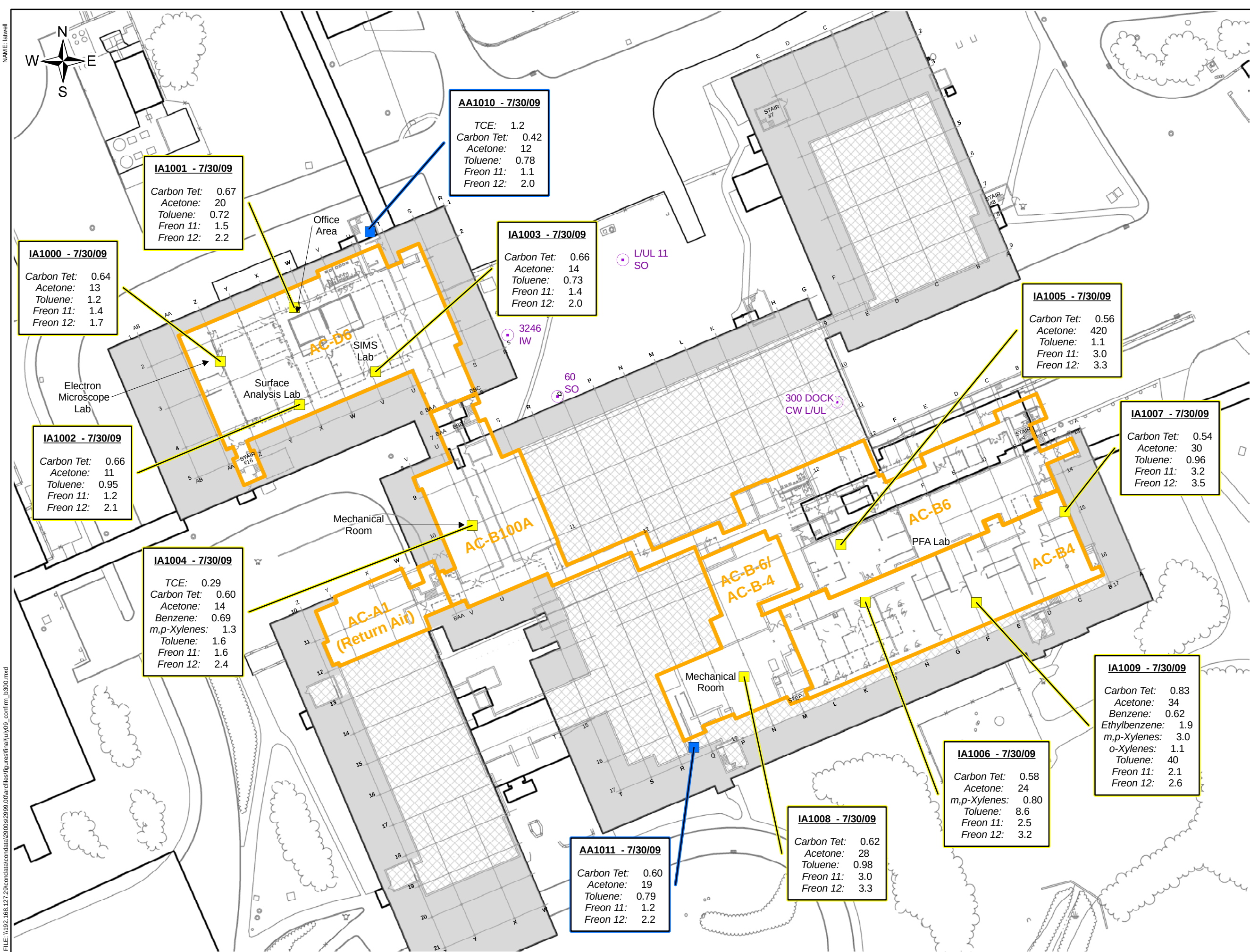


Figure 1
Building 300
Confirmatory Sampling Results
VOC Source Assessment

IBM East Fishkill Facility
Hopewell Junction, New York

Drawn by : M. Estabrooks / N. Marchillo
Designed by : L. Atwell / R. Cook
Reviewed by : B. Green
Date : October 2009

Figure Narrative

This figure shows the results of indoor and ambient outdoor air sampling. Air samples were collected into 6-liter Summa Canisters equipped with flow controller to obtain 8-hr time integrated samples. The samples were analyzed for site-specific list of volatile organic compounds (VOCs) by Air Toxics Ltd. of Folsom, CA using USEPA Method TO-15 Hi/Lo. Sample results are presented in units of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

- Legend**
- AA1010 Ambient Outdoor Air Sampling Location and Designation
 - IA1000 Indoor Air Sampling Location and Designation
 - 60 SO Solid Waste Mangement Unit
 - HVAC Zone
 - Foundation/floor for first floor. Not occupiable at ground level.
 - Portion of the building where the second floor projects beyond foundation in contact with the ground.





Figure 2

Building 323**Confirmatory Sampling Results
VOC Source Assessment**IBM East Fishkill Facility
Hopewell Junction, New YorkDrawn by : M. Estabrooks / N. Marchillo
Designed by : L. Atwell / R. Cook
Reviewed by : B. Green
Date : October 2009**Figure Narrative**

This figure shows the results of indoor and ambient outdoor air sampling. Air samples were collected into 6-liter Summa Canisters equipped with flow controller to obtain 8-hr time integrated samples. The samples were analyzed for site-specific list of volatile organic compounds (VOCs) by Air Toxics Ltd. of Folsom, CA using USEPA Method TO-15 Hi/Lo. Sample results are presented in units of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Legend

- Ambient Outdoor Air Sampling Location and Designation
- Indoor Air Sampling Location and Designation
- 277 SO Solid Waste Mangement Unit
- HVAC Zone



0 35 70 Feet

**AA0818 - 7/29/09**

Carbon Tet: 0.42
Acetone: 64
Benzene: 0.57
m,p-Xylenes: 2.0
o-Xylenes: 0.98
Toluene: 5.7
Freon 11: 1.3
Freon 12: 2.1

IA0810 - 7/29/09

Carbon Tet: 0.33
Acetone: 20
Benzene: 0.53
Toluene: 1.0
Freon 11: 1.5
Freon 12: 2.3

IA0814 - 7/29/09

Carbon Tet: 0.45
Acetone: 46
Benzene: 0.92
Toluene: 1.5
Freon 11: 1.6
Freon 12: 2.4

IA0811 - 7/29/09

Carbon Tet: 0.43
Acetone: 33
Toluene: 0.97
Freon 11: 1.6
Freon 12: 2.5

IA0815 - 7/29/09

Carbon Tet: 0.40
Acetone: 45
Benzene: 0.66
Toluene: 1.2
Freon 11: 1.5
Freon 12: 2.6

IA0812 - 7/29/09

Carbon Tet: 0.44
Acetone: 20
Benzene: 0.54
Toluene: 1.1
Freon 11: 1.6
Freon 12: 2.3

IA0813 - 7/29/09

PCE: 2.0
TCE: 0.36
cDCE: 2.7
Carbon Tet: 0.45
Acetone: 14
Toluene: 0.95
Freon 11: 1.4
Freon 12: 2.2

IA0816 - 7/29/09

cDCE: 1.3
Carbon Tet: 0.52
Acetone: 38
Toluene: 1.4
Freon 11: 3.2
Freon 12: 3.0

IA0804 - 7/29/09

Carbon Tet: 0.36
Acetone: 21
Toluene: 1.2
Freon 11: 2.6
Freon 12: 2.4

IA0802 - 7/29/09

Carbon Tet: 0.41
Acetone: 31
Toluene: 1.2
Freon 11: 8.8
Freon 12: 3.3

IA0805 - 7/29/09

Carbon Tet: 0.45
Acetone: 82
Benzene: 0.58
Toluene: 1.0
Freon 11: 1.7
Freon 12: 2.5

IA0800 - 7/29/09

Carbon Tet: 0.66
Acetone: 44
Benzene: 0.58
Toluene: 1.1
Freon 11: 2.1
Freon 12: 2.9

IA0801 - 7/29/09

Carbon Tet: 0.48
Acetone: 34
Toluene: 1.1
Freon 11: 2.4
Freon 12: 3.2

AA0817 - 7/29/09

TCE: 0.80
Carbon Tet: 0.44
Acetone: 22
Benzene: 0.62
m,p-Xylenes: 1.9
Toluene: 6.3
Freon 11: 1.6
Freon 12: 2.4

IA0806 - 7/29/09

Carbon Tet: 0.42
Acetone: 38
Toluene: 0.94
Freon 11: 1.5
Freon 12: 2.3

IA0803 - 7/29/09

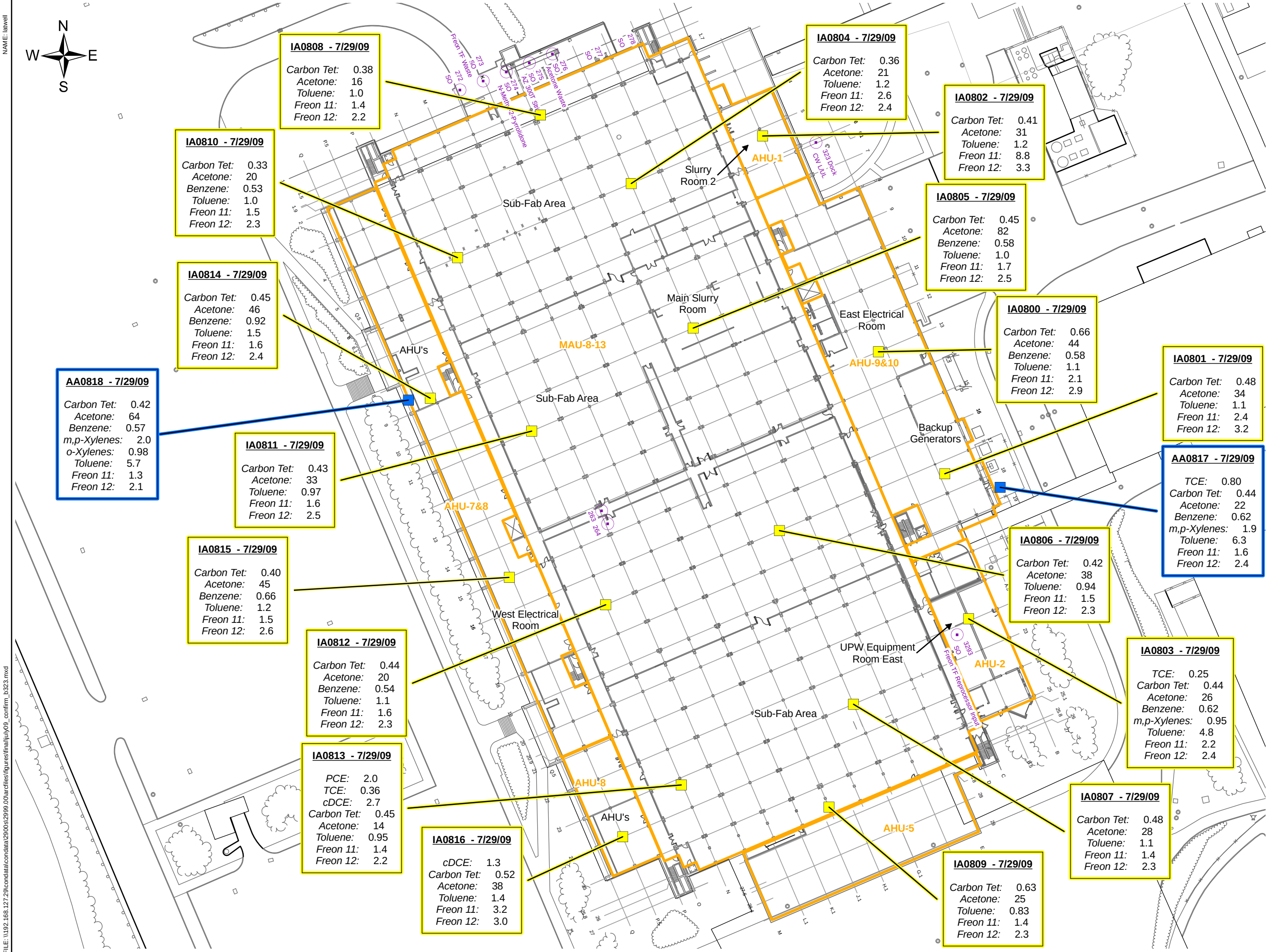
TCE: 0.25
Carbon Tet: 0.44
Acetone: 26
Benzene: 0.62
m,p-Xylenes: 0.95
Toluene: 4.8
Freon 11: 2.2
Freon 12: 2.4

IA0807 - 7/29/09

Carbon Tet: 0.48
Acetone: 28
Toluene: 1.1
Freon 11: 1.4
Freon 12: 2.3

IA0809 - 7/29/09

Carbon Tet: 0.63
Acetone: 25
Toluene: 0.83
Freon 11: 1.4
Freon 12: 2.3



ATTACHMENT A

PHOTOGRAPH LOGS FOR BUILDINGS 300 AND 323



PHOTO #1 – Sample IA-1000; located in an electron microscope lab.



PHOTO #2 – Sample IA-1001; located in an unoccupied office.

Photograph Log for Building 300

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/30/2009

SHEET 1 OF 6





PHOTO #3 – Sample IA-1002; located in the Surface Analysis Lab.



PHOTO #4 – Sample IA-1003; located in the SIMS lab.

Photograph Log for Building 300
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
300 and 323

SHA PROJECT NO: 2999.99
DATE OF PHOTOS: 7/30/2009

SHEET 2 OF 6





PHOTO #5 – Sample IA-1004; located in a mechanical room.



PHOTO #6 – Sample IA-1005; located in the PFA lab.

Photograph Log for Building 300

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/30/2009

SHEET 3 OF 6





PHOTO #7 – Sample IA-1006; located in an office in the PFA lab.



PHOTO #8 – Sample IA-1007; located behind the reception area for the PFA lab.

Photograph Log for Building 300
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99
DATE OF PHOTOS: 7/30/2009

SHEET 4 OF 6





PHOTO #9 – Sample IA-1008; located near a sump in a mechanical room.



PHOTO #10 – Sample IA-1009 (and duplicate); located in an open area of the PFA lab.

Photograph Log for Building 300

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/30/2009

SHEET 5 OF 6





PHOTO #11 – Sample AA-1010; located near the AC-D6 HVAC intake on the north side of the building.

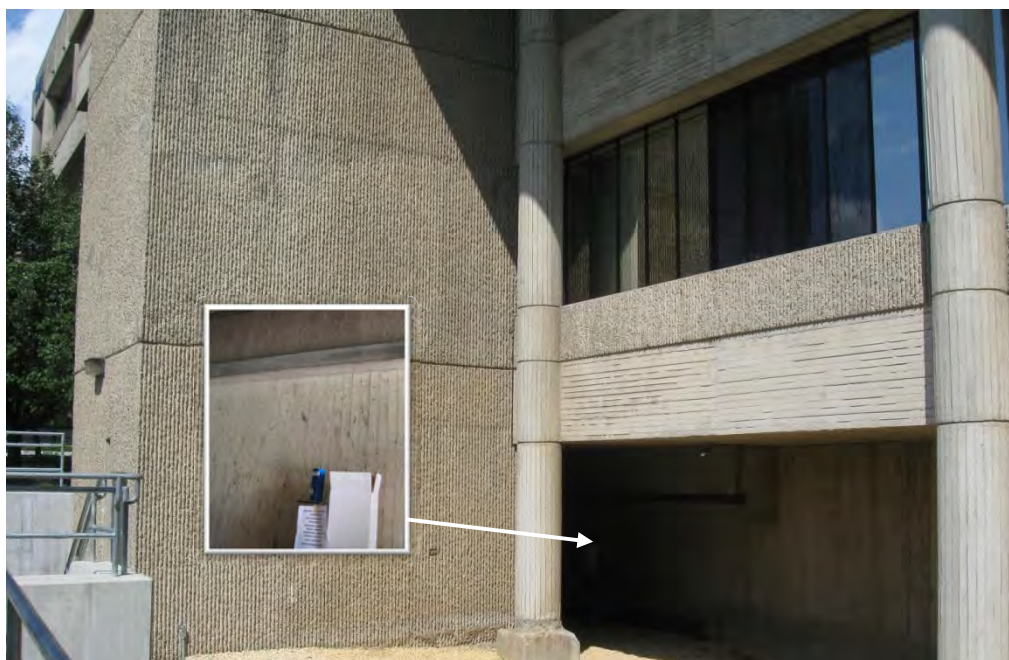


PHOTO #12 – Sample AA-1011; located near an HVAC intake for AC-B4 and AC-B6 on the south side of the building.

Photograph Log for Building 300

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/30/2009

SHEET 6 OF 6





PHOTO #1 – Sample IA-0800; located in east electrical room.



PHOTO #2 – Sample IA-0801; located near a stormwater sump for the subgrade HVAC intake in room with backup generators.

Photograph Log for Building 323

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/29/2009

SHEET 1 OF 9



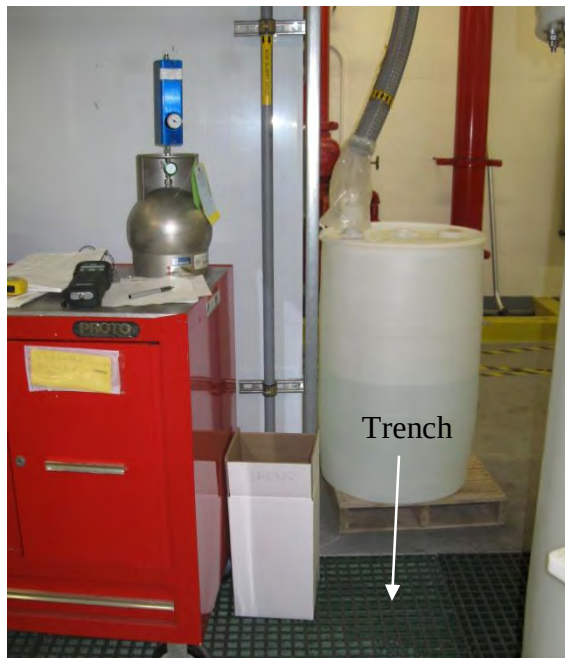


PHOTO #3 – Sample IA-0802; located in Slurry Room 2 (chemical storage and mixing).



PHOTO #4 – Sample IA-0803; located in Ultra Pure Water (UPW) equipment room. Filtration tanks in background.

Photograph Log for Building 323
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
300 and 323

SHA PROJECT NO: 2999.99
DATE OF PHOTOS: 7/29/2009

SHEET 2 OF 9





PHOTO #5 – Sample IA-0804; located in the sub-fab area.



PHOTO #6 – Sample IA-0805; located in the sub-fab area near an above ground storage tank (AST) containing copper.

Photograph Log for Building 323

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/29/2009

SHEET 3 OF 9





PHOTO #7 – Sample IA-0806; located in the sub-fab area next to exhaust units.



PHOTO #8 – Sample IA-0807; located in the sub-fab area.

Photograph Log for Building 323

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/29/2009

SHEET 4 OF 9





PHOTO #9 – Sample IA-0808; located in the northern part of the sub-fab area, near an unused groundwater sump.



PHOTO #10 – Sample IA-0809; located in the southern part of the sub-fab area near an unused groundwater sump.

Photograph Log for Building 323

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/29/2009

SHEET 5 OF 9





PHOTO #11 – Sample IA-0810; located in the sub-fab area near an air return unit.



PHOTO #12 – Sample IA-0811; located in the sub-fab area near an air control unit.

Photograph Log for Building 323
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
300 and 323

SHA PROJECT NO: 2999.99
DATE OF PHOTOS: 7/29/2009

SHEET 6 OF 9





PHOTO #13 - Sample IA-0812; located in the sub-fab area near a transformer.



PHOTO #14 - Sample IA-0813; located in the sub-fab area near an air emission control exhaust gas scrubber.

Photograph Log for Building 323

Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 300 and 323

SHA PROJECT NO: 2999.99

DATE OF PHOTOS: 7/29/2009

SHEET 7 OF 9



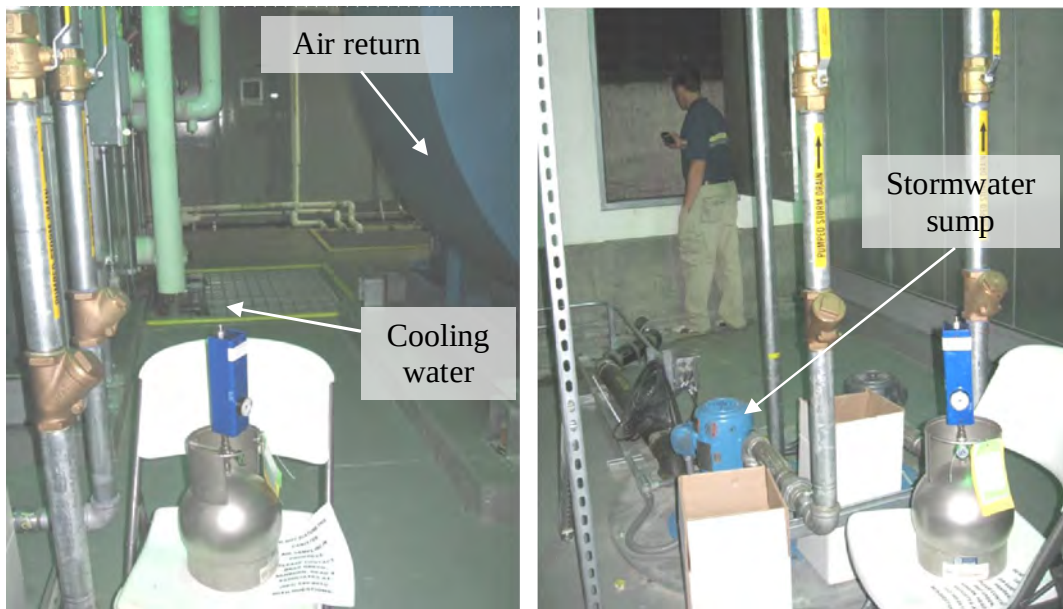


PHOTO #15 – Sample IA-0814; located near a stormwater sump for subgrade HVAC intake in an AHU room.



PHOTO #16 – Sample IA-0815; located in the west electrical room.

Photograph Log for Building 323
 Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
 300 and 323

SHA PROJECT NO: 2999.99
 DATE OF PHOTOS: 7/29/2009

SHEET 8 OF 9





PHOTO #17 – Sample AA-0817; located on the second floor, near AHU intake on roof.



PHOTO #18 – Sample AA-0818; located on the basement floor, near AHU intake below ground level.

Photograph Log for Building 323
 Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
 300 and 323

SHA PROJECT NO: 2999.99
 DATE OF PHOTOS: 7/29/2009

SHEET 9 OF 9



ATTACHMENT B

HVAC OPERATIONS DURING SAMPLING

Table B-1
Summary of HVAC Unit Outside Air Damper Positions
Buildings 300 and 323
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill
Hopewell Junction, New York

HVAC Unit	Outside Air Damper Normal Operating Position	Outside Air Damper Minimum Position (% Open)	Source of Information Regarding Minimum Position
Building 300			
AC-B4	Auto - variable	20%	Facilities Staff
AC-B6	Fixed - no variation	0% ²	
AC-B100A	Fixed - no variation	100%	
AC-D6	Auto - variable	20%	
Building 323			
AHU-1	Auto - variable	20%	Facilities Staff
AHU-2	Auto - variable	20%	
AHU-4	Auto - variable	20%	
AHU-8	Auto - variable	20%	
AHU-10	Auto - variable	20%	
MAU-8	Fixed - no variation	100%	
MAU-9	Fixed - no variation	100%	
MAU-10	Fixed - no variation	100%	
MAU-11	Fixed - no variation	100%	
MAU-12	Fixed - no variation	100%	
MAU-13	Fixed - no variation	100%	

Notes:

1. This table summarizes the normal operating configuration for the outside air dampers for each heating, ventilation and air conditioning (HVAC) unit serving the zones sampled. For dampers that automatically modulate, these dampers were set and fixed in their minimum position at least 24 hours prior to and during sampling.
2. Despite this setting/position, sufficient outside air flo is present through the damper housing to maintain adequate ventilation.

Table B-2
Summary of Damper Position Survey During Sampling
Buildings 300 and 323
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill
Hopewell Junction, New York

HVAC Unit	Date and Time of Observation						
Building 300							
	07/28/09	07/29/09		07/30/09			
	1030 hrs	0930 hrs	1545 hrs	0705 hrs	1200 hrs	1430 hrs	1700 hrs
AC-B4	installed	✓	✓	✓	✓	✓	✓
AC-B6	installed	✓	✓	✓	✓	✓	✓
AC-100A	installed	✓	✓	✓	✓	✓	✓
AC-D6	installed	✓	✓	✓	✓	✓	✓
Building 323							
	07/27/09	07/28/09	07/29/09				
	1000 hrs	0820 hrs	0715 hrs	1145 hrs	1530 hrs	1730 hrs	
AHU-1	installed	✓	✓	✓	✓	✓	
AHU-2	installed	✓	✓	✓	✓	✓	
AHU-4	installed	✓	✓	✓	✓	✓	
AHU-8	installed	✓	✓	✓	✓	✓	
AHU-10	installed	✓	✓	✓	✓	✓	

Notes:

1. Fusible links were constructed from nylon zip ties and masking tape. Dampers were inspected several times during sampling to determine if outside air dampers changed positions .
2. "✓" indicates that during inspection, the damper positions were observed to be in the position set prior to sampling.

ATTACHMENT C
NEH DATA VALIDATION REPORTS



Data Usability Report

Method TO-15 Hi/Lo Analysis

Client/Company: Sanborn, Head, & Associates, Inc., Concord, New Hampshire (SHA)

Site/Project Name: IBM – East Fishkill Facility, Hopewell Junction, New York

Laboratory: Air Toxics Ltd, Folsom, California (ATL)

Work Orders: 0908026A & 0908026B

Date(s) of Collection: July 30, 2009

**Number and type
Samples & analyses:** 11 Indoor Air, 2 Ambient Air, and 1 field blank sample for twenty-two project-specific VOCs by Method TO-15 Hi/Lo

Senior Data Reviewers: Dr. Nancy C. Rothman, New Environmental Horizons, Inc.
Susan D. Chapnick, New Environmental Horizons, Inc.

Date Completed: August 25, 2009

This Data Usability Report was performed on the Work Orders identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, October 2006; Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; and USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review; Publication USEPA540/R-07/003, July 2007; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of Matrix Spike (MS), Matrix Spike Duplicate (MSD), Matrix Duplicate (MD), Field Duplicate (FD), Field Equipment Blank (EB), and Trip Blank (TB), if applicable and the analytical parameters reviewed are listed in Table 1.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
FB2	0908026A-01A	7/30/09	Air	VOCs	Field Blank
IA1000	0908026A-02A	7/30/09	Indoor Air	VOCs	Field Sample
IA1001	0908026A-03A	7/30/09	Indoor Air	VOCs	Field Sample
IA1002	0908026A-04A	7/30/09	Indoor Air	VOCs	Field Sample
IA1003	0908026A-05A	7/30/09	Indoor Air	VOCs	Field Sample
IA1004	0908026A-06A	7/30/09	Indoor Air	VOCs	Field Sample
IA1005	0908026A-07A	7/30/09	Indoor Air	VOCs	Field Sample
IA1006	0908026A-08A	7/30/09	Indoor Air	VOCs	Field Sample
IA1007	0908026A-09A	7/30/09	Indoor Air	VOCs	Field Sample
IA1008	0908026A-10A	7/30/09	Indoor Air	VOCs	Field Sample
IA1009	0908026B-11A	7/30/09	Indoor Air	VOCs	Field Sample
DUP35169	0908026B-12A	7/30/09	Indoor Air	VOCs	Field Duplicate of IA1009
AA1010	0908026B-13A	7/30/09	Ambient Air	VOCs	Field Sample
AA1011	0908026B-14A	7/30/09	Ambient Air	VOCs	Field Sample

Analytical method reference:

VOC: TO-15 Hi/Lo – Method TO-15 with simultaneous Full Scan and Selected Ion Monitoring (SIM) analysis for twenty-two project-specific VOCs

II. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Problems

This Data Usability Report represents a review of sample results and summary QC (method and matrix) only for an evaluation of accuracy, precision, and sensitivity. A full In-Depth Review of results, QC, and raw data was performed for this project for Work Orders 0907203AR1 and 0907203BR1 (NEH, 08/13/09).

The following QC elements, as applicable to the analytical methods, were reviewed:

- Data package completeness and reporting protocols
- Sample receipt, holding times, and canister condition
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method and field blank results
- Laboratory Control Sample (LCS) recoveries
- Surrogate Recoveries
- Internal Standard (IS) Recoveries
- Sample/Laboratory Duplicate (LD) or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of VOCs, several results were estimated (J and UJ) due to QC issues. Table 2 summarizes the actions taken during this review. NEH generated validated data spreadsheets based on the electronic project database files received from ATL for these Work Orders. There were no rejected results; therefore, all results were considered acceptable compared to QAPP and method criteria, with the understanding of the potential uncertainty (bias) in the qualified results.

A single Chain-of-Custody (COC) was submitted to ATL; however, the laboratory split the samples into two Work Orders: 0908026A and 0908026B.

The laboratory reported results for all 22 compounds listed in Table B.1 of the Work Plan from a single analysis with two mass spectrometer (MS) detectors, each operated in a different detection mode: one operated in the full scan electron impact mode and the other operated in the Selected Ion Monitoring (SIM) mode. This analysis, called TO-15 Hi/Lo by ATL, allowed the sensitivity requirements of the project, unless otherwise discussed in this report, to be met for all of the compounds. All compounds except trichloroethene, vinyl chloride, and carbon tetrachloride were reported using the full scan detector while SIM analysis was used for these three compounds. The full scan analysis was reported with an “A” suffix and the SIM analysis with a “B” suffix appended to the laboratory sample ID.

The laboratory performed instrument tuning every 24 hours as specified in Method TO-15, EPA Region II SOP HW-31, and in the ATL Laboratory SOP. However, the NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria (February 2008) indicate that the QA/QC acceptance criteria specified in “VOLATILE ORGANIC COMPOUNDS (VOCs) in Air (Ambient Air/Soil

Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectroscopy (GC/MS)” (USEPA, Region 9, January 2000) should be followed with certain NYSDEC modifications (as specified in 2008). The Region 9 document indicates that GC/MS tuning must be performed every 12 hours. Based on technical and professional judgment, the 24-hour tune criterion for Method TO-15 is considered acceptable; therefore, no action was taken based this issue.

Sensitivity requirements compared to the Reporting Limits (RLs) defined in Table B.1 of the Workplan were met for all samples.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
FB2, IA1000, IA1001, IA1002, IA1003, & IA1004	1,2,4-Trichlorobenzene	UJ	L	Low LCS recovery
IA1005	Acetone	J	I	Result uncertain above the calibration range
IA1009 & DUP35169	Acetone & Toluene	J	I	FD imprecision

Qualifiers: U = Analyte is non-detect at or above the sample-specific practical quantitation limit (PQL); UJ = Non-detect is estimated at the PQL; J = Result is estimated; EB = Analyte was also present in a non-matrix matched Field Equipment Blank; TB = Analyte was also present in a non-matrix matched Trip Blank; N = there is presumptive evidence for the TIC identification; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Abbreviations:

LCS = Laboratory Control Sample

FD = Field Duplicate

The attached Data Review Checklists, completed for each Work Order reviewed, document the method and matrix-specific QC reviewed and the issues that required action (as listed in Table 2) or affected the data certainty in terms of data quality objectives (DQO) of accuracy, precision, and sensitivity.

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 7/30/09
Method of Analysis: TO-15 Hi/Lo

Work Order #: 0908026A
No. Samples 9 Indoor Air + 1FB

Data Element Acceptable	Canister Receipt	HT	GC/MS Tunes + Calibrations	Internal Stds + Surrogates	LCS	Lab Dup (LCS and LD)	Field Duplicates	RL & Quant.
Yes	✓	✓		✓		✓	NA	
No			Some samples analyzed outside of 12 hour tune		UJ 1,2,4-Trichlorobenzene in 6 samples			J Acetone in IA1005

Comments: *A combined Full Scan and SIM Analysis was performed for each sample for 22 Project-specific VOCs listed in Table B.1 of the Work Plan, as shown on page 5 of this checklist. The full scan analysis was reported with an "A" suffix and the SIM analysis with a "B" suffix appended to the laboratory sample ID.*

An In-Depth Review of the TO-15 Hi/Lo procedure was reported for Work Orders 0907203AR1 & 0907203BR1.

The samples received were separated into two Work Orders (0908026A and 0908026B). A single report will be written, at the clients request, for both Work Orders.

10 Canisters were Certified pre-cleaned (certification forms present and indicate all Target compounds are non-detect). The canister vacuums (field initial,

field final and lab receipt) were all acceptable. Narrative indicated that FB2 was received at a low vacuum even though a flow controller was used;

however, the field final and lab receipt vacuums were in relative agreement for FB2 so No Action Required. There were no COC issues noted.

Samples were all analyzed within 8 days of collection; therefore HT was met. No Action required.

ICALs: Instrument S Full Scan and SIM performed on 7/25/09. Full Scan = 8-level calibration from 0.05 to 40 ppbV for 19 Target compounds (see page 5).

SIM = 9- to 10-level calibration from 0.003 or 0.01 to 20 ppbV for 3 Targets. %RSD ≤ 30% for all 22 Target Compounds and RLs reported (0.1 ppbV for all 19

Full Scan Targets except Acetone and 1,2,4-Trichlorobenzene at 0.5 ppbV and Methylene Chloride at 0.2 ppbV; and 0.01 ppbV for Vinyl Chloride and

0.02 ppbV for Carbon Tetrachloride and Trichloroethene by SM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date 8/24/09

Data Reviewer 77 C. R. R.

Associated Blanks: Method Blanks: S080610 and Z080605 (Full Scan and SIM)

Field Blank: FB2

Date 8/24/09

Data Reviewer 77C.BK

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908026A

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

ICALs: Instrument Z Full Scan and SIM performed on 7/25/09. Full Scan = 8-level calibration from 0.05 to 40 ppbV for 19 Target compounds (see page 5).

SIM = 9- to 10-level calibration from 0.003 or 0.01 to 20 ppbV for 3 Targets. %RSD $\leq$ 30% for all 22 Target Compounds and RLs reported were supported by the ICALs. Valid Calibration - No Action

CCALs: S080607 & S080607sim and Z080602 & Z080602sim - % Recovery 70-130% for all 22 Target. No Action required.

BFB Tunes: Instrument S 3 Tunes (2 for ICAL + 1 for CCAL) and Instrument Z 3 tunes (2 ICAL + 1 CCAL) - all criteria in all tunes were met

All samples were analyzed within 12 hours of tune except 0908026A-3 and 0908026A-06 through -10 which were analyzed outside of 12 hour criteria but within 24 hours of BFB Tune. Since ATL SOP, Method TO-15 and Region II SOP HW-31 allow 24-hour tune criteria, no action taken except to note.

Surrogates & Internal Standards: All 3 Surrogates had %Recovery within criteria and all IS' had areas and RTs within criteria; therefore, No Action Required.

LCS: S080603 & S080603sim - %Recovery acceptable for all 22 Targets except 1,2,4-Trichlorobenzene recovered low at 69%.

***ACTION**: 1,2,4-Trichlorobenzene estimated (UJ) in samples 090926A-01 through 0908026A-06 due to low LCS recovery.

Z080603 & Z080603sim- All 22 Target compounds were recovered within criteria - Acceptable accuracy for method demonstrated. No Action Required.

LD done on sample IA1008 - sample/LD precision was acceptable for all detected. Acceptable precision for method and matrix demonstrated. No Action Required.

There were no Field Duplicate associated with the samples in this Work Order - see 0908026B for FD evaluation

All results were reported within the instrument calibration range (no "J" or "E" data reported) except Acetone in sample IA1005 which was reported at a level exceeding the calibration range (flagged "E").

***ACTION**: Acetone estimated (J) in sample IA1005 due to uncertainty in quantitation at a level exceeding the instrument calibration range.

All reporting limits were at a level below the Project required RL (as shown in Table 5); therefore, all results are considered usable as reported.

The narrative did not raise any additional issues that may affect data quality.

Date 8/24/09

Data Reviewer ηηc. RM

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908026A

Method of Analysis: TO-15 Hi/Lo

Field Duplicate Evaluation_ Sample IDs:

There were no Field Duplicates associated with the samples in this Work Order

Analyte Name	CAS No.	DF = RL ($\mu\text{g}/\text{m}^3$)	Sample Result $\mu\text{g}/\text{m}^3$	Q	FD Level	FD Result $\mu\text{g}/\text{m}^3$	Q	Level	RPD	Action
Freon 12	75-71-8									
Freon 11	75-69-4									
Freon 113	76-13-1									
1,1-Dichloroethene	75-35-4									
Acetone	67-64-1									
Methylene Chloride	75-09-2									
cis-1,2-Dichloroethene	156-59-2									
1,1,1-Trichloroethane	71-55-6									
Benzene	71-43-2									
Toluene	108-88-3									
Tetrachloroethene	127-18-4									
Chlorobenzene	108-90-7									
Ethyl Benzene	100-41-4									
m,p-Xylene	108-38-3/106-42-3					NCM				
o-Xylene	95-47-6					8/24/09				
1,3-Dichlorobenzene	541-73-1									
1,4-Dichlorobenzene	106-46-7									
1,2-Dichlorobenzene	95-50-1									
1,2,4-Trichlorobenzene	120-82-1									
Vinyl Chloride	75-01-4									
Carbon Tetrachloride	56-23-5									
Trichloroethene	79-01-6									

*This is the sample DF and RLs, the FD DF was XXX and RLs are RLs shown x (XXX/YYY)

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result; UJ = non-detect is estimated

NA = Not Applicable. RPD not calculated since one or both results were non-detect.

Date 8/24/09

Data Reviewer 77 C. R. R.

Lab: Air Toxics Ltd.

Work Order #: 0908026A

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene (PCE)	Full	1.4
Trichloroethene (TCE)	SIM	0.22
cis-1,2-Dichloroethene (cDCE)	Full	0.8
1,1-Dichloroethene (DCE)	Full	0.8
Vinyl chloride (VC)	SIM	0.06
1,1,1-Trichloroethane (TCA)	Full	1.1
Carbon Tetrachloride	SIM	0.2
Methylene chloride (MeCL)	Full	1.4
Chlorobenzene	Full	0.92
1,2,4-Trichlorobenzene	Full	7.4
1,2-Dichlorobenzene	Full	1.2
1,3-Dichlorobenzene	Full	1.2
1,4-Dichlorobenzene	Full	1.2
Acetone	Full	2.4
Benzene	Full	0.64
Ethylbenzene	Full	0.86
m-Xylene	Full	0.86
p-Xylene		
o-Xylene	Full	0.86
Toluene	Full	0.77
Trichlorofluoromethane (Freon 11)	Full	1.1
Dichlorodifluoromethane (Freon 12)	Full	1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	Full	1.5

Date 8/24/09

Data Reviewer ηη C. RM

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908026A

Actions (see References below):

Canister Integrity: If certification forms indicate issues, J/U or UJ results in samples

Canister Vacuum (Vac): Initial Field Vac < 25" Hg, J/UJ all results; Lab Receipt Vac > 15" Hg, J/UJ results; Lab Receipt Vac > ± 5" Hg of Final Field Vac, J/UJ

Hold Time (HT): HT > 30 days, J detects/ UJ non-detects

Blank Actions: Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)

Method Blank (MB): Result < RL, U result at RL; RL < Result < Blank Action, U result at level reported

Equipment Blank (EB): Result < Blank Action, EB result at level reported

BFB Tune: SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 12-hours after tune; professional judgment on J/UJ or R of results

LCS and CCV: Percent Recovery (%Rec) < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Initial Calibration (ICAL): %RSD > 30%, J/UJ associated results

Internal Standard (IS): RT > ± 0.33 min of IS RT in daily CCV, J/UJ associated results;

Area < 25% Area in CCV, J detects, R non-detects (or professional judgment); 25% < Area < 60% of CCV Area, J/UJ associated results;

Area > 140% of CCV Area, J detects, no action for non-detects

Surrogates: %Rec < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Laboratory Duplicates: LCS/LCSD RPD or Sample/LD RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

Field Duplicates: RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

RLs + Quant: Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data. Note if RL > expected RL from Table B.1 of Work Plan (see above)

References: *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006; and Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999

Date 8/24/09

Data Reviewer ηηc. R

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Date Sampled: 7/30/09

Method of Analysis: TO-15 Hi/Lo

Work Order #:

0908026B

No. Samples

2 IA (1+1FD) + 2AA

Data Element Acceptable	Canister Receipt	HT	GC/MS Tunes + Calibrations	Internal Stds + Surrogates	LCS	Lab Dup (LCS and LD)	Field Duplicates	RL & Quant.
Yes	√	√	√	√	√	NA		√
No							J Acetone & Toluene in IA1009 & DUP35169	

Comments: *A combined Full Scan and SIM Analysis was performed for each sample for 22 Project-specific VOCs listed in Table B.1 of the Work Plan, as shown on page 5 of this checklist. The full scan analysis was reported with an "A" suffix and the SIM analysis with a "B" suffix appended to the laboratory sample ID.*

An In-Depth Review of the TO-15 Hi/Lo procedure was reported for Work Orders 0907203AR1 & 0907203BR1.

The samples received were separated into two Work Orders (0908026A and 0908026B). A single report will be written, at the clients request, for both Work Orders.

4 Canisters were Certified pre-cleaned (certification forms present in Work Order 0908026A and indicate all Target compounds are non-detect).

The canister vacuums (field initial, field final and lab receipt) were all acceptable and no COC issues were noted. No Action Required.

Samples were all analyzed within 11 days of collection; therefore HT was met. No Action required.

ICALs: Instrument S Full Scan and SIM performed on 7/25/09. Full Scan = 8-level calibration from 0.05 to 40 ppbV for 19 Target compounds (see page 5).

SIM = 9- to 10-level calibration from 0.003 or 0.01 to 20 ppbV for 3 Targets. %RSD ≤ 30% for all 22 Target Compounds and RLs reported (0.1 ppbV for all 19

Full Scan Targets except Acetone and 1,2,4-Trichlorobenzene at 0.5 ppbV and Methylene Chloride at 0.2 ppbV; and 0.01 ppbV for Vinyl Chloride and

0.02 ppbV for Carbon Tetrachloride and Trichloroethene by SM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date 8/24/09

Data Reviewer 77C.RK

Associated Blanks: Method Blank: S081006 (Full Scan and SIM)
Field Blank: FB2 (reported in Work Order #0908026A)

[illegible]

Date 8/24/09

Data Reviewer η η C. B. K.

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908026B

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: S081004 & S081004sim - % Recovery 70-130% for all 22 Target. No Action required.

BFB Tunes: Instrument S 3 Tunes (2 for ICAL + 1 for CCAL) - all criteria in all tunes were met

All samples were analyzed within 12 hours of tune; therefore, No Action Required.

Surrogates & Internal Standards: All 3 Surrogates had %Recovery within criteria and all IS' had areas and RTs within criteria; therefore, No Action Required.

LCS: S081003 & S081003sim - %Recovery acceptable for all 22 Targets; therefore, acceptable accuracy for method demonstrated. No Action Required.

No LD performed on samples in this Work Order. See LD precision information in Work Order #0908026A.

FD Pair: IA1009 and DUP35169. Comparison of results shown on page 4.

FD precision was acceptable for all detected VOCs in this FD pair except Acetone and Toluene with RPD > 20% and one or both results > 5 x RL.

Note, RPD > 20% for Carbon Tetrachloride; however, since results were both < 5 x RL, No Action Required.

***ACTION:** Acetone and Toluene estimated (J) in samples IA1009 and DUP35169 with indeterminate bias due to the observed FD imprecision.

All results were reported within the instrument calibration range (no "J" or "E" data reported); therefore, No Action Required.

All reporting limits were at a level below the Project required RL (as shown in Table 5); therefore, all results are considered usable as reported.

The narrative did not raise any additional issues that may affect data quality.

Date 8/24/09

Data Reviewer 776. BR

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #:

0908026B

Method of Analysis: TO-15 Hi/Lo

Field Duplicate Evaluation_ Sample IDs:

Sample = IA1009

FD = DUP35169

Analyte Name	CAS No.	DF = 1.64*	Sample Result	Q	FD	FD Result	Q	Level	RPD	Action
		RL (µg/m³)	µg/m³		Level	µg/m³				
Freon 12	75-71-8	0.81	2.6		>RL but < 5xRL	2.6		>RL but < 5xRL	0.0	None
Freon 11	75-69-4	0.92	2.1		>RL but < 5xRL	2.2		>RL but < 5xRL	4.7	None
Freon 113	76-13-1	1.2	1.2	U	RL	1.4	U	RL	NA	None
1,1-Dichloroethene	75-35-4	0.65	0.65	U	RL	0.71	U	RL	NA	None
Acetone	67-64-1	1.9	34		> 5 x RL	24		> 5 x RL	34.5	J Both
Methylene Chloride	75-09-2	1.1	1.1	U	RL	1.2	U	RL	NA	None
cis-1,2-Dichloroethene	156-59-2	0.65	0.65	U	RL	0.71	U	RL	NA	None
1,1,1-Trichloroethane	71-55-6	0.89	0.89	U	RL	0.98	U	RL	NA	None
Benzene	71-43-2	0.52	0.62		>RL but < 5xRL	0.57	U	RL	NA	None
Toluene	108-88-3	0.62	40		> 5 x RL	0.83		>RL but < 5xRL	191.9	J Both
Tetrachloroethene	127-18-4	1.1	1.1	U	RL	1.2	U	RL	NA	None
Chlorobenzene	108-90-7	0.76	0.76	U	RL	0.82	U	RL	NA	None
Ethyl Benzene	100-41-4	0.71	1.9		>RL but < 5xRL	0.78	U	RL	NA	None
m,p-Xylene	108-38-3/106-42-3	0.71	3		>RL but < 5xRL	0.78	U	RL	NA	None
o-Xylene	95-47-6	0.71	1.1		>RL but < 5xRL	0.78	U	RL	NA	None
1,3-Dichlorobenzene	541-73-1	0.99	0.99	U	RL	1.1	U	RL	NA	None
1,4-Dichlorobenzene	106-46-7	0.99	0.99	U	RL	1.1	U	RL	NA	None
1,2-Dichlorobenzene	95-50-1	0.99	0.99	U	RL	1.1	U	RL	NA	None
1,2,4-Trichlorobenzene	120-82-1	6.1	6.1	U	RL	6.6	U	RL	NA	None
Vinyl Chloride	75-01-4	0.042	0.042	U	RL	0.046	U	RL	NA	None
Carbon Tetrachloride	56-23-5	0.21	0.83		>RL but < 5xRL	0.64		>RL but < 5xRL	25.9	None
Trichloroethene	79-01-6	0.18	0.18	U	RL	0.24		>RL but < 5xRL	NA	None

*This is the sample DF and RLs, the FD DF was 1.79 and RLs are RLs shown x (1.79/1.64)

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result; UJ = non-detect is estimated

NA = Not Applicable. RPD not calculated since one or both results were non-detect.

Date 8/24/09

Data Reviewer ηη C. RN

Lab: Air Toxics Ltd.

Work Order #: 0908026B

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene (PCE)	Full	1.4
Trichloroethene (TCE)	SIM	0.22
cis-1,2-Dichloroethene (cDCE)	Full	0.8
1,1-Dichloroethene (DCE)	Full	0.8
Vinyl chloride (VC)	SIM	0.06
1,1,1-Trichloroethane (TCA)	Full	1.1
Carbon Tetrachloride	SIM	0.2
Methylene chloride (MeCL)	Full	1.4
Chlorobenzene	Full	0.92
1,2,4-Trichlorobenzene	Full	7.4
1,2-Dichlorobenzene	Full	1.2
1,3-Dichlorobenzene	Full	1.2
1,4-Dichlorobenzene	Full	1.2
Acetone	Full	2.4
Benzene	Full	0.64
Ethylbenzene	Full	0.86
m-Xylene	Full	0.86
p-Xylene		
o-Xylene	Full	0.86
Toluene	Full	0.77
Trichlorofluoromethane (Freon 11)	Full	1.1
Dichlorodifluoromethane (Freon 12)	Full	1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	Full	1.5

Date 8/24/09

Data Reviewer ηηc. Rk

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908026B

Actions (see References below):

Canister Integrity: If certification forms indicate issues, J/U or UJ results in samples

Canister Vacuum (Vac): Initial Field Vac < 25" Hg, J/UJ all results; Lab Receipt Vac > 15" Hg, J/UJ results; Lab Receipt Vac > ± 5" Hg of Final Field Vac, J/UJ

Hold Time (HT): HT > 30 days, J detects/ UJ non-detects

Blank Actions: Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)

Method Blank (MB): Result < RL, U result at RL; RL < Result < Blank Action, U result at level reported

Equipment Blank (EB): Result < Blank Action, EB result at level reported

BFB Tune: SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 12-hours after tune; professional judgment on J/UJ or R of results

LCS and CCV: Percent Recovery (%Rec) < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Initial Calibration (ICAL): %RSD > 30%, J/UJ associated results

Internal Standard (IS): RT > ± 0.33 min of IS RT in daily CCV, J/UJ associated results;

Area < 25% Area in CCV, J detects, R non-detects (or professional judgment); 25% < Area < 60% of CCV Area, J/UJ associated results;

Area > 140% of CCV Area, J detects, no action for non-detects

Surrogates: %Rec < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Laboratory Duplicates: LCS/LCSD RPD or Sample/LD RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

Field Duplicates: RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

RLs + Quant: Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data. Note if RL > expected RL from Table B.1 of Work Plan (see above)

References: *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006; and Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999

Date 8/24/09

Data Reviewer ηη C. PK



Data Usability Report

Method TO-15 Hi/Lo Analysis

Client/Company: Sanborn, Head, & Associates, Inc., Concord, New Hampshire (SHA)

Site/Project Name: IBM – East Fishkill Facility, Hopewell Junction, New York

Laboratory: Air Toxics Ltd, Folsom, California (ATL)

Work Orders: 0908019A, 0908019B, & 0908019C

Date(s) of Collection: July 29, 2009

**Number and type
Samples & analyses:** 18 Indoor Air, 2 Ambient Air, and 1 field blank sample for twenty-two project-specific VOCs by Method TO-15 Hi/Lo

Senior Data Reviewers: Dr. Nancy C. Rothman, New Environmental Horizons, Inc.
Susan D. Chapnick, New Environmental Horizons, Inc.

Date Completed: August 21, 2009

This Data Usability Report was performed on the Work Orders identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, October 2006; Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; and USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review; Publication USEPA540/R-07/003, July 2007; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of Matrix Spike (MS), Matrix Spike Duplicate (MSD), Matrix Duplicate (MD), Field Duplicate (FD), Field Equipment Blank (EB), and Trip Blank (TB), if applicable and the analytical parameters reviewed are listed in Table 1.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA0800	0908019A-01A	7/29/09	Indoor Air	VOCs	Field Sample
IA0801	0908019A-02A	7/29/09	Indoor Air	VOCs	Field Sample
IA0802	0908019A-03A	7/29/09	Indoor Air	VOCs	Field Sample
IA0803	0908019A-04A	7/29/09	Indoor Air	VOCs	Field Sample
IA0804	0908019A-05A	7/29/09	Indoor Air	VOCs	Field Sample
IA0805	0908019A-06A	7/29/09	Indoor Air	VOCs	Field Sample
IA0806	0908019A-07A	7/29/09	Indoor Air	VOCs	Field Sample
IA0807	0908019A-08A	7/29/09	Indoor Air	VOCs	Field Sample
IA0808	0908019A-09A	7/29/09	Indoor Air	VOCs	Field Sample
IA0809	0908019A-10A	7/29/09	Indoor Air	VOCs	Field Sample
IA0810	0908019B-11A	7/29/09	Indoor Air	VOCs	Field Sample
IA0811	0908019B-12A	7/29/09	Indoor Air	VOCs	Field Sample
IA0812	0908019B-13A	7/29/09	Indoor Air	VOCs	Field Sample
IA0813	0908019B-14A	7/29/09	Indoor Air	VOCs	Field Sample
IA0814	0908019B-15A	7/29/09	Indoor Air	VOCs	Field Sample
IA0815	0908019B-16A	7/29/09	Indoor Air	VOCs	Field Sample
IA0816	0908019B-17A	7/29/09	Indoor Air	VOCs	Field Sample
DUP24219	0908019B-18A	7/29/09	Indoor Air	VOCs	Field Duplicate of IA0816
AA0817	0908019B-19A	7/29/09	Ambient Air	VOCs	Field Sample

Table 1. Sample Descriptions and Analytical Parameters - *continued*

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
AA0818	0908019C-20A	7/29/09	Ambient Air	VOCs	Field Sample
FB1	0908019C-21A	7/29/09	Air	VOCs	Field Blank

Analytical method reference:

VOC: TO-15 Hi/Lo – Method TO-15 with simultaneous Full Scan and Selected Ion Monitoring (SIM) analysis for twenty-two project-specific VOCs

II. **Data Deficiencies, Analytical Protocol Deviations, and Quality Control Problems**

This Data Usability Report represents a review of sample results and summary QC (method and matrix) only for an evaluation of accuracy, precision, and sensitivity. A full In-Depth Review of results, QC, and raw data was performed for this project for Work Orders 0907203AR1 and 0907203BR1 (NEH, 08/13/09).

The following QC elements, as applicable to the analytical methods, were reviewed:

- Data package completeness and reporting protocols
- Sample receipt, holding times, and canister condition
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method and field blank results
- Laboratory Control Sample (LCS) recoveries
- Surrogate Recoveries
- Internal Standard (IS) Recoveries
- Sample/Laboratory Duplicate (LD) or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of VOCs, two results were estimated (J) due to QC issues. Table 2 summarizes the actions taken during this review. NEH generated validated data spreadsheets based on the electronic project database files received from ATL for these Work Orders. There were no rejected results; therefore, all results were considered acceptable compared to QAPP and method criteria, with the understanding of the potential uncertainty (bias) in the qualified results.

A single Chain-of-Custody (COC) was submitted to ATL; however, the laboratory split the samples into three Work Orders: 0908019A, 0908109B, and 0908109C.

The laboratory reported results for all 22 compounds listed in Table B.1 of the Work Plan from a single analysis with two mass spectrometer (MS) detectors, each operated in a different detection mode: one operated in the full scan electron impact mode and the other operated in the Selected Ion Monitoring (SIM) mode. This analysis, called TO-15 Hi/Lo by ATL, allowed the sensitivity requirements of the project, unless otherwise discussed in this report, to be met for all of the compounds. All compounds except trichloroethene, vinyl chloride, and carbon tetrachloride were reported using the full scan detector while SIM analysis was used for these three compounds. The full scan analysis was reported with an “A” suffix and the SIM analysis with a “B” suffix appended to the laboratory sample ID.

The laboratory performed instrument tuning every 24 hours as specified in Method TO-15, EPA Region II SOP HW-31, and in the ATL Laboratory SOP. However, the NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria (February 2008) indicate that the QA/QC acceptance criteria specified in “VOLATILE ORGANIC COMPOUNDS (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectroscopy (GC/MS)” (USEPA, Region 9, January 2000) should be followed with certain NYSDEC modifications (as specified in 2008). The Region 9 document indicates that GC/MS tuning must be performed every 12 hours. Based on technical and professional judgment, the 24-hour tune criterion for Method TO-15 is considered acceptable; therefore, no action was taken based this issue.

Sensitivity requirements compared to the Reporting Limits (RLs) defined in Table B.1 of the Workplan were met for all samples.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
IA0816 & DUP24219	Acetone	J	I	FD imprecision

Qualifiers: U = Analyte is non-detect at or above the sample-specific practical quantitation limit (PQL); UJ = Non-detect is estimated at the PQL; J = Result is estimated; EB = Analyte was also present in a non-matrix matched Field Equipment Blank; TB = Analyte was also present in a non-matrix matched Trip Blank; N = there is presumptive evidence for the TIC identification; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Abbreviations:

FD = Field Duplicate

The attached Data Review Checklists, completed for each Work Order reviewed, document the method and matrix-specific QC reviewed and the issues that required action (as listed in Table 2) or affected the data certainty in terms of data quality objectives (DQO) of accuracy, precision, and sensitivity.

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 7/29/09
Method of Analysis: TO-15 Hi/Lo

Work Order #: 0908019A
No. Samples: 10 Indoor Air

Data Element Acceptable	Canister Receipt	HT	GC/MS Tunes + Calibrations	Internal Stds + Surrogates	LCS	Lab Dup (LCS and LD)	Field Duplicates	RL & Quant.
Yes	✓	✓		✓	✓	✓	NA	✓
No			Some samples analyzed outside of 12 hour tune					

Comments: A combined Full Scan and SIM Analysis was performed for each sample for 22 Project-specific VOCs listed in Table B.1 of the Work Plan, as shown on page 5 of this checklist. The full scan analysis was reported with an "A" suffix and the SIM analysis with a "B" suffix appended to the laboratory sample ID.

An In-Depth Review of the TO-15 Hi/Lo procedure was reported for Work Orders 0907203AR1 & 0907203BR1.

The samples received were separated into three Work Orders (0908019A, B, and C). A single report will be written, at the clients request, for all three Work Orders. 10 Canisters were Certified pre-cleaned (certification forms present and indicate all Target compounds are non-detect). The canister vacuums (field initial, field final and lab receipt) were all acceptable and there were no COC issues noted.

Samples were all analyzed within 8 days of collection; therefore HT was met. No Action required.

ICALs: Instrument S Full Scan and SIM performed on 7/25/09. Full Scan = 8-level calibration from 0.05 to 40 ppbV for 19 Target compounds (see page 5).

SIM = 9- to 10-level calibration from 0.003 or 0.01 to 20 ppbV for 3 Targets. %RSD ≤ 30% for all 22 Target Compounds and RLs reported (0.1 ppbV for all 19

Full Scan Targets except Acetone and 1,2,4-Trichlorobenzene at 0.5 ppbV and Methylene Chloride at 0.2 ppbV; and 0.01 ppbV for Vinyl Chloride and

0.02 ppbV for Carbon Tetrachloride and Trichloroethene by SM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date 8/20/09

Data Reviewer 77C. RM

Method of Analysis: TO-15 Hi/Lo

Associated Blanks: Method Blanks: S080414, Z080507, & Z080605 (Full Scan and SIM)

Field Blank: FB1 (reported in Work Order 0908019C)

[illegible]

Date 8/20/09

Data Reviewer ηηc. R/L

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019A

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

ICALs: Instrument Z Full Scan and SIM performed on 7/25/09. Full Scan = 8-level calibration from 0.05 to 40 ppbV for 19 Target compounds (see page 5).

SIM = 9- to 10-level calibration from 0.003 or 0.01 to 20 ppbV for 3 Targets. %RSD $\leq$ 30% for all 22 Target Compounds and RLs reported were supported

by the ICALs. Valid Calibration - No Action

CCALs: S080402 & S080402sim; Z080502 & Z080502sim; and Z080602 & Z080602sim - % Recovery 70-130% for all 22 Target. No Action required.

BFB Tunes: Instrument S 3 Tunes (2 for ICAL + 1 for CCAL) and Instrument Z 4 tunes (2 ICAL + 2 CCAL) - all criteria in all tunes were met

All samples were analyzed within 12 hours of tune except samples 0908019A-02 through -07 which were analyzed outside of 12 hour criteria

but within 24 hours of BFB Tune. Since ATL SOP, Method TO-15 and Region II SOP HW-31 allow 24-hour tune criteria, no action taken except to note.

Surrogates & Internal Standards: All 3 Surrogates had %Recovery within criteria and all IS' had areas and RTs within criteria; therefore, No Action Required.

LCS: S080403 & S080403sim; Z080504 & Z080504sim; and Z080603 & Z080603sim- All 22 Target compounds were recovered within criteria - Acceptable

accuracy for method demonstrated. No Action Required.

LD done on sample IA0800 - sample/LD precision was acceptable for all detected results (note RPD =200% for one compound which was reported < RL

in sample and non-detect in LD - No Action required since RPD evaluation for non-detects is meaningless and only applicable if values > 5 x RL)

There were no Field Duplicate associated with the samples in this Work Order - see 0908019B for FD evaluation

All results were reported within the instrument calibration range (no "J" or "E" data reported)

All reporting limits were at a level below the Project required RL (as shown in Table 5); therefore, all results are considered usable as reported.

The narrative did not raise any issues that may affect data quality.

The database was unchanged as a consequence of this review.

Date 8/20/09

Data Reviewer 77 C. R/L

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019A

Method of Analysis: TO-15 Hi/Lo

Field Duplicate Evaluation_ Sample IDs:

There were no Field Duplicates associated with the samples in this Work Order

Analyte Name	CAS No.	DF = RL ($\mu\text{g}/\text{m}^3$)	Sample Result $\mu\text{g}/\text{m}^3$	Q	FD Level	FD Result $\mu\text{g}/\text{m}^3$	Q	Level	RPD	Action
Freon 12	75-71-8									
Freon 11	75-69-4									
Freon 113	76-13-1									
1,1-Dichloroethene	75-35-4									
Acetone	67-64-1									
Methylene Chloride	75-09-2									
cis-1,2-Dichloroethene	156-59-2									
1,1,1-Trichloroethane	71-55-6									
Benzene	71-43-2									
Toluene	108-88-3									
Tetrachloroethene	127-18-4									
Chlorobenzene	108-90-7									
Ethyl Benzene	100-41-4					NM				
m,p-Xylene	108-38-3/106-42-3					8/20/09				
o-Xylene	95-47-6									
1,3-Dichlorobenzene	541-73-1									
1,4-Dichlorobenzene	106-46-7									
1,2-Dichlorobenzene	95-50-1									
1,2,4-Trichlorobenzene	120-82-1									
Vinyl Chloride	75-01-4									
Carbon Tetrachloride	56-23-5									
Trichloroethene	79-01-6									

*This is the sample DF and RLs, the FD DF was XXX and RLs are RLs shown x (XXX/YYY)

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result; UJ = non-detect is estimated

NA = Not Applicable. RPD not calculated since one or both results were non-detect.

Date 8/20/09

Data Reviewer ηη C. B/R

Lab: Air Toxics Ltd.

Work Order #: 0908019A

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene (PCE)	Full	1.4
Trichloroethene (TCE)	SIM	0.22
cis-1,2-Dichloroethene (cDCE)	Full	0.8
1,1-Dichloroethene (DCE)	Full	0.8
Vinyl chloride (VC)	SIM	0.06
1,1,1-Trichloroethane (TCA)	Full	1.1
Carbon Tetrachloride	SIM	0.2
Methylene chloride (MeCL)	Full	1.4
Chlorobenzene	Full	0.92
1,2,4-Trichlorobenzene	Full	7.4
1,2-Dichlorobenzene	Full	1.2
1,3-Dichlorobenzene	Full	1.2
1,4-Dichlorobenzene	Full	1.2
Acetone	Full	2.4
Benzene	Full	0.64
Ethylbenzene	Full	0.86
m-Xylene	Full	0.86
p-Xylene		
o-Xylene	Full	0.86
Toluene	Full	0.77
Trichlorofluoromethane (Freon 11)	Full	1.1
Dichlorodifluoromethane (Freon 12)	Full	1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	Full	1.5

Date 8/20/09

Data Reviewer 77 c. R

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019A

Actions (see References below):

Canister Integrity: If certification forms indicate issues, J/U or UJ results in samples

Canister Vacuum (Vac): Initial Field Vac < 25" Hg, J/UJ all results; Lab Receipt Vac > 15" Hg, J/UJ results; Lab Receipt Vac > ± 5" Hg of Final Field Vac, J/UJ

Hold Time (HT): HT > 30 days, J detects/ UJ non-detects

Blank Actions: Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)

Method Blank (MB): Result < RL, U result at RL; RL < Result < Blank Action, U result at level reported

Equipment Blank (EB): Result < Blank Action, EB result at level reported

BFB Tune: SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 12-hours after tune; professional judgment on J/UJ or R of results

LCS and CCV: Percent Recovery (%Rec) < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Initial Calibration (ICAL): %RSD > 30%, J/UJ associated results

Internal Standard (IS): RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;

Area < 25% Area in CCV, J detects, R non-detects (or professional judgment); 25% < Area < 60% of CCV Area, J/UJ associated results;

Area > 140% of CCV Area, J detects, no action for non-detects

Surrogates: %Rec < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Laboratory Duplicates: LCS/LCSD RPD or Sample/LD RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

Field Duplicates: RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

RLs + Quant: Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data. Note if RL > expected RL from Table B.1 of Work Plan (see above)

References: *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006; and Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999

Date 8/20/09

Data Reviewer 77C. RM

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 7/29/09
Method of Analysis: TO-15 Hi/Lo

Work Order #: 0908019B
No. Samples (7 + 1FD) IA + 1 AA

Data Element Acceptable	Canister Receipt	HT	GC/MS Tunes + Calibrations	Internal Stds + Surrogates	LCS	Lab Dup (LCS and LD)	Field Duplicates	RL & Quant.
Yes	√	√		√	√	√		√
No			Some samples analyzed outside of 12 hour tune				J Acetone in IA0816 & DUP24219	

Comments: *A combined Full Scan and SIM Analysis was performed for each sample for 22 Project-specific VOCs listed in Table B.1 of the Work Plan, as shown on page 5 of this checklist. The full scan analysis was reported with an "A" suffix and the SIM analysis with a "B" suffix appended to the laboratory sample ID.*

An In-Depth Review of the TO-15 Hi/Lo procedure was reported for Work Orders 0907203AR1 & 0907203BR1.

The samples received were separated into three Work Orders (0908019A, B, and C). A single report will be written, at the clients request, for all three Work Orders.

9 Canisters were Certified pre-cleaned (certification forms present in 0908019A and indicate all Target compounds are non-detect). The canister vacuums (field initial, field final and lab receipt) were all acceptable and there were no COC issues noted.

Samples were all analyzed within 8 days of collection; therefore HT was met. No Action required.

ICALs: Instrument Z Full Scan and SIM performed on 7/24/09. Full Scan = 8-level calibration from 0.05 to 40 ppbV for 19 Target compounds (see page 5).

SIM = 9- to 10-level calibration from 0.003 or 0.01 to 20 ppbV for 3 Targets. %RSD ≤ 30% for all 22 Target Compounds and RLs reported (0.1 ppbV for all 19

Full Scan Targets except Acetone and 1,2,4-Trichlorobenzene at 0.5 ppbV and Methylene Chloride at 0.2 ppbV; and 0.01 ppbV for Vinyl Chloride and

0.02 ppbV for Carbon Tetrachloride and Trichloroethene by SM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date 8/20/09

Data Reviewer 776.RR

Method of Analysis: TO-15 Hi/Lo

Associated Blanks: Method Blanks: Z080405 & Z080605 (Full Scan and SIM)

Field Blank: FB1 (reported in Work Order 0908019C)

[illegible]

Date 8/20/09

Data Reviewer

2 of 6

New Environmental Horizons, Inc.

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019B

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: Z080402 & Z080402sim and Z080602 & Z080602sim - % Recovery 70-130% for all 22 Target. No Action required.

BFB Tunes: Instrument Z 4 tunes (2 ICAL + 2 CCAL) - all criteria in all tunes were met. All samples were analyzed beyond 12 hours of tune, but within 24 hours of tune, except samples 0908019B-16 which was analyzed within 12-hours of BFB analysis.

Since ATL SOP, Method TO-15 and Region II SOP HW-31 allow 24-hour tune criteria, no action taken except to note.

Surrogates & Internal Standards: All 3 Surrogates had %Recovery within criteria and all IS' had areas and RTs within criteria; therefore, No Action Required.

LCS: Z080403 & Z080403sim and Z080603 & Z080603sim- All 22 Target compounds were recovered within criteria - Acceptable accuracy for method demonstrated. No Action Required.

LD done on sample IA0810 - sample/LD precision was acceptable for all detected results

FD pair = IA0816 / DUP24219. A comparison of results is shown on page 4. FD precision was acceptable for all detected VOCs except Acetone with RPD > 20% for results > 5 x RL.

**ACTION: Acetone estimated (J) in IA0816 and DUP24219 with indeterminate bias due to FD imprecision.*

All results were reported within the instrument calibration range (no "J" or "E" data reported)

All reporting limits were at a level below the Project required RL (as shown in Table 5); therefore, all results are considered usable as reported.

The narrative did not raise any issues that may affect data quality.

Date 8/20/09

Data Reviewer ηηc.BK

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #:

0908019B

Method of Analysis: TO-15 Hi/Lo

Field Duplicate Evaluation_ Sample IDs:

Sample = IA0816

FD = DUP24219

Analyte Name	CAS No.	DF = 1.68*	Sample Result	Q	Sample	FD Result	Q	Level	RPD	Action
		RL ($\mu\text{g}/\text{m}^3$)	$\mu\text{g}/\text{m}^3$		Level	$\mu\text{g}/\text{m}^3$				
Freon 12	75-71-8	0.83	3		>RL but < 5xRL	3.2		>RL but < 5xRL	6.5	None
Freon 11	75-69-4	0.94	3.2		>RL but < 5xRL	3		>RL but < 5xRL	6.5	None
Freon 113	76-13-1	1.3	1.3	U	RL	1.4	U	RL	NA	None
1,1-Dichloroethene	75-35-4	0.67	0.67	U	RL	0.72	U	RL	NA	None
Acetone	67-64-1	2	38		> 5 x RL	26		> 5 x RL	37.5	J Both
Methylene Chloride	75-09-2	1.2	1.2	U	RL	1.3	U	RL	NA	None
cis-1,2-Dichloroethene	156-59-2	0.67	1.3		>RL but < 5xRL	0.72	U	>RL but < 5xRL	NA	None
1,1,1-Trichloroethane	71-55-6	0.92	0.92	U	RL	1	U	RL	NA	None
Benzene	71-43-2	0.54	0.54	U	RL	0.58	U	RL	NA	None
Toluene	108-88-3	0.63	1.4		>RL but < 5xRL	1.5		>RL but < 5xRL	6.9	None
Tetrachloroethene	127-18-4	1.1	1.1	U	RL	1.2	U	RL	NA	None
Chlorobenzene	108-90-7	0.77	0.77	U	RL	0.84	U	RL	NA	None
Ethyl Benzene	100-41-4	0.73	0.73	U	RL	0.79	U	RL	NA	None
m,p-Xylene	108-38-3/106-42-3	0.73	0.73	U	RL	0.79	U	RL	NA	None
o-Xylene	95-47-6	0.73	0.73	U	RL	0.79	U	RL	NA	None
1,3-Dichlorobenzene	541-73-1	1	1	U	RL	1.1	U	RL	NA	None
1,4-Dichlorobenzene	106-46-7	1	1	U	RL	1.1	U	RL	NA	None
1,2-Dichlorobenzene	95-50-1	1	1	U	RL	1.1	U	RL	NA	None
1,2,4-Trichlorobenzene	120-82-1	6.2	6.2	U	RL	6.8	U	RL	NA	None
Vinyl Chloride	75-01-4	0.043	0.043	U	RL	0.047	U	RL	NA	None
Carbon Tetrachloride	56-23-5	0.21	0.52		>RL but < 5xRL	0.52		>RL but < 5xRL	0.0	None
Trichloroethene	79-01-6	0.18	0.18	U	RL	0.2	U	RL	NA	None

*This is the sample DF and RLs, the FD DF was 1.83 and RLs are RLs shown x (1.83/1.68)

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result; UJ = non-detect is estimated

NA = Not Applicable. RPD not calculated since one or both results were non-detect.

Date 8/20/09

Data Reviewer 776.RK

Lab: Air Toxics Ltd.

Work Order #:

0908019B

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene (PCE)	Full	1.4
Trichloroethene (TCE)	SIM	0.22
cis-1,2-Dichloroethene (cDCE)	Full	0.8
1,1-Dichloroethene (DCE)	Full	0.8
Vinyl chloride (VC)	SIM	0.06
1,1,1-Trichloroethane (TCA)	Full	1.1
Carbon Tetrachloride	SIM	0.2
Methylene chloride (MeCL)	Full	1.4
Chlorobenzene	Full	0.92
1,2,4-Trichlorobenzene	Full	7.4
1,2-Dichlorobenzene	Full	1.2
1,3-Dichlorobenzene	Full	1.2
1,4-Dichlorobenzene	Full	1.2
Acetone	Full	2.4
Benzene	Full	0.64
Ethylbenzene	Full	0.86
m-Xylene	Full	0.86
p-Xylene		
o-Xylene	Full	0.86
Toluene	Full	0.77
Trichlorofluoromethane (Freon 11)	Full	1.1
Dichlorodifluoromethane (Freon 12)	Full	1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	Full	1.5

Date 8/20/09

Data Reviewer 776.8/R

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019B

Actions (see References below):

Canister Integrity: If certification forms indicate issues, J/U or UJ results in samples

Canister Vacuum (Vac): Initial Field Vac < 25" Hg, J/UJ all results; Lab Receipt Vac > 15" Hg, J/UJ results; Lab Receipt Vac > ± 5" Hg of Final Field Vac, J/UJ

Hold Time (HT): HT > 30 days, J detects/ UJ non-detects

Blank Actions: Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)

Method Blank (MB): Result < RL, U result at RL; RL < Result < Blank Action, U result at level reported

Equipment Blank (EB): Result < Blank Action, EB result at level reported

BFB Tune: SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 12-hours after tune; professional judgment on J/UJ or R of results

LCS and CCV: Percent Recovery (%Rec) < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Initial Calibration (ICAL): %RSD > 30%, J/UJ associated results

Internal Standard (IS): RT > ± 0.33 min of IS RT in daily CCV, J/UJ associated results;

Area < 25% Area in CCV, J detects, R non-detects (or professional judgment); 25% < Area < 60% of CCV Area, J/UJ associated results;

Area > 140% of CCV Area, J detects, no action for non-detects

Surrogates: %Rec < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

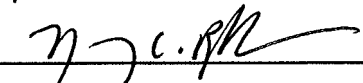
Laboratory Duplicates: LCS/LCSD RPD or Sample/LD RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

Field Duplicates: RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

RLs + Quant: Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data. Note if RL > expected RL from Table B.1 of Work Plan (see above)

References: *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006; and Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999

Date 8/20/09

Data Reviewer 

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 7/29/09
Method of Analysis: TO-15 Hi/Lo

Work Order #: 0908019C
No. Samples 1AA + 1FB

Data Element Acceptable	Canister Receipt	HT	GC/MS Tunes + Calibrations	Internal Stds + Surrogates	LCS	Lab Dup (LCS and LD)	Field Duplicates	RL & Quant.
Yes	√	√		√	√	NA	NA	√
No			Samples analyzed outside of 12 hour tune					

Comments: *A combined Full Scan and SIM Analysis was performed for each sample for 22 Project-specific VOCs listed in Table B.1 of the Work Plan, as shown on page 5 of this checklist. The full scan analysis was reported with an "A" suffix and the SIM analysis with a "B" suffix appended to the laboratory sample ID.*

An In-Depth Review of the TO-15 Hi/Lo procedure was reported for Work Orders 0907203AR1 & 0907203BR1.

The samples received were separated into three Work Orders (0908019A, B, and C). A single report will be written, at the clients request, for all three Work Orders.

2 Canisters were Certified pre-cleaned (certification forms present in 0908019A and indicate all Target compounds are non-detect). The canister vacuums (field initial, field final and lab receipt) were all acceptable and there were no COC issues noted.

Samples were all analyzed within 9 days of collection; therefore HT was met. No Action required.

ICALs: Instrument Z Full Scan and SIM performed on 7/24/09. Full Scan = 8-level calibration from 0.05 to 40 ppbV for 19 Target compounds (see page 5).

SIM = 9- to 10-level calibration from 0.003 or 0.01 to 20 ppbV for 3 Targets. %RSD ≤ 30% for all 22 Target Compounds and RLs reported (0.1 ppbV for all 19 Full Scan Targets except Acetone and 1,2,4-Trichlorobenzene at 0.5 ppbV and Methylene Chloride at 0.2 ppbV; and 0.01 ppbV for Vinyl Chloride and 0.02 ppbV for Carbon Tetrachloride and Trichloroethene by SM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date 8/20/09

Data Reviewer 77c. RPK

Method of Analysis: TO-15 Hi/Lo

Associated Blanks: Method Blanks: Z080605 (Full Scan and SIM)

Field Blank: FB1

[illegible]

Date 8/20/09

Data Reviewer 77c. RM

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019C

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: Z080602 & Z080602sim - % Recovery 70-130% for all 22 Target. No Action required.

BFB Tunes: Instrument Z 4 tunes (2 ICAL + 1 CCAL) - all criteria in all tunes were met. Both samples were analyzed beyond 12 hours of tune,
but within 24 hours of tune. Since ATL SOP, Method TO-15 and Region II SOP HW-31 allow 24-hour tune criteria, no action taken except to note.

Surrogates & Internal Standards: All 3 Surrogates had %Recovery within criteria and all IS' had areas and RTs within criteria; therefore, No Action Required.

LCS: Z080603 & Z080603sim- All 22 Target compounds were recovered within criteria - Acceptable accuracy for method demonstrated. No Action Required.

There was no LD performed on the samples in this Work Order - see 0908019A & 0908019B for LD precision

There were no Field Duplicate associated with the samples in this Work Order - see 0908019B for FD evaluation

All results were reported within the instrument calibration range (no "J" or "E" data reported)

All reporting limits were at a level below the Project required RL (as shown in Table 5); therefore, all results are considered usable as reported.

The narrative did not raise any issues that may affect data quality.

The database was unchanged as a consequence of this review.

Date 8/20/09

Data Reviewer 77C. PK

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019C

Method of Analysis: TO-15 Hi/Lo

Field Duplicate Evaluation_ Sample IDs:

There were no Field Duplicates associated with the samples in this Work Order

Analyte Name	CAS No.	DF = RL ($\mu\text{g}/\text{m}^3$)	Sample Result $\mu\text{g}/\text{m}^3$	Q	FD Level	FD Result $\mu\text{g}/\text{m}^3$	Q	Level	RPD	Action
Freon 12	75-71-8									
Freon 11	75-69-4									
Freon 113	76-13-1									
1,1-Dichloroethene	75-35-4									
Acetone	67-64-1									
Methylene Chloride	75-09-2									
cis-1,2-Dichloroethene	156-59-2									
1,1,1-Trichloroethane	71-55-6									
Benzene	71-43-2									
Toluene	108-88-3									
Tetrachloroethene	127-18-4									
Chlorobenzene	108-90-7									
Ethyl Benzene	100-41-4					Non				
m,p-Xylene	108-38-3/106-42-3					8/20/09				
o-Xylene	95-47-6									
1,3-Dichlorobenzene	541-73-1									
1,4-Dichlorobenzene	106-46-7									
1,2-Dichlorobenzene	95-50-1									
1,2,4-Trichlorobenzene	120-82-1									
Vinyl Chloride	75-01-4									
Carbon Tetrachloride	56-23-5									
Trichloroethene	79-01-6									

*This is the sample DF and RLs, the FD DF was XXX and RLs are RLs shown x (XXX/YYY)

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result; UJ = non-detect is estimated

NA = Not Applicable. RPD not calculated since one or both results were non-detect.

Date 8/20/09

Data Reviewer 770.RM

Lab: Air Toxics Ltd.

Work Order #: 0908019C

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene (PCE)	Full	1.4
Trichloroethene (TCE)	SIM	0.22
cis-1,2-Dichloroethene (cDCE)	Full	0.8
1,1-Dichloroethene (DCE)	Full	0.8
Vinyl chloride (VC)	SIM	0.06
1,1,1-Trichloroethane (TCA)	Full	1.1
Carbon Tetrachloride	SIM	0.2
Methylene chloride (MeCL)	Full	1.4
Chlorobenzene	Full	0.92
1,2,4-Trichlorobenzene	Full	7.4
1,2-Dichlorobenzene	Full	1.2
1,3-Dichlorobenzene	Full	1.2
1,4-Dichlorobenzene	Full	1.2
Acetone	Full	2.4
Benzene	Full	0.64
Ethylbenzene	Full	0.86
m-Xylene	Full	0.86
p-Xylene		
o-Xylene	Full	0.86
Toluene	Full	0.77
Trichlorofluoromethane (Freon 11)	Full	1.1
Dichlorodifluoromethane (Freon 12)	Full	1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	Full	1.5

Date 8/20/09

Data Reviewer 77C-RK

IBM - East Fishkill Facility, Hopewell Junction, New York
Air Data Review Checklist

Lab: Air Toxics Ltd.

Work Order #: 0908019C

Actions (see References below):

Canister Integrity: If certification forms indicate issues, J/U or UJ results in samples

Canister Vacuum (Vac): Initial Field Vac < 25" Hg, J/UJ all results; Lab Receipt Vac > 15" Hg, J/UJ results; Lab Receipt Vac > ± 5" Hg of Final Field Vac, J/UJ

Hold Time (HT): HT > 30 days, J detects/ UJ non-detects

Blank Actions: Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)

Method Blank (MB): Result < RL, U result at RL; RL < Result < Blank Action, U result at level reported

Equipment Blank (EB): Result < Blank Action, EB result at level reported

BFB Tune: SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 12-hours after tune; professional judgment on J/UJ or R of results

LCS and CCV: Percent Recovery (%Rec) < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Initial Calibration (ICAL): %RSD > 30%, J/UJ associated results

Internal Standard (IS): RT > ± 0.33 min of IS RT in daily CCV, J/UJ associated results;

Area < 25% Area in CCV, J detects, R non-detects (or professional judgment); 25% < Area < 60% of CCV Area, J/UJ associated results;

Area > 140% of CCV Area, J detects, no action for non-detects

Surrogates: %Rec < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Laboratory Duplicates: LCS/LCSD RPD or Sample/LD RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

Field Duplicates: RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

RLs + Quant: Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data. Note if RL > expected RL from Table B.1 of Work Plan (see above)

References: *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006; and Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999

Date 8/20/09

Data Reviewer 77 c. R/R

ATTACHMENT D

ANALYTICAL LABORATORY DATA REPORTS

8/12/2009

Mr. Brad Green
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: EFK
Project #: 2999.00
Workorder #: 0908019A

Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 8/3/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

 |

Bryanna Langley
Project Manager

WORK ORDER #: 0908019A

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	IA0800	Modified TO-15	7.5 "Hg	5 psi
01AA	IA0800 Lab Duplicate	Modified TO-15	7.5 "Hg	5 psi
01B	IA0800	Modified TO-15	7.5 "Hg	5 psi
01BB	IA0800 Lab Duplicate	Modified TO-15	7.5 "Hg	5 psi
02A	IA0801	Modified TO-15	8.0 "Hg	5 psi
02B	IA0801	Modified TO-15	8.0 "Hg	5 psi
03A	IA0802	Modified TO-15	6.0 "Hg	5 psi
03B	IA0802	Modified TO-15	6.0 "Hg	5 psi
04A	IA0803	Modified TO-15	6.0 "Hg	5 psi
04B	IA0803	Modified TO-15	6.0 "Hg	5 psi
05A	IA0804	Modified TO-15	7.5 "Hg	5 psi
05B	IA0804	Modified TO-15	7.5 "Hg	5 psi
06A	IA0805	Modified TO-15	5.5 "Hg	5 psi
06B	IA0805	Modified TO-15	5.5 "Hg	5 psi
07A	IA0806	Modified TO-15	6.5 "Hg	5 psi
07B	IA0806	Modified TO-15	6.5 "Hg	5 psi
08A	IA0807	Modified TO-15	7.0 "Hg	5 psi

Continued on next page

WORK ORDER #: 0908019A

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
08B	IA0807	Modified TO-15	7.0 "Hg	5 psi
09A	IA0808	Modified TO-15	6.0 "Hg	5 psi
09B	IA0808	Modified TO-15	6.0 "Hg	5 psi
10A	IA0809	Modified TO-15	7.5 "Hg	5 psi
10B	IA0809	Modified TO-15	7.5 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
11C	Lab Blank	Modified TO-15	NA	NA
11D	Lab Blank	Modified TO-15	NA	NA
11E	Lab Blank	Modified TO-15	NA	NA
11F	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
12C	CCV	Modified TO-15	NA	NA
12D	CCV	Modified TO-15	NA	NA
12E	CCV	Modified TO-15	NA	NA
12F	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13C	LCS	Modified TO-15	NA	NA

Continued on next page

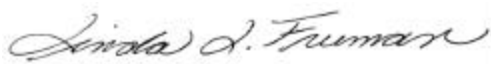
WORK ORDER #: 0908019A

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
13D	LCS	Modified TO-15	NA	NA
13E	LCS	Modified TO-15	NA	NA
13F	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 08/12/09

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 0908019A

Ten 6 Liter Summa Canister (SIM Certified) samples were received on August 03, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0800

Lab ID#: 0908019A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.58	0.88	2.9
Freon 11	0.18	0.37	1.0	2.1
Acetone	0.90	18	2.1	44
Benzene	0.18	0.18	0.57	0.58
Toluene	0.18	0.30	0.67	1.1

Client Sample ID: IA0800 Lab Duplicate

Lab ID#: 0908019A-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.55	0.88	2.7
Freon 11	0.18	0.35	1.0	2.0
Acetone	0.90	18	2.1	43
Toluene	0.18	0.30	0.67	1.1

Client Sample ID: IA0800

Lab ID#: 0908019A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.036	0.10	0.22	0.66

Client Sample ID: IA0800 Lab Duplicate

Lab ID#: 0908019A-01BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.036	0.10	0.22	0.66

Client Sample ID: IA0801

Lab ID#: 0908019A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.64	0.90	3.2
Freon 11	0.18	0.42	1.0	2.4
Acetone	0.92	14	2.2	34

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0801

Lab ID#: 0908019A-02A

Toluene	0.18	0.29	0.69	1.1
---------	------	------	------	-----

Client Sample ID: IA0801

Lab ID#: 0908019A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.037	0.077	0.23	0.48

Client Sample ID: IA0802

Lab ID#: 0908019A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.67	0.83	3.3
Freon 11	0.17	1.6	0.94	8.8
Acetone	0.84	13	2.0	31
Toluene	0.17	0.31	0.63	1.2

Client Sample ID: IA0802

Lab ID#: 0908019A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.065	0.21	0.41

Client Sample ID: IA0803

Lab ID#: 0908019A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.49	0.83	2.4
Freon 11	0.17	0.39	0.94	2.2
Acetone	0.84	11	2.0	26
Benzene	0.17	0.19	0.54	0.62
Toluene	0.17	1.3	0.63	4.8
m,p-Xylene	0.17	0.22	0.73	0.95

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0803

Lab ID#: 0908019A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.070	0.21	0.44
Trichloroethene	0.034	0.047	0.18	0.25

Client Sample ID: IA0804

Lab ID#: 0908019A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Freon 11	0.18	0.46	1.0	2.6
Acetone	0.90	9.0	2.1	21
Toluene	0.18	0.32	0.67	1.2

Client Sample ID: IA0804

Lab ID#: 0908019A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.036	0.057	0.22	0.36

Client Sample ID: IA0805

Lab ID#: 0908019A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.81	2.5
Freon 11	0.16	0.31	0.92	1.7
Acetone	0.82	35	1.9	82
Benzene	0.16	0.18	0.52	0.58
Toluene	0.16	0.28	0.62	1.0

Client Sample ID: IA0805

Lab ID#: 0908019A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.072	0.21	0.45

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0806

Lab ID#: 0908019A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.46	0.84	2.3
Freon 11	0.17	0.26	0.96	1.5
Acetone	0.86	16	2.0	38
Toluene	0.17	0.25	0.64	0.94

Client Sample ID: IA0806

Lab ID#: 0908019A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.066	0.22	0.42

Client Sample ID: IA0807

Lab ID#: 0908019A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.46	0.86	2.3
Freon 11	0.18	0.24	0.98	1.4
Acetone	0.88	12	2.1	28
Toluene	0.18	0.29	0.66	1.1

Client Sample ID: IA0807

Lab ID#: 0908019A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.035	0.077	0.22	0.48

Client Sample ID: IA0808

Lab ID#: 0908019A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.45	0.83	2.2
Freon 11	0.17	0.25	0.94	1.4
Acetone	0.84	6.9	2.0	16
Toluene	0.17	0.27	0.63	1.0

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0808

Lab ID#: 0908019A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.060	0.21	0.38

Client Sample ID: IA0809

Lab ID#: 0908019A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.46	0.88	2.3
Freon 11	0.18	0.25	1.0	1.4
Acetone	0.90	10	2.1	25
Toluene	0.18	0.22	0.67	0.83

Client Sample ID: IA0809

Lab ID#: 0908019A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.036	0.10	0.22	0.63

Client Sample ID: IA0800

Lab ID#: 0908019A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080423	Date of Collection: 7/29/09 4:39:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/4/09 10:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.58	0.88	2.9
Freon 11	0.18	0.37	1.0	2.1
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	18	2.1	44
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Benzene	0.18	0.18	0.57	0.58
Toluene	0.18	0.30	0.67	1.1
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0800 Lab Duplicate

Lab ID#: 0908019A-01AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080424	Date of Collection: 7/29/09 4:39:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/4/09 11:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.55	0.88	2.7
Freon 11	0.18	0.35	1.0	2.0
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	18	2.1	43
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Benzene	0.18	Not Detected	0.57	Not Detected
Toluene	0.18	0.30	0.67	1.1
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0800

Lab ID#: 0908019A-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080423sim	Date of Collection: 7/29/09 4:39:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/4/09 10:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Carbon Tetrachloride	0.036	0.10	0.22	0.66
Trichloroethene	0.036	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: IA0800 Lab Duplicate

Lab ID#: 0908019A-01BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080424sim	Date of Collection: 7/29/09 4:39:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/4/09 11:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Carbon Tetrachloride	0.036	0.10	0.22	0.66
Trichloroethene	0.036	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: IA0801

Lab ID#: 0908019A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080516	Date of Collection: 7/29/09 4:38:00 PM
Dil. Factor:	1.83	Date of Analysis: 8/5/09 11:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.64	0.90	3.2
Freon 11	0.18	0.42	1.0	2.4
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	14	2.2	34
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
Toluene	0.18	0.29	0.69	1.1
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0801

Lab ID#: 0908019A-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080516sim	Date of Collection: 7/29/09 4:38:00 PM
Dil. Factor:	1.83	Date of Analysis: 8/5/09 11:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.047	Not Detected
Carbon Tetrachloride	0.037	0.077	0.23	0.48
Trichloroethene	0.037	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0802

Lab ID#: 0908019A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080519	Date of Collection: 7/29/09 4:43:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 05:59 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.67	0.83	3.3
Freon 11	0.17	1.6	0.94	8.8
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	13	2.0	31
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
Toluene	0.17	0.31	0.63	1.2
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: IA0802

Lab ID#: 0908019A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080519sim	Date of Collection: 7/29/09 4:43:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 05:59 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.065	0.21	0.41
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: IA0803

Lab ID#: 0908019A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080520	Date of Collection: 7/29/09 4:37:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 06:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.49	0.83	2.4
Freon 11	0.17	0.39	0.94	2.2
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	11	2.0	26
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	0.19	0.54	0.62
Toluene	0.17	1.3	0.63	4.8
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	0.22	0.73	0.95
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0803

Lab ID#: 0908019A-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080520sim	Date of Collection: 7/29/09 4:37:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 06:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.070	0.21	0.44
Trichloroethene	0.034	0.047	0.18	0.25

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0804

Lab ID#: 0908019A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080521	Date of Collection: 7/29/09 4:57:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/6/09 07:49 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Freon 11	0.18	0.46	1.0	2.6
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	9.0	2.1	21
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Benzene	0.18	Not Detected	0.57	Not Detected
Toluene	0.18	0.32	0.67	1.2
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0804

Lab ID#: 0908019A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080521sim	Date of Collection: 7/29/09 4:57:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/6/09 07:49 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Carbon Tetrachloride	0.036	0.057	0.22	0.36
Trichloroethene	0.036	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: IA0805

Lab ID#: 0908019A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080522	Date of Collection: 7/29/09 4:46:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/6/09 08:32 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.81	2.5
Freon 11	0.16	0.31	0.92	1.7
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	35	1.9	82
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Benzene	0.16	0.18	0.52	0.58
Toluene	0.16	0.28	0.62	1.0
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: IA0805

Lab ID#: 0908019A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080522sim	Date of Collection: 7/29/09 4:46:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/6/09 08:32 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.072	0.21	0.45
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0806

Lab ID#: 0908019A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080523	Date of Collection: 7/29/09 4:53:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 09:04 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.46	0.84	2.3
Freon 11	0.17	0.26	0.96	1.5
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	16	2.0	38
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Benzene	0.17	Not Detected	0.55	Not Detected
Toluene	0.17	0.25	0.64	0.94
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0806

Lab ID#: 0908019A-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080523sim	Date of Collection: 7/29/09 4:53:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 09:04 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Carbon Tetrachloride	0.034	0.066	0.22	0.42
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0807

Lab ID#: 0908019A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080606	Date of Collection: 7/29/09 4:51:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/6/09 02:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.46	0.86	2.3
Freon 11	0.18	0.24	0.98	1.4
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	12	2.1	28
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
Toluene	0.18	0.29	0.66	1.1
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	Not Detected	0.76	Not Detected
o-Xylene	0.18	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0807

Lab ID#: 0908019A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080606sim	Date of Collection: 7/29/09 4:51:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/6/09 02:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Carbon Tetrachloride	0.035	0.077	0.22	0.48
Trichloroethene	0.035	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0808

Lab ID#: 0908019A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080607	Date of Collection: 7/29/09 5:17:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 02:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.45	0.83	2.2
Freon 11	0.17	0.25	0.94	1.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	6.9	2.0	16
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
Toluene	0.17	0.27	0.63	1.0
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0808

Lab ID#: 0908019A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080607sim	Date of Collection: 7/29/09 5:17:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 02:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.060	0.21	0.38
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0809

Lab ID#: 0908019A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080608	Date of Collection: 7/29/09 5:13:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/6/09 03:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.46	0.88	2.3
Freon 11	0.18	0.25	1.0	1.4
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	10	2.1	25
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Benzene	0.18	Not Detected	0.57	Not Detected
Toluene	0.18	0.22	0.67	0.83
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0809

Lab ID#: 0908019A-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080608sim	Date of Collection: 7/29/09 5:13:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/6/09 03:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Carbon Tetrachloride	0.036	0.10	0.22	0.63
Trichloroethene	0.036	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080414	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 03:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019A-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080414sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 03:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019A-11C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080507	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/5/09 03:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019A-11D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080507sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/5/09 03:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019A-11E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019A-11F

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908019A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 05:54 AM

Compound	%Recovery
Freon 12	108
Freon 11	108
Freon 113	102
1,1-Dichloroethene	100
Acetone	100
Methylene Chloride	97
cis-1,2-Dichloroethene	103
1,1,1-Trichloroethane	108
Benzene	105
Toluene	105
Tetrachloroethene	98
Chlorobenzene	97
Ethyl Benzene	100
m,p-Xylene	100
o-Xylene	99
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	90
1,2-Dichlorobenzene	86
1,2,4-Trichlorobenzene	73

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: CCV

Lab ID#: 0908019A-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080402sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 05:54 AM

Compound	%Recovery
Vinyl Chloride	107
Carbon Tetrachloride	117
Trichloroethene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908019A-12C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/5/09 10:08 AM

Compound	%Recovery
Freon 12	99
Freon 11	106
Freon 113	96
1,1-Dichloroethene	93
Acetone	94
Methylene Chloride	95
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	105
Benzene	106
Toluene	108
Tetrachloroethene	108
Chlorobenzene	103
Ethyl Benzene	107
m,p-Xylene	113
o-Xylene	112
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	113
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908019A-12D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080502sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/5/09 10:08 AM

Compound	%Recovery
Vinyl Chloride	100
Carbon Tetrachloride	117
Trichloroethene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908019A-12E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Freon 12	100
Freon 11	108
Freon 113	97
1,1-Dichloroethene	98
Acetone	93
Methylene Chloride	101
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	109
Benzene	106
Toluene	105
Tetrachloroethene	105
Chlorobenzene	102
Ethyl Benzene	106
m,p-Xylene	112
o-Xylene	111
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	110
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: CCV

Lab ID#: 0908019A-12F

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Vinyl Chloride	102
Carbon Tetrachloride	118
Trichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 0908019A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 07:04 AM

Compound	%Recovery
Freon 12	121
Freon 11	114
Freon 113	122
1,1-Dichloroethene	120
Acetone	114
Methylene Chloride	113
cis-1,2-Dichloroethene	111
1,1,1-Trichloroethane	115
Benzene	115
Toluene	118
Tetrachloroethene	116
Chlorobenzene	111
Ethyl Benzene	113
m,p-Xylene	112
o-Xylene	112
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	97
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	83

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 0908019A-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080403sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 07:04 AM

Compound	%Recovery
Vinyl Chloride	111
Carbon Tetrachloride	115
Trichloroethene	117

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 0908019A-13C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/5/09 12:01 PM

Compound	%Recovery
Freon 12	101
Freon 11	102
Freon 113	109
1,1-Dichloroethene	118
Acetone	104
Methylene Chloride	109
cis-1,2-Dichloroethene	112
1,1,1-Trichloroethane	104
Benzene	105
Toluene	111
Tetrachloroethene	105
Chlorobenzene	98
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	109
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	103
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	88

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 0908019A-13D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080504sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/5/09 12:01 PM

Compound	%Recovery
Vinyl Chloride	105
Carbon Tetrachloride	117
Trichloroethene	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 0908019A-13E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Freon 12	100
Freon 11	105
Freon 113	108
1,1-Dichloroethene	110
Acetone	122
Methylene Chloride	107
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	108
Benzene	106
Toluene	112
Tetrachloroethene	106
Chlorobenzene	100
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	112
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	104
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: LCS

Lab ID#: 0908019A-13F

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080603sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Vinyl Chloride	106
Carbon Tetrachloride	117
Trichloroethene	116

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



1280 SILVA HAYNE ROAD, SUITE 3
FOLSOM, CA 95630-4719
(916) 365-1000 FAX (916) 985-1020

Sample Transportation Notice

By signing this form, the customer warrants that sample is being shipped in compliance with all applicable local, state, federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Requiring signature also denotes agreement to hold harmless, defend, and indemnify Air Toxics Limited against a third party, demand, or action, of any kind, related to the collection, handling, or shipping of samples. DQ/T, Issue (200)

407-4012

Box 1 of 5



20 Foundry Street
Concord, NH 03301
(603) 229-1500 FAX (603) 229-1914

Project Info: Project Manager: Brad Green Email: bgreen@sanbornhead.com bgreen@sanbornhead.com, rgreen@sanbornhead.com P.O.# Project # 2999-09 Project Name: ERK Analysis: 1 = TO-15 H/L 2 =			Turn Around Time Normal ☒ Rush specify		Relinquished By: (signature) Date/Time 1300 Relinquished By: (signature) Date/Time Relinquished By: (signature) Date/Time		Received By: (signature) Date/Time 1300 Received By: (signature) Date/Time Received By: (signature) Date/Time		
Lab ID	Field Sample I.D.	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receipt	Final (psi)
01AB	IA0800	34233	07/29/2009	1639	>30	8	1		
02AB	IA0801	10780	07/29/2009	1638	30	7	1		
03AB	IA0802	33531	07/29/2009	1643	>30	7.5	1		
04AB	IA0803	5359	07/29/2009	1637	>30	8	1		
05AB	IA0804	35246	07/29/2009	1657	>30	7.5	1		
06AB	IA0805	35167	07/29/2009	1646	>30	6.5	1		
07AB	IA0806	1582	07/29/2009	1653	>30	8	1		
08AB	IA0807	5633	07/29/2009	1651	>30	7.5	1		
09AB	IA0808	1593	07/29/2009	1717	30	6.5	1		
10AB	IA0809	5578	07/29/2009	1713	>30	8.5	1		
	IA0810	5639	07/29/2009	1701	>30	7	1		
	IA0811	11870	07/29/2009	1703	>30	9	1		
	IA0812	34414	07/29/2009	1706	>30	8.5	1		
	IA0813	20932	07/29/2009	1711	>30	8	1		
	IA0814	25252	07/29/2009	1655	>30	8	1		
	IA0815	34502	07/29/2009	1649	>30	8	1		
	IA0816	34496	07/29/2009	1715	>30	8	1		
	BUP24219	24219	07/29/2009	1715	>30	9.5	1		
	IA0817	4351	07/29/2009	1706	>30	9	1		

8/3/09 910



8/12/2009

Mr. Brad Green
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: EFK
Project #: 2999.00
Workorder #: 0908019B

Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 8/3/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

 |

Bryanna Langley
Project Manager

WORK ORDER #: 0908019B

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
11A	IA0810	Modified TO-15	5.5 "Hg	5 psi
11AA	IA0810 Lab Duplicate	Modified TO-15	5.5 "Hg	5 psi
11B	IA0810	Modified TO-15	5.5 "Hg	5 psi
11BB	IA0810 Lab Duplicate	Modified TO-15	5.5 "Hg	5 psi
12A	IA0811	Modified TO-15	6.0 "Hg	5 psi
12B	IA0811	Modified TO-15	6.0 "Hg	5 psi
13A	IA0812	Modified TO-15	5.5 "Hg	5 psi
13B	IA0812	Modified TO-15	5.5 "Hg	5 psi
14A	IA0813	Modified TO-15	6.5 "Hg	5 psi
14B	IA0813	Modified TO-15	6.5 "Hg	5 psi
15A	IA0814	Modified TO-15	6.0 "Hg	5 psi
15B	IA0814	Modified TO-15	6.0 "Hg	5 psi
16A	IA0815	Modified TO-15	6.5 "Hg	5 psi
16B	IA0815	Modified TO-15	6.5 "Hg	5 psi
17A	IA0816	Modified TO-15	6.0 "Hg	5 psi
17B	IA0816	Modified TO-15	6.0 "Hg	5 psi
18A	DUP24219	Modified TO-15	8.0 "Hg	5 psi

Continued on next page

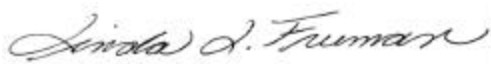
WORK ORDER #: 0908019B

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
18B	DUP24219	Modified TO-15	8.0 "Hg	5 psi
19A	AA0817	Modified TO-15	7.5 "Hg	5 psi
19B	AA0817	Modified TO-15	7.5 "Hg	5 psi
20A	Lab Blank	Modified TO-15	NA	NA
20B	Lab Blank	Modified TO-15	NA	NA
20C	Lab Blank	Modified TO-15	NA	NA
20D	Lab Blank	Modified TO-15	NA	NA
21A	CCV	Modified TO-15	NA	NA
21B	CCV	Modified TO-15	NA	NA
21C	CCV	Modified TO-15	NA	NA
21D	CCV	Modified TO-15	NA	NA
22A	LCS	Modified TO-15	NA	NA
22B	LCS	Modified TO-15	NA	NA
22C	LCS	Modified TO-15	NA	NA
22D	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 08/12/09

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 0908019B

Nine 6 Liter Summa Canister (SIM Certified) samples were received on August 03, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0810

Lab ID#: 0908019B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.81	2.3
Freon 11	0.16	0.26	0.92	1.5
Acetone	0.82	8.3	1.9	20
Benzene	0.16	0.16	0.52	0.53
Toluene	0.16	0.27	0.62	1.0

Client Sample ID: IA0810 Lab Duplicate

Lab ID#: 0908019B-11AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.81	2.3
Freon 11	0.16	0.27	0.92	1.5
Acetone	0.82	8.3	1.9	20
Benzene	0.16	0.18	0.52	0.56
Toluene	0.16	0.27	0.62	1.0

Client Sample ID: IA0810

Lab ID#: 0908019B-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.053	0.21	0.33

Client Sample ID: IA0810 Lab Duplicate

Lab ID#: 0908019B-11BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.053	0.21	0.34

Client Sample ID: IA0811

Lab ID#: 0908019B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.51	0.83	2.5
Freon 11	0.17	0.28	0.94	1.6

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0811

Lab ID#: 0908019B-12A

Acetone	0.84	14	2.0	33
Toluene	0.17	0.26	0.63	0.97

Client Sample ID: IA0811

Lab ID#: 0908019B-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.068	0.21	0.43

Client Sample ID: IA0812

Lab ID#: 0908019B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.81	2.3
Freon 11	0.16	0.28	0.92	1.6
Acetone	0.82	8.4	1.9	20
Benzene	0.16	0.17	0.52	0.54
Toluene	0.16	0.29	0.62	1.1

Client Sample ID: IA0812

Lab ID#: 0908019B-13B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.071	0.21	0.44

Client Sample ID: IA0813

Lab ID#: 0908019B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.44	0.84	2.2
Freon 11	0.17	0.25	0.96	1.4
Acetone	0.86	6.0	2.0	14
cis-1,2-Dichloroethene	0.17	0.69	0.68	2.7
Toluene	0.17	0.25	0.64	0.95
Tetrachloroethene	0.17	0.29	1.2	2.0

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0813

Lab ID#: 0908019B-14B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.072	0.22	0.45
Trichloroethene	0.034	0.067	0.18	0.36

Client Sample ID: IA0814

Lab ID#: 0908019B-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.48	0.83	2.4
Freon 11	0.17	0.29	0.94	1.6
Acetone	0.84	19	2.0	46
Benzene	0.17	0.29	0.54	0.92
Toluene	0.17	0.40	0.63	1.5

Client Sample ID: IA0814

Lab ID#: 0908019B-15B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.072	0.21	0.45

Client Sample ID: IA0815

Lab ID#: 0908019B-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.52	0.84	2.6
Freon 11	0.17	0.27	0.96	1.5
Acetone	0.86	19	2.0	45
Benzene	0.17	0.21	0.55	0.66
Toluene	0.17	0.31	0.64	1.2

Client Sample ID: IA0815

Lab ID#: 0908019B-16B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.064	0.22	0.40

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0816

Lab ID#: 0908019B-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.60	0.83	3.0
Freon 11	0.17	0.57	0.94	3.2
Acetone	0.84	16	2.0	38
cis-1,2-Dichloroethene	0.17	0.34	0.67	1.3
Toluene	0.17	0.38	0.63	1.4

Client Sample ID: IA0816

Lab ID#: 0908019B-17B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.082	0.21	0.52

Client Sample ID: DUP24219

Lab ID#: 0908019B-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.64	0.90	3.2
Freon 11	0.18	0.53	1.0	3.0
Acetone	0.92	11	2.2	26
Toluene	0.18	0.39	0.69	1.5

Client Sample ID: DUP24219

Lab ID#: 0908019B-18B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.037	0.082	0.23	0.52

Client Sample ID: AA0817

Lab ID#: 0908019B-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Freon 11	0.18	0.29	1.0	1.6
Acetone	0.90	9.2	2.1	22

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: AA0817

Lab ID#: 0908019B-19A

Benzene	0.18	0.19	0.57	0.62
Toluene	0.18	1.7	0.67	6.3
m,p-Xylene	0.18	0.44	0.78	1.9

Client Sample ID: AA0817

Lab ID#: 0908019B-19B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.036	0.070	0.22	0.44
Trichloroethene	0.036	0.15	0.19	0.80

Client Sample ID: IA0810

Lab ID#: 0908019B-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080415	Date of Collection: 7/29/09 5:01:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/4/09 10:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.81	2.3
Freon 11	0.16	0.26	0.92	1.5
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	8.3	1.9	20
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Benzene	0.16	0.16	0.52	0.53
Toluene	0.16	0.27	0.62	1.0
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0810 Lab Duplicate

Lab ID#: 0908019B-11AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080416	Date of Collection: 7/29/09 5:01:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/4/09 11:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.81	2.3
Freon 11	0.16	0.27	0.92	1.5
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	8.3	1.9	20
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Benzene	0.16	0.18	0.52	0.56
Toluene	0.16	0.27	0.62	1.0
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: IA0810

Lab ID#: 0908019B-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080415sim	Date of Collection: 7/29/09 5:01:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/4/09 10:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.053	0.21	0.33
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0810 Lab Duplicate

Lab ID#: 0908019B-11BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080416sim	Date of Collection: 7/29/09 5:01:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/4/09 11:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.053	0.21	0.34
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0811

Lab ID#: 0908019B-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080609	Date of Collection: 7/29/09 5:03:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 04:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.51	0.83	2.5
Freon 11	0.17	0.28	0.94	1.6
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	14	2.0	33
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
Toluene	0.17	0.26	0.63	0.97
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0811

Lab ID#: 0908019B-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080609sim	Date of Collection: 7/29/09 5:03:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 04:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.068	0.21	0.43
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0812

Lab ID#: 0908019B-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080610	Date of Collection: 7/29/09 5:06:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/6/09 05:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.81	2.3
Freon 11	0.16	0.28	0.92	1.6
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	8.4	1.9	20
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Benzene	0.16	0.17	0.52	0.54
Toluene	0.16	0.29	0.62	1.1
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA0812

Lab ID#: 0908019B-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080610sim	Date of Collection: 7/29/09 5:06:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/6/09 05:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.071	0.21	0.44
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: IA0813

Lab ID#: 0908019B-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080611	Date of Collection: 7/29/09 5:11:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 06:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.44	0.84	2.2
Freon 11	0.17	0.25	0.96	1.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	6.0	2.0	14
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	0.69	0.68	2.7
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Benzene	0.17	Not Detected	0.55	Not Detected
Toluene	0.17	0.25	0.64	0.95
Tetrachloroethene	0.17	0.29	1.2	2.0
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: IA0813

Lab ID#: 0908019B-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080611sim	Date of Collection: 7/29/09 5:11:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 06:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Carbon Tetrachloride	0.034	0.072	0.22	0.45
Trichloroethene	0.034	0.067	0.18	0.36

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0814

Lab ID#: 0908019B-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080612	Date of Collection: 7/29/09 4:55:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 07:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.48	0.83	2.4
Freon 11	0.17	0.29	0.94	1.6
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	19	2.0	46
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	0.29	0.54	0.92
Toluene	0.17	0.40	0.63	1.5
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0814

Lab ID#: 0908019B-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080612sim	Date of Collection: 7/29/09 4:55:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 07:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.072	0.21	0.45
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: IA0815

Lab ID#: 0908019B-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080614	Date of Collection: 7/29/09 4:49:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 08:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.52	0.84	2.6
Freon 11	0.17	0.27	0.96	1.5
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	19	2.0	45
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Benzene	0.17	0.21	0.55	0.66
Toluene	0.17	0.31	0.64	1.2
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0815

Lab ID#: 0908019B-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080614sim	Date of Collection: 7/29/09 4:49:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 08:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Carbon Tetrachloride	0.034	0.064	0.22	0.40
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: IA0816

Lab ID#: 0908019B-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080615	Date of Collection: 7/29/09 5:15:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 09:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.60	0.83	3.0
Freon 11	0.17	0.57	0.94	3.2
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	16	2.0	38
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	0.34	0.67	1.3
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
Toluene	0.17	0.38	0.63	1.4
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA0816

Lab ID#: 0908019B-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080615sim	Date of Collection: 7/29/09 5:15:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 09:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.082	0.21	0.52
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: DUP24219

Lab ID#: 0908019B-18A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080616	Date of Collection: 7/29/09 5:15:00 PM
Dil. Factor:	1.83	Date of Analysis: 8/6/09 10:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.64	0.90	3.2
Freon 11	0.18	0.53	1.0	3.0
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	11	2.2	26
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
Toluene	0.18	0.39	0.69	1.5
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: DUP24219

Lab ID#: 0908019B-18B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080616sim	Date of Collection: 7/29/09 5:15:00 PM
Dil. Factor:	1.83	Date of Analysis: 8/6/09 10:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.047	Not Detected
Carbon Tetrachloride	0.037	0.082	0.23	0.52
Trichloroethene	0.037	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: AA0817

Lab ID#: 0908019B-19A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080617	Date of Collection: 7/29/09 5:06:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/6/09 11:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Freon 11	0.18	0.29	1.0	1.6
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	9.2	2.1	22
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Benzene	0.18	0.19	0.57	0.62
Toluene	0.18	1.7	0.67	6.3
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	0.44	0.78	1.9
o-Xylene	0.18	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: AA0817

Lab ID#: 0908019B-19B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080617sim	Date of Collection: 7/29/09 5:06:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/6/09 11:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Carbon Tetrachloride	0.036	0.070	0.22	0.44
Trichloroethene	0.036	0.15	0.19	0.80

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019B-20A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 01:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019B-20B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080405sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 01:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019B-20C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019B-20D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908019B-21A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 10:51 AM

Compound	%Recovery
Freon 12	95
Freon 11	90
Freon 113	94
1,1-Dichloroethene	100
Acetone	101
Methylene Chloride	98
cis-1,2-Dichloroethene	106
1,1,1-Trichloroethane	97
Benzene	100
Toluene	102
Tetrachloroethene	102
Chlorobenzene	99
Ethyl Benzene	104
m,p-Xylene	110
o-Xylene	110
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	103
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 0908019B-21B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080402sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 10:51 AM

Compound	%Recovery
Vinyl Chloride	110
Carbon Tetrachloride	105
Trichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 0908019B-21C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Freon 12	100
Freon 11	108
Freon 113	97
1,1-Dichloroethene	98
Acetone	93
Methylene Chloride	101
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	109
Benzene	106
Toluene	105
Tetrachloroethene	105
Chlorobenzene	102
Ethyl Benzene	106
m,p-Xylene	112
o-Xylene	111
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	110
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: CCV

Lab ID#: 0908019B-21D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Vinyl Chloride	102
Carbon Tetrachloride	118
Trichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 0908019B-22A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 11:43 AM

Compound	%Recovery
Freon 12	96
Freon 11	92
Freon 113	107
1,1-Dichloroethene	112
Acetone	104
Methylene Chloride	108
cis-1,2-Dichloroethene	110
1,1,1-Trichloroethane	100
Benzene	103
Toluene	109
Tetrachloroethene	101
Chlorobenzene	97
Ethyl Benzene	101
m,p-Xylene	107
o-Xylene	110
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	101
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	95

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 0908019B-22B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080403sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/09 11:43 AM

Compound	%Recovery
Vinyl Chloride	108
Carbon Tetrachloride	110
Trichloroethene	112

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 0908019B-22C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Freon 12	100
Freon 11	105
Freon 113	108
1,1-Dichloroethene	110
Acetone	122
Methylene Chloride	107
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	108
Benzene	106
Toluene	112
Tetrachloroethene	106
Chlorobenzene	100
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	112
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	104
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: LCS

Lab ID#: 0908019B-22D

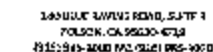
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080603sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Vinyl Chloride	106
Carbon Tetrachloride	117
Trichloroethene	116

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



Sample Transfer North-Holland Medical

1. The undersigned hereby certifies that the information furnished herein is true and correct to the best of his knowledge and belief, and that he is not aware of any information which would indicate that the information furnished herein is false or misleading.

25 Foundry Street
Luton, Herts LU1 3JH
[01582] 779-1300 Fax: [01582] 129-1911

Project Info:		Turn Around Time		Requested by (signature) Date/Time		Received By (signature) Date/Time			
Project Manager: Brad Owen Email: bjoen@freedomboard.com Contact: 908-766-0000 ext. 100, mobile: 908-766-0000 P.O.# Project #: 2946-00 Product Name: LTE Analysis: 1 = VO-35, etc.		Typing: 70 Folio		<i>John Code</i> Requested by (signature) Date/Time		<i>Monica Engren</i> Received By (signature) Date/Time		8/3/09 9:10	
		specch		Requested by (signature) Date/Time		Received By (signature) Date/Time			
Lab ID	Field Sample ID	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receipt	Final (ps)
	IA0800	34233	07/29/2009	1638	>30	8	1		
	IA0801	10780	07/29/2009	1638	30	7	1		
	IA0802	22631	07/29/2009	1643	>30	7.5	1		
	IA0803	5359	07/29/2009	1637	>30	8	1		
	IA0804	35246	07/29/2009	1657	>30	7.5	1		
	IA0805	25107	07/29/2009	1646	>30	6.5	1		
	IA0806	1582	07/29/2009	1653	>30	6	1		
	IA0807	5633	07/29/2009	1651	>40	7.5	1		
	IA0808	1593	07/29/2009	1717	30	6.5	1		
	IA0809	5578	07/29/2009	1713	<30	8.5	1		
11AB	IA0810	5639	07/29/2009	1701	>30	7	1		
12AB	IA0811	11670	07/29/2009	1703	>30	9	1		
13AB	IA0812	34414	07/29/2009	1706	>30	8.5	1		
14AB	IA0813	28532	07/29/2009	1711	>30	8	1		
15AB	IA0814	25232	07/29/2009	1655	>30	8	1		
16AB	IA0815	34502	07/29/2009	1649	>30	8	1		
17AB	IA0816	34496	07/29/2009	1715	>30	8	1		
18AB	BUP24219	24219	07/29/2009	1715	>30	9.5	1		
19AB	AA0817	4351	07/29/2009	1706	>30	9	1		

$\mathbb{E}[\epsilon_1] = 12$

4/24/2014
CUSTODY SEAL INTACT
V N MONS TEMP 114

8/12/2009

Mr. Brad Green
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: EFK
Project #: 2999.00
Workorder #: 0908019C

Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 8/3/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

 |

Bryanna Langley
Project Manager

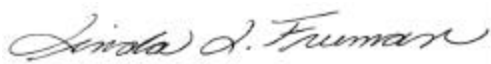
WORK ORDER #: 0908019C

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
20A	AA0818	Modified TO-15	6.5 "Hg	5 psi
20B	AA0818	Modified TO-15	6.5 "Hg	5 psi
21A	FB1	Modified TO-15	4.0 "Hg	5 psi
21B	FB1	Modified TO-15	4.0 "Hg	5 psi
22A	Lab Blank	Modified TO-15	NA	NA
22B	Lab Blank	Modified TO-15	NA	NA
23A	CCV	Modified TO-15	NA	NA
23B	CCV	Modified TO-15	NA	NA
24A	LCS	Modified TO-15	NA	NA
24B	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 08/12/09

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 0908019C

Two 6 Liter Summa Canister (SIM Certified) samples were received on August 03, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$.; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: AA0818

Lab ID#: 0908019C-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.84	2.1
Freon 11	0.17	0.24	0.96	1.3
Acetone	0.86	27	2.0	64
Benzene	0.17	0.18	0.55	0.57
Toluene	0.17	1.5	0.64	5.7
m,p-Xylene	0.17	0.46	0.74	2.0
o-Xylene	0.17	0.22	0.74	0.98

Client Sample ID: AA0818

Lab ID#: 0908019C-20B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.066	0.22	0.42

Client Sample ID: FB1

Lab ID#: 0908019C-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.78	0.98	1.8	2.3

Client Sample ID: FB1

Lab ID#: 0908019C-21B

No Detections Were Found.

Client Sample ID: AA0818

Lab ID#: 0908019C-20A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080618	Date of Collection: 7/29/09 4:55:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 11:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.84	2.1
Freon 11	0.17	0.24	0.96	1.3
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	27	2.0	64
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Benzene	0.17	0.18	0.55	0.57
Toluene	0.17	1.5	0.64	5.7
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	0.46	0.74	2.0
o-Xylene	0.17	0.22	0.74	0.98
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: AA0818

Lab ID#: 0908019C-20B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080618sim	Date of Collection: 7/29/09 4:55:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 11:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Carbon Tetrachloride	0.034	0.066	0.22	0.42
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: FB1

Lab ID#: 0908019C-21A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080619	Date of Collection: 7/29/09 2:35:00 PM
Dil. Factor:	1.55	Date of Analysis: 8/7/09 12:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	Not Detected	0.77	Not Detected
Freon 11	0.16	Not Detected	0.87	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	0.98	1.8	2.3
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Benzene	0.16	Not Detected	0.50	Not Detected
Toluene	0.16	Not Detected	0.58	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	Not Detected	0.67	Not Detected
o-Xylene	0.16	Not Detected	0.67	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: FB1

Lab ID#: 0908019C-21B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080619sim	Date of Collection: 7/29/09 2:35:00 PM
Dil. Factor:	1.55	Date of Analysis: 8/7/09 12:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Carbon Tetrachloride	0.031	Not Detected	0.20	Not Detected
Trichloroethene	0.031	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019C-22A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908019C-22B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908019C-23A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Freon 12	100
Freon 11	108
Freon 113	97
1,1-Dichloroethene	98
Acetone	93
Methylene Chloride	101
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	109
Benzene	106
Toluene	105
Tetrachloroethene	105
Chlorobenzene	102
Ethyl Benzene	106
m,p-Xylene	112
o-Xylene	111
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	110
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: CCV

Lab ID#: 0908019C-23B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Vinyl Chloride	102
Carbon Tetrachloride	118
Trichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 0908019C-24A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Freon 12	100
Freon 11	105
Freon 113	108
1,1-Dichloroethene	110
Acetone	122
Methylene Chloride	107
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	108
Benzene	106
Toluene	112
Tetrachloroethene	106
Chlorobenzene	100
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	112
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	104
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: LCS

Lab ID#: 0908019C-24B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: z080603sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Vinyl Chloride	106
Carbon Tetrachloride	117
Trichloroethene	116

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



180 BLUE RAVEN ROAD, SUITE B
OAKLAND, CA 94612-4719
(916) 985-1000 FAX (916) 985-1020

Sustainable Transportation Needs

Full publishing agreements with this document include the samples being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. All Transit Limited assumes no liability with respect to the collection, handling or shipping of these samples. Full publishing agreements also include agreements to hold harmless, defend and indemnify AirTees Limited and its employees, agents, or any third parties, relative to the collection, handling, or the shipping of services. S.O.C. Hotline (100)

5422

0908019
SHA
IMPROVING BALT.

20 Foundry Street
Concord, NH 03301
(603) 229-1500 FAX (603) 229-1909

[illegible]

CUSTODY SEAL INTACT? Y
N/NONE TEMP N/A

Federal

8/12/2009

Mr. Brad Green
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: EFK
Project #: 2999.00
Workorder #: 0908026A

Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 8/3/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

 |

Bryanna Langley
Project Manager

WORK ORDER #: 0908026A

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	FB2	Modified TO-15	0.4psi	5 psi
01B	FB2	Modified TO-15	0.4psi	5 psi
02A	IA1000	Modified TO-15	6.0 "Hg	5 psi
02B	IA1000	Modified TO-15	6.0 "Hg	5 psi
03A	IA1001	Modified TO-15	6.0 "Hg	5 psi
03B	IA1001	Modified TO-15	6.0 "Hg	5 psi
04A	IA1002	Modified TO-15	6.5 "Hg	5 psi
04B	IA1002	Modified TO-15	6.5 "Hg	5 psi
05A	IA1003	Modified TO-15	6.0 "Hg	5 psi
05B	IA1003	Modified TO-15	6.0 "Hg	5 psi
06A	IA1004	Modified TO-15	7.0 "Hg	5 psi
06B	IA1004	Modified TO-15	7.0 "Hg	5 psi
07A	IA1005	Modified TO-15	7.0 "Hg	5 psi
07B	IA1005	Modified TO-15	7.0 "Hg	5 psi
08A	IA1006	Modified TO-15	5.5 "Hg	5 psi
08B	IA1006	Modified TO-15	5.5 "Hg	5 psi
09A	IA1007	Modified TO-15	8.0 "Hg	5 psi

Continued on next page

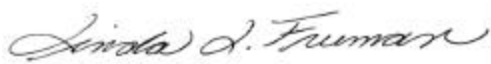
WORK ORDER #: 0908026A

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
09B	IA1007	Modified TO-15	8.0 "Hg	5 psi
10A	IA1008	Modified TO-15	7.0 "Hg	5 psi
10AA	IA1008 Lab Duplicate	Modified TO-15	7.0 "Hg	5 psi
10B	IA1008	Modified TO-15	7.0 "Hg	5 psi
10BB	IA1008 Lab Duplicate	Modified TO-15	7.0 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
11C	Lab Blank	Modified TO-15	NA	NA
11D	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
12C	CCV	Modified TO-15	NA	NA
12D	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13C	LCS	Modified TO-15	NA	NA
13D	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 08/12/09

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 0908026A

Ten 6 Liter Summa Canister (SIM Certified) samples were received on August 03, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$.; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Sample FB2 arrived at positive pressure yet flow controllers were used for sample collection.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: FB2

Lab ID#: 0908026A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.65	0.66	1.5	1.6

Client Sample ID: FB2

Lab ID#: 0908026A-01B

No Detections Were Found.

Client Sample ID: IA1000

Lab ID#: 0908026A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.35	0.83	1.7
Freon 11	0.17	0.24	0.94	1.4
Acetone	0.84	5.3	2.0	13
Toluene	0.17	0.33	0.63	1.2

Client Sample ID: IA1000

Lab ID#: 0908026A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.10	0.21	0.64

Client Sample ID: IA1001

Lab ID#: 0908026A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.45	0.83	2.2
Freon 11	0.17	0.27	0.94	1.5
Acetone	0.84	8.4	2.0	20
Toluene	0.17	0.19	0.63	0.72

Client Sample ID: IA1001

Lab ID#: 0908026A-03B

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA1001

Lab ID#: 0908026A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.11	0.21	0.67

Client Sample ID: IA1002

Lab ID#: 0908026A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.42	0.84	2.1
Freon 11	0.17	0.21	0.96	1.2
Acetone	0.86	4.6	2.0	11
Toluene	0.17	0.25	0.64	0.95

Client Sample ID: IA1002

Lab ID#: 0908026A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.10	0.22	0.66

Client Sample ID: IA1003

Lab ID#: 0908026A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.83	2.0
Freon 11	0.17	0.25	0.94	1.4
Acetone	0.84	5.7	2.0	14
Toluene	0.17	0.19	0.63	0.73

Client Sample ID: IA1003

Lab ID#: 0908026A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.10	0.21	0.66

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA1004

Lab ID#: 0908026A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.86	2.4
Freon 11	0.18	0.29	0.98	1.6
Acetone	0.88	6.0	2.1	14
Benzene	0.18	0.22	0.56	0.69
Toluene	0.18	0.44	0.66	1.6
m,p-Xylene	0.18	0.31	0.76	1.3

Client Sample ID: IA1004

Lab ID#: 0908026A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.035	0.096	0.22	0.60
Trichloroethene	0.035	0.054	0.19	0.29

Client Sample ID: IA1005

Lab ID#: 0908026A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.66	0.86	3.3
Freon 11	0.18	0.53	0.98	3.0
Acetone	0.88	180 E	2.1	420 E
Toluene	0.18	0.30	0.66	1.1

Client Sample ID: IA1005

Lab ID#: 0908026A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.035	0.089	0.22	0.56

Client Sample ID: IA1006

Lab ID#: 0908026A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.64	0.81	3.2

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA1006

Lab ID#: 0908026A-08A

Freon 11	0.16	0.45	0.92	2.5
Acetone	0.82	10	1.9	24
Toluene	0.16	2.3	0.62	8.6
m,p-Xylene	0.16	0.18	0.71	0.80

Client Sample ID: IA1006

Lab ID#: 0908026A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.092	0.21	0.58

Client Sample ID: IA1007

Lab ID#: 0908026A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.72	0.90	3.5
Freon 11	0.18	0.58	1.0	3.2
Acetone	0.92	13	2.2	30
Toluene	0.18	0.26	0.69	0.96

Client Sample ID: IA1007

Lab ID#: 0908026A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.037	0.086	0.23	0.54

Client Sample ID: IA1008

Lab ID#: 0908026A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.67	0.86	3.3
Freon 11	0.18	0.54	0.98	3.0
Acetone	0.88	12	2.1	28
Toluene	0.18	0.26	0.66	0.98

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA1008 Lab Duplicate

Lab ID#: 0908026A-10AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.64	0.86	3.2
Freon 11	0.18	0.52	0.98	2.9
Acetone	0.88	12	2.1	28
Toluene	0.18	0.26	0.66	0.98

Client Sample ID: IA1008

Lab ID#: 0908026A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.035	0.099	0.22	0.62

Client Sample ID: IA1008 Lab Duplicate

Lab ID#: 0908026A-10BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.035	0.10	0.22	0.63

Client Sample ID: FB2

Lab ID#: 0908026A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080612	Date of Collection: 7/30/09 1:25:00 PM
Dil. Factor:	1.30	Date of Analysis: 8/6/09 03:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	Not Detected	0.64	Not Detected
Freon 11	0.13	Not Detected	0.73	Not Detected
Freon 113	0.13	Not Detected	1.0	Not Detected
1,1-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Acetone	0.65	0.66	1.5	1.6
Methylene Chloride	0.26	Not Detected	0.90	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
1,1,1-Trichloroethane	0.13	Not Detected	0.71	Not Detected
Benzene	0.13	Not Detected	0.42	Not Detected
Toluene	0.13	Not Detected	0.49	Not Detected
Tetrachloroethene	0.13	Not Detected	0.88	Not Detected
Chlorobenzene	0.13	Not Detected	0.60	Not Detected
Ethyl Benzene	0.13	Not Detected	0.56	Not Detected
m,p-Xylene	0.13	Not Detected	0.56	Not Detected
o-Xylene	0.13	Not Detected	0.56	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected
1,2,4-Trichlorobenzene	0.65	Not Detected	4.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: FB2

Lab ID#: 0908026A-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080612sim	Date of Collection: 7/30/09 1:25:00 PM
Dil. Factor:	1.30	Date of Analysis: 8/6/09 03:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.033	Not Detected
Carbon Tetrachloride	0.026	Not Detected	0.16	Not Detected
Trichloroethene	0.026	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA1000

Lab ID#: 0908026A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080613	Date of Collection: 7/30/09 4:07:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 03:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.35	0.83	1.7
Freon 11	0.17	0.24	0.94	1.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	5.3	2.0	13
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
Toluene	0.17	0.33	0.63	1.2
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: IA1000

Lab ID#: 0908026A-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080613sim	Date of Collection: 7/30/09 4:07:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 03:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.10	0.21	0.64
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: IA1001

Lab ID#: 0908026A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080616	Date of Collection: 7/30/09 4:40:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 06:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.45	0.83	2.2
Freon 11	0.17	0.27	0.94	1.5
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	8.4	2.0	20
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
Toluene	0.17	0.19	0.63	0.72
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA1001

Lab ID#: 0908026A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080616sim	Date of Collection: 7/30/09 4:40:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 06:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.11	0.21	0.67
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: IA1002

Lab ID#: 0908026A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080615	Date of Collection: 7/30/09 4:35:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 05:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.42	0.84	2.1
Freon 11	0.17	0.21	0.96	1.2
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	4.6	2.0	11
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Benzene	0.17	Not Detected	0.55	Not Detected
Toluene	0.17	0.25	0.64	0.95
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA1002

Lab ID#: 0908026A-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080615sim	Date of Collection: 7/30/09 4:35:00 PM
Dil. Factor:	1.71	Date of Analysis: 8/6/09 05:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Carbon Tetrachloride	0.034	0.10	0.22	0.66
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: IA1003

Lab ID#: 0908026A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080617	Date of Collection: 7/30/09 4:45:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 07:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.83	2.0
Freon 11	0.17	0.25	0.94	1.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	5.7	2.0	14
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
Toluene	0.17	0.19	0.63	0.73
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: IA1003

Lab ID#: 0908026A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080617sim	Date of Collection: 7/30/09 4:45:00 PM
Dil. Factor:	1.68	Date of Analysis: 8/6/09 07:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Carbon Tetrachloride	0.034	0.10	0.21	0.66
Trichloroethene	0.034	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: IA1004

Lab ID#: 0908026A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080619	Date of Collection: 7/30/09 5:45:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/6/09 08:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.86	2.4
Freon 11	0.18	0.29	0.98	1.6
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	6.0	2.1	14
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Benzene	0.18	0.22	0.56	0.69
Toluene	0.18	0.44	0.66	1.6
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	0.31	0.76	1.3
o-Xylene	0.18	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: IA1004

Lab ID#: 0908026A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080619sim	Date of Collection: 7/30/09 5:45:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/6/09 08:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Carbon Tetrachloride	0.035	0.096	0.22	0.60
Trichloroethene	0.035	0.054	0.19	0.29

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: IA1005

Lab ID#: 0908026A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080620	Date of Collection: 7/30/09 4:19:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/7/09 05:50 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.66	0.86	3.3
Freon 11	0.18	0.53	0.98	3.0
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	180 E	2.1	420 E
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
Toluene	0.18	0.30	0.66	1.1
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	Not Detected	0.76	Not Detected
o-Xylene	0.18	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: IA1005

Lab ID#: 0908026A-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080620sim	Date of Collection: 7/30/09 4:19:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/7/09 05:50 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Carbon Tetrachloride	0.035	0.089	0.22	0.56
Trichloroethene	0.035	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA1006

Lab ID#: 0908026A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080621	Date of Collection: 7/30/09 4:15:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/7/09 06:31 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.64	0.81	3.2
Freon 11	0.16	0.45	0.92	2.5
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	10	1.9	24
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Benzene	0.16	Not Detected	0.52	Not Detected
Toluene	0.16	2.3	0.62	8.6
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	0.18	0.71	0.80
o-Xylene	0.16	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA1006

Lab ID#: 0908026A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080621sim	Date of Collection: 7/30/09 4:15:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/7/09 06:31 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.092	0.21	0.58
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: IA1007

Lab ID#: 0908026A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080622	Date of Collection: 7/30/09 3:56:00 PM
Dil. Factor:	1.83	Date of Analysis: 8/7/09 07:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.72	0.90	3.5
Freon 11	0.18	0.58	1.0	3.2
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	13	2.2	30
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
Toluene	0.18	0.26	0.69	0.96
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: IA1007

Lab ID#: 0908026A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080622sim	Date of Collection: 7/30/09 3:56:00 PM
Dil. Factor:	1.83	Date of Analysis: 8/7/09 07:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.047	Not Detected
Carbon Tetrachloride	0.037	0.086	0.23	0.54
Trichloroethene	0.037	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA1008

Lab ID#: 0908026A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080623	Date of Collection: 7/30/09 4:20:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/7/09 07:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.67	0.86	3.3
Freon 11	0.18	0.54	0.98	3.0
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	12	2.1	28
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
Toluene	0.18	0.26	0.66	0.98
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	Not Detected	0.76	Not Detected
o-Xylene	0.18	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: IA1008 Lab Duplicate

Lab ID#: 0908026A-10AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080624	Date of Collection: 7/30/09 4:20:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/7/09 08:17 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.64	0.86	3.2
Freon 11	0.18	0.52	0.98	2.9
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	12	2.1	28
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
Toluene	0.18	0.26	0.66	0.98
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	Not Detected	0.76	Not Detected
o-Xylene	0.18	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: IA1008

Lab ID#: 0908026A-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080623sim	Date of Collection: 7/30/09 4:20:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/7/09 07:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Carbon Tetrachloride	0.035	0.099	0.22	0.62
Trichloroethene	0.035	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: IA1008 Lab Duplicate

Lab ID#: 0908026A-10BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080624sim	Date of Collection: 7/30/09 4:20:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/7/09 08:17 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Carbon Tetrachloride	0.035	0.10	0.22	0.63
Trichloroethene	0.035	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908026A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080610	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 01:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908026A-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080610sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 01:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	85	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908026A-11C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908026A-11D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080605sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 12:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908026A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080607	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:37 AM

Compound	%Recovery
Freon 12	105
Freon 11	99
Freon 113	100
1,1-Dichloroethene	98
Acetone	96
Methylene Chloride	97
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	102
Benzene	96
Toluene	94
Tetrachloroethene	108
Chlorobenzene	100
Ethyl Benzene	104
m,p-Xylene	102
o-Xylene	100
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	90
1,2-Dichlorobenzene	89
1,2,4-Trichlorobenzene	76

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: CCV

Lab ID#: 0908026A-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: s080607sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 8/6/09 10:37 AM

Compound	%Recovery
Vinyl Chloride	103
Carbon Tetrachloride	110
Trichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: CCV

Lab ID#: 0908026A-12C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Freon 12	100
Freon 11	108
Freon 113	97
1,1-Dichloroethene	98
Acetone	93
Methylene Chloride	101
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	109
Benzene	106
Toluene	105
Tetrachloroethene	105
Chlorobenzene	102
Ethyl Benzene	106
m,p-Xylene	112
o-Xylene	111
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	110
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: CCV

Lab ID#: 0908026A-12D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080602sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:11 AM

Compound	%Recovery
Vinyl Chloride	102
Carbon Tetrachloride	118
Trichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 0908026A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 08:21 AM

Compound	%Recovery
Freon 12	104
Freon 11	98
Freon 113	112
1,1-Dichloroethene	110
Acetone	101
Methylene Chloride	107
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	105
Benzene	101
Toluene	102
Tetrachloroethene	106
Chlorobenzene	99
Ethyl Benzene	101
m,p-Xylene	98
o-Xylene	98
1,3-Dichlorobenzene	88
1,4-Dichlorobenzene	86
1,2-Dichlorobenzene	84
1,2,4-Trichlorobenzene	69 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: LCS

Lab ID#: 0908026A-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s080603sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 08:21 AM

Compound	%Recovery
Vinyl Chloride	97
Carbon Tetrachloride	112
Trichloroethene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: LCS

Lab ID#: 0908026A-13C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	z080603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Freon 12	100
Freon 11	105
Freon 113	108
1,1-Dichloroethene	110
Acetone	122
Methylene Chloride	107
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	108
Benzene	106
Toluene	112
Tetrachloroethene	106
Chlorobenzene	100
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	112
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	104
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: LCS

Lab ID#: 0908026A-13D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: z080603sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 8/6/09 10:57 AM

Compound	%Recovery
Vinyl Chloride	106
Carbon Tetrachloride	117
Trichloroethene	116

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



180 RITE RAVER ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 945-1200 FAX (916) 945-1020

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable laws, state, federal, customs, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipment of these samples. Relinquishing signature also indicates agreement to hold Air Toxics Limited, and its agents, harmless from any claims, demands or actions of any kind, related to the collection, handling or shipment of samples.
D.C.T. 10/01/00 407-0027

0908026

20 Foundry Street
Dartmouth, NH 03802
(603) 226-1900 FAX (603) 229-1919

Project Info: Project Manager: Brad Green Email: bgreen@airtoxics.com bgreen@airtoxics.com, rcook@airtoxics.com P.O.# Project # 2969.00 Project Name: EFK Analysis: 1 = TO-15 HJ 2 =		Turn Around Time Normal X Rush specify		Relinquished by: (signature) Date/Time <i>Donna Cook</i> 7/31/09		Received By: (signature) Date/Time <i>Monica Green</i> 8/3/09	
				Relinquished by: (signature) Date/Time		Received By: (signature) Date/Time	
				Relinquished by: (signature) Date/Time		Received By: (signature) Date/Time	

Lab ID	Field Sample I.D.	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receipt	Final (psi)
01AB	F92	1621	07/30/2009	1325	>30	1	1		
02AB	IA1000	435	07/30/2009	1607	>30	7	1		
03AB	IA1001	34212	07/30/2009	1640	>30	7	1		
04AB	IA1002	r-14	07/30/2009	1635	29.5	5.5	1		
05AB	IA1003	25311	07/30/2009	1645	>30	9	1		
06AB	IA1004	5562	07/30/2009	1745	29.5	7	1		
07AB	IA1005	25306	07/30/2009	1619	29.5	7	1		
08AB	IA1006	10796	07/30/2009	1615	>30	6	1		
09AB	IA1007	3740	07/30/2009	1556	>30	9.5	1		
10AB	IA1008	33796	07/30/2009	1620	>30	8.5	1		
	IA1009	56105	07/30/2009	1602	29	6	1		
	DUP35169	35165	07/30/2009	1602	30	9	1		
	AA1010	5597	07/30/2009	1550	>30	8	1		
	AA1011	5611	07/30/2009	1545	30	8.5	1		

SEAL
CUSTODY-SEAL INTACT?
N/A (NONE TEMP N/A)

Box 1 of 4

8/13/2009

Mr. Brad Green
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: EFK
Project #: 2999.00
Workorder #: 0908026B

Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 8/3/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

 |

Bryanna Langley
Project Manager

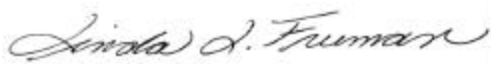
WORK ORDER #: 0908026B

Work Order Summary

CLIENT:	Mr. Brad Green Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	603-229-1900	P.O. #	
FAX:	603-229-1919	PROJECT #	2999.00 EFK
DATE RECEIVED:	08/03/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	08/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
11A	IA1009	Modified TO-15	5.5 "Hg	5 psi
11B	IA1009	Modified TO-15	5.5 "Hg	5 psi
12A	DUP35169	Modified TO-15	7.5 "Hg	5 psi
12B	DUP35169	Modified TO-15	7.5 "Hg	5 psi
13A	AA1010	Modified TO-15	7.0 "Hg	5 psi
13B	AA1010	Modified TO-15	7.0 "Hg	5 psi
14A	AA1011	Modified TO-15	8.5 "Hg	5 psi
14B	AA1011	Modified TO-15	8.5 "Hg	5 psi
15A	Lab Blank	Modified TO-15	NA	NA
15B	Lab Blank	Modified TO-15	NA	NA
16A	CCV	Modified TO-15	NA	NA
16B	CCV	Modified TO-15	NA	NA
17A	LCS	Modified TO-15	NA	NA
17B	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 08/13/09

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 0908026B**

Four 6 Liter Summa Canister (SIM Certified) samples were received on August 03, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA1009

Lab ID#: 0908026B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.52	0.81	2.6
Freon 11	0.16	0.37	0.92	2.1
Acetone	0.82	14	1.9	34
Benzene	0.16	0.19	0.52	0.62
Toluene	0.16	11	0.62	40
Ethyl Benzene	0.16	0.43	0.71	1.9
m,p-Xylene	0.16	0.70	0.71	3.0
o-Xylene	0.16	0.26	0.71	1.1

Client Sample ID: IA1009

Lab ID#: 0908026B-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.13	0.21	0.83

Client Sample ID: DUP35169

Lab ID#: 0908026B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.53	0.88	2.6
Freon 11	0.18	0.40	1.0	2.2
Acetone	0.90	10	2.1	24
Toluene	0.18	0.22	0.67	0.83

Client Sample ID: DUP35169

Lab ID#: 0908026B-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.036	0.10	0.22	0.64
Trichloroethene	0.036	0.044	0.19	0.24

Client Sample ID: AA1010

Lab ID#: 0908026B-13A

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: AA1010

Lab ID#: 0908026B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.40	0.86	2.0
Freon 11	0.18	0.20	0.98	1.1
Acetone	0.88	5.3	2.1	12
Toluene	0.18	0.21	0.66	0.78

Client Sample ID: AA1010

Lab ID#: 0908026B-13B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.035	0.067	0.22	0.42
Trichloroethene	0.035	0.22	0.19	1.2

Client Sample ID: AA1011

Lab ID#: 0908026B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.45	0.92	2.2
Freon 11	0.19	0.22	1.0	1.2
Acetone	0.94	8.1	2.2	19
Toluene	0.19	0.21	0.70	0.79

Client Sample ID: AA1011

Lab ID#: 0908026B-14B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.037	0.095	0.24	0.60

Client Sample ID: IA1009

Lab ID#: 0908026B-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081007	Date of Collection: 7/30/09 4:02:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/10/09 04:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.52	0.81	2.6
Freon 11	0.16	0.37	0.92	2.1
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	14	1.9	34
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Benzene	0.16	0.19	0.52	0.62
Toluene	0.16	11	0.62	40
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.43	0.71	1.9
m,p-Xylene	0.16	0.70	0.71	3.0
o-Xylene	0.16	0.26	0.71	1.1
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: IA1009

Lab ID#: 0908026B-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081007sim	Date of Collection: 7/30/09 4:02:00 PM
Dil. Factor:	1.64	Date of Analysis: 8/10/09 04:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.13	0.21	0.83
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: DUP35169

Lab ID#: 0908026B-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081008	Date of Collection: 7/30/09 4:02:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/10/09 04:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.53	0.88	2.6
Freon 11	0.18	0.40	1.0	2.2
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	10	2.1	24
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Benzene	0.18	Not Detected	0.57	Not Detected
Toluene	0.18	0.22	0.67	0.83
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: DUP35169

Lab ID#: 0908026B-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081008sim	Date of Collection: 7/30/09 4:02:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/10/09 04:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Carbon Tetrachloride	0.036	0.10	0.22	0.64
Trichloroethene	0.036	0.044	0.19	0.24

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: AA1010

Lab ID#: 0908026B-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081009	Date of Collection: 7/30/09 3:50:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/10/09 05:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.40	0.86	2.0
Freon 11	0.18	0.20	0.98	1.1
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	5.3	2.1	12
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
Toluene	0.18	0.21	0.66	0.78
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	Not Detected	0.76	Not Detected
o-Xylene	0.18	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: AA1010

Lab ID#: 0908026B-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081009sim	Date of Collection: 7/30/09 3:50:00 PM
Dil. Factor:	1.75	Date of Analysis: 8/10/09 05:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Carbon Tetrachloride	0.035	0.067	0.22	0.42
Trichloroethene	0.035	0.22	0.19	1.2

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: AA1011

Lab ID#: 0908026B-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081010	Date of Collection: 7/30/09 3:45:00 PM
Dil. Factor:	1.87	Date of Analysis: 8/10/09 06:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.45	0.92	2.2
Freon 11	0.19	0.22	1.0	1.2
Freon 113	0.19	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	8.1	2.2	19
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Benzene	0.19	Not Detected	0.60	Not Detected
Toluene	0.19	0.21	0.70	0.79
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	Not Detected	0.81	Not Detected
m,p-Xylene	0.19	Not Detected	0.81	Not Detected
o-Xylene	0.19	Not Detected	0.81	Not Detected
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected	6.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: AA1011

Lab ID#: 0908026B-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081010sim	Date of Collection: 7/30/09 3:45:00 PM
Dil. Factor:	1.87	Date of Analysis: 8/10/09 06:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.019	Not Detected	0.048	Not Detected
Carbon Tetrachloride	0.037	0.095	0.24	0.60
Trichloroethene	0.037	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908026B-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081006	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/09 02:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: Lab Blank

Lab ID#: 0908026B-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081006sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/09 02:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 0908026B-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/09 01:03 PM

Compound	%Recovery
Freon 12	103
Freon 11	99
Freon 113	105
1,1-Dichloroethene	96
Acetone	98
Methylene Chloride	96
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	98
Benzene	99
Toluene	98
Tetrachloroethene	105
Chlorobenzene	97
Ethyl Benzene	99
m,p-Xylene	98
o-Xylene	97
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	91
1,2-Dichlorobenzene	88
1,2,4-Trichlorobenzene	80

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: CCV

Lab ID#: 0908026B-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081004sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/09 01:03 PM

Compound	%Recovery
Vinyl Chloride	104
Carbon Tetrachloride	106
Trichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 0908026B-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/09 12:21 PM

Compound	%Recovery
Freon 12	104
Freon 11	100
Freon 113	118
1,1-Dichloroethene	106
Acetone	103
Methylene Chloride	104
cis-1,2-Dichloroethene	103
1,1,1-Trichloroethane	102
Benzene	101
Toluene	102
Tetrachloroethene	106
Chlorobenzene	96
Ethyl Benzene	97
m,p-Xylene	96
o-Xylene	97
1,3-Dichlorobenzene	91
1,4-Dichlorobenzene	88
1,2-Dichlorobenzene	85
1,2,4-Trichlorobenzene	75

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 0908026B-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s081003sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/09 12:21 PM

Compound	%Recovery
Vinyl Chloride	101
Carbon Tetrachloride	99
Trichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130



180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95690-4219
(916) 932-1000 FAX (916) 965-1030

Sample Transportation Notice

Requiring signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Requiring signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. notice 49CFR 171.17-4913

0908026

20 Fowndry Street
Concord, N.H. 03301
(603) 229-1900 FAX (603) 229-1929

Project Info: Project Manager: Paul Green Email: lgreen@santobornhead.com lgreen@santobornhead.com, 2000@santobornhead.com P.O.N Project# 2390.00 Project Name: FRK Analysis: 1 = AA-12 H/L 2 =			Turn Around Time Normal X Rush		Relinquished by: (signature) Date/Time <i>Kozlov</i> 7/31/09		Received by: (signature) Date/Time <i>Monica Green</i> 8/3/09 910		
specify			Relinquished by: (signature) Date/Time		Received by: (signature) Date/Time				
Lab ID	Field Sample I.D.	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receipt	Final (psi)
	FE2	1621	07/30/2009	1325	>30	1	1		
	IA1000	435	07/30/2009	1607	>30	7	1		
	IA1001	34212	07/30/2009	1640	>30	7	1		
	IA1002	r-14	07/30/2009	1635	29.5	5.5	1		
	IA1003	25311	07/30/2009	1645	>30	9	1		
	IA1004	5562	07/30/2009	1745	29.5	7	1		
	IA1005	25306	07/30/2009	1619	29.5	7	1		
	IA1006	10796	07/30/2009	1615	>30	6	1		
	IA1007	3740	07/30/2009	1556	>30	9.5	1		
	IA1008	33798	07/30/2009	1620	>30	8.5	1		
11A-B	IA1009	96105	07/30/2009	1602	29	6	1		
12A-B	DUP35169	35169	07/30/2009	1602	30	9	1		
13A-B	AA1010	5597	07/30/2009	1550	>30	8	1		
14A-B	AA1011	5611	07/30/2009	1545	30	8.5	1		



Box 1 of 4

Draft NOTICE

Post Date:

Removal Date:

Below is a summary of area air sampling results of volatile organic compounds detected for Building 300 in July 2009.

Chemical Name	Sample Results		Occupational Limits	
	Outdoor Air (ug/m3)	Indoor Air (ug/m3)	OSHA PEL (ug/m3)	ACGIH TLV (ug/m3)
Trichloroethene (TCE)	ND to 1.2	0.24 to 0.29	537,000	54,000
Carbon tetrachloride	0.42 to 0.60	0.54 to 0.83	62,900	31,000
Acetone	12 to 19	11 to 420	2,400,000	1,188,000
Benzene	ND	ND to 0.69	3,000	1,600
Ethylbenzene	ND	ND to 1.9	435,000	434,000
m,p-Xylene	ND	ND to 3.0	435,000 (mixture)	434,000 (mixture)
o-Xylene	ND	ND to 1.1		
Toluene	0.78 to 0.79	0.72 to 40	753,000	75,000
Trichlorofluoromethane (Freon 11)	1.1 to 1.2	1.2 to 3.2	5,600,000	None Established
Dichlorodifluoromethane (Freon 12)	2.0 to 2.2	1.7 to 3.5	4,950,000	4,950,000

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) and the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) are provided as references. PELs and TLVs are employee exposure concentrations that must not be exceeded during any 8-hour shift of a 40-hour work week. The results from all of these samples showed levels which were well below the above noted occupational exposure limits.

If you have any health-related questions regarding the sampling, please contact Glenn Morrison (533-4354) or Michael Dempsey (533-4074) of the IBM Integrated Health Services organization.

Note: "ug/m3": micrograms of chemical per cubic meter of air.

"ND": compound was not detected above applicable detection limits.

"Outdoor air": air sampled outside of Building 300 concurrent with sampling of indoor areas.

Draft NOTICE

Post Date:

Removal Date:

Below is a summary of area air sampling results of volatile organic compounds detected for Building 323 in July 2009.

Chemical Name	Sample Results		Occupational Limits	
	Outdoor Air (ug/m3)	Indoor Air (ug/m3)	OSHA PEL (ug/m3)	ACGIH TLV (ug/m3)
Tetrachloroethene (PCE or "Perc")	ND	ND to 2.0	678,000	170,000
Trichloroethene (TCE)	ND to 0.80	ND to 0.36	537,000	54,000
cis-1,2-Dichloroethene (cDCE)	ND	ND to 2.7	790,000	793,000
Carbon tetrachloride	0.42 to 0.44	0.33 to 0.66	62,900	31,000
Acetone	22 to 64	14 to 82	2,400,000	1,188,000
Benzene	0.57 to 0.62	ND to 0.92	3,000	1,600
m,p-Xylene	1.9 to 2.0	ND to 0.95	435,000 (mixture)	434,000 (mixture)
o-Xylene	ND to 0.98	ND		
Toluene	5.7 to 6.3	0.83 to 4.8	753,000	75,000
Trichlorofluoromethane (Freon 11)	1.3 to 1.6	1.4 to 8.8	5,600,000	None Established
Dichlorodifluoromethane (Freon 12)	2.1 to 2.4	2.2 to 3.3	4,950,000	4,950,000

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) and the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) are provided as references. PELs and TLVs are employee exposure concentrations that must not be exceeded during any 8-hour shift of a 40-hour work week. The results from all of these samples showed levels which were well below the above noted occupational exposure limits.

If you have any health-related questions regarding the sampling, please contact Glenn Morrison (533-4354) or Michael Dempsey (533-4074) of the IBM Integrated Health Services organization.

Note: "ug/m3": micrograms of chemical per cubic meter of air.

"ND": compound was not detected above applicable detection limits.

"Outdoor air": air sampled outside of Building 323 concurrent with sampling of indoor areas.