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**CONFIRMATORY SAMPLING RESULTS
BUILDINGS 308, 320B, AND 334**

**VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York**

Prepared for
IBM Corporation



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1.0 INTRODUCTION

This report presents a summary of observations and data of confirmatory sampling conducted at Buildings 308, 320B, and 334 at the IBM East Fishkill facility. The work was conducted as part of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan dated June 15, 2009 (Work Plan). Buildings 308, 320B, and 334 are three of eleven buildings identified for confirmatory sampling under the Work Plan. The findings of the confirmatory sampling conducted in other buildings have previously been reported in separate documents.

Buildings 308, 320B, and 334 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 a known presence of groundwater containing volatile organic compounds (VOCs) and/or;
- Solvents were historically used or stored inside the buildings (Buildings 320B and 334), and
- The buildings are currently occupied on a regular basis.

Samples were collected from Building 308 on March 18, 2009, from Building 320B on March 16, 2009, and from Building 334 on March 17, 2009 by Sanborn, Head & Associates, Inc. (SHA) personnel. Descriptions of field observations and a summary of analytical data for these sampling events are presented in Section 3.

2.0 SUMMARY OF FIELD AND SAMPLING ACTIVITIES

Indoor and ambient outdoor air samples were collected at the locations depicted on Figure 1 (Building 308), Figure 2 (Building 320B), and Figure 3 (Building 334). Indoor air samples were collected from the lowest elevation in each building that is the normally occupied level¹. One or two ambient outdoor air samples were collected at heating, ventilation, and air conditioning (HVAC) intakes serving each building, either outside adjacent to the intake at ground-level (Building 308) or on the roof (Building 334), or within the intake plenums of the HVAC units (Buildings 320B and 334). For Quality Assurance/Quality Control (QA/QC) purposes, two field blanks and two field duplicate samples were also collected.² Information regarding the sample locations in each building is summarized in the table provided below as Exhibit 1.

¹ In Building 334, basement areas beneath portions of the ground floor function as utility space and include several petroleum storage tanks. These basement areas are not routinely occupied, nor are they intended for routine occupancy. Therefore, indoor air samples were not collected in the basement areas of Building 334.

² A field blank is a canister that is certified clean by the laboratory and filled in the field with ultra-high purity nitrogen. The purpose of a field blank 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. 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. The field blank and field duplicate samples are submitted to the analytical laboratory for analysis with the other samples.

Exhibit 1: Summary of Sample Locations

Building	General Building Use(s)	Areas Targeted for Sampling	# of Samples
308	Warehouse and office areas.	Warehouse areas, offices, conference room, and kitchen/copier room.	(6) Indoor, (1) Ambient outdoor air, (1) Indoor air sample in the linkway between Building 308 and Building 310
320B	Clean room manufacturing.	Active and vacant clean room manufacturing areas, break room, and vacant former manufacturing areas.	(12) Indoor, (2) Ambient outdoor air
334	Manufacturing and offices.	Manufacturing areas, offices, chemical storage area, and mechanical rooms.	(14) Indoor, (2) Ambient outdoor air

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

2.1 HVAC Settings During Sampling

Each building has several HVAC zones that are served by either air handling units (AHUs), or makeup air units (MAUs) in combination with recirculation units (RCUs). The MAU/RCUs typically serve manufacturing areas (e.g., clean rooms), and the AHUs serve non-manufacturing areas, such as offices. Portions of each building are not within active HVAC zones and do not receive outside air from an AHU or MAU/RCU. These areas include the warehouse and shipping/receiving areas of Building 308, the vacant former manufacturing and construction areas in Building 320B, and the mechanical rooms in Building 334. The ground floor HVAC zones for each building are depicted on Figures 1, 2, and 3.

The AHUs serving the ground floors in Buildings 308, 320B, and 334 have outside air intake dampers that automatically modulate position to achieve set points for air temperature and/or humidity. Due to the modulating outside air intake dampers, the outside air flow rate into an HVAC zone may vary across a defined range, along with the outside air changes per hour (ACH). However, for each unit, the outside air dampers are configured or programmed with a minimum open position so that sufficient outdoor air can be continuously introduced to the building space. To obtain samples under conservative conditions, the outside air dampers on the

AHUs serving the HVAC zones being sampled were set at their minimum open position and not allowed to vary.

The make-up air units (MAUs) serving the ground floors in Buildings 320B and 334 operate at 100% outside air. No adjustments were made to the MAUs prior to sampling. Similarly, the RCUs were not adjusted because they are fed by outside air from the MAUs and return air from the building space. The operation of the RCUs does not systematically vary.

Table B-1 in Appendix B presents the HVAC settings during sampling. In Building 308, all three AHUs were adjusted so that the outside air dampers were maintained in their minimum open positions. In Building 320B, only one AHU was adjusted prior to sampling (HVAC-304), because the other areas being sampled are served by MAUs/RCUs that do not normally modulate. In Building 334, two AHUs were adjusted so that the outside air dampers were maintained in their minimum position during sampling, while the other areas sampled are served by MAUs/RCUs that do not normally modulate.

AHU outside air dampers were set at minimum positions 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 personnel 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, with the exception of certain units in Building 320B (HVAC-304) and Building 334 (HVAC-9 and HVAC-12). In both buildings, the dampers were observed to have changed from their minimum positions, for less than 3 hours, on the morning of sampling. Upon discovery, the dampers were promptly returned to their minimum positions and remained in minimum positions for the remainder of the sampling. Table B-2 in Appendix B presents observations of AHU damper positions during the sampling events.

2.2 Sample Collection and Analysis

Samples were collected as 8-hour, time-integrated samples using Summa® canisters (6 liters) in accordance with the procedures described in the RFI Work Plan, Appendix A.1. Sample canisters were deployed approximately simultaneously and were set at heights ranging from 3.5 to 6.2 feet above the floor. The samples were submitted 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/Lo³. 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 independent third-party, data validation evaluation. NEH's data validation report is included as Appendix D.

³ 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.

NEH found the data to be useable in accordance with the project data quality objectives (DQOs) subject to a few qualifications discussed in Section 4.

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 308), 2B (Building 320B), and 2C (Building 334). The data for compounds detected above laboratory reporting limits are depicted on Figure 1 (Building 308), Figure 2 (Building 320B), and Figure 3 (Building 334). Analytical laboratory data reports and third-party data validation reports are provided as Appendices C and D, respectively.

3.1 Building 308 and Linkway to 310

Building 308 is a single story building, which primarily serves as high-security warehouse and shipping/receiving area for manufacturing equipment and/or manufactured product from other buildings. Offices are also located in several areas of the building. As shown on Figure 1, a pedestrian linkway connects Building 308 to Building 310. SHA personnel observed a measureable air flow through the linkway from Building 310 to Building 308 during the sampling event.

Solvents have not historically been used in Building 308, and no chemicals were observed during our sampling activities, with the exception of typical household cleaning supplies and office materials in the Conference Room and Shipping/Receiving Area.

The presence of VOCs in the subsurface in the area between Building 308 and Building 310 was discovered in 1979. These VOCs consisted principally of tetrachloroethene (PCE), its breakdown products, and Freon 113. The subsurface presence of VOCs has since been defined in soil and groundwater on the west side of Building 308, centered on the linkway between Building 308 and Building 310 in the area of historical USTs and subsurface pipelines. This general area where VOCs are present in the subsurface came to be known as remediation “Area A” under the Site’s Part 373 Hazardous Waste Management Permit (Part 373 Permit).

In 1986, IBM constructed a groundwater recovery and treatment system in Building 384 above the footprint of a former waste solvent UST. This system, which continues to operate today under the Part 373 Permit, is focused on extraction and treatment of VOC-containing groundwater perched on a discontinuous layer of glaciolacustrine silt/clay. The water is treated by packed-tower air stripping. Operation of the air stripper housed in Building 384 was shut down for approximately two days prior to and during sample collection to eliminate potential background influence on vapor intrusion assessment.

As shown on Figure 1 and summarized in Table 2A, the following analytes were detected in the indoor air samples at concentrations similar to or only slightly greater than those recorded for the

concurrent ambient outdoor air sample: carbon tetrachloride, acetone, m,p-xylene, toluene, Freon 11, and Freon 12; however, all of these analytes were detected at concentrations less than 14 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and more typically were on the order of a few micrograms per cubic meter or less.

The following analytes were detected in at least one of the indoor air samples, but not in the concurrent ambient outdoor air sample: PCE, trichloroethene (TCE), benzene, ethylbenzene, and Freon 113. TCE, benzene, and ethylbenzene were detected in the indoor air samples at concentrations less than $1 \mu\text{g}/\text{m}^3$. Freon 113 was detected in three samples at concentrations up to $3.1 \mu\text{g}/\text{m}^3$ in samples from Building 308 and at $6.5 \mu\text{g}/\text{m}^3$ in the sample from the linkway to Building 310. PCE was detected in the samples collected from within Building 308 at concentrations up to $12 \mu\text{g}/\text{m}^3$, but more typically at concentrations of a few micrograms per cubic meter. PCE was also detected at $41 \mu\text{g}/\text{m}^3$ in the sample collected in the linkway to Building 310 (sample IA2033).

The highest concentrations of PCE in Building 308 were detected in the two samples from the warehouse and shipping/receiving areas (IA0102 and IA0104). As indicated in Section 2.1, these areas are not served by an AHU actively supplying outside air. Air flow through the linkway and into the warehouse area is unimpeded by internal walls or other obstructions and was recorded during the sampling period at about 70 feet per minute, which given the cross-sectional area of the linkway is equivalent to approximately 9,700 cubic feet per minute (cfm). We believe that the apparent transfer of PCE mass into Building 308 from the linkway air flow is sufficient to explain the PCE concentrations observed in the warehouse and shipping/receiving areas.

3.2 Building 320B

The central portion of the ground floor of Building 320B houses clean room manufacturing areas. The eastern portion of the building is largely a former clean room manufacturing area, which is currently vacant and only one MAU was active during sampling. The western portion of the building is a former manufacturing area and is also currently vacant and without active HVAC. The second floor of Building 320B houses the HVAC systems for the ground floor.

SHA personnel observed several chemicals in the clean room areas during sampling, including metal plating solutions, glycerin, and potassium sulfide. As summarized in Table 1, several samples were collected from locations near utility floor penetrations and a trench. Solvents have historically been used in Building 320B, and several former above- and below-grade solvent pipelines were located throughout the building. Additionally, several solvent-related SWMU accumulation areas are located around the perimeter of the building, as depicted on Figure 2.

As shown on Figure 2 and summarized in Table 2B, carbon tetrachloride, acetone, Freon 11, and Freon 12 were detected in indoor air at concentrations similar to or less than those observed in concurrent ambient outdoor air samples. Methylene chloride, benzene, ethylbenzene, m,p-xylene, toluene, and Freon 113 were detected in indoor air samples, but were not detected in the ambient outdoor air samples, and were detected at concentrations typically on the order of a few micrograms per cubic meter or less.

PCE was detected in one sample (IA0704) at 1.4 $\mu\text{g}/\text{m}^3$. TCE was detected in three samples (IA0704, IA0706, and IA0707) at or less than 1.0 $\mu\text{g}/\text{m}^3$. Vinyl chloride was detected in five samples at up to 1.6 $\mu\text{g}/\text{m}^3$, but mostly at concentrations less than 1 $\mu\text{g}/\text{m}^3$. As presented on Table 2B and further discussed in Section 4.0, vinyl chloride was also detected in the field blank collected during this sampling event.

3.3 Building 334

SpectraWatt, Inc. (SpectraWatt) occupies the central portion of the ground floor of Building 334 for their operations to manufacture solar panels. The western portion of the ground floor serves as office space for IBM and SpectraWatt, and the eastern portion of the building serves as mechanical rooms. The second and third floors serve as offices and house the HVAC units for the building. At the time of our sampling, SpectraWatt's manufacturing area was in partial operation, and construction was ongoing in this area.

SHA personnel observed several chemicals during sampling, including bench-top containers for acetone and potassium permanganate, and manufacturing equipment indicated the usage of hydrofluoric acid. Overhead lines labeled for VOC exhaust⁴, hydrogen peroxide, and hydrofluoric acid were also noted in some areas. As summarized in Table 1, several indoor air samples were collected in areas on top of trenches and in a chemical storage room. Solvents have historically been used in Building 334, and below ground solvent drains were located throughout the building. Additionally, several solvent-related SWMU accumulation areas, as well as former PCE recycling units, were formerly located within and adjacent to the building, as depicted on Figure 3.

As depicted on Figure 3 and summarized in Table 2C, several analytes, including carbon tetrachloride, acetone, benzene, m,p-xylene, toluene, Freon 11, and Freon 12 were detected in indoor air samples at concentrations similar to or slightly greater than those recorded for the two concurrent ambient outdoor air samples. The concentrations of these analytes were typically on the order of a few micrograms per cubic meter or less.

PCE was not detected in any of the samples. TCE was detected in one indoor air sample (IA0904) and one ambient outdoor air sample (AA0913) at 0.42 $\mu\text{g}/\text{m}^3$ and 0.19 $\mu\text{g}/\text{m}^3$, respectively. In addition, 1,1,1-trichloroethane (TCA) was detected in one indoor air sample (IA0907) at 3.6 $\mu\text{g}/\text{m}^3$.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

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

⁴ It is unclear if the VOC exhaust lines were in use, as we did not observe use of VOC-containing chemicals (except for table-top quantities) in the manufacturing area.

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 (NYDEC) 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 Work Plan.

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

- Sample IA0708 was received at the laboratory with a canister vacuum that was substantially less than (by more than 5 inches of mercury [Hg]) the final vacuum measured in the field. As a result, NEH considered all of the results from the sample to be estimated (J or UJ), with a possible low bias. However, the laboratory noted that all valves and fittings on the canister were closed tightly. Hence, the difference in field and laboratory measurements of canister vacuum could be indicative of an inaccurate field vacuum gauge rather than a leaky canister.
- A field blank (FB01, associated with Building 320B samples) had detections of acetone (2.1 $\mu\text{g}/\text{m}^3$) and vinyl chloride (0.048 $\mu\text{g}/\text{m}^3$). As a result, several results for acetone and vinyl chloride were flagged with "EB" (EB means equipment blank) with a potential for high bias⁵.

While four acetone results for indoor air samples collected within Building 320B were flagged with an EB for potential high bias, all of the flagged samples exhibited concentrations of acetone equal to or less than 9.5 $\mu\text{g}/\text{m}^3$, which were well below the concentrations of acetone observed in the two ambient outdoor air samples (88 and 230 $\mu\text{g}/\text{m}^3$). While three of the indoor air sample results for vinyl chloride were flagged with an EB and high bias, the reported concentrations were 0.15 $\mu\text{g}/\text{m}^3$ or less.

- The reporting limits achieved for samples IA0901 and AA0712 were approximately 13% to 100% greater than the objective defined in the RFI Work Plan, respectively, due to sample dilutions. Dilution was required for AA0712 because of the elevated presence of acetone in the sample to meet the instrument calibration range for acetone. Dilution of IA0901 was necessary because of the high final vacuum of the sample canister⁶. However, the concentrations of those analytes detected in IA0901 were similar to those observed in other samples collected from Building 334.

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⁵ The data validator determined that the sample reporting limits are likely to be biased high relative to the true value due to the presence of the analyte in the blank sample.

⁶ The final vacuum of 14 inches Hg recorded in the field over a collection time of almost 10 hours indicates a faulty flow controller.

TABLES

TABLE 1
Summary of Sample Information
Confirmatory Sampling Results
VOC Source Assessment
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 308 - March 18, 2010													
IA0100	Ground	Indoor Air	13665	3.5	804	>30	1606	6	100	70	Consignment Crib / Warehouse	None observed.	Storage of various machine parts. Chemical odor, similar to cleaning chemical odor, observed.
IA0101	Ground	Indoor Air	34236	4.5	757	29.5	1532	5	0	69	Conference Room	"Fantastik" cleaning spray and dry erase markers.	
IA0102	Ground	Indoor Air	4374	3.5	812	>30	1620	6	0	69	Warehouse	None observed.	
IA0103	Ground	Indoor Air	11880	3.5	906	>30	1707	5	0	71	Kitchen / Copier Room	None observed.	Copier near sample.
IA0104	Ground	Indoor Air	13669	4.5	823	>30	1653	7	0	72	Shipping / Receiving Area	Permanent magic marker.	Printers near sample.
IA0105	Ground	Indoor Air	14000	4.5	828	>30	1651	6.5	0	71	Office Area	None observed.	Printer near sample.
AA0106	Ground	Ambient Air	22513	NA	836	28	1640	6.5	0	54	HVAC intake for AHU-11 at ground level	None observed.	
Linkway Between Building 308 and 310 - March 18, 2010													
IA2033	Ground	Indoor Air	34375	3.5	915	>30	1750	6	0	69	Linkway to Building 310	None observed.	

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Building 320B - March 16, 2010													
IA0700	Ground	Indoor Air	5623	3.5	919	29	1740	7	0	69	Former Office / Former Clean Room Entrance	None observed.	Sample located over north-south trending trench.
IA0701	Ground	Indoor Air	34427	3.5	848	>30	1722	6.5	2,400	72	Clean Room	Glycerin and potassium sulfide.	Elevated floor with utility penetration for "heavy metal drain." "Rona Clean" unit.
IA0702	Ground	Indoor Air	9938	3.5	845	>30	1745	7.5	0	72	Clean Room	Nickel, lead, and tin plating solutions.	Elevated floor with penetration for "acid drain."
IA0703	Ground	Indoor Air	13659	3.5	821	>30	1655	5	0	69	Former Manufacturing Area (currently vacant)	None observed.	Utility penetrations and steel plates near sample location. Bare concrete slab and overhead piping.
Dup9419 (IA0703 Duplicate)	Ground	Indoor Air	9419	3.5	833	>30	1739	7.5	0	69	Former Manufacturing Area (currently vacant)	None observed.	Utility penetrations and steel plates near sample location. Bare concrete slab and overhead piping.
IA0704	Ground	Indoor Air	12674	3.5	756	>30	1702	7.5	0	70	Former Clean Room (currently vacant)	None observed.	Elevated floor. Eyewash station with floor drain nearby.
IA0705	Ground	Indoor Air	34739	3.5	800	>30	1700	7.5	0	70	Former Clean Room (currently vacant)	None observed.	Elevated floor. Eyewash station with floor drain nearby. Trench indicated on plan, but not observed.
IA0706	Ground	Indoor Air	14012	3.5	815	>30	1657	6	1,900	72	Former Manufacturing Area (currently vacant)	None observed.	Utility penetrations near sample location. Exposed concrete slab and overhead piping and wiring. No walls.
IA0707	Ground	Indoor Air	5762	3.5	819	>30	1625	6	1,200	77	Construction Area	Welding gases.	Actively under construction. Exposed concrete slab and overhead piping.
IA0708	Ground	Indoor Air	5651	3.5	852	>30	1744	7.5	0	70	Former Clean Room (currently vacant)	None observed.	Elevated floor. Brown staining on floor.
IA0709	Ground	Indoor Air	4200	3.5	812	>30	1710	7	0	73	Break Room	None observed.	
IA0710	Ground	Indoor Air	34335	5.0	913	>30	1604	5	0	72	Clean Room Break Area	Solvent waste can labeled "solvent contaminated solids (rags, etc.) with methanol, methyl isobutyl ketone (MIBK), isopropyl alcohol, propylene glycol monomethyl ether acetate (PGMEA), and gamma-Butyrolactone (GBL)."	Elevated floor.
AA0711	2nd	Ambient Air	21016	NA	804	30	1526	5	0	60	Intake plenum for HVAC-1	None observed.	
AA0712	2nd	Ambient Air	5665	NA	753	>30	1602	6	0	60	Intake plenum for HVAC-4	None observed.	

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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 334 - March 17, 2010													
IA0900	Ground	Indoor Air	13852	3.5	836	>30	1654	6	0	74	Break Room	None observed.	
IA0901	Ground	Indoor Air	33876	3.5	841	>30	1822	14	0	76	Mechanical / Pump Station Room	Fluoride / head metal waste lines, acid drain lines.	Sump and trenches throughout floor. Staining on concrete. Deionized water station.
IA0902	Ground	Indoor Air	34280	3.5	846	>30	1717	7	0	74	Electrical / Mechanical Room	None observed.	Industrial water drain penetrating floor near sample location.
IA0903	Ground	Indoor Air	34208	3.5	815	>30	1652	5	0	65	SpectraWatt Chemical Storage Room	Hydrogen peroxide, sodium hypochlorite, chlorite, potassium hydroxide, hydrofluoric acid, sodium hydrosulfide, hydrochloric acid, and nitric acid in 55-gallon drums and 200-gallon totes.	Elevated floor, collection pit, and trenches.
IA0904	Ground	Indoor Air	6	3.5	815	28	1707	7.5	0	70	SpectraWatt Manufacturing Area (partially active)	Overhead lines for hydrogen peroxide, hydrofluoric acid, and VOC exhaust.	Ongoing construction in other areas of the room. Sample located on top of trench covered with metal plates.
IA0905	Ground	Indoor Air	34504	3.5	808	>30	1647	7	0	73	SpectraWatt Manufacturing Area (partially active)	Non-hazardous waste (55-gallon drum). Bench top containers of acetone and potassium permanganate. Overhead acid exhaust pipes.	Ongoing construction in other areas of the room. Trench covered with metal plates approximately 18' from sample.
IA0906	Ground	Indoor Air	23989	3.5	1005	>30	1810	6.5	0	71	SpectraWatt Manufacturing Area (partially active)	Machine using hydrofluoric acid. Overhead lines for acid exhaust.	Ongoing construction in other areas of the room. Trench covered with metal plates approximately 19' from sample.
IA0907	Ground	Indoor Air	12013	3.5	843	>30	1712	6	0	70	SpectraWatt Manufacturing Area (partially active)	Aluminum paste and silver paste (55-gallon drums each). Overhead piping for VOC exhaust.	Approximately 16' from trench covered with metal plates.
Dup924 (IA0907 Duplicate)	Ground	Indoor Air	924	3.5	843	>30	1712	7.5	0	70	SpectraWatt Manufacturing Area (partially active)	Aluminum paste and silver paste (55-gallon drums each). Overhead piping for VOC exhaust.	Approximately 16' from trench covered with metal plates.
IA0908	Ground	Indoor Air	23921	3.5	820	28	1647	6	0	70	SpectraWatt Manufacturing Area (partially active)	None observed.	Ongoing construction. Staging area for construction materials (PVC and copper piping, ceiling tiles, boxes, tools, etc.)
IA0909	Ground	Indoor Air	33982	3.5	832	>30	1644	6.5	0	70	Inactive SpectraWatt Lab	None observed.	Sample on top of trench with metal plates (approximately 3' wide).
IA0910	Ground	Indoor Air	22502	4.5	805	>30	1626	6.5	70	72	SpectraWatt Office Area	White out / office supplies.	Office cleaning nearby.
IA0911	Ground	Indoor Air	22678	6.2	823	>30	1629	5.5	0	71	Copy Room - IBM Offices	White out, copier toner.	
IA0912	Ground	Indoor Air	34347	4.5	826	>30	1722	7.5	0	70	IBM Office	Dry-erase markers.	Unoccupied during sampling.
AA0913	3rd	Ambient Air	423	NA	744	>30	1522	5	NA	60	Intake plenum for HVAC-4	None observed.	
AA0914	Roof	Ambient Air	10988	NA	853	>30	1812	8.5	0	60	Outside adjacent to intake for HVAC-9	None observed.	

Notes:

1. Samples were collected on the dates indicated 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.
4. NA - Information is not available.

TABLE 2A
Building 308 and Linkway to Building 310
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m3																				
	Ambient Outdoor Air			Building 308 Indoor Air																	
	AA0106			IA0100			IA0101			IA0102			IA0103			IA0104			IA0105		
	HVAC Intake for AHU-11			Consignment Crib / Warehouse			Conference Room			Warehouse			Kitchen / Copier Room			Shipping / Receiving Area			Office Area		
	3/18/2010			3/18/2010			3/18/2010			3/18/2010			3/18/2010			3/18/2010			3/18/2010		
	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias
Tetrachloroethene (PCE)	<1.1	U		3.6			2.4			12			2.5			5.1			2.9		
Trichloroethene (TCE)	<0.18	U		<0.17	U		<0.17	U		0.32			<0.17	U		0.23			<0.18	U	
cis-1,2-Dichloroethene (cDCE)	<0.67	U		<0.64	U		<0.63	U		<0.65	U		<0.64	U		<0.69	U		<0.67	U	
1,1-Dichloroethene (DCE)	<0.67	U		<0.64	U		<0.63	U		<0.65	U		<0.64	U		<0.69	U		<0.67	U	
Vinyl chloride (VC)	<0.043	U		<0.041	U		<0.040	U		<0.042	U		<0.041	U		<0.045	U		<0.043	U	
1,1,1-Trichloroethane (TCA)	<0.92	U		<0.88	U		<0.86	U		<0.89	U		<0.88	U		<0.95	U		<0.92	U	
Carbon tetrachloride	0.44			0.42			0.41			0.37			0.43			0.45			0.42		
Methylene chloride (MeCl)	<1.2	U		<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.2	U		<1.2	U	
Chlorobenzene	<0.77	U		<0.74	U		<0.73	U		<0.76	U		<0.74	U		<0.80	U		<0.77	U	
1,2,4-Trichlorobenzene	<6.2	U		<6.0	U		<5.9	U		<6.1	U		<6.0	U		<6.5	U		<6.2	U	
1,2-Dichlorobenzene	<1.0	U		<0.97	U		<0.95	U		<0.99	U		<0.97	U		<1.0	U		<1.0	U	
1,3-Dichlorobenzene	<1.0	U		<0.97	U		<0.95	U		<0.99	U		<0.97	U		<1.0	U		<1.0	U	
1,4-Dichlorobenzene	<1.0	U		<0.97	U		<0.95	U		<0.99	U		<0.97	U		<1.0	U		<1.0	U	
Acetone	5.0			5.9			13			9.9			5.5			8.5			7.2		
Benzene	<0.54	U		0.80			0.71			0.72			0.58			0.79			0.82		
Ethylbenzene	<0.73	U		<0.70	U		<0.69	U		<0.71	U		<0.70	U		0.83			<0.73	U	
m,p-Xylene	0.81			1.2			0.87			1.8			0.98			2.7			1.9		
o-Xylene	<0.73	U		<0.70	U		<0.69	U		<0.71	U		<0.70	U		<0.76	U		<0.73	U	
Toluene	2.2			4.3			4.0			9.6			3.4			7.6			6.1		
Trichlorofluoromethane (Freon 11)	1.6			1.3			1.2			1.6			1.3			1.6			1.3		
Dichlorodifluoromethane (Freon 12)	2.6			2.2			2.3			2.2			2.4			2.8			2.7		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.3	U		<1.2	U		<1.2	U		3.1			<1.2	U		2.1			<1.3	U	

Building 308 Indoor Air		
Max	Min	Median
12	2.4	3.3
0.32	0.23	0.28
<0.69	<0.63	ND
<0.69	<0.63	ND
<0.045	<0.040	ND
<0.95	<0.86	ND
0.45	0.37	0.42
<1.2	<1.1	ND
<0.80	<0.73	ND
<6.5	<5.9	ND
<1.0	<0.95	ND
<1.0	<0.95	ND
<1.0	<0.95	ND
13	5.5	7.9
0.82	0.58	0.76
0.83	0.83	0.83
2.7	0.87	1.5
<0.76	<0.69	ND
9.6	3.4	5.2
1.6	1.2	1.3
2.8	2.2	2.4
3.1	2.1	2.6

Concentrations in µg/m3		
Linkway Indoor Air		
IA2033		
Linkway to B310		
3/18/2010		
Result	Qualifier	Bias
41		
0.63		
<0.64	U	
<0.64	U	
<0.041	U	
<0.88	U	
0.37		
<1.1	U	
<0.74	U	
<6.0	U	
<0.97	U	
<0.97	U	
<0.97	U	
14		
<0.51	U	
<0.70	U	
<0.70	U	
<0.70	U	
2.3		
2.0		
2.2		
6.5		

Notes:

- Samples were collected by SHA personnel on the dates indicated using 6-liter summa canisters equipped with 8-hour flow controllers.
- Sample analysis was completed by Air Toxics Limited (ATL) of Folsom, California 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.
- "<" indicates a non-detection at the reporting limit shown.
- New Environmental Horizons, Inc (NEH) performed an independent validation of the analytical data, as described in their [Data Usability Report](#), dated April 13, 2010 and provided as Attachment D. All results were considered acceptable. In some cases, NEH assigned the following qualifiers to the data:
"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.
- Bold** values indicate the analyte was detected above reporting limits.
- "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.

TABLE 2B
Building 320B
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m³																																			
	Field Blank			Ambient Outdoor Air									Indoor Air																							
	FB01			AA0711			AA0712			IA0700			IA0701			IA0702			IA0703			IA0703 Dup.			IA0704			IA0705			IA0706					
				HVAC Intake for HVAC-1			HVAC Intake for HVAC-4			Former Office/ Former Clean Room Entrance			Clean Room			Clean Room			Former Manufacturing Area			Former Manufacturing Area			Former Clean Room			Former Clean Room			Former Manufacturing Area					
	03/16/10			03/16/10			03/16/10			03/16/10			03/16/10			03/16/10			03/16/10			03/16/10			03/16/10			03/16/10			03/16/10					
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	Result	Qualifier	Bias				
Tetrachloroethene (PCE)	<1.0	U		<1.1	U		<2.7	U		<1.1	U		<1.1	U		<1.2	U		<1.0	U		<1.1	U		1.4			<1.1	U		<1.1	U				
Trichloroethene (TCE)	<0.17	U		<0.17	U		<0.42	U		<0.17	U		<0.17	U		<0.18	U		<0.17	U		<0.18	U		1.0			<0.17	U		0.50					
cis-1,2-Dichloroethene (cDCE)	<0.61	U		<0.63	U		<1.6	U		<0.64	U		<0.64	U		<0.68	U		<0.61	U		<0.65	U		<0.65	U		<0.64	U		<0.67	U				
1,1-Dichloroethene (DCE)	<0.61	U		<0.63	U		<1.6	U		<0.64	U		<0.64	U		<0.68	U		<0.61	U		<0.65	U		<0.65	U		<0.64	U		<0.67	U				
Vinyl chloride (VC)	0.048			<0.040	U		<0.10	U		<0.041	U		<0.041	U		<0.044	U		0.15	EB	H	0.15	EB	H	<0.042	U		<0.041	U		0.083	EB	H			
1,1,1-Trichloroethane (TCA)	<0.84	U		<0.86	U		<2.2	U		<0.88	U		<0.88	U		<0.93	U		<0.84	U		<0.89	U		<0.89	U		<0.88	U		<0.92	U				
Carbon tetrachloride	<0.20	U		0.38			<0.50	U		0.40			0.40			0.45			0.44			0.44			0.27			0.42			0.40					
Methylene chloride (MeCl)	<1.1	U		<1.1	U		<2.7	U		<1.1	U		<1.1	U		<1.2	U		<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.2	U				
Chlorobenzene	<0.71	U		<0.73	U		<1.8	U		<0.74	U		<0.74	U		<0.79	U		<0.71	U		<0.76	U		<0.76	U		<0.74	U		<0.77	U				
1,2,4-Trichlorobenzene	<5.8	U		<5.9	U		<15	U		<6.0	U		<6.0	U		<6.3	U		<5.8	U		<6.1	U		<6.1	U		<6.0	U		<6.2	U				
1,2-Dichlorobenzene	<0.93	U		<0.95	U		<2.4	U		<0.97	U		<0.97	U		<1.0	U		<0.93	U		<0.99	U		<0.99	U		<0.97	U		<1.0	U				
1,3-Dichlorobenzene	<0.93	U		<0.95	U		<2.4	U		<0.97	U		<0.97	U		<1.0	U		<0.93	U		<0.99	U		<0.99	U		<0.97	U		<1.0	U				
1,4-Dichlorobenzene	<0.93	U		<0.95	U		<2.4	U		<0.97	U		<0.97	U		<1.0	U		<0.93	U		<0.99	U		<0.99	U		<0.97	U		<1.0	U				
Acetone	2.1			88			230			9.5	EB	H	92			27			17			19			6.3	EB	H	3.7	EB	H	34					
Benzene	<0.50	U		<0.50	U		<1.3	U		<0.51	U		<0.51	U		<0.55	U		<0.50	U		<0.52	U		<0.52	U		<0.51	U		<0.54	U				
Ethylbenzene	<0.67	U		<0.69	U		<1.7	U		<0.70	U		<0.70	U		<0.74	U		<0.67	U		<0.71	U		<0.71	U		<0.70	U		<0.73	U				
m,p-Xylene	<0.67	U		<0.69	U		<1.7	U		<0.70	U		<0.70	U		<0.74	U		<0.67	U		<0.71	U		<0.71	U		<0.70	U		<0.73	U				
o-Xylene	<0.67	U		<0.69	U		<1.7	U		<0.70	U		<0.70	U		<0.74	U		<0.67	U		<0.71	U		<0.71	U		<0.70	U		<0.73	U				
Toluene	<0.58	U		<0.60	U		<1.5	U		1.4			7.2			5.2			1.3			1.6			1.6			1.3			1.8					
Trichlorofluoromethane (Freon 11)	<0.87	U		1.3			<2.2	U		2.4			3.0			3.4			6.9			7.4			2.3			1.8			19					
Dichlorodifluoromethane (Freon 12)	<0.77	U		2.5			2.0			2.0			2.2			2.7			3.0			3.1			2.3			2.2			2.4					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.2	U		<1.2	U		<3.0	U		<1.2	U		<1.2	U		<1.3	U		3.5			3.3			<1.2	U		<1.2	U		11					

Notes:

- Samples were collected by SHA personnel on the dates indicated using 6-liter summa canisters equipped with 8-hour flow controllers.
- Sample analysis was completed by Air Toxics Limited (ATL) of Folsom, California 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.
- "<" indicates a non-detection at the reporting limit shown.
- New Environmental Horizons, Inc (NEH) performed an independent validation of the analytical data, as described in their [Data Usability Report](#), dated April 12, 2010 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:
"EB" - The associated numerical value is biased due to the presence of the analyte in the equipment blank sample FB01, which was collected March 16, 2010.
"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.
"H" High bias.
"L" Low bias.
- Bold** values indicate the analyte was detected above reporting limits.
- "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.

TABLE 2B
Building 320B
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m3											
	Indoor Air											
	IA0707			IA0708			IA0709			IA0710		
	Construction Area			Former Clean Room			Break Room			Clean Room Break Area		
	03/16/10			03/16/10			03/16/10			03/16/10		
	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias
Tetrachloroethene (PCE)	<1.1	U		<0.96	UJ	L	<1.1	U		<1.1	U	
Trichloroethene (TCE)	0.62			<0.15	UJ	L	<0.18	U		<0.18	U	
cis-1,2-Dichloroethene (cDCE)	<0.64	U		<0.56	UJ	L	<0.67	U		<0.67	U	
1,1-Dichloroethene (DCE)	<0.64	U		<0.56	UJ	L	<0.67	U		<0.67	U	
Vinyl chloride (VC)	0.28			<0.036	UJ	L	0.31			1.6		
1,1,1-Trichloroethane (TCA)	<0.88	U		<0.77	UJ	L	<0.92	U		<0.92	U	
Carbon tetrachloride	0.42			0.41	J	L	0.44			0.44		
Methylene chloride (MeCl)	<1.1	U		4.8	J	L	<1.2	U		<1.2	U	
Chlorobenzene	<0.74	U		<0.65	UJ	L	<0.77	U		<0.77	U	
1,2,4-Trichlorobenzene	<6.0	U		<5.2	UJ	L	<6.2	U		<6.2	U	
1,2-Dichlorobenzene	<0.97	U		<0.85	UJ	L	<1.0	U		<1.0	U	
1,3-Dichlorobenzene	<0.97	U		<0.85	UJ	L	<1.0	U		<1.0	U	
1,4-Dichlorobenzene	<0.97	U		<0.85	UJ	L	<1.0	U		<1.0	U	
Acetone	55			12	J	L	12			9.5	EB	H
Benzene	<0.51	U		0.53	J	L	<0.54	U		<0.54	U	
Ethylbenzene	3.8			<0.61	UJ	L	<0.73	U		<0.73	U	
m,p-Xylene	11			0.65	J	L	1.4			<0.73	U	
o-Xylene	2.2			<0.61	UJ	L	<0.73	U		<0.73	U	
Toluene	7.3			2.5	J	L	3.5			10		
Trichlorofluoromethane (Freon 11)	5.0			1.7	J	L	6.7			2.0		
Dichlorodifluoromethane (Freon 12)	3.0			2.2	J	L	2.9			2.3		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11			<1.1	UJ	L	<1.3	U		<1.3	U	

Indoor Air		
Max	Min	Median
1.4	1.4	1.4
1.0	0.50	0.62
<0.68	<0.56	ND
<0.68	<0.56	ND
1.6	0.083	0.215
<0.93	<0.77	ND
0.45	0.27	0.42
4.8	4.8	4.8
<0.79	<0.65	ND
<6.3	<5.2	ND
<1.0	<0.85	ND
<1.0	<0.85	ND
<1.0	<0.85	ND
92	3.7	15
0.53	0.53	0.53
3.8	3.8	3.8
11	0.65	1.4
2.2	2.2	2.2
10	1.3	2.15
19	1.7	3.2
3.1	2.0	2.4
11	3.3	7.25

Notes:

- Samples were collected by SHA personnel on the dates indicated using 6-liter summa canisters equipped with 8-hour flow controllers.
- Sample analysis was completed by Air Toxics Limited (ATL) of Folsom, California 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.
- "<" indicates a non-detection at the reporting limit shown.
- New Environmental Horizons, Inc (NEH) performed an independent validation of the analytical data, as described in their [Data Usability Report](#), dated April 12, 2010 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:
"EB" - The associated numerical value is biased due to the presence of the analyte in the equipment blank sample FB01, which was collected March 16, 2010.
"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.
"H" High bias.
"L" Low bias.
- Bold** values indicate the analyte was detected above reporting limits.
- "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.

TABLE 2C
Building 334
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m³																													
	Field Blank			Ambient Outdoor Air								Indoor Air																		
	FB02			AA0913			AA0914			IA0900			IA0901			IA0902			IA0903			IA0904			IA0905			IA0906		
				HVAC Intake for HVAC-4			HVAC Intake for HVAC-9			Break Room			Mechanical / Pump Station Room			Electrical / Mechanical Room			SpectraWatt Chemical Storage Room			SpectraWatt Manufacturing Area			SpectraWatt Manufacturing Area			SpectraWatt Manufacturing Area		
	3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010		
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)	<0.68	U		<0.99	U		<1.1	U		<1.1	U		<1.5	U		<1.2	U		<1.0	U		<1.1	U		<1.1	U		<1.1	U	
Trichloroethene (TCE)	<0.11	U		0.19			<0.17	U		<0.18	U		<0.23	U		<0.18	U		<0.16	U		0.42			<0.18	U		<0.17	U	
cis-1,2-Dichloroethene (cDCE)	<0.40	U		<0.58	U		<0.63	U		<0.65	U		<0.86	U		<0.68	U		<0.60	U		<0.64	U		<0.67	U		<0.63	U	
1,1-Dichloroethene (DCE)	<0.40	U		<0.58	U		<0.63	U		<0.65	U		<0.86	U		<0.68	U		<0.60	U		<0.64	U		<0.67	U		<0.63	U	
Vinyl chloride (VC)	<0.026	U		<0.037	U		<0.040	U		<0.042	U		<0.055	U		<0.044	U		<0.039	U		<0.041	U		<0.043	U		<0.040	U	
1,1,1-Trichloroethane (TCA)	<0.54	U		<0.80	U		<0.86	U		<0.89	U		<1.2	U		<0.93	U		<0.83	U		<0.88	U		<0.92	U		<0.86	U	
Carbon tetrachloride	<0.12	U		0.41			0.43			0.41			0.40			0.38			0.43			0.42			0.43			0.44		
Methylene chloride (MeCl)	<0.69	U		<1.0	U		<1.1	U		<1.1	U		<1.5	U		<1.2	U		<1.0	U		<1.1	U		<1.2	U		<1.1	U	
Chlorobenzene	<0.46	U		<0.67	U		<0.73	U		<0.76	U		<1.0	U		<0.79	U		<0.70	U		<0.74	U		<0.77	U		<0.73	U	
1,2,4-Trichlorobenzene	<3.7	U		<5.4	U		<5.9	U		<6.1	U		<8.0	U		<6.3	U		<5.6	U		<6.0	U		<6.2	U		<5.9	U	
1,2-Dichlorobenzene	<0.60	U		<0.88	U		<0.95	U		<0.99	U		<1.3	U		<1.0	U		<0.91	U		<0.97	U		<1.0	U		<0.95	U	
1,3-Dichlorobenzene	<0.60	U		<0.88	U		<0.95	U		<0.99	U		<1.3	U		<1.0	U		<0.91	U		<0.97	U		<1.0	U		<0.95	U	
1,4-Dichlorobenzene	<0.60	U		<0.88	U		<0.95	U		<0.99	U		<1.3	U		<1.0	U		<0.91	U		<0.97	U		<1.0	U		<0.95	U	
Acetone	<1.2	U		3.6			3.5			4.3			6.3			5.2			5.6			3.3			7.3			3.1		
Benzene	<0.32	U		0.66			<0.50	U		0.53			<0.69	U		<0.55	U		0.49			<0.51	U		0.56			<0.50	U	
Ethylbenzene	<0.43	U		<0.63	U		<0.69	U		<0.71	U		<0.94	U		<0.74	U		<0.66	U		<0.70	U		<0.73	U		<0.69	U	
m,p-Xylene	<0.43	U		0.64			<0.69	U		<0.71	U		<0.94	U		<0.74	U		<0.66	U		<0.70	U		<0.73	U		<0.69	U	
o-Xylene	<0.43	U		<0.63	U		<0.69	U		<0.71	U		<0.94	U		<0.74	U		<0.66	U		<0.70	U		<0.73	U		<0.69	U	
Toluene	<0.38	U		0.99			0.63			0.91			<0.82	U		<0.64	U		0.80			0.74			1.1			0.66		
Trichlorofluoromethane (Freon 11)	<0.56	U		1.7			3.0			3.2			3.8			7.6			4.8			2.3			2.4			3.2		
Dichlorodifluoromethane (Freon 12)	<0.49	U		2.6			2.4			2.2			2.5			2.2			2.2			2.3			2.3			2.3		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<0.77	U		<1.1	U		<1.2	U		<1.2	U		<1.7	U		<1.3	U		<1.2	U		<1.2	U		<1.3	U		<1.2	U	

Notes:

- Samples were collected by SHA personnel on the dates indicated using 6-liter summa canisters equipped with 8-hour flow controllers.
- Sample analysis was completed by Air Toxics Limited (ATL) of Folsom, California 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.
- "<" indicates a non-detection at the reporting limit shown.
- New Environmental Horizons, Inc (NEH) performed an independent validation of the analytical data, as described in their [In-Depth Data Usability Report](#), dated April 13, 2010 and provided as Attachment D. All results were considered acceptable. In some cases, NEH assigned the following qualifiers to the data:
"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.
- Bold** values indicate the analyte was detected above reporting limits.
- "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.

TABLE 2C
Building 334
Confirmatory Sampling Results
VOC Source Assessment
IBM East Fishkill Facility
Hopewell Junction, New York

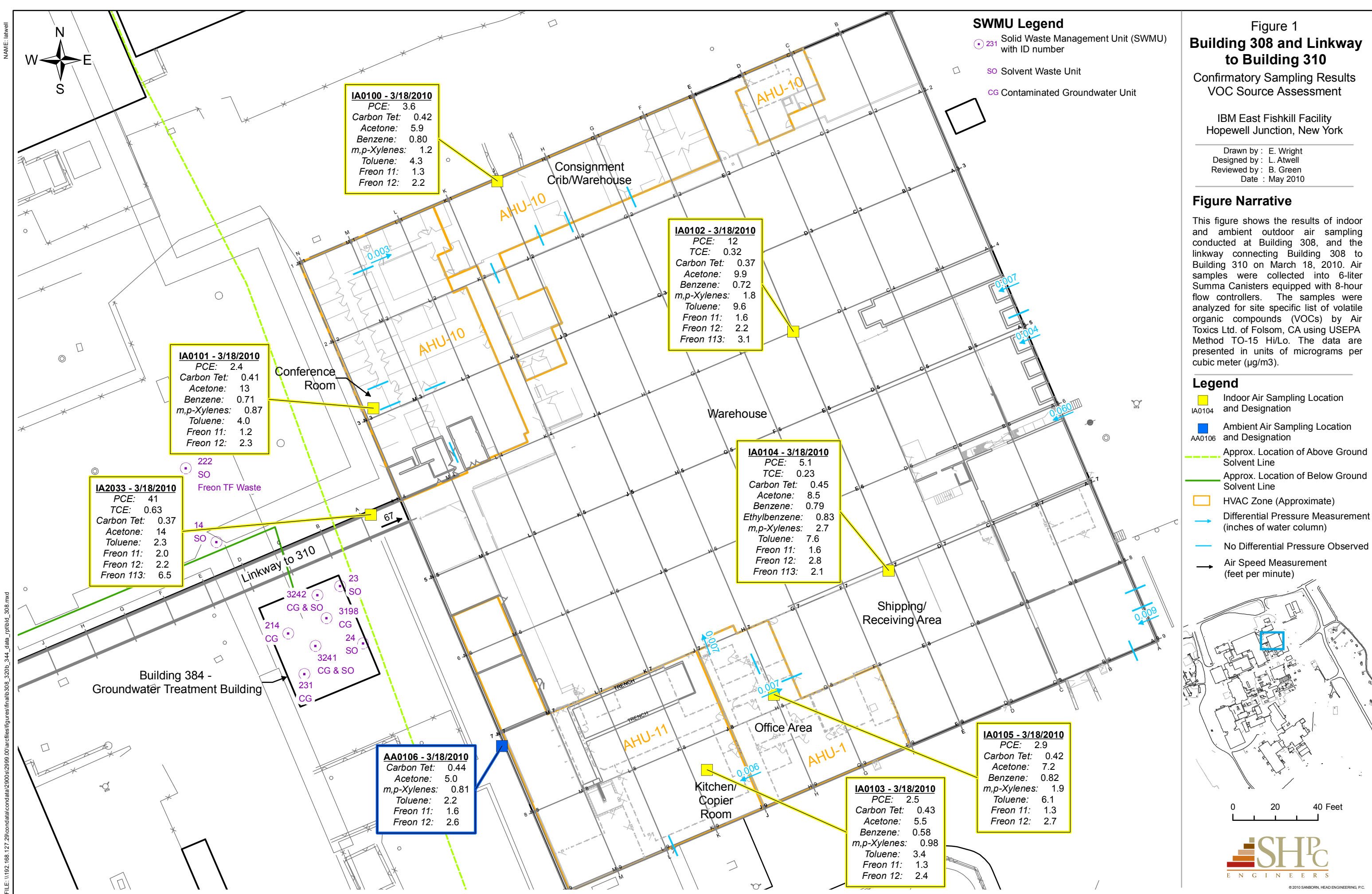
Analyte Name	Concentrations in µg/m3																				
	Indoor Air																				
	IA0907			IA0907 Dup.			IA0908			IA0909			IA0910			IA0911			IA0912		
	SpectraWatt Manufacturing Area			SpectraWatt Manufacturing Area			SpectraWatt Manufacturing Area			Inactive SpectraWatt Lab			SpectraWatt Office Area			Copy Room - IBM Offices			IBM Office		
	3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010			3/17/2010		
	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias	Result	Qualifier	Bias
Tetrachloroethene (PCE)	<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.0	U		<1.1	U	
Trichloroethene (TCE)	<0.17	U		<0.17	U		<0.17	U		<0.18	U		<0.17	U		<0.17	U		<0.18	U	
cis-1,2-Dichloroethene (cDCE)	<0.64	U		<0.64	U		<0.64	U		<0.65	U		<0.64	U		<0.61	U		<0.65	U	
1,1-Dichloroethene (DCE)	<0.64	U		<0.64	U		<0.64	U		<0.65	U		<0.64	U		<0.61	U		<0.65	U	
Vinyl chloride (VC)	<0.041	U		<0.041	U		<0.041	U		<0.042	U		<0.041	U		<0.040	U		<0.042	U	
1,1,1-Trichloroethane (TCA)	3.6			<0.88	U		<0.88	U		<0.89	U		<0.88	U		<0.84	U		<0.89	U	
Carbon tetrachloride	0.44			0.42			0.42			0.46			0.45			0.44			0.33		
Methylene chloride (MeCl)	<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.1	U	
Chlorobenzene	<0.74	U		<0.74	U		<0.74	U		<0.76	U		<0.74	U		<0.71	U		<0.76	U	
1,2,4-Trichlorobenzene	<6.0	U		<6.0	U		<6.0	U		<6.1	U		<6.0	U		<5.8	U		<6.1	U	
1,2-Dichlorobenzene	<0.97	U		<0.97	U		<0.97	U		<0.99	U		<0.97	U		<0.93	U		<0.99	U	
1,3-Dichlorobenzene	<0.97	U		<0.97	U		<0.97	U		<0.99	U		<0.97	U		<0.93	U		<0.99	U	
1,4-Dichlorobenzene	<0.97	U		<0.97	U		<0.97	U		<0.99	U		<0.97	U		<0.93	U		<0.99	U	
Acetone	4.1			4.4			5.3			9.8			7.2			7.7			17		
Benzene	0.56			0.56			0.57			0.61			0.64			0.65			0.66		
Ethylbenzene	<0.70	U		<0.70	U		<0.70	U		<0.71	U		<0.70	U		<0.67	U		<0.71	U	
m,p-Xylene	<0.70	U		<0.70	U		<0.70	U		1.4			<0.70	U		<0.67	U		<0.71	U	
o-Xylene	<0.70	U		<0.70	U		<0.70	U		<0.71	U		<0.70	U		<0.67	U		<0.71	U	
Toluene	2.6			2.7			0.95			1.4			1.8			1.9			1.9		
Trichlorofluoromethane (Freon 11)	3.1			3.1			2.4			3.6			13			12			9.5		
Dichlorodifluoromethane (Freon 12)	2.4			2.3			2.2			2.8			3.3			3.2			2.8		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.2	U		<1.2	U		<1.2	U		<1.2	U		<1.2	U		<1.2	U		<1.2	U	

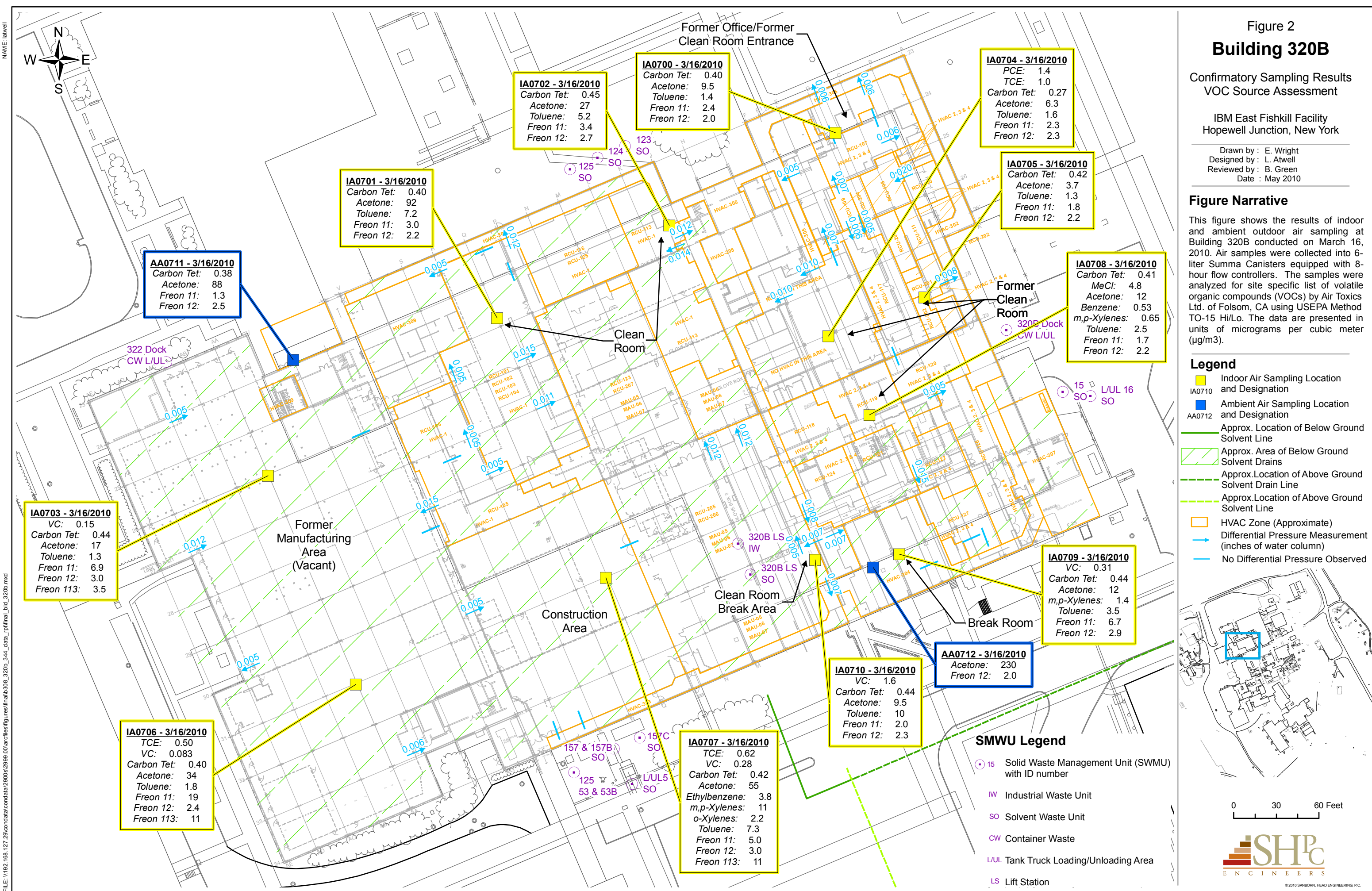
Indoor Air		
Max	Min	Median
<1.5	<1.0	ND
0.42	0.42	0.42
<0.86	<0.60	ND
<0.86	<0.60	ND
<0.055	<0.039	ND
3.6	3.6	3.6
0.46	0.33	0.43
<1.5	<1.0	ND
<1.0	<0.70	ND
<8.0	<5.6	ND
<1.3	<0.91	ND
<1.3	<0.91	ND
<1.3	<0.91	ND
17	3.1	5.5
0.66	0.49	0.57
<0.94	<0.66	ND
1.4	1.4	1.4
<0.94	<0.66	ND
2.7	0.66	1.3
13	2.3	3.4
3.3	2.2	2.3
<1.7	<1.2	ND

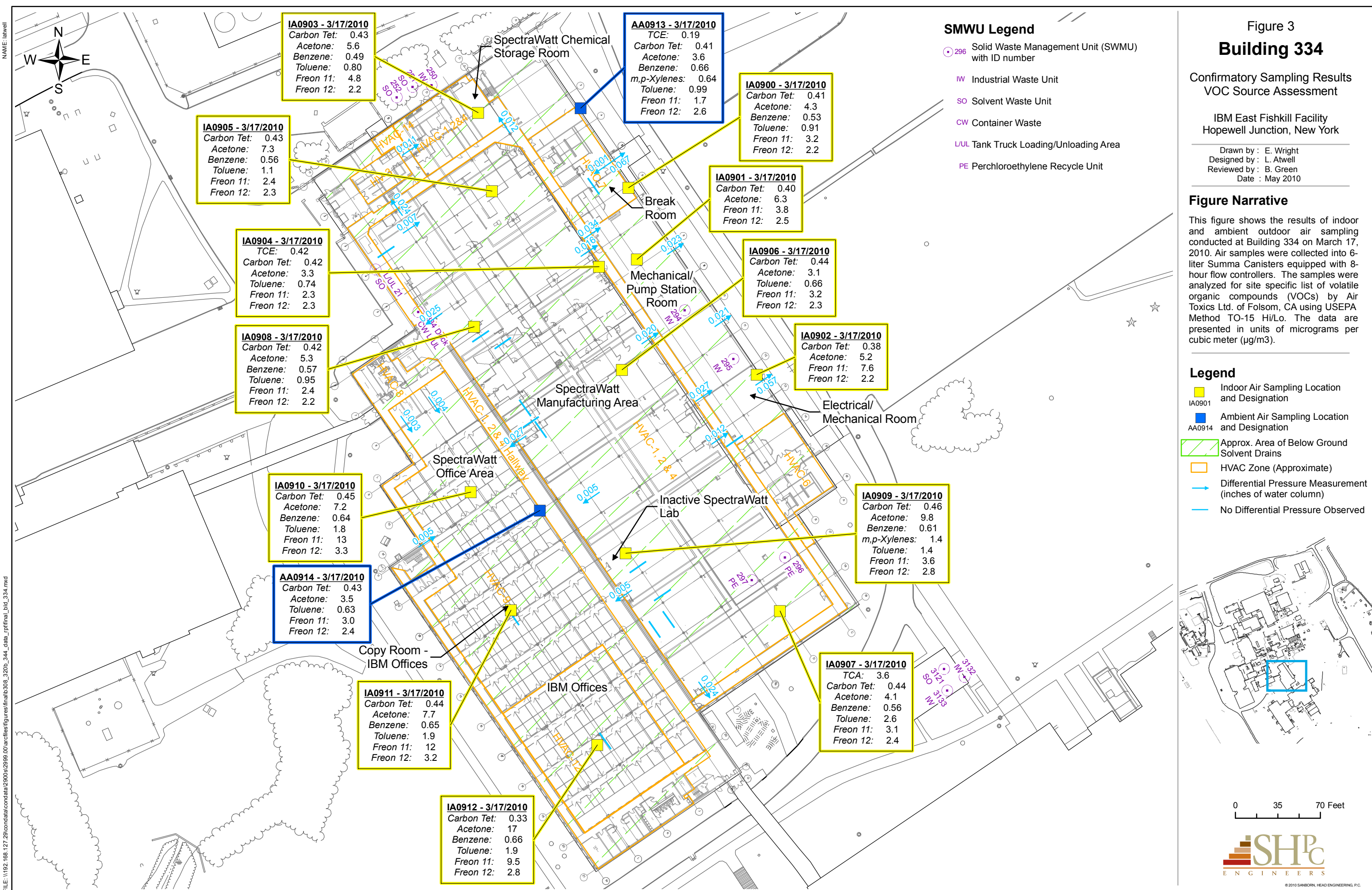
Notes:

- Samples were collected by SHA personnel on the dates indicated using 6-liter summa canisters equipped with 8-hour flow controllers.
- Sample analysis was completed by Air Toxics Limited (ATL) of Folsom, California 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.
- "<" indicates a non-detection at the reporting limit shown.
- New Environmental Horizons, Inc (NEH) performed an independent validation of the analytical data, as described in their In-Depth Data Usability Report, dated April 13, 2010 and provided as Attachment D. All results were considered acceptable. In some cases, NEH assigned the following qualifiers to the data:
"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.
- Bold** values indicate the analyte was detected above reporting limits.
- "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 amples.

FIGURES







APPENDIX A

PHOTOGRAPH LOGS FOR BUILDINGS 308, 320B, AND 334



PHOTO #1 – Sample IA0100; located in the Consignment Crib/Warehouse.



PHOTO #2 – Sample IA0101; located in Conference Room.

Photograph Log for Building 308
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/18/2010

SHEET 1 of 4





PHOTO #3 – Sample IA0102; located in the MDC Warehouse.



PHOTO #4 – Sample IA0103; located in the Kitchen/Copier Room.

Photograph Log for Building 308
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/18/2010

SHEET 2 of 4





PHOTO #5 – Sample IA0104; located in the Shipping/Receiving Area.



PHOTO #6 – Sample IA0105; located in the Office Area.

Photograph Log for Building 308
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/18/2010

SHEET 3 of 4





PHOTO #7 – Sample AA0106; located near the intake for AHU-11.



PHOTO #8 – Sample IA2033; located in the Linkway to Building 310.

Photograph Log for Building 308
 Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
 308, 320B and 334

SHA PROJECT NO: 2999.00
 DATE OF PHOTOS: 3/18/2010

SHEET 4 of 4





PHOTO #1 – Sample IA0700; located in the Former Office Area/Formal Clean Room Entrance.
Arrow indicates trench, which runs underneath the sample location.



PHOTO #2 – Sample IA0701; located in the Clean Room. Sample is located on an elevated floor next to a “heavy metal drain.”

Photograph Log for Building 320B
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/16/2010

SHEET 1 of 7





PHOTO #3 – Sample IA0702; located in the Clean Room. Sample is located on an elevated floor near an “acid drain.”



PHOTO #4 – Sample IA0703 (and duplicate); located in the Former Manufacturing Area (currently vacant). Arrows indicate metal floor drain covers.

Photograph Log for Building 320B
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/16/2010

SHEET 2 of 7





PHOTO #5 – Sample IA0704; located in the Former Clean Room, which has an elevated floor.



PHOTO #6 – Sample IA0705; located in the Former Clean Room, which has an elevated floor.

Photograph Log for Building 320B
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/16/2010

SHEET 3 of 7





PHOTO #7 – Sample IA0706; located in the Former Manufacturing Area (currently vacant).

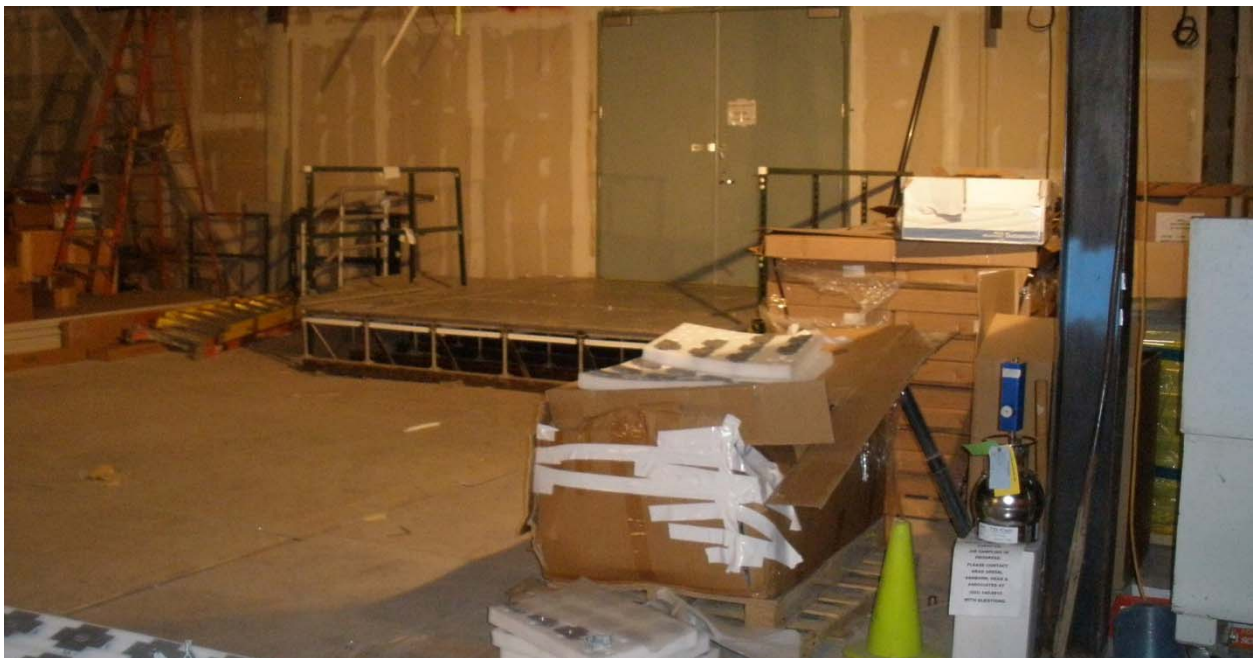


PHOTO #8 – Sample IA0707; located in the Construction Area.

Photograph Log for Building 320B
 Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
 308, 320B and 334

SHA PROJECT NO: 2999.00
 DATE OF PHOTOS: 3/16/2010

SHEET 4 of 7





PHOTO #9 – Sample IA0708; located in the Former Clean Room, which has an elevated floor.



PHOTO #10 – Sample IA0709; located in the Break Room.

Photograph Log for Building 320B
 Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
 308, 320B and 334

SHA PROJECT NO: 2999.00
 DATE OF PHOTOS: 3/16/2010

SHEET 5 of 7





PHOTO #11 – Sample IA0710; located in the Clean Room Break Area.



PHOTO #12 – Sample AA0711; located in the plenum intake for HVAC-1.

Photograph Log for Building 320B
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/16/2010

SHEET 6 of 7





PHOTO #13 – Sample AA0712; located in the plenum intake for HVAC-4.

Photograph Log for Building 320B
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/16/2010

SHEET 7 of 7





PHOTO #1 – Sample IA0900; located in the Break Room.



PHOTO #2 – Sample IA0901; located in the Mechanical/Pump Station Room. Note sumps and floor drains.

Photograph Log for Building 334
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/17/2010

SHEET 1 of 7





PHOTO #3 – Sample IA0902; located in the Electrical/Mechanical Room.



PHOTO #4 – Sample IA0903; located in the SpectraWatt Chemical Storage Room, which has an elevated floor.

Photograph Log for Building 334
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/17/2010

SHEET 2 of 7





PHOTO #5 – Sample IA0904; located in the SpectraWatt Manufacturing Area, which is currently under construction. Sample is located on top of a trench (indicated by red arrow).



PHOTO #6 – Sample IA0905; located in the SpectraWatt Manufacturing Area, which is currently under construction. Drum to the right of sample is labeled as non-hazardous “waste glass.”

Photograph Log for Building 334
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/17/2010

SHEET 3 of 7



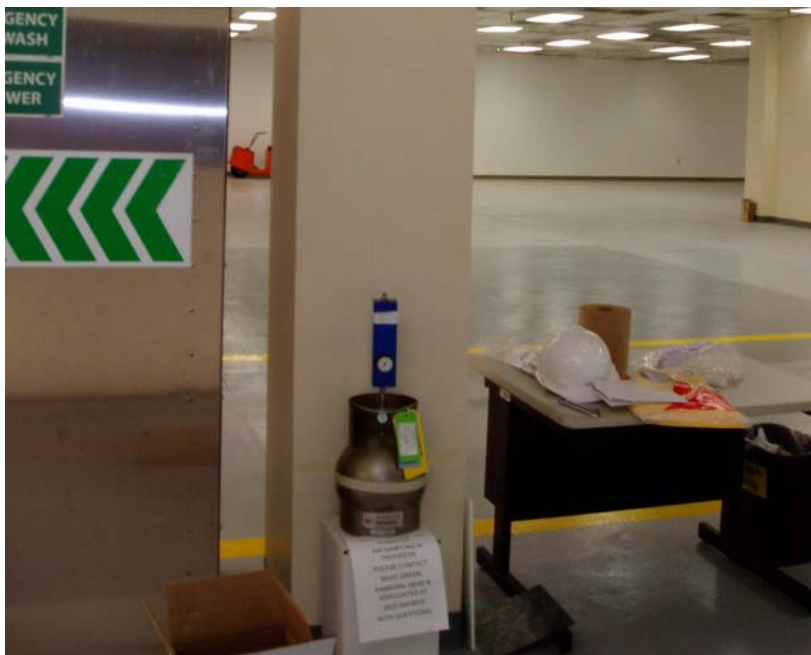


PHOTO #7 – Sample IA0906; located in the SpectraWatt Manufacturing Area, which is currently under construction.

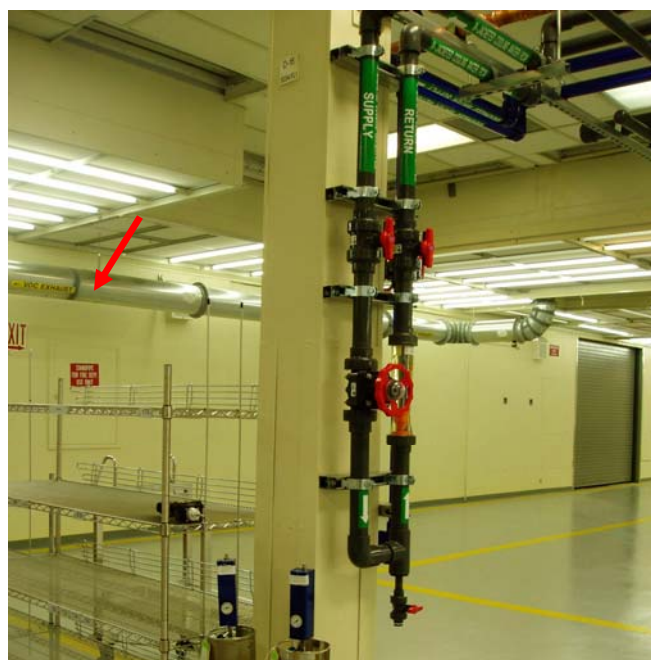


PHOTO #8 – Sample IA0907 (and duplicate sample); located in the SpectraWatt Manufacturing Area, which is currently under construction. Overhead lines for deionized water, air, and cooling water. Red arrow indicates overhead line for "VOC exhaust."

Photograph Log for Building 334
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/17/2010

SHEET 4 of 7





PHOTO #9 – Sample IA0908; located in the SpectraWatt Manufacturing Area, which is currently under construction.



PHOTO #10 –Sample IA0909; located in the SpectraWatt Lab, which is currently inactive. Sample is located on top of a trench.

Photograph Log for Building 334
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings 308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/17/2010

SHEET 5 of 7





PHOTO #11 – Sample IA0910; located in the SpectaWatt Office Area.



PHOTO #12 – Sample IA0911; located in the Copy Room – IBM Office Area.

Photograph Log for Building 334
Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
308, 320B and 334

SHA PROJECT NO: 2999.00
DATE OF PHOTOS: 3/17/2010

SHEET 6 of 7





PHOTO #13 – Sample IA0912; located in the IBM Office Area.



PHOTO #14 – Sample AA0914; located on the roof next to the HVAC intake for HVAC-9.

Photograph Log for Building 334
 Report Name: Laboratory Data, Confirmatory Sampling Results, Buildings
 308, 320B and 334

SHA PROJECT NO: 2999.00
 DATE OF PHOTOS: 3/17/2010

SHEET 7 of 7



APPENDIX B

HVAC OPERATIONS DURING SAMPLING

Table B-1
Summary of HVAC Unit Outside Air Damper Positions
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 308			
AHU-1	Auto - variable	25	Facilities Staff
AHU-10	Auto - variable	37	
AHU-11	Auto - variable	20	
Building 320B			
HVAC-304	Auto - variable	20	Control System
HVAC-1	Fixed - no variation	NA ²	
HVAC-2	OFF		
HVAC-3	OFF		
HVAC-4	Fixed - no variation	NA ²	
MAU-5	Fixed - no variation	NA ²	
MAU-6	Fixed - no variation	NA ²	
MAU-7	Fixed - no variation	NA ²	
RCU-101	ON		
RCU-102	ON		
RCU-103	ON		
RCU-104	ON		
RCU-107	OFF		
RCU-113	ON		
RCU-119	OFF		
RCU-201	OFF		
RCU-205	OFF		
RCU-206	OFF		
Building 334			
HVAC-1	Fixed - no variation	NA ²	Control System
HVAC-2	OFF		
HVAC-4	Fixed - no variation	NA ²	
HVAC-7	Auto - variable	0 - Closed	Observed
HVAC-9	Auto - variable	5	Control System
HVAC-12	Auto - variable	20	

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. These are make-up air units that operate at 100 percent outside air. Damper positions remain constant and were not adjusted during sampling.
3. These are recirculation units which do not have outside air dampers. The "ON/OFF" designations refer to whether the units were running during sampling.

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

HVAC Unit	Date and Time of Inspection						
Building 308							
	03/16/10	03/17/10		03/18/10			
	1400 hrs	0915 hrs	1530 hrs	0915 hrs	1200 hrs	1430 hrs	1715 hrs
AHU-1	Laptop ¹	N/A	N/A	N/A	N/A	N/A	N/A
AHU-10	Installed	✓	✓	✓	✓	✓	✓
AHU-11	Installed	✓	✓	✓	✓	✓	✓
Building 320B							
	03/15/10	03/16/10					
	1400 hrs	0730 hrs	1120 hrs	1600 hrs			
HVAC-304	Installed	✓	x	✓			
HVAC-1	These are make up air units in that normally operate at 100% outside air. No changes to outside air damper positions were made, and no fusible links were installed on these units.						
HVAC-4							
MAU-5							
MAU-6							
MAU-7							
RCU-101	These are recirculation units. There status (on/off) and hertz rate were monitored during sampling, but no adjustments were made and no fuseable links were installed.						
RCU-102							
RCU-103							
RCU-104							
RCU-113							
Building 334							
	03/16/10		03/17/10				
	0900 hrs	1500 hrs	0745 hrs	1200 hrs	1400 hrs	1630 hrs	
HVAC-1	These are make up air units in that normally operate at 100% outside air. No changes to outside air damper positions were made, and no fusible links were installed on these units.						
HVAC-4							
HVAC-7	Installed	✓	✓	✓	✓	✓	
HVAC-9	Installed	✓	x	✓	✓	✓	
HVAC-12	Installed	✓	x	✓	✓	✓	

Notes:

- HVAC unit AHU-1 was locked in the minimum position by facility staff using a laptop with the appropriate software. The outside air dampers could not be accessed because the access panel could not be located. According to facility staff, the dampers could not be changed without connecting the laptop to the unit and manually adjusting the dampers.
 - Fusible links were constructed from nylon zip ties, fine gauged metal wire, and masking tape. Dampers were inspected several times during sampling to determine if outside air dampers changed positions.
 - "✓" indicates that during inspection, the damper positions were observed to be in the position set prior to sampling.
 - "x" indicates that during inspection, the damper positions were observed to be open to a greater extent than when the units were locked, or the fusible links were broken.
- HVAC-304 had a broken fusible link at approximately 1120 hrs on March 16, 2010 during sampling. The outside air dampers had opened approximately two inches. The dampers were returned to minimum position, and the fusible link was reset at approximately 1130 hrs. Facility staff were unsure when the dampers were opened, but the change happened between 0800 hrs and 1120 hrs.
- HVAC-12 had a blown fusible link at approximately 0745 hrs on March 17, 2010 during sampling. According to facility staff, at approximately 0600 hrs, the outside air dampers on HVAC-12 had opened from 20 percent to 30 percent, and the outside air dampers at HVAC-9 had opened from 5 to 9 percent. The dampers were returned to minimum position, and the fusible links were reset at approximately 0820 hrs.

APPENDIX C

ANALYTICAL LABORATORY DATA REPORTS

4/2/2010

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

Concord NH 03301

Project Name: IBM East Fishkill
Project #: 2999 T110
Workorder #: 1003457

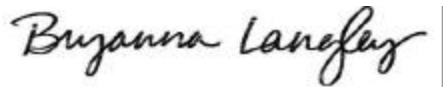
Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 3/20/2010 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 #: 1003457

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 T110 IBM East Fishkill
DATE RECEIVED:	03/20/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	04/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	IA0100	Modified TO-15	5.0 "Hg	5 psi
01B	IA0100	Modified TO-15	5.0 "Hg	5 psi
02A	IA0101	Modified TO-15	4.5 "Hg	5 psi
02B	IA0101	Modified TO-15	4.5 "Hg	5 psi
03A	IA0102	Modified TO-15	5.5 "Hg	5 psi
03B	IA0102	Modified TO-15	5.5 "Hg	5 psi
04A	IA0103	Modified TO-15	5.0 "Hg	5 psi
04B	IA0103	Modified TO-15	5.0 "Hg	5 psi
05A	IA0104	Modified TO-15	7.0 "Hg	5 psi
05B	IA0104	Modified TO-15	7.0 "Hg	5 psi
06A	IA0105	Modified TO-15	6.0 "Hg	5 psi
06B	IA0105	Modified TO-15	6.0 "Hg	5 psi
07A	AA0106	Modified TO-15	6.0 "Hg	5 psi
07B	AA0106	Modified TO-15	6.0 "Hg	5 psi
08A	IA2033	Modified TO-15	5.0 "Hg	5 psi
08B	IA2033	Modified TO-15	5.0 "Hg	5 psi
09A	Lab Blank	Modified TO-15	NA	NA

Continued on next page

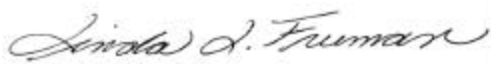
WORK ORDER #: 1003457

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 T110 IBM East Fishkill
DATE RECEIVED:	03/20/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	04/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
09B	Lab Blank	Modified TO-15	NA	NA
09C	Lab Blank	Modified TO-15	NA	NA
09D	Lab Blank	Modified TO-15	NA	NA
10A	CCV	Modified TO-15	NA	NA
10B	CCV	Modified TO-15	NA	NA
10C	CCV	Modified TO-15	NA	NA
10D	CCV	Modified TO-15	NA	NA
11A	LCS	Modified TO-15	NA	NA
11B	LCS	Modified TO-15	NA	NA
11C	LCS	Modified TO-15	NA	NA
11D	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 04/01/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
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: 07/01/09, Expiration date: 06/30/10

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# 1003457**

Eight 6 Liter Summa Canister (SIM Certified) samples were received on March 20, 2010. 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: IA0100

Lab ID#: 1003457-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.23	0.90	1.3
Acetone	0.80	2.5	1.9	5.9
Benzene	0.16	0.25	0.51	0.80
Toluene	0.16	1.1	0.61	4.3
Tetrachloroethene	0.16	0.54	1.1	3.6
m,p-Xylene	0.16	0.27	0.70	1.2

Client Sample ID: IA0100

Lab ID#: 1003457-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.066	0.20	0.42

Client Sample ID: IA0101

Lab ID#: 1003457-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.78	2.3
Freon 11	0.16	0.22	0.89	1.2
Acetone	0.79	5.5	1.9	13
Benzene	0.16	0.22	0.50	0.71
Toluene	0.16	1.1	0.60	4.0
Tetrachloroethene	0.16	0.35	1.1	2.4
m,p-Xylene	0.16	0.20	0.69	0.87

Client Sample ID: IA0101

Lab ID#: 1003457-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.065	0.20	0.41

Client Sample ID: IA0102

Lab ID#: 1003457-03A

Summary of Detected Compounds

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

Client Sample ID: IA0102

Lab ID#: 1003457-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.81	2.2
Freon 11	0.16	0.28	0.92	1.6
Freon 113	0.16	0.41	1.2	3.1
Acetone	0.82	4.2	1.9	9.9
Benzene	0.16	0.22	0.52	0.72
Toluene	0.16	2.6	0.62	9.6
Tetrachloroethene	0.16	1.8	1.1	12
m,p-Xylene	0.16	0.42	0.71	1.8

Client Sample ID: IA0102

Lab ID#: 1003457-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.059	0.21	0.37
Trichloroethene	0.033	0.060	0.18	0.32

Client Sample ID: IA0103

Lab ID#: 1003457-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.80	2.4
Freon 11	0.16	0.24	0.90	1.3
Acetone	0.80	2.3	1.9	5.5
Benzene	0.16	0.18	0.51	0.58
Toluene	0.16	0.90	0.61	3.4
Tetrachloroethene	0.16	0.37	1.1	2.5
m,p-Xylene	0.16	0.22	0.70	0.98

Client Sample ID: IA0103

Lab ID#: 1003457-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.068	0.20	0.43

Summary of Detected Compounds

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

Client Sample ID: IA0104

Lab ID#: 1003457-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.86	2.8
Freon 11	0.18	0.29	0.98	1.6
Freon 113	0.18	0.27	1.3	2.1
Acetone	0.88	3.6	2.1	8.5
Benzene	0.18	0.25	0.56	0.79
Toluene	0.18	2.0	0.66	7.6
Tetrachloroethene	0.18	0.75	1.2	5.1
Ethyl Benzene	0.18	0.19	0.76	0.83
m,p-Xylene	0.18	0.63	0.76	2.7

Client Sample ID: IA0104

Lab ID#: 1003457-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.035	0.071	0.22	0.45
Trichloroethene	0.035	0.043	0.19	0.23

Client Sample ID: IA0105

Lab ID#: 1003457-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.54	0.83	2.7
Freon 11	0.17	0.23	0.94	1.3
Acetone	0.84	3.0	2.0	7.2
Benzene	0.17	0.26	0.54	0.82
Toluene	0.17	1.6	0.63	6.1
Tetrachloroethene	0.17	0.42	1.1	2.9
m,p-Xylene	0.17	0.44	0.73	1.9

Client Sample ID: IA0105

Lab ID#: 1003457-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.067	0.21	0.42

Summary of Detected Compounds

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

Client Sample ID: AA0106

Lab ID#: 1003457-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.52	0.83	2.6
Freon 11	0.17	0.28	0.94	1.6
Acetone	0.84	2.1	2.0	5.0
Toluene	0.17	0.58	0.63	2.2
m,p-Xylene	0.17	0.19	0.73	0.81

Client Sample ID: AA0106

Lab ID#: 1003457-07B

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

Client Sample ID: IA2033

Lab ID#: 1003457-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.35	0.90	2.0
Freon 113	0.16	0.85	1.2	6.5
Acetone	0.80	5.8	1.9	14
Toluene	0.16	0.61	0.61	2.3
Tetrachloroethene	0.16	6.0	1.1	41

Client Sample ID: IA2033

Lab ID#: 1003457-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.059	0.20	0.37
Trichloroethene	0.032	0.12	0.17	0.63

Client Sample ID: IA0100

Lab ID#: 1003457-01A

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

File Name:	s032914	Date of Collection: 3/18/10 4:06:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 03:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.23	0.90	1.3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.5	1.9	5.9
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	0.25	0.51	0.80
Toluene	0.16	1.1	0.61	4.3
Tetrachloroethene	0.16	0.54	1.1	3.6
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	0.27	0.70	1.2
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: IA0100

Lab ID#: 1003457-01B

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

File Name:	s032914sim	Date of Collection: 3/18/10 4:06:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 03:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.066	0.20	0.42
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0101

Lab ID#: 1003457-02A

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

File Name:	s032915	Date of Collection: 3/18/10 3:32:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/29/10 03:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.78	2.3
Freon 11	0.16	0.22	0.89	1.2
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	5.5	1.9	13
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Benzene	0.16	0.22	0.50	0.71
Toluene	0.16	1.1	0.60	4.0
Tetrachloroethene	0.16	0.35	1.1	2.4
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	0.20	0.69	0.87
o-Xylene	0.16	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: IA0101

Lab ID#: 1003457-02B

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

File Name:	s032915sim	Date of Collection: 3/18/10 3:32:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/29/10 03:43 PM

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	0.032	0.065	0.20	0.41
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: IA0102

Lab ID#: 1003457-03A

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

File Name:	s032918	Date of Collection: 3/18/10 4:20:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/29/10 06:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.81	2.2
Freon 11	0.16	0.28	0.92	1.6
Freon 113	0.16	0.41	1.2	3.1
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	4.2	1.9	9.9
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	0.22	0.52	0.72
Toluene	0.16	2.6	0.62	9.6
Tetrachloroethene	0.16	1.8	1.1	12
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	0.42	0.71	1.8
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	100	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: IA0102

Lab ID#: 1003457-03B

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

File Name:	s032918sim	Date of Collection: 3/18/10 4:20:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/29/10 06:15 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	0.059	0.21	0.37
Trichloroethene	0.033	0.060	0.18	0.32

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0103

Lab ID#: 1003457-04A

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

File Name:	s032917	Date of Collection: 3/18/10 5:07:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 05:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.49	0.80	2.4
Freon 11	0.16	0.24	0.90	1.3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.3	1.9	5.5
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	0.18	0.51	0.58
Toluene	0.16	0.90	0.61	3.4
Tetrachloroethene	0.16	0.37	1.1	2.5
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	0.22	0.70	0.98
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	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	92	70-130

Client Sample ID: IA0103

Lab ID#: 1003457-04B

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

File Name:	s032917sim	Date of Collection: 3/18/10 5:07:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 05:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.068	0.20	0.43
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0104

Lab ID#: 1003457-05A

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

File Name:	s033007	Date of Collection: 3/18/10 4:53:00 PM
Dil. Factor:	1.75	Date of Analysis: 3/30/10 08:40 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.86	2.8
Freon 11	0.18	0.29	0.98	1.6
Freon 113	0.18	0.27	1.3	2.1
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	3.6	2.1	8.5
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	0.25	0.56	0.79
Toluene	0.18	2.0	0.66	7.6
Tetrachloroethene	0.18	0.75	1.2	5.1
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.19	0.76	0.83
m,p-Xylene	0.18	0.63	0.76	2.7
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	107	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: IA0104

Lab ID#: 1003457-05B

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

File Name:	s033007sim	Date of Collection: 3/18/10 4:53:00 PM
Dil. Factor:	1.75	Date of Analysis: 3/30/10 08:40 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	0.071	0.22	0.45
Trichloroethene	0.035	0.043	0.19	0.23

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: IA0105

Lab ID#: 1003457-06A

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

File Name:	s033006	Date of Collection: 3/18/10 4:51:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/30/10 07:08 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.54	0.83	2.7
Freon 11	0.17	0.23	0.94	1.3
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	3.0	2.0	7.2
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	0.26	0.54	0.82
Toluene	0.17	1.6	0.63	6.1
Tetrachloroethene	0.17	0.42	1.1	2.9
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	0.44	0.73	1.9
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	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: IA0105

Lab ID#: 1003457-06B

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

File Name:	s033006sim	Date of Collection: 3/18/10 4:51:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/30/10 07:08 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	0.067	0.21	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	109	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: AA0106

Lab ID#: 1003457-07A

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

File Name:	s033008	Date of Collection: 3/18/10 4:40:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/30/10 09:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.52	0.83	2.6
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	2.1	2.0	5.0
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	0.58	0.63	2.2
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	0.19	0.73	0.81
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	105	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: AA0106

Lab ID#: 1003457-07B

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

File Name:	s033008sim	Date of Collection: 3/18/10 4:40:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/30/10 09:24 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	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA2033

Lab ID#: 1003457-08A

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

File Name:	s033009	Date of Collection: 3/18/10 5:50:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/30/10 10:03 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.35	0.90	2.0
Freon 113	0.16	0.85	1.2	6.5
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	5.8	1.9	14
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	0.61	0.61	2.3
Tetrachloroethene	0.16	6.0	1.1	41
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: IA2033

Lab ID#: 1003457-08B

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

File Name:	s033009sim	Date of Collection: 3/18/10 5:50:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/30/10 10:03 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.059	0.20	0.37
Trichloroethene	0.032	0.12	0.17	0.63

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003457-09A

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

File Name:	s032905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 09:05 AM

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	102	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003457-09B

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

File Name:	s032905sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 09:05 AM

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	109	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003457-09C

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

File Name:	s033005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/30/10 06:12 AM

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	95	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003457-09D

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

File Name:	s033005sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/30/10 06:12 AM

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	109	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: CCV

Lab ID#: 1003457-10A

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

File Name:	s032902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 07:24 AM

Compound	%Recovery
Freon 12	97
Freon 11	97
Freon 113	95
1,1-Dichloroethene	90
Acetone	94
Methylene Chloride	90
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	93
Benzene	92
Toluene	94
Tetrachloroethene	96
Chlorobenzene	95
Ethyl Benzene	96
m,p-Xylene	98
o-Xylene	99
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	100
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	81

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 1003457-10B

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

File Name:	s032902sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 07:24 AM

Compound	%Recovery
Vinyl Chloride	92
Carbon Tetrachloride	107
Trichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: CCV

Lab ID#: 1003457-10C

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

File Name:	s033002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/30/10 04:09 AM

Compound	%Recovery
Freon 12	102
Freon 11	99
Freon 113	97
1,1-Dichloroethene	95
Acetone	82
Methylene Chloride	94
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	95
Benzene	95
Toluene	96
Tetrachloroethene	91
Chlorobenzene	94
Ethyl Benzene	96
m,p-Xylene	97
o-Xylene	98
1,3-Dichlorobenzene	95
1,4-Dichlorobenzene	99
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	86

Container Type: NA - Not Applicable

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

Client Sample ID: CCV

Lab ID#: 1003457-10D

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

File Name: s033002sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/30/10 04:09 AM

Compound	%Recovery
Vinyl Chloride	96
Carbon Tetrachloride	107
Trichloroethene	92

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1003457-11A

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

File Name:	s032903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 07:54 AM

Compound	%Recovery
Freon 12	97
Freon 11	97
Freon 113	87
1,1-Dichloroethene	84
Acetone	79
Methylene Chloride	86
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	94
Benzene	90
Toluene	88
Tetrachloroethene	93
Chlorobenzene	95
Ethyl Benzene	96
m,p-Xylene	99
o-Xylene	97
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	102
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	91

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1003457-11B

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

File Name: s032903sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/29/10 07:54 AM

Compound	%Recovery
Vinyl Chloride	91
Carbon Tetrachloride	108
Trichloroethene	95

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1003457-11C

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

File Name:	s033003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/30/10 04:41 AM

Compound	%Recovery
Freon 12	103
Freon 11	103
Freon 113	91
1,1-Dichloroethene	88
Acetone	86
Methylene Chloride	92
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	96
Benzene	94
Toluene	92
Tetrachloroethene	96
Chlorobenzene	99
Ethyl Benzene	102
m,p-Xylene	104
o-Xylene	104
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	110
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	99

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1003457-11D

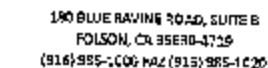
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	s033003sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/30/10 04:41 AM

Compound	%Recovery
Vinyl Chloride	97
Carbon Tetrachloride	111
Trichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	107	70-130



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Concord, NH 03301
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Sample Transportation Notice

[illegible]Page 1 of 1

CUSTODY SEAL INTACT?	
Y N NONE TEMP	MA

Analysis

1 = TO-15 Modified

1003457

Analyte List	CAS #
Tetrachloroethene (PCE)	127-18-4
Trichloroethene (TCE)	79-01-6
cis-1,2-Dichloroethene (cDCE)	156-59-2
1,1-Dichloroethene (DCE)	75-35-4
Vinyl chloride (VC)	75-01-4
1,1,1-Trichloroethane (TCA)	71-55-6
Carbon tetrachloride	56-23-5
Methylene chloride (MeCl)	75-09-2
Chlorobenzene	108-90-7
1,2,4-Trichlorobenzene	120-82-1
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Acetone	67-64-1
Benzene	71-43-2
Ethylbenzene	100-41-4
m-Xylene	108-38-3
p-Xylene	106-42-3
o-Xylene	95-47-6
Toluene	108-88-3
Trichlorofluoromethane (Freon 11)	75-69-4
Dichlorodifluoromethane (Freon 12)	75-71-8
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1

4/1/2010

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

Concord NH 03301

Project Name: IBM-East Fishkill
Project #: 2999.00 T110
Workorder #: 1003416A

Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 3/18/2010 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 #: 1003416A

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 T110 IBM-East Fishkill
DATE RECEIVED:	03/18/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	03/30/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	IA0700	Modified TO-15	5.0 "Hg	5 psi
01B	IA0700	Modified TO-15	5.0 "Hg	5 psi
02A	IA0701	Modified TO-15	5.0 "Hg	5 psi
02B	IA0701	Modified TO-15	5.0 "Hg	5 psi
03A	IA0702	Modified TO-15	6.5 "Hg	5 psi
03B	IA0702	Modified TO-15	6.5 "Hg	5 psi
04A	IA0703	Modified TO-15	4.0 "Hg	5 psi
04B	IA0703	Modified TO-15	4.0 "Hg	5 psi
05A	DUP9419	Modified TO-15	5.5 "Hg	5 psi
05B	DUP9419	Modified TO-15	5.5 "Hg	5 psi
06A	IA0704	Modified TO-15	5.5 "Hg	5 psi
06B	IA0704	Modified TO-15	5.5 "Hg	5 psi
07A	IA0705	Modified TO-15	5.0 "Hg	5 psi
07AA	IA0705 Lab Duplicate	Modified TO-15	5.0 "Hg	5 psi
07B	IA0705	Modified TO-15	5.0 "Hg	5 psi
07BB	IA0705 Lab Duplicate	Modified TO-15	5.0 "Hg	5 psi
08A	IA0706	Modified TO-15	6.0 "Hg	5 psi

Continued on next page

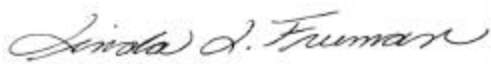
WORK ORDER #: 1003416A

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 T110 IBM-East Fishkill
DATE RECEIVED:	03/18/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	03/30/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
08B	IA0706	Modified TO-15	6.0 "Hg	5 psi
09A	IA0707	Modified TO-15	5.0 "Hg	5 psi
09B	IA0707	Modified TO-15	5.0 "Hg	5 psi
10A	IA0708	Modified TO-15	1.5 "Hg	5 psi
10B	IA0708	Modified TO-15	1.5 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 03/30/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
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: 07/01/09, Expiration date: 06/30/10

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# 1003416A**

Ten 6 Liter Summa Canister (SIM Certified) samples were received on March 18, 2010. 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 was a significant difference (greater than 5.0" Hg) between the measured canister receipt vacuum and that which was reported on the Chain of Custody (COC) for sample IA0708. A leak test indicated that the valve was functioning properly.

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: IA0700

Lab ID#: 1003416A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.80	2.0
Freon 11	0.16	0.43	0.90	2.4
Acetone	0.80	4.0	1.9	9.5
Toluene	0.16	0.36	0.61	1.4

Client Sample ID: IA0700

Lab ID#: 1003416A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.063	0.20	0.40

Client Sample ID: IA0701

Lab ID#: 1003416A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.80	2.2
Freon 11	0.16	0.54	0.90	3.0
Acetone	0.80	38	1.9	92
Toluene	0.16	1.9	0.61	7.2

Client Sample ID: IA0701

Lab ID#: 1003416A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.064	0.20	0.40

Client Sample ID: IA0702

Lab ID#: 1003416A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.55	0.84	2.7
Freon 11	0.17	0.60	0.96	3.4
Acetone	0.86	12	2.0	27
Toluene	0.17	1.4	0.64	5.2

Summary of Detected Compounds

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

Client Sample ID: IA0702

Lab ID#: 1003416A-03B

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

Client Sample ID: IA0703

Lab ID#: 1003416A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.61	0.77	3.0
Freon 11	0.16	1.2	0.87	6.9
Freon 113	0.16	0.46	1.2	3.5
Acetone	0.78	7.0	1.8	17
Toluene	0.16	0.34	0.58	1.3

Client Sample ID: IA0703

Lab ID#: 1003416A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.057	0.040	0.15
Carbon Tetrachloride	0.031	0.070	0.20	0.44

Client Sample ID: DUP9419

Lab ID#: 1003416A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.63	0.81	3.1
Freon 11	0.16	1.3	0.92	7.4
Freon 113	0.16	0.43	1.2	3.3
Acetone	0.82	8.0	1.9	19
Toluene	0.16	0.41	0.62	1.6

Client Sample ID: DUP9419

Lab ID#: 1003416A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.060	0.042	0.15

Summary of Detected Compounds

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

Client Sample ID: DUP9419

Lab ID#: 1003416A-05B

Carbon Tetrachloride	0.033	0.069	0.21	0.44
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Client Sample ID: IA0704

Lab ID#: 1003416A-06A

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	0.42	0.92	2.3
Acetone	0.82	2.7	1.9	6.3
Toluene	0.16	0.43	0.62	1.6
Tetrachloroethene	0.16	0.20	1.1	1.4

Client Sample ID: IA0704

Lab ID#: 1003416A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.043	0.21	0.27
Trichloroethene	0.033	0.20	0.18	1.0

Client Sample ID: IA0705

Lab ID#: 1003416A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.80	2.2
Freon 11	0.16	0.32	0.90	1.8
Acetone	0.80	1.5	1.9	3.7
Toluene	0.16	0.35	0.61	1.3

Client Sample ID: IA0705 Lab Duplicate

Lab ID#: 1003416A-07AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.35	0.90	2.0
Acetone	0.80	1.6	1.9	3.7
Toluene	0.16	0.35	0.61	1.3

Summary of Detected Compounds

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

Client Sample ID: IA0705

Lab ID#: 1003416A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.066	0.20	0.42

Client Sample ID: IA0705 Lab Duplicate

Lab ID#: 1003416A-07BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.066	0.20	0.41

Client Sample ID: IA0706

Lab ID#: 1003416A-08A

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	3.4	0.94	19
Freon 113	0.17	1.4	1.3	11
Acetone	0.84	14	2.0	34
Toluene	0.17	0.46	0.63	1.8

Client Sample ID: IA0706

Lab ID#: 1003416A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.032	0.043	0.083
Carbon Tetrachloride	0.034	0.064	0.21	0.40
Trichloroethene	0.034	0.093	0.18	0.50

Client Sample ID: IA0707

Lab ID#: 1003416A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.62	0.80	3.0
Freon 11	0.16	0.88	0.90	5.0
Freon 113	0.16	1.5	1.2	11
Acetone	0.80	23	1.9	55

Summary of Detected Compounds

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

Client Sample ID: IA0707

Lab ID#: 1003416A-09A

Toluene	0.16	1.9	0.61	7.3
Ethyl Benzene	0.16	0.86	0.70	3.8
m,p-Xylene	0.16	2.6	0.70	11
o-Xylene	0.16	0.50	0.70	2.2

Client Sample ID: IA0707

Lab ID#: 1003416A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.11	0.041	0.28
Carbon Tetrachloride	0.032	0.067	0.20	0.42
Trichloroethene	0.032	0.11	0.17	0.62

Client Sample ID: IA0708

Lab ID#: 1003416A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.44	0.70	2.2
Freon 11	0.14	0.30	0.79	1.7
Acetone	0.70	5.1	1.7	12
Methylene Chloride	0.28	1.4	0.98	4.8
Benzene	0.14	0.16	0.45	0.53
Toluene	0.14	0.67	0.53	2.5
m,p-Xylene	0.14	0.15	0.61	0.65

Client Sample ID: IA0708

Lab ID#: 1003416A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.028	0.065	0.18	0.41

Client Sample ID: IA0700

Lab ID#: 1003416A-01A

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

File Name:	s032407	Date of Collection: 3/16/10 5:40:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 11:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.80	2.0
Freon 11	0.16	0.43	0.90	2.4
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	4.0	1.9	9.5
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	0.36	0.61	1.4
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0700

Lab ID#: 1003416A-01B

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

File Name:	s032407sim	Date of Collection: 3/16/10 5:40:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 11:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.063	0.20	0.40
Trichloroethene	0.032	Not Detected	0.17	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	96	70-130

Client Sample ID: IA0701

Lab ID#: 1003416A-02A

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

File Name:	s032408	Date of Collection: 3/16/10 5:22:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 12:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.80	2.2
Freon 11	0.16	0.54	0.90	3.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	38	1.9	92
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	1.9	0.61	7.2
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	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	95	70-130

Client Sample ID: IA0701

Lab ID#: 1003416A-02B

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

File Name:	s032408sim	Date of Collection: 3/16/10 5:22:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 12:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.064	0.20	0.40
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0702

Lab ID#: 1003416A-03A

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

File Name:	s032409	Date of Collection: 3/16/10 5:45:00 PM
Dil. Factor:	1.71	Date of Analysis: 3/24/10 12:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.55	0.84	2.7
Freon 11	0.17	0.60	0.96	3.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	12	2.0	27
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	1.4	0.64	5.2
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	107	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0702

Lab ID#: 1003416A-03B

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

File Name:	s032409sim	Date of Collection: 3/16/10 5:45:00 PM
Dil. Factor:	1.71	Date of Analysis: 3/24/10 12:57 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	0.072	0.22	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	113	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0703

Lab ID#: 1003416A-04A

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

File Name:	s032410	Date of Collection: 3/16/10 4:55:00 PM
Dil. Factor:	1.55	Date of Analysis: 3/24/10 01:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.61	0.77	3.0
Freon 11	0.16	1.2	0.87	6.9
Freon 113	0.16	0.46	1.2	3.5
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	7.0	1.8	17
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	0.34	0.58	1.3
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	107	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0703

Lab ID#: 1003416A-04B

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

File Name:	s032410sim	Date of Collection: 3/16/10 4:55:00 PM
Dil. Factor:	1.55	Date of Analysis: 3/24/10 01:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.057	0.040	0.15
Carbon Tetrachloride	0.031	0.070	0.20	0.44
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	113	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: DUP9419

Lab ID#: 1003416A-05A

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

File Name:	s032411	Date of Collection: 3/16/10 5:39:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/24/10 02:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.63	0.81	3.1
Freon 11	0.16	1.3	0.92	7.4
Freon 113	0.16	0.43	1.2	3.3
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	8.0	1.9	19
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	0.41	0.62	1.6
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	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	106	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: DUP9419

Lab ID#: 1003416A-05B

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

File Name:	s032411sim	Date of Collection: 3/16/10 5:39:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/24/10 02:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.060	0.042	0.15
Carbon Tetrachloride	0.033	0.069	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	112	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: IA0704

Lab ID#: 1003416A-06A

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

File Name:	s032414	Date of Collection: 3/16/10 5:02:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/24/10 04:27 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	0.42	0.92	2.3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	2.7	1.9	6.3
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	0.43	0.62	1.6
Tetrachloroethene	0.16	0.20	1.1	1.4
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	91	70-130

Client Sample ID: IA0704

Lab ID#: 1003416A-06B

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

File Name:	s032414sim	Date of Collection: 3/16/10 5:02:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/24/10 04:27 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	0.043	0.21	0.27
Trichloroethene	0.033	0.20	0.18	1.0

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: IA0705

Lab ID#: 1003416A-07A

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

File Name:	s032415	Date of Collection: 3/16/10 5:00:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 05:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.80	2.2
Freon 11	0.16	0.32	0.90	1.8
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	1.5	1.9	3.7
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	0.35	0.61	1.3
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0705 Lab Duplicate

Lab ID#: 1003416A-07AA

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

File Name:	s032416	Date of Collection:	3/16/10 5:00:00 PM	
Dil. Factor:	1.61	Date of Analysis:	3/24/10 05:59 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.35	0.90	2.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	1.6	1.9	3.7
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	0.35	0.61	1.3
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: IA0705

Lab ID#: 1003416A-07B

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

File Name:	s032415sim	Date of Collection: 3/16/10 5:00:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 05:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.066	0.20	0.42
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0705 Lab Duplicate

Lab ID#: 1003416A-07BB

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

File Name:	s032416sim	Date of Collection: 3/16/10 5:00:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 05:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.066	0.20	0.41
Trichloroethene	0.032	Not Detected	0.17	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	95	70-130

Client Sample ID: IA0706

Lab ID#: 1003416A-08A

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

File Name:	s032417	Date of Collection: 3/16/10 4:57:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/24/10 06:43 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	3.4	0.94	19
Freon 113	0.17	1.4	1.3	11
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	14	2.0	34
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	0.46	0.63	1.8
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	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	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0706

Lab ID#: 1003416A-08B

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

File Name:	s032417sim	Date of Collection: 3/16/10 4:57:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/24/10 06:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.032	0.043	0.083
Carbon Tetrachloride	0.034	0.064	0.21	0.40
Trichloroethene	0.034	0.093	0.18	0.50

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	99	70-130

Client Sample ID: IA0707

Lab ID#: 1003416A-09A

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

File Name:	s032418	Date of Collection: 3/16/10 4:25:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 07:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.62	0.80	3.0
Freon 11	0.16	0.88	0.90	5.0
Freon 113	0.16	1.5	1.2	11
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	23	1.9	55
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	1.9	0.61	7.3
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.86	0.70	3.8
m,p-Xylene	0.16	2.6	0.70	11
o-Xylene	0.16	0.50	0.70	2.2
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0707

Lab ID#: 1003416A-09B

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

File Name:	s032418sim	Date of Collection: 3/16/10 4:25:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/24/10 07:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.11	0.041	0.28
Carbon Tetrachloride	0.032	0.067	0.20	0.42
Trichloroethene	0.032	0.11	0.17	0.62

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0708

Lab ID#: 1003416A-10A

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

File Name:	s032419	Date of Collection: 3/16/10 5:44:00 PM
Dil. Factor:	1.41	Date of Analysis: 3/24/10 08:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.44	0.70	2.2
Freon 11	0.14	0.30	0.79	1.7
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	5.1	1.7	12
Methylene Chloride	0.28	1.4	0.98	4.8
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Benzene	0.14	0.16	0.45	0.53
Toluene	0.14	0.67	0.53	2.5
Tetrachloroethene	0.14	Not Detected	0.96	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	Not Detected	0.61	Not Detected
m,p-Xylene	0.14	0.15	0.61	0.65
o-Xylene	0.14	Not Detected	0.61	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0708

Lab ID#: 1003416A-10B

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

File Name:	s032419sim	Date of Collection: 3/16/10 5:44:00 PM
Dil. Factor:	1.41	Date of Analysis: 3/24/10 08:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.014	Not Detected	0.036	Not Detected
Carbon Tetrachloride	0.028	0.065	0.18	0.41
Trichloroethene	0.028	Not Detected	0.15	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: Lab Blank

Lab ID#: 1003416A-11A

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

File Name:	s032406	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/24/10 10:47 AM

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	95	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003416A-11B

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

File Name:	s032406sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/24/10 10:47 AM

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	104	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 1003416A-12A

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

File Name:	s032404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/24/10 09:31 AM

Compound	%Recovery
Freon 12	91
Freon 11	89
Freon 113	90
1,1-Dichloroethene	88
Acetone	92
Methylene Chloride	90
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	94
Benzene	96
Toluene	91
Tetrachloroethene	100
Chlorobenzene	97
Ethyl Benzene	98
m,p-Xylene	97
o-Xylene	97
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	100
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	88

Container Type: NA - Not Applicable

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

Client Sample ID: CCV

Lab ID#: 1003416A-12B

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

File Name: s032404sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/24/10 09:31 AM

Compound	%Recovery
Vinyl Chloride	86
Carbon Tetrachloride	106
Trichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 1003416A-13A

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

File Name:	s032403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/24/10 09:00 AM

Compound	%Recovery
Freon 12	95
Freon 11	93
Freon 113	84
1,1-Dichloroethene	81
Acetone	91
Methylene Chloride	86
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	93
Benzene	94
Toluene	88
Tetrachloroethene	98
Chlorobenzene	98
Ethyl Benzene	100
m,p-Xylene	100
o-Xylene	100
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	108
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 1003416A-13B

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

File Name: s032403sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/24/10 09:00 AM

Compound	%Recovery
Vinyl Chloride	90
Carbon Tetrachloride	109
Trichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130



1003416



20 Foundry Street

Concord, NH 03301

(603) 229-1500 FAX (603) 229-1515

280 BLUE BAYVIEW ROAD, SUITE B
FOLSOM, CA 95630-4215
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Sample Transportation Notice
Intending signatory on this document declares 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. Return of log sheets 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. DOT Form 360 (Rev. 4-82)

Project Info: Project Manager: Brad Green Email: bgreen@santobarthead.com bgreen@sanbarthead.com, mool@sanbarthead.com P.O.# Project # 2999-00111C Project Name: 2M - East Hill Analyte: 1 - TOC/SH/L 2 -		Turn Around Time Normal x Rush	Relinquished By: (signature) Date/Time <i>Brad Green</i> 03/12/10 Relinquished By: (signature) Date/Time Relinquished By: (signature) Date/Time	Received By: (signature) Date/Time <i>Monica Green</i> 3/18/10 855 Received By: (signature) Date/Time Received By: (signature) Date/Time
Refer to attached analyte list specify				

Lab ID	Field Sample I.D.	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receiv	Final (ppb)
01AB	IA0700	5625	03/16/2010	1740	29	7	1		
02AB	IA0701	34427	03/16/2010	1722	>30	6.5	1		
03AB	IA0702	9938	03/16/2010	1745	>30	7.5	1		
04AB	IA0703	13659	03/16/2010	1655	>30	5	1		
05AB	DJP9419	9419	03/16/2010	1739	>30	7.5	1		
06AB	IA0704	12674	03/16/2010	1702	>30	7.5	1		
07AB	IA0705	34739	03/16/2010	1700	>30	7.5	1		
08AB	IA0706	14012	03/16/2010	1657	>30	6	1		
09AB	IA0707	5762	03/16/2010	1625	>30	6	1		
10AB	IA0708	5651	03/16/2010	1744	>30	7.5	1		
	IA0709	4200	03/16/2010	1710	>30	7	1		
	IA0710	34335	03/16/2010	1604	>30	5	1		
	AA0711	21016	03/16/2010	1526	30	5	1		
	AA0712	5665	03/16/2010	1602	>30	6	1		
	FB01	5768	03/16/2010	1352	>30	5.5	1		

CUSTOMER SEAL INTACT?
 YES (NONE) TEMP. N/A
Red 34

Analysis

1003416

1 = TO-15 H/L

Analyte List	CAS #
Tetrachloroethene (PCE)	127-18-4
Trichloroethene (TCE)	79-01-6
cis-1,2-Dichloroethene (cDCE)	156-59-2
1,1-Dichloroethene (DCE)	75-35-4
Vinyl chloride (VC)	75-01-4
1,1,1-Trichloroethane (TCA)	71-55-6
Carbon tetrachloride	56-23-5
Methylene chloride (MeCl)	75-09-2
Chlorobenzene	108-90-7
1,2,4-Trichlorobenzene	120-82-1
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Acetone	67-64-1
Benzene	71-43-2
Ethylbenzene	100-41-4
m-Xylene	108-38-3
p-Xylene	106-42-3
o-Xylene	95-47-6
Toluene	108-88-3
Trichlorofluoromethane (Freon 11)	75-69-4
Dichlorodifluoromethane (Freon 12)	75-71-8
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1

4/1/2010

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

Concord NH 03301

Project Name: IBM-East Fishkill
Project #: 2999.00 T110
Workorder #: 1003416B

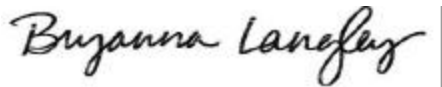
Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 3/18/2010 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 #: 1003416B

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 T110 IBM-East Fishkill
DATE RECEIVED:	03/18/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	03/30/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
11A	IA0709	Modified TO-15	6.0 "Hg	5 psi
11B	IA0709	Modified TO-15	6.0 "Hg	5 psi
12A	IA0710	Modified TO-15	6.0 "Hg	5 psi
12B	IA0710	Modified TO-15	6.0 "Hg	5 psi
13A	AA0711	Modified TO-15	4.5 "Hg	5 psi
13B	AA0711	Modified TO-15	4.5 "Hg	5 psi
14A	AA0712	Modified TO-15	4.5 "Hg	5 psi
14AA	AA0712 Lab Duplicate	Modified TO-15	4.5 "Hg	5 psi
14B	AA0712	Modified TO-15	4.5 "Hg	5 psi
14BB	AA0712 Lab Duplicate	Modified TO-15	4.5 "Hg	5 psi
15A	FB01	Modified TO-15	4.0 "Hg	5 psi
15B	FB01	Modified TO-15	4.0 "Hg	5 psi
16A	Lab Blank	Modified TO-15	NA	NA
16B	Lab Blank	Modified TO-15	NA	NA
17A	CCV	Modified TO-15	NA	NA
17B	CCV	Modified TO-15	NA	NA
18A	LCS	Modified TO-15	NA	NA

Continued on next page

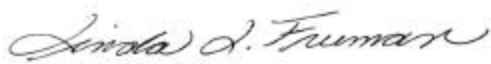
WORK ORDER #: 1003416B

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 T110 IBM-East Fishkill
DATE RECEIVED:	03/18/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	03/30/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
18B	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 03/30/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
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: 07/01/09, Expiration date: 06/30/10

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

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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 1003416B**

Five 6 Liter Summa Canister (SIM Certified) samples were received on March 18, 2010. 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: IA0709

Lab ID#: 1003416B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.59	0.83	2.9
Freon 11	0.17	1.2	0.94	6.7
Acetone	0.84	5.0	2.0	12
Toluene	0.17	0.92	0.63	3.5
m,p-Xylene	0.17	0.31	0.73	1.4

Client Sample ID: IA0709

Lab ID#: 1003416B-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.12	0.043	0.31
Carbon Tetrachloride	0.034	0.069	0.21	0.44

Client Sample ID: IA0710

Lab ID#: 1003416B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.83	2.3
Freon 11	0.17	0.36	0.94	2.0
Acetone	0.84	4.0	2.0	9.5
Toluene	0.17	2.6	0.63	10

Client Sample ID: IA0710

Lab ID#: 1003416B-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.61	0.043	1.6
Carbon Tetrachloride	0.034	0.071	0.21	0.44

Client Sample ID: AA0711

Lab ID#: 1003416B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.78	2.5

Summary of Detected Compounds

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

Client Sample ID: AA0711

Lab ID#: 1003416B-13A

Freon 11	0.16	0.23	0.89	1.3
Acetone	0.79	37	1.9	88

Client Sample ID: AA0711

Lab ID#: 1003416B-13B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.060	0.20	0.38

Client Sample ID: AA0712

Lab ID#: 1003416B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.40	0.40	2.0	2.0
Acetone	2.0	96	4.7	230

Client Sample ID: AA0712 Lab Duplicate

Lab ID#: 1003416B-14AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	4.0	110	9.4	260

Client Sample ID: AA0712

Lab ID#: 1003416B-14B

No Detections Were Found.

Client Sample ID: AA0712 Lab Duplicate

Lab ID#: 1003416B-14BB

No Detections Were Found.

Client Sample ID: FB01

Lab ID#: 1003416B-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.78	0.87	1.8	2.1

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: FB01

Lab ID#: 1003416B-15A

Client Sample ID: FB01

Lab ID#: 1003416B-15B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.019	0.040	0.048

Client Sample ID: IA0709

Lab ID#: 1003416B-11A

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

File Name:	s032506	Date of Collection: 3/16/10 5:10:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/25/10 10:01 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.59	0.83	2.9
Freon 11	0.17	1.2	0.94	6.7
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	5.0	2.0	12
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	0.92	0.63	3.5
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	0.31	0.73	1.4
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	111	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0709

Lab ID#: 1003416B-11B

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

File Name:	s032506sim	Date of Collection: 3/16/10 5:10:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/25/10 10:01 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.12	0.043	0.31
Carbon Tetrachloride	0.034	0.069	0.21	0.44
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	113	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0710

Lab ID#: 1003416B-12A

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

File Name:	s032507	Date of Collection: 3/16/10 4:04:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/25/10 10:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.83	2.3
Freon 11	0.17	0.36	0.94	2.0
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	4.0	2.0	9.5
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	2.6	0.63	10
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	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0710

Lab ID#: 1003416B-12B

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

File Name:	s032507sim	Date of Collection: 3/16/10 4:04:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/25/10 10:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.61	0.043	1.6
Carbon Tetrachloride	0.034	0.071	0.21	0.44
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	101	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: AA0711

Lab ID#: 1003416B-13A

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

File Name:	s032508	Date of Collection: 3/16/10 3:26:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/25/10 11:31 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.78	2.5
Freon 11	0.16	0.23	0.89	1.3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	37	1.9	88
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Benzene	0.16	Not Detected	0.50	Not Detected
Toluene	0.16	Not Detected	0.60	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

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

Client Sample ID: AA0711

Lab ID#: 1003416B-13B

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

File Name:	s032508sim	Date of Collection: 3/16/10 3:26:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/25/10 11:31 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	0.032	0.060	0.20	0.38
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: AA0712

Lab ID#: 1003416B-14A

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

File Name:	s032511	Date of Collection: 3/16/10 4:02:00 PM
Dil. Factor:	3.95	Date of Analysis: 3/25/10 01:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.40	0.40	2.0	2.0
Freon 11	0.40	Not Detected	2.2	Not Detected
Freon 113	0.40	Not Detected	3.0	Not Detected
1,1-Dichloroethene	0.40	Not Detected	1.6	Not Detected
Acetone	2.0	96	4.7	230
Methylene Chloride	0.79	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.40	Not Detected	1.6	Not Detected
1,1,1-Trichloroethane	0.40	Not Detected	2.2	Not Detected
Benzene	0.40	Not Detected	1.3	Not Detected
Toluene	0.40	Not Detected	1.5	Not Detected
Tetrachloroethene	0.40	Not Detected	2.7	Not Detected
Chlorobenzene	0.40	Not Detected	1.8	Not Detected
Ethyl Benzene	0.40	Not Detected	1.7	Not Detected
m,p-Xylene	0.40	Not Detected	1.7	Not Detected
o-Xylene	0.40	Not Detected	1.7	Not Detected
1,3-Dichlorobenzene	0.40	Not Detected	2.4	Not Detected
1,4-Dichlorobenzene	0.40	Not Detected	2.4	Not Detected
1,2-Dichlorobenzene	0.40	Not Detected	2.4	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: AA0712 Lab Duplicate

Lab ID#: 1003416B-14AA

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

File Name:	s032509	Date of Collection: 3/16/10 4:02:00 PM
Dil. Factor:	7.90	Date of Analysis: 3/25/10 12:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.79	Not Detected	3.9	Not Detected
Freon 11	0.79	Not Detected	4.4	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Acetone	4.0	110	9.4	260
Methylene Chloride	1.6	Not Detected	5.5	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Benzene	0.79	Not Detected	2.5	Not Detected
Toluene	0.79	Not Detected	3.0	Not Detected
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
Chlorobenzene	0.79	Not Detected	3.6	Not Detected
Ethyl Benzene	0.79	Not Detected	3.4	Not Detected
m,p-Xylene	0.79	Not Detected	3.4	Not Detected
o-Xylene	0.79	Not Detected	3.4	Not Detected
1,3-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
1,4-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
1,2-Dichlorobenzene	0.79	Not Detected	4.7	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	29	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

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

Client Sample ID: AA0712

Lab ID#: 1003416B-14B

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

File Name:	s032511sim	Date of Collection: 3/16/10 4:02:00 PM
Dil. Factor:	3.95	Date of Analysis: 3/25/10 01:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.040	Not Detected	0.10	Not Detected
Carbon Tetrachloride	0.079	Not Detected	0.50	Not Detected
Trichloroethene	0.079	Not Detected	0.42	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	101	70-130

Client Sample ID: AA0712 Lab Duplicate

Lab ID#: 1003416B-14BB

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

File Name:	s032509sim	Date of Collection: 3/16/10 4:02:00 PM
Dil. Factor:	7.90	Date of Analysis: 3/25/10 12:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.079	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: FB01

Lab ID#: 1003416B-15A

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

File Name:	s032510	Date of Collection: 3/16/10 1:52:00 PM
Dil. Factor:	1.55	Date of Analysis: 3/25/10 12:41 PM

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	0.87	1.8	2.1
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	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: FB01

Lab ID#: 1003416B-15B

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

File Name:	s032510sim	Date of Collection: 3/16/10 1:52:00 PM
Dil. Factor:	1.55	Date of Analysis: 3/25/10 12:41 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	0.019	0.040	0.048
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	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003416B-16A

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

File Name:	s032505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/25/10 09:10 AM

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	97	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003416B-16B

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

File Name:	s032505sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/25/10 09:10 AM

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	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 1003416B-17A

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

File Name:	s032502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/25/10 06:52 AM

Compound	%Recovery
Freon 12	119
Freon 11	116
Freon 113	113
1,1-Dichloroethene	112
Acetone	116
Methylene Chloride	110
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	99
Benzene	93
Toluene	108
Tetrachloroethene	96
Chlorobenzene	97
Ethyl Benzene	99
m,p-Xylene	101
o-Xylene	102
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	103
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	81

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	113	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: CCV

Lab ID#: 1003416B-17B

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

File Name: s032502sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/25/10 06:52 AM

Compound	%Recovery
Vinyl Chloride	111
Carbon Tetrachloride	112
Trichloroethene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	113	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCS

Lab ID#: 1003416B-18A

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

File Name:	s032503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/25/10 07:23 AM

Compound	%Recovery
Freon 12	101
Freon 11	99
Freon 113	89
1,1-Dichloroethene	86
Acetone	82
Methylene Chloride	89
cis-1,2-Dichloroethene	95
1,1,1-Trichloroethane	92
Benzene	91
Toluene	89
Tetrachloroethene	97
Chlorobenzene	96
Ethyl Benzene	97
m,p-Xylene	96
o-Xylene	95
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	99
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	84

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1003416B-18B

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

File Name: s032503sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/25/10 07:23 AM

Compound	%Recovery
Vinyl Chloride	96
Carbon Tetrachloride	108
Trichloroethene	98

Container Type: NA - Not Applicable

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



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1003416



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Sample Transportation Notice

Additional 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. Refusing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claims, demands, or actions of any kind, related to the collection, handling, or shipping of samples. D.D.T. Hotline (800) 467-4222

Project Info: Project Manager: Brad Green Email: bgreen@sanbornhead.com jgreen@sanbornhead.com, bgreen@sanbornhead.com P.O. Project # 2599.00 TLLP Project Name: IDW-East Fullfill Analysis: 1 = TO-15 H/L 2 =		Turn Around Time Normal Rush		Relinquished by: (Signature) Date/Time <i>Brad Green</i> 03/12/10 Relinquished by: (Signature) Date/Time Relinquished by: (Signature) Date/Time		Received By: (Signature) Date/Time <i>Monica Green ATC</i> Received By: (Signature) Date/Time Received By: (Signature) Date/Time			
Refer to attached analysis by:		specify:							
Lab ID	Field Sample ID	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receipt	Final (psi)
	IA0700	5628	03/16/2010	1740	29	7	1		
	IA0701	34427	03/16/2010	1722	>30	6.5	1		
	IA0702	9938	03/16/2010	1745	>30	7.5	1		
	IA0703	13659	03/16/2010	1655	>30	5	1		
	DUP9419	9419	03/16/2010	1739	>30	7.5	1		
	IA0704	12674	03/16/2010	1702	>30	7.5	1		
	IA0705	34739	03/16/2010	1700	>30	7.5	1		
	IA0706	14012	03/16/2010	1657	>30	6	1		
	IA0707	5752	03/16/2010	1675	>30	6	1		
	IA0708	5651	03/16/2010	1744	>30	7.5	1		
11AB	IA0709	4200	03/16/2010	1710	>30	7	1		
12AB	IA0710	34335	03/16/2010	1504	>30	5	1		
13AB	AA0711	21016	03/16/2010	1526	30	5	1		
14AB	AA0712	5665	03/16/2010	1602	>30	6	1		
15AB	H801	5768	03/16/2010	1352	>30	5.5	1		

CUSTOM SEAL INTEGRITY
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Ted St

Analysis

1 = TO-15 H/L

1008416

Analyte List	CAS #
Tetrachloroethene (PCE)	127-18-4
Trichloroethene (TCE)	79-01-6
cis-1,2-Dichloroethene (cDCE)	156-59-2
1,1-Dichloroethene (DCE)	75-35-4
Vinyl chloride (VC)	75-01-4
1,1,1-Trichloroethane (TCA)	71-55-6
Carbon tetrachloride	56-23-5
Methylene chloride (McCl)	75-09-2
Chlorobenzene	108-90-7
1,2,4-Trichlorobenzene	120-82-1
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Acetone	67-64-1
Benzene	71-43-2
Ethylbenzene	100-41-4
m-Xylene	108-38-3
p-Xylene	106-42-3
o-Xylene	95-47-6
Toluene	108-88-3
Trichlorofluoromethane (Freon 11)	75-69-4
Dichlorodifluoromethane (Freon 12)	75-71-8
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1

4/2/2010

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

Concord NH 03301

Project Name: IBM East Fishkill
Project #: 2999 T110
Workorder #: 1003456A

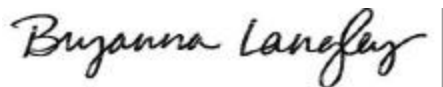
Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 3/20/2010 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 #: 1003456A

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 T110 IBM East Fishkill
DATE RECEIVED:	03/20/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	04/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	IA0900	Modified TO-15	5.5 "Hg	5 psi
01B	IA0900	Modified TO-15	5.5 "Hg	5 psi
02A	IA0901	Modified TO-15	11.5 "Hg	5 psi
02B	IA0901	Modified TO-15	11.5 "Hg	5 psi
03A	IA0902	Modified TO-15	6.5 "Hg	5 psi
03B	IA0902	Modified TO-15	6.5 "Hg	5 psi
04A	IA0903	Modified TO-15	3.5 "Hg	5 psi
04B	IA0903	Modified TO-15	3.5 "Hg	5 psi
05A	IA0904	Modified TO-15	5.0 "Hg	5 psi
05B	IA0904	Modified TO-15	5.0 "Hg	5 psi
06A	IA0905	Modified TO-15	6.0 "Hg	5 psi
06AA	IA0905 Lab Duplicate	Modified TO-15	6.0 "Hg	5 psi
06B	IA0905	Modified TO-15	6.0 "Hg	5 psi
06BB	IA0905 Lab Duplicate	Modified TO-15	6.0 "Hg	5 psi
07A	IA0906	Modified TO-15	4.5 "Hg	5 psi
07B	IA0906	Modified TO-15	4.5 "Hg	5 psi
08A	IA0907	Modified TO-15	5.0 "Hg	5 psi

Continued on next page

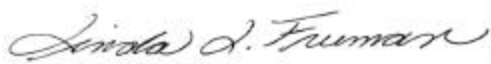
WORK ORDER #: 1003456A

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 T110 IBM East Fishkill
DATE RECEIVED:	03/20/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	04/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
08B	IA0907	Modified TO-15	5.0 "Hg	5 psi
09A	IA0908	Modified TO-15	5.0 "Hg	5 psi
09B	IA0908	Modified TO-15	5.0 "Hg	5 psi
10A	IA0909	Modified TO-15	5.5 "Hg	5 psi
10B	IA0909	Modified TO-15	5.5 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 04/01/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
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: 07/01/09, Expiration date: 06/30/10

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

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**LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 1003456A**

Ten 6 Liter Summa Canister (SIM Certified) samples were received on March 20, 2010. 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: IA0900

Lab ID#: 1003456A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.81	2.2
Freon 11	0.16	0.57	0.92	3.2
Acetone	0.82	1.8	1.9	4.3
Benzene	0.16	0.17	0.52	0.53
Toluene	0.16	0.24	0.62	0.91

Client Sample ID: IA0900

Lab ID#: 1003456A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.066	0.21	0.41

Client Sample ID: IA0901

Lab ID#: 1003456A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.22	0.50	1.1	2.5
Freon 11	0.22	0.67	1.2	3.8
Acetone	1.1	2.7	2.6	6.3

Client Sample ID: IA0901

Lab ID#: 1003456A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.043	0.063	0.27	0.40

Client Sample ID: IA0902

Lab ID#: 1003456A-03A

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	1.3	0.96	7.6
Acetone	0.86	2.2	2.0	5.2

Summary of Detected Compounds

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

Client Sample ID: IA0902

Lab ID#: 1003456A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.060	0.22	0.38

Client Sample ID: IA0903

Lab ID#: 1003456A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.44	0.75	2.2
Freon 11	0.15	0.86	0.85	4.8
Acetone	0.76	2.4	1.8	5.6
Benzene	0.15	0.15	0.48	0.49
Toluene	0.15	0.21	0.57	0.80

Client Sample ID: IA0903

Lab ID#: 1003456A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.030	0.068	0.19	0.43

Client Sample ID: IA0904

Lab ID#: 1003456A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.80	2.3
Freon 11	0.16	0.41	0.90	2.3
Acetone	0.80	1.4	1.9	3.3
Toluene	0.16	0.20	0.61	0.74

Client Sample ID: IA0904

Lab ID#: 1003456A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.068	0.20	0.42
Trichloroethene	0.032	0.078	0.17	0.42

Summary of Detected Compounds

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

Client Sample ID: IA0905

Lab ID#: 1003456A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.83	2.3
Freon 11	0.17	0.43	0.94	2.4
Acetone	0.84	3.1	2.0	7.3
Benzene	0.17	0.17	0.54	0.56
Toluene	0.17	0.29	0.63	1.1

Client Sample ID: IA0905 Lab Duplicate

Lab ID#: 1003456A-06AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.46	0.83	2.2
Freon 11	0.17	0.42	0.94	2.4
Acetone	0.84	2.9	2.0	7.0
Benzene	0.17	0.17	0.54	0.54
Toluene	0.17	0.27	0.63	1.0

Client Sample ID: IA0905

Lab ID#: 1003456A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.034	0.069	0.21	0.43

Client Sample ID: IA0905 Lab Duplicate

Lab ID#: 1003456A-06BB

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: IA0906

Lab ID#: 1003456A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.78	2.3
Freon 11	0.16	0.58	0.89	3.2

Summary of Detected Compounds

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

Client Sample ID: IA0906

Lab ID#: 1003456A-07A

Acetone	0.79	1.3	1.9	3.1
Toluene	0.16	0.18	0.60	0.66

Client Sample ID: IA0906

Lab ID#: 1003456A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.069	0.20	0.44

Client Sample ID: IA0907

Lab ID#: 1003456A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.80	2.4
Freon 11	0.16	0.55	0.90	3.1
Acetone	0.80	1.7	1.9	4.1
1,1,1-Trichloroethane	0.16	0.65	0.88	3.6
Benzene	0.16	0.18	0.51	0.56
Toluene	0.16	0.69	0.61	2.6

Client Sample ID: IA0907

Lab ID#: 1003456A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.070	0.20	0.44

Client Sample ID: IA0908

Lab ID#: 1003456A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.44	0.90	2.4
Acetone	0.80	2.2	1.9	5.3
Benzene	0.16	0.18	0.51	0.57
Toluene	0.16	0.25	0.61	0.95

Summary of Detected Compounds

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

Client Sample ID: IA0908

Lab ID#: 1003456A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.068	0.20	0.42

Client Sample ID: IA0909

Lab ID#: 1003456A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.58	0.81	2.8
Freon 11	0.16	0.64	0.92	3.6
Acetone	0.82	4.1	1.9	9.8
Benzene	0.16	0.19	0.52	0.61
Toluene	0.16	0.36	0.62	1.4
m,p-Xylene	0.16	0.33	0.71	1.4

Client Sample ID: IA0909

Lab ID#: 1003456A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.072	0.21	0.46

Client Sample ID: IA0900

Lab ID#: 1003456A-01A

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

File Name:	s032707	Date of Collection: 3/17/10 4:54:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/27/10 08:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.81	2.2
Freon 11	0.16	0.57	0.92	3.2
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	1.8	1.9	4.3
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	0.53
Toluene	0.16	0.24	0.62	0.91
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	100	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0900

Lab ID#: 1003456A-01B

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

File Name:	s032707sim	Date of Collection: 3/17/10 4:54:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/27/10 08:09 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	0.066	0.21	0.41
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	97	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: IA0901

Lab ID#: 1003456A-02A

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

File Name:	s032708	Date of Collection: 3/17/10 6:22:00 PM
Dil. Factor:	2.17	Date of Analysis: 3/27/10 08:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.22	0.50	1.1	2.5
Freon 11	0.22	0.67	1.2	3.8
Freon 113	0.22	Not Detected	1.7	Not Detected
1,1-Dichloroethene	0.22	Not Detected	0.86	Not Detected
Acetone	1.1	2.7	2.6	6.3
Methylene Chloride	0.43	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.22	Not Detected	0.86	Not Detected
1,1,1-Trichloroethane	0.22	Not Detected	1.2	Not Detected
Benzene	0.22	Not Detected	0.69	Not Detected
Toluene	0.22	Not Detected	0.82	Not Detected
Tetrachloroethene	0.22	Not Detected	1.5	Not Detected
Chlorobenzene	0.22	Not Detected	1.0	Not Detected
Ethyl Benzene	0.22	Not Detected	0.94	Not Detected
m,p-Xylene	0.22	Not Detected	0.94	Not Detected
o-Xylene	0.22	Not Detected	0.94	Not Detected
1,3-Dichlorobenzene	0.22	Not Detected	1.3	Not Detected
1,4-Dichlorobenzene	0.22	Not Detected	1.3	Not Detected
1,2-Dichlorobenzene	0.22	Not Detected	1.3	Not Detected
1,2,4-Trichlorobenzene	1.1	Not Detected	8.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0901

Lab ID#: 1003456A-02B

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

File Name:	s032708sim	Date of Collection: 3/17/10 6:22:00 PM
Dil. Factor:	2.17	Date of Analysis: 3/27/10 08:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.022	Not Detected	0.055	Not Detected
Carbon Tetrachloride	0.043	0.063	0.27	0.40
Trichloroethene	0.043	Not Detected	0.23	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0902

Lab ID#: 1003456A-03A

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

File Name:	s032709	Date of Collection: 3/17/10 5:17:00 PM
Dil. Factor:	1.71	Date of Analysis: 3/27/10 09:37 AM

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	1.3	0.96	7.6
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	2.2	2.0	5.2
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	Not Detected	0.64	Not Detected
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	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0902

Lab ID#: 1003456A-03B

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

File Name:	s032709sim	Date of Collection: 3/17/10 5:17:00 PM
Dil. Factor:	1.71	Date of Analysis: 3/27/10 09:37 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	0.060	0.22	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	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0903

Lab ID#: 1003456A-04A

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

File Name:	s032710	Date of Collection: 3/17/10 4:52:00 PM
Dil. Factor:	1.52	Date of Analysis: 3/27/10 10:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.44	0.75	2.2
Freon 11	0.15	0.86	0.85	4.8
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	2.4	1.8	5.6
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Benzene	0.15	0.15	0.48	0.49
Toluene	0.15	0.21	0.57	0.80
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	Not Detected	0.66	Not Detected
o-Xylene	0.15	Not Detected	0.66	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: IA0903

Lab ID#: 1003456A-04B

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

File Name:	s032710sim	Date of Collection: 3/17/10 4:52:00 PM
Dil. Factor:	1.52	Date of Analysis: 3/27/10 10:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
Carbon Tetrachloride	0.030	0.068	0.19	0.43
Trichloroethene	0.030	Not Detected	0.16	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	97	70-130

Client Sample ID: IA0904

Lab ID#: 1003456A-05A

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

File Name:	s032711	Date of Collection: 3/17/10 5:07:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/27/10 11:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.80	2.3
Freon 11	0.16	0.41	0.90	2.3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	1.4	1.9	3.3
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	0.20	0.61	0.74
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0904

Lab ID#: 1003456A-05B

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

File Name:	s032711sim	Date of Collection: 3/17/10 5:07:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/27/10 11:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.068	0.20	0.42
Trichloroethene	0.032	0.078	0.17	0.42

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: IA0905

Lab ID#: 1003456A-06A

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

File Name:	s032712	Date of Collection: 3/17/10 4:47:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/27/10 11:50 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.83	2.3
Freon 11	0.17	0.43	0.94	2.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	3.1	2.0	7.3
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	0.17	0.54	0.56
Toluene	0.17	0.29	0.63	1.1
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	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0905 Lab Duplicate

Lab ID#: 1003456A-06AA

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

File Name:	s032713	Date of Collection: 3/17/10 4:47:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/27/10 12:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.46	0.83	2.2
Freon 11	0.17	0.42	0.94	2.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	2.9	2.0	7.0
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	0.17	0.54	0.54
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	100	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: IA0905

Lab ID#: 1003456A-06B

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

File Name:	s032712sim	Date of Collection: 3/17/10 4:47:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/27/10 11:50 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	0.069	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	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: IA0905 Lab Duplicate

Lab ID#: 1003456A-06BB

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

File Name:	s032713sim	Date of Collection: 3/17/10 4:47:00 PM
Dil. Factor:	1.68	Date of Analysis: 3/27/10 12:40 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	96	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0906

Lab ID#: 1003456A-07A

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

File Name:	s032714	Date of Collection: 3/17/10 6:10:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/27/10 01:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.78	2.3
Freon 11	0.16	0.58	0.89	3.2
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	1.3	1.9	3.1
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Benzene	0.16	Not Detected	0.50	Not Detected
Toluene	0.16	0.18	0.60	0.66
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	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	92	70-130

Client Sample ID: IA0906

Lab ID#: 1003456A-07B

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

File Name:	s032714sim	Date of Collection: 3/17/10 6:10:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/27/10 01:24 PM

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	0.032	0.069	0.20	0.44
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: IA0907

Lab ID#: 1003456A-08A

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

File Name:	s032715	Date of Collection: 3/17/10 5:12:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/27/10 02:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.80	2.4
Freon 11	0.16	0.55	0.90	3.1
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	1.7	1.9	4.1
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	0.65	0.88	3.6
Benzene	0.16	0.18	0.51	0.56
Toluene	0.16	0.69	0.61	2.6
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	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	93	70-130

Client Sample ID: IA0907

Lab ID#: 1003456A-08B

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

File Name:	s032715sim	Date of Collection: 3/17/10 5:12:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/27/10 02:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.070	0.20	0.44
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: IA0908

Lab ID#: 1003456A-09A

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

File Name:	s032716	Date of Collection: 3/17/10 4:47:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/27/10 02:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.80	2.2
Freon 11	0.16	0.44	0.90	2.4
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.2	1.9	5.3
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	0.18	0.51	0.57
Toluene	0.16	0.25	0.61	0.95
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0908

Lab ID#: 1003456A-09B

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

File Name:	s032716sim	Date of Collection: 3/17/10 4:47:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/27/10 02:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.068	0.20	0.42
Trichloroethene	0.032	Not Detected	0.17	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	97	70-130

Client Sample ID: IA0909

Lab ID#: 1003456A-10A

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

File Name:	s032717	Date of Collection: 3/17/10 4:44:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/27/10 03:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.58	0.81	2.8
Freon 11	0.16	0.64	0.92	3.6
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	4.1	1.9	9.8
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	0.61
Toluene	0.16	0.36	0.62	1.4
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	0.33	0.71	1.4
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	106	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: IA0909

Lab ID#: 1003456A-10B

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

File Name:	s032717sim	Date of Collection: 3/17/10 4:44:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/27/10 03:24 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	0.072	0.21	0.46
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	114	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003456A-11A

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

File Name:	s032705	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/27/10 06:38 AM

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	95	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003456A-11B

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

File Name:	s032705sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/27/10 06:38 AM

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	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 1003456A-12A

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

File Name:	s032702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/27/10 04:04 AM

Compound	%Recovery
Freon 12	94
Freon 11	96
Freon 113	96
1,1-Dichloroethene	93
Acetone	96
Methylene Chloride	92
cis-1,2-Dichloroethene	95
1,1,1-Trichloroethane	91
Benzene	90
Toluene	93
Tetrachloroethene	98
Chlorobenzene	96
Ethyl Benzene	97
m,p-Xylene	100
o-Xylene	99
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	101
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: CCV

Lab ID#: 1003456A-12B

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

File Name:	s032702sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/27/10 04:04 AM

Compound	%Recovery
Vinyl Chloride	90
Carbon Tetrachloride	104
Trichloroethene	94

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1003456A-13A

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

File Name:	s032703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/27/10 04:52 AM

Compound	%Recovery
Freon 12	93
Freon 11	93
Freon 113	84
1,1-Dichloroethene	80
Acetone	78
Methylene Chloride	84
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	89
Benzene	89
Toluene	86
Tetrachloroethene	97
Chlorobenzene	94
Ethyl Benzene	96
m,p-Xylene	95
o-Xylene	93
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	98
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCS

Lab ID#: 1003456A-13B

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

File Name: s032703sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/27/10 04:52 AM

Compound	%Recovery
Vinyl Chloride	88
Carbon Tetrachloride	103
Trichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	105	70-130



180 BLUE HAWK ROAD, SUITE B
FOLSOM, CA 95630-4718
(916) 952-1000 FAX (916) 949-3030

Sample Transportation Notice

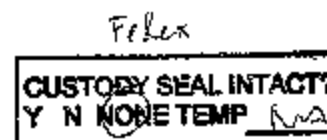
By affixing signature on this document I warrant that sample is being shipped in compliance with all applicable local, state, Federal, national, and international laws, regulations and ordinances of DOT, ICAO, Air Canada Limited services, liability with respect to the collection, handling, shipping of these samples. Relinquishing signature also indicates agreement to local, national, federal, and ICAO Air Canada Limited liability against any claim, demand, or action, of any kind, related to the collection, handling or shipping of samples. D.O.T. section 300.147 1602

1003456



20 FOUNTAIN STREET
CONCORD, NH 03301
(603) 724-2900 FAX (603) 230-1916

Project Info: Project Manager: Brad Green Email: bgreen@sanbernard.com bgreen@sanbernard.com, rcc@sanbernard.com P.O.# Project # 2997110 Project Name: IEM East Fishkill Analytes: 1 = TO-15 H/L Refer to attached analyte list specify 2 =		Turn Around Time Normal X Rush	Relinquished by: (signature) Date/Time <i>Rita Ann Latwell</i> 2/17/10 Relinquished by: (signature) Date/Time Relinquished by: (signature) Date/Time	Received By: (signature) Date/Time FedEx 7984 9223 7573 Received By: (signature) Date/Time <i>Wor</i> 3/2/10 920 Received By: (signature) Date/Time					
Lab ID	Field Sample I.D.	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receipt	Final (psi)
01A	IA0900	13852	03/17/2010	1654	>30	6	1		
02A	IA0901	33876	03/17/2010	1822	>30	14	1		
03A	IA0902	34280	03/17/2010	1717	>30	7	1		
04A	IA0903	34208	03/17/2010	1652	>30	5	1		
05A	IA0904	6	03/17/2010	1707	28	7.5	1		
06A	IA0905	34504	03/17/2010	1647	>30	7	1		
07A	IA0906	23989	03/17/2010	1810	>30	6.5	1		
08A	IA0907	12913	03/17/2010	1712	>30	6	1		
09A	IA0908	23921	03/17/2010	1647	28	6	1		
10A	IA0909	33982	03/17/2010	1644	>30	6.5	1		
11A	IA0910	22502	03/17/2010	1626	>30	6.5	1		
12A	IA0911	22678	03/17/2010	1629	>30	5.5	1		
13A	IA0912	34347	03/17/2010	1722	>30	7.5	1		
14A	AA0913	423	03/17/2010	1522	>30	5	1		
15A	AA0914	10988	03/17/2010	1812	>30	8.5	1		
16A	FB02	35984	03/17/2010	1348	>30	0	1		
17A	DUP924	924	03/17/2010	1712	>30	7.5	1		
PUJ 3/22/10									



4/2/2010

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

Concord NH 03301

Project Name: IBM East Fishkill
Project #: 2999 T110
Workorder #: 1003456B

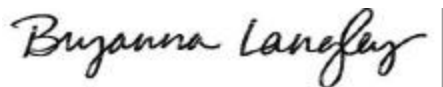
Dear Mr. Brad Green

The following report includes the data for the above referenced project for sample(s) received on 3/20/2010 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 #: 1003456B

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 T110 IBM East Fishkill
DATE RECEIVED:	03/20/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	04/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
11A	IA0910	Modified TO-15	5.0 "Hg	5 psi
11AA	IA0910 Lab Duplicate	Modified TO-15	5.0 "Hg	5 psi
11B	IA0910	Modified TO-15	5.0 "Hg	5 psi
11BB	IA0910 Lab Duplicate	Modified TO-15	5.0 "Hg	5 psi
12A	IA0911	Modified TO-15	4.0 "Hg	5 psi
12B	IA0911	Modified TO-15	4.0 "Hg	5 psi
13A	IA0912	Modified TO-15	5.5 "Hg	5 psi
13B	IA0912	Modified TO-15	5.5 "Hg	5 psi
14A	AA0913	Modified TO-15	2.5 "Hg	5 psi
14B	AA0913	Modified TO-15	2.5 "Hg	5 psi
15A	AA0914	Modified TO-15	4.5 "Hg	5 psi
15B	AA0914	Modified TO-15	4.5 "Hg	5 psi
16A	FB02	Modified TO-15	20.6 "Hg	5 psi
16B	FB02	Modified TO-15	20.6 "Hg	5 psi
17A	DUP924	Modified TO-15	5.0 "Hg	5 psi
17B	DUP924	Modified TO-15	5.0 "Hg	5 psi
18A	Lab Blank	Modified TO-15	NA	NA

Continued on next page

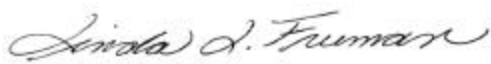
WORK ORDER #: 1003456B

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 T110 IBM East Fishkill
DATE RECEIVED:	03/20/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	04/01/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
18B	Lab Blank	Modified TO-15	NA	NA
19A	CCV	Modified TO-15	NA	NA
19B	CCV	Modified TO-15	NA	NA
20A	LCS	Modified TO-15	NA	NA
20B	LCS	Modified TO-15	NA	NA

CERTIFIED BY:



Laboratory Director

DATE: 04/01/10

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
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: 07/01/09, Expiration date: 06/30/10

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# 1003456B**

Seven 6 Liter Summa Canister (SIM Certified) samples were received on March 20, 2010. 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: IA0910

Lab ID#: 1003456B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.68	0.80	3.3
Freon 11	0.16	2.4	0.90	13
Acetone	0.80	3.0	1.9	7.2
Benzene	0.16	0.20	0.51	0.64
Toluene	0.16	0.47	0.61	1.8

Client Sample ID: IA0910 Lab Duplicate

Lab ID#: 1003456B-11AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.63	0.80	3.1
Freon 11	0.16	2.3	0.90	13
Acetone	0.80	2.8	1.9	6.8
Benzene	0.16	0.20	0.51	0.63
Toluene	0.16	0.48	0.61	1.8

Client Sample ID: IA0910

Lab ID#: 1003456B-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.072	0.20	0.45

Client Sample ID: IA0910 Lab Duplicate

Lab ID#: 1003456B-11BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.070	0.20	0.44

Client Sample ID: IA0911

Lab ID#: 1003456B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.64	0.77	3.2
Freon 11	0.16	2.2	0.87	12

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA0911

Lab ID#: 1003456B-12A

Acetone	0.78	3.2	1.8	7.7
Benzene	0.16	0.20	0.50	0.65
Toluene	0.16	0.50	0.58	1.9

Client Sample ID: IA0911

Lab ID#: 1003456B-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.031	0.070	0.20	0.44

Client Sample ID: IA0912

Lab ID#: 1003456B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.57	0.81	2.8
Freon 11	0.16	1.7	0.92	9.5
Acetone	0.82	7.2	1.9	17
Benzene	0.16	0.20	0.52	0.66
Toluene	0.16	0.50	0.62	1.9

Client Sample ID: IA0912

Lab ID#: 1003456B-13B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.052	0.21	0.33

Client Sample ID: AA0913

Lab ID#: 1003456B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.52	0.72	2.6
Freon 11	0.15	0.31	0.82	1.7
Acetone	0.73	1.5	1.7	3.6
Benzene	0.15	0.21	0.47	0.66
Toluene	0.15	0.26	0.55	0.99
m,p-Xylene	0.15	0.15	0.63	0.64

Summary of Detected Compounds

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

Client Sample ID: AA0913

Lab ID#: 1003456B-14B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.029	0.066	0.18	0.41
Trichloroethene	0.029	0.036	0.16	0.19

Client Sample ID: AA0914

Lab ID#: 1003456B-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.78	2.4
Freon 11	0.16	0.54	0.89	3.0
Acetone	0.79	1.5	1.9	3.5
Toluene	0.16	0.17	0.60	0.63

Client Sample ID: AA0914

Lab ID#: 1003456B-15B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.069	0.20	0.43

Client Sample ID: FB02

Lab ID#: 1003456B-16A

No Detections Were Found.

Client Sample ID: FB02

Lab ID#: 1003456B-16B

No Detections Were Found.

Client Sample ID: DUP924

Lab ID#: 1003456B-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.80	2.3
Freon 11	0.16	0.55	0.90	3.1
Acetone	0.80	1.8	1.9	4.4

Summary of Detected Compounds

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

Client Sample ID: DUP924

Lab ID#: 1003456B-17A

Benzene	0.16	0.17	0.51	0.56
Toluene	0.16	0.72	0.61	2.7

Client Sample ID: DUP924

Lab ID#: 1003456B-17B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.067	0.20	0.42

Client Sample ID: IA0910

Lab ID#: 1003456B-11A

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

File Name:	s032906	Date of Collection: 3/17/10 4:26:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 10:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.68	0.80	3.3
Freon 11	0.16	2.4	0.90	13
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	3.0	1.9	7.2
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	0.20	0.51	0.64
Toluene	0.16	0.47	0.61	1.8
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: IA0910 Lab Duplicate

Lab ID#: 1003456B-11AA

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

File Name:	s032913	Date of Collection: 3/17/10 4:26:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 02:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.63	0.80	3.1
Freon 11	0.16	2.3	0.90	13
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.8	1.9	6.8
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	0.20	0.51	0.63
Toluene	0.16	0.48	0.61	1.8
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: IA0910

Lab ID#: 1003456B-11B

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

File Name:	s032906sim	Date of Collection: 3/17/10 4:26:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 10:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.072	0.20	0.45
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	112	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0910 Lab Duplicate

Lab ID#: 1003456B-11BB

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

File Name:	s032913sim	Date of Collection: 3/17/10 4:26:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 02:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.070	0.20	0.44
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0911

Lab ID#: 1003456B-12A

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

File Name:	s032907	Date of Collection: 3/17/10 4:29:00 PM
Dil. Factor:	1.55	Date of Analysis: 3/29/10 10:50 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.64	0.77	3.2
Freon 11	0.16	2.2	0.87	12
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	3.2	1.8	7.7
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	0.20	0.50	0.65
Toluene	0.16	0.50	0.58	1.9
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	107	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: IA0911

Lab ID#: 1003456B-12B

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

File Name:	s032907sim	Date of Collection: 3/17/10 4:29:00 PM
Dil. Factor:	1.55	Date of Analysis: 3/29/10 10:50 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	0.070	0.20	0.44
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	116	70-130
Toluene-d8	113	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: IA0912

Lab ID#: 1003456B-13A

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

File Name:	s032908	Date of Collection: 3/17/10 5:22:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/29/10 11:27 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.57	0.81	2.8
Freon 11	0.16	1.7	0.92	9.5
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	7.2	1.9	17
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	0.20	0.52	0.66
Toluene	0.16	0.50	0.62	1.9
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	105	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: IA0912

Lab ID#: 1003456B-13B

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

File Name:	s032908sim	Date of Collection: 3/17/10 5:22:00 PM
Dil. Factor:	1.64	Date of Analysis: 3/29/10 11:27 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	0.052	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	109	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: AA0913

Lab ID#: 1003456B-14A

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

File Name:	s032909	Date of Collection: 3/17/10 3:22:00 PM
Dil. Factor:	1.46	Date of Analysis: 3/29/10 12:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.52	0.72	2.6
Freon 11	0.15	0.31	0.82	1.7
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	1.5	1.7	3.6
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Benzene	0.15	0.21	0.47	0.66
Toluene	0.15	0.26	0.55	0.99
Tetrachloroethene	0.15	Not Detected	0.99	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	Not Detected	0.63	Not Detected
m,p-Xylene	0.15	0.15	0.63	0.64
o-Xylene	0.15	Not Detected	0.63	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	89	70-130

Client Sample ID: AA0913

Lab ID#: 1003456B-14B

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

File Name:	s032909sim	Date of Collection: 3/17/10 3:22:00 PM
Dil. Factor:	1.46	Date of Analysis: 3/29/10 12:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.037	Not Detected
Carbon Tetrachloride	0.029	0.066	0.18	0.41
Trichloroethene	0.029	0.036	0.16	0.19

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: AA0914

Lab ID#: 1003456B-15A

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

File Name:	s032910	Date of Collection: 3/17/10 6:12:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/29/10 12:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.78	2.4
Freon 11	0.16	0.54	0.89	3.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	1.5	1.9	3.5
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Benzene	0.16	Not Detected	0.50	Not Detected
Toluene	0.16	0.17	0.60	0.63
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: AA0914

Lab ID#: 1003456B-15B

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

File Name:	s032910sim	Date of Collection: 3/17/10 6:12:00 PM
Dil. Factor:	1.58	Date of Analysis: 3/29/10 12:38 PM

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	0.032	0.069	0.20	0.43
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: FB02

Lab ID#: 1003456B-16A

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

File Name:	s032911	Date of Collection: 3/17/10 1:48:00 PM
Dil. Factor:	1.00	Date of Analysis: 3/29/10 01:14 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: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	85	70-130

Client Sample ID: FB02

Lab ID#: 1003456B-16B

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

File Name:	s032911sim	Date of Collection: 3/17/10 1:48:00 PM
Dil. Factor:	1.00	Date of Analysis: 3/29/10 01:14 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: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: DUP924

Lab ID#: 1003456B-17A

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

File Name:	s032912	Date of Collection: 3/17/10 5:12:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 01:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.80	2.3
Freon 11	0.16	0.55	0.90	3.1
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	1.8	1.9	4.4
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Benzene	0.16	0.17	0.51	0.56
Toluene	0.16	0.72	0.61	2.7
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: DUP924

Lab ID#: 1003456B-17B

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

File Name:	s032912sim	Date of Collection: 3/17/10 5:12:00 PM
Dil. Factor:	1.61	Date of Analysis: 3/29/10 01:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.067	0.20	0.42
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003456B-18A

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

File Name:	s032905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 09:05 AM

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	102	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: Lab Blank

Lab ID#: 1003456B-18B

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

File Name:	s032905sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 09:05 AM

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	109	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: CCV

Lab ID#: 1003456B-19A

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

File Name:	s032902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 07:24 AM

Compound	%Recovery
Freon 12	97
Freon 11	97
Freon 113	95
1,1-Dichloroethene	90
Acetone	94
Methylene Chloride	90
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	93
Benzene	92
Toluene	94
Tetrachloroethene	96
Chlorobenzene	95
Ethyl Benzene	96
m,p-Xylene	98
o-Xylene	99
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	100
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	81

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 1003456B-19B

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

File Name:	s032902sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 07:24 AM

Compound	%Recovery
Vinyl Chloride	92
Carbon Tetrachloride	107
Trichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCS

Lab ID#: 1003456B-20A

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

File Name:	s032903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/29/10 07:54 AM

Compound	%Recovery
Freon 12	97
Freon 11	97
Freon 113	87
1,1-Dichloroethene	84
Acetone	79
Methylene Chloride	86
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	94
Benzene	90
Toluene	88
Tetrachloroethene	93
Chlorobenzene	95
Ethyl Benzene	96
m,p-Xylene	99
o-Xylene	97
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	102
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	91

Container Type: NA - Not Applicable

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

Client Sample ID: LCS

Lab ID#: 1003456B-20B

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

File Name: s032903sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 3/29/10 07:54 AM

Compound	%Recovery
Vinyl Chloride	91
Carbon Tetrachloride	108
Trichloroethene	95

Container Type: NA - Not Applicable

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



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Project Info: Project Manager: Brad Green Email: bgreen@sanbornhead.com bgreen@sanbornhead.com, rgreen@sanbornhead.com P.O.# Project # 2006 T210 Project Name: BMT Dist Folsom Analytes: 1 = TO-15 H/L Z= Refer to attached analyte list specify		Turn Around Time Normal X Rush	Relinquished by: (signature) Date/Time <i>Adam Atwell</i> 3/19/10 Relinquished by: (signature) Date/Time Relinquished by: (signature) Date/Time	Received By: (signature) Date/Time Fed Ex 7984 9223 7573 Received By: (signature) Date/Time <i>Wor</i> 3/20/10 9:20 Received by: (signature) Date/Time					
Lab ID	Field Sample I.D.	Can #	Collection Date	Collection Time	Initial	Final	Analysis	Receipt	Final (psl)
01A	IA0900	13852	03/17/2010	1554	>30	6	1		
02A	IA0901	33876	03/17/2010	1822	>30	14	1		
03A	IA0902	34280	03/17/2010	1717	>30	7	1		
04A	IA0903	34208	03/17/2010	1652	>30	5	1		
05A	IA0904	6	03/17/2010	1707	28	7.5	1		
06A	IA0905	34504	03/17/2010	1647	>30	7	1		
07A	IA0906	23989	03/17/2010	1810	>30	6.5	1		
08A	IA0907	12013	03/17/2010	1722	>30	6	1		
09A	IA0908	23921	03/17/2010	1647	28	6	1		
10A	IA0909	33982	03/17/2010	1644	>30	6.5	1		
11A	IA0910	22502	03/17/2010	1626	>30	6.5	1		
12A	IA0911	22678	03/17/2010	1629	>30	5.5	1		
13A	IA0912	34347	03/17/2010	1722	>30	7.5	1		
14A	AA0913	423	03/17/2010	1522	>30	5	1		
15A	AA0914	10988	03/17/2010	1812	>30	8.5	1		
16A	FB02	35984	03/17/2010	1348	>30	0	1		
17A	DUP924	924	03/17/2010	1712	>30	7.5	1		

Fedex



APPENDIX D

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: 1003457

Date(s) of Collection: March 18, 2010

**Number and Type
Samples & Analyses:** 7 Indoor Air and 1 Ambient Air 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: April 13, 2010

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
IA0100	1003457-01A	3/18/10	Indoor Air	VOCs	Field Sample
IA0101	1003457-02A	3/18/10	Indoor Air	VOCs	Field Sample
IA0102	1003457-03A	3/18/10	Indoor Air	VOCs	Field Sample
IA0103	1003457-04A	3/18/10	Indoor Air	VOCs	Field Sample
IA0104	1003457-05A	3/18/10	Indoor Air	VOCs	Field Sample
IA0105	1003457-06A	3/18/10	Indoor Air	VOCs	Field Sample
AA0106	1003457-07A	3/18/10	Ambient Air	VOCs	Field Sample
IA2033	1003457-08A	3/18/10	Indoor 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, all results were accepted as reported. NEH generated validated data spreadsheets based on the electronic project database files received from ATL for this Work Order. There were no rejected results; therefore, all results were considered acceptable compared to QAPP and method criteria.

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.

There were no field duplicate (FD) samples included in this SDG. Please see the reports for Work Orders 1003416A&B and 1003456A&B for FD precision results associated with this sampling event.

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

All quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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

Lab: Air Toxics Ltd.
Date Sampled: 3/18/10
Method of Analysis: TO-15 Hi/Lo

Work Order #: 1003457
No. Samples 7 IA + 1AA

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								

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.*

8 Canisters were Certified pre-cleaned - certificates of analysis within this data package.

The canister vacuums (field initial, field final and lab receipt) were all acceptable; therefore, No Action required. No COC issues note either.

Samples were all analyzed within 12 days of collection; therefore HT was met. No Action required.

ICALs: Instrument S Full Scan and SIM performed on 3/17-3/18/10. Full Scan = 6- to 8-level calibration from 0.05, 0.1, or 0.5 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 SIM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

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

Lab: Air Toxics Ltd.

Work Order #: 1003457

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: s032902 & s032902sim + s033002 & s033002sim - % Recovery 70-130% for all 22 Target. No Action required.

BFB Tunes: Instrument S 4 Tunes (2 for ICAL + 2 for CCALs) - all criteria in all tunes were met and 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: s032903 & s032903sim + s033003 & s033003sim - %Recovery acceptable for all 22 Targets; therefore, acceptable accuracy for method demonstrated. No Action Required.

LD analysis for one analytical batch was performed on sample IA0910 reported in W.O. # 100356B and for the other batch was done on a sample not associated with this project - LD precision all OK - lab was method compliant. No Action required.

FD Pair: There were no FD pairs associated with this SDG. See W.O. #1003416B & 1003456A/B for FD pairs associated with this sampling event.

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) - No Action required

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

The data was unchanged as a consequence of this review.

Date: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Air Toxics Ltd.

Work Order #: 1003457

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL (µg/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: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003457

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: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.



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: 1003416A & 1003416B

Date(s) of Collection: March 16, 2010

**Number and Type
Samples & Analyses:** 12 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: April 12, 2010

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
IA0700	1003416A-01A	3/16/10	Indoor Air	VOCs	Field Sample
IA0701	1003416A-02A	3/16/10	Indoor Air	VOCs	Field Sample
IA0702	1003416A-03A	3/16/10	Indoor Air	VOCs	Field Sample
IA0703	1003416A-04A	3/16/10	Indoor Air	VOCs	Field Sample
DUP9419	1003416A-05A	3/16/10	Indoor Air	VOCs	Field Duplicate of IA0703
IA0704	1003416A-06A	3/16/10	Indoor Air	VOCs	Field Sample
IA0705	1003416A-07A	3/16/10	Indoor Air	VOCs	Field Sample
IA0706	1003416A-08A	3/16/10	Indoor Air	VOCs	Field Sample
IA0707	1003416A-09A	3/16/10	Indoor Air	VOCs	Field Sample
IA0708	1003416A-10A	3/16/10	Indoor Air	VOCs	Field Sample
IA0709	1003416B-11A	3/16/10	Indoor Air	VOCs	Field Sample
IA0710	1003416B-12A	3/16/10	Indoor Air	VOCs	Field Sample
AA0711	1003416B-13A	3/16/10	Ambient Air	VOCs	Field Sample
AA0712	1003416B-14A	3/16/10	Ambient Air	VOCs	Field Sample
FB01	1003416B-15A	3/16/10	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, several results were estimated (J, UJ, and EB) 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: 1003416A and 1003416B.

The canister for sample IA0708 was received with a vacuum that differed by more than 5"Hg from the final field vacuum. This may be an indication that the canister leaked during shipment to the laboratory. Therefore, all results for this one sample were estimated (J or UJ) with a possible low bias due to potential loss of VOCs.

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.

Field duplicate (FD) precision, based on results of the FD pair samples IA0703 and DUP9419, was acceptable for all VOCs. The FD results are an indication of acceptable precision for field collection through analysis for these air samples.

Sensitivity requirements compared to the Reporting Limits (RLs) defined in Table B.1 of the Workplan were met for all samples except AA0712, which was analyzed at a dilution (DF=3.95) to ensure that all detected results were reported within the instrument calibration range. As a consequence of the dilution made for analysis, several non-detected results in this one sample are reported at levels exceeding the Reporting Limits (RL) given in Table B.1 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in these Work Orders with the following exceptions:

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
IA0700, IA0704, IA0705, & IA0710	Acetone	EB	H	Equipment Blank Action
IA0703, DUP9419, & IA0706	Vinyl Chloride	EB	H	Equipment Blank Action
IA0708	All VOCs	J / UJ	L	Field final and Receipt vacuums disagree

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

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: 3/16/10
Method of Analysis: TO-15 Hi/Lo

Work Order #: 1003416A
No. Samples: 10 IA (9+1FD)

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		Estimate (J/UJ) IA0708														

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.*

The samples received were separated into two Work Orders (1003416A and 1003416B). A single report will be written, at the clients request, for both Work Orders.

10 Canisters were Certified pre-cleaned - certificates of analysis within data package.

The canister vacuums (field initial, field final and lab receipt) were all acceptable except for sample IA0708 which had final field vacuum of 7.5 "Hg but lab receipt vacuum of 1.5"Hg (> 5"Hg difference) - canister may have leaked on route to lab?

**ACTION: All results in sample IA0708 estimated (J/UJ) due to disagreement between field final and lab receipt vacuum - possible low bias since canister lost vacuum on the way to the lab.*

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 3/17-3/18/10. Full Scan = 6- to 8-level calibration from 0.05, 0.1, or 0.5 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 SIM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date: 4/11/10
Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003416A

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: s032404 & s032404sim - % 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 and 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: s032403 & s032403sim - %Recovery acceptable for all 22 Targets; therefore, acceptable accuracy for method demonstrated. No Action Required.

LD analysis performed on sample IA0705. LD precision was acceptable for all VOCs; therefore, No Action required (see LD precision report in eCVP).

FD Pair: IA0703 and DUP9419. Comparison of results shown on page 4.

FD precision was acceptable for all detected VOCs in this FD pair. Note, RPD > 20% for Toluene; however, since results were both < 5 x RL, No Action Required. No Action required.

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: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003416A

Method of Analysis: TO-15 Hi/Lo

Field Duplicate Evaluation_ Sample IDs:

Sample = IA0703

FD = DUP9419

Analyte Name	CAS No.	DF = 1.55*	Sample Result			FD	FD Result			RPD	Action
		RL (µg/m³)		µg/m³	Q	Level	µg/m³	Q	Level		
Freon 12	75-71-8	0.77		3		>RL but < 5xRL	3.1		>RL but < 5xRL	3.3	None
Freon 11	75-69-4	0.87		6.9		> 5 x RL	7.4		> 5 x RL	7.0	None
Freon 113	76-13-1	1.2		3.5		>RL but < 5xRL	3.3		RL	5.9	None
1,1-Dichloroethene	75-35-4	0.61		0.61	U	RL	0.65	U	RL	NA	None
Acetone	67-64-1	1.8		17		> 5 x RL	19		> 5 x RL	11.1	None
Methylene Chloride	75-09-2	1.1		1.1	U	RL	1.1	U	RL	NA	None
cis-1,2-Dichloroethene	156-59-2	0.61		0.61	U	RL	0.65	U	RL	NA	None
1,1,1-Trichloroethane	71-55-6	0.84		0.84	U	RL	0.89	U	RL	NA	None
Benzene	71-43-2	0.5		0.5	U	RL	0.52	U	RL	NA	None
Toluene	108-88-3	0.58		1.3		>RL but < 5xRL	1.6		>RL but < 5xRL	20.7	None
Tetrachloroethene	127-18-4	1		1	U	RL	1.1	U	RL	NA	None
Chlorobenzene	108-90-7	0.71		0.71	U	RL	0.76	U	RL	NA	None
Ethyl Benzene	100-41-4	0.67		0.67	U	RL	0.71	U	RL	NA	None
m,p-Xylene	108-38-3/106-42-3	0.67		0.67	U	RL	0.71	U	RL	NA	None
o-Xylene	95-47-6	0.67		0.67	U	RL	0.71	U	RL	NA	None
1,3-Dichlorobenzene	541-73-1	0.93		0.93	U	RL	0.99	U	RL	NA	None
1,4-Dichlorobenzene	106-46-7	0.93		0.93	U	RL	0.99	U	RL	NA	None
1,2-Dichlorobenzene	95-50-1	0.93		0.93	U	RL	0.99	U	RL	NA	None
1,2,4-Trichlorobenzene	120-82-1	5.8		5.8	U	RL	6.1	U	RL	NA	None
Vinyl Chloride	75-01-4	0.04		0.15		>RL but < 5xRL	0.15		>RL but < 5xRL	0.0	None
Carbon Tetrachloride	56-23-5	0.2		0.44		>RL but < 5xRL	0.44		>RL but < 5xRL	0.0	None
Trichloroethene	79-01-6	0.17		0.17	U	RL	0.18	U	>RL but < 5xRL	NA	None

*This is the sample DF and RLs, the FD DF was 1.64 and RLs are RLs shown x (1.64/1.55)

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: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Air Toxics Ltd.

Work Order #: 1003416A

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL (µg/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: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003416A

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: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.
Date Sampled: 3/16/10
Method of Analysis: TO-15 Hi/Lo

Work Order #: 1003416B
No. Samples 2 IA + 2AA + 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								AA0712 RLs > expected

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.*

The samples received were separated into two Work Orders (1003416A and 1003416B). A single report will be written, at the clients request, for both Work Orders.

5 Canisters were Certified pre-cleaned - certificates of analysis within #1003416A data package.

The canister vacuums (field initial, field final and lab receipt) were all acceptable; therefore, NO Action required. No COC issues note either.

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

ICALs: Instrument S Full Scan and SIM performed on 3/17-3/18/10. Full Scan = 6- to 8-level calibration from 0.05, 0.1, or 0.5 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 SIM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

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

Lab: Air Toxics Ltd.

Work Order #: 1003416B

Method of Analysis: TO-15 Hi/Lo

Associated Blanks: Method Blank: s032505 (Full Scan and SIM)
Field Blank: FB01 (reported in this Work Order)

Blank ID	Contaminant / Level ($\mu\text{g}/\text{m}^3$)	Action Level DF=	Sample and reported result ($\mu\text{g}/\text{m}^3$)	Corrected Database Result
s032505	None		No Blank Action Required	
FB01	Acetone @ 2.1 $\mu\text{g}/\text{m}^3$	10.5 $\mu\text{g}/\text{m}^3$	IA0710 9.5	9.5EB
		(DF = 1.55)	All other samples > BAL - No Action	
FB01	Vinyl Chloride @ 0.048 $\mu\text{g}/\text{m}^3$	0.24 $\mu\text{g}/\text{m}^3$	All samples ND or > BAL - No Action	
		(DF=1.55)		

Date: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003416B

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: s032502 & s032502sim - % 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 and 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: s032503 & s032503sim - %Recovery acceptable for all 22 Targets; therefore, acceptable accuracy for method demonstrated. No Action Required.

LD analysis performed on sample AA0712. LD precision was acceptable for all VOCs; therefore, No Action required (see LD precision report in eCVP).

FD Pair: see Work Order #1003416A for FD pair results

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) except for sample AA0712 due to the dilution (DF=3.95) made for analysis to ensure that all detects were reported within the instrument calibration range.

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

Date: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Air Toxics Ltd.

Work Order #: 1003416B

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL (µg/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: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003416B

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: 4/11/10

Data Reviewer: Nancy C. Rothman, Ph.D.



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: 1003456A & 1003456B

Date(s) of Collection: March 17, 2010

**Number and Type
Samples & Analyses:** 14 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: April 13, 2010

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
IA0900	1003456A-01A	3/17/10	Indoor Air	VOCs	Field Sample
IA0901	1003456A-02A	3/17/10	Indoor Air	VOCs	Field Sample
IA0902	1003456A-03A	3/17/10	Indoor Air	VOCs	Field Sample
IA0903	1003456A-04A	3/17/10	Indoor Air	VOCs	Field Sample
IA0904	1003456A-05A	3/17/10	Indoor Air	VOCs	Field Sample
IA0905	1003456A-06A	3/17/10	Indoor Air	VOCs	Field Sample
IA0906	1003456A-07A	3/17/10	Indoor Air	VOCs	Field Sample
IA0907	1003456A-08A	3/17/10	Indoor Air	VOCs	Field Sample
IA0908	1003456A-09A	3/17/10	Indoor Air	VOCs	Field Sample
IA0909	1003456A-10A	3/17/10	Indoor Air	VOCs	Field Sample
IA0910	1003456B-11A	3/17/10	Indoor Air	VOCs	Field Sample
IA0911	1003456B-12A	3/17/10	Indoor Air	VOCs	Field Sample
IA0912	1003456B-13A	3/17/10	Indoor Air	VOCs	Field Sample
AA0913	1003456B-14A	3/17/10	Ambient Air	VOCs	Field Sample
AA0914	1003456B-15A	3/17/10	Ambient Air	VOCs	Field Sample
FB02	1003456B-16A	3/17/10	Air	VOCs	Field Blank
DUP924	1003456B-17A	3/17/10	Indoor Air	VOCs	Field Duplicate of IA0907

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, all results were accepted as reported. 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.

A single Chain-of-Custody (COC) was submitted to ATL; however, the laboratory split the samples into two Work Orders: 1003456A and 1003456B.

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.

Field duplicate (FD) precision, based on results of the FD pair samples IA0907 and DUP924, was acceptable for all VOCs. The FD results are an indication of acceptable precision for field collection through analysis for these air samples.

Sensitivity requirements compared to the Reporting Limits (RLs) defined in Table B.1 of the Workplan were met for all samples except IA0901, which was received at the laboratory with a higher vacuum than anticipated. As a consequence of the receipt vacuum, several non-detected results in this one sample are reported at levels exceeding the RLs given in Table B.1 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in these Work Orders. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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

Lab: Air Toxics Ltd.
Date Sampled: 3/17/10
Method of Analysis: TO-15 Hi/Lo

Work Order #: 1003456A
No. Samples 10 IA

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								IA0901 RLs > expected

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.*

The samples received were separated into two Work Orders (1003456A and 1003456B). A single report will be written, at the clients request, for both Work Orders.

10 Canisters were Certified pre-cleaned - certificates of analysis within this data package.

The canister vacuums (field initial, field final and lab receipt) were all acceptable; therefore, No Action required. No COC issues note either.

Samples were all analyzed within 10 days of collection; therefore HT was met. No Action required.

ICALs: Instrument S Full Scan and SIM performed on 3/17-3/18/10. Full Scan = 6- to 8-level calibration from 0.05, 0.1, or 0.5 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 SIM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date: 4/12/10
Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003456A

Method of Analysis: TO-15 Hi/Lo

Associated Blanks: Method Blank: s0327055 (Full Scan and SIM)
Field Blank: FB02 (reported in Work Order #1003456B)

Blank ID	Contaminant / Level ($\mu\text{g}/\text{m}^3$)	Action Level DF=	Sample and reported result ($\mu\text{g}/\text{m}^3$)	Corrected Database Result
s032705	None		No Blank Action Required	
FB02	None		No Blank Action Required	

Date: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003456A

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: s032702 & s032702sim - % 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 and 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: s032703 & s032703sim - %Recovery acceptable for all 22 Targets; therefore, acceptable accuracy for method demonstrated. No Action Required.

LD analysis performed on sample IA0905. LD precision was acceptable for all VOCs; therefore, No Action required (see LD precision report in eCVP).

FD Pair: IA0907 and DUP924. Sample IA0907 was reported in this Work Order while FD, DUP924, was reported in Work Order #10034546B. See checklist for 1003456B for FD comparison.

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) except for sample IA0901 due to a higher than expected receipt vacuum (11.5 "Hg) resulting in a higher than expected dilution factor (DF=2.17).

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

The data was unchanged as a consequence of this review.

Date: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Air Toxics Ltd.

Work Order #: 1003456A

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL (µg/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: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003456A

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: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.
Date Sampled: 3/17/10
Method of Analysis: TO-15 Hi/Lo

Work Order #: 1003456B
No. Samples 4IA (3+1FD) + 2AA + 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		✓		✓		✓		✓		✓		✓		✓		✓
No																

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.*

The samples received were separated into two Work Orders (1003416A and 1003416B). A single report will be written, at the clients request, for both Work Orders.

10 Canisters were Certified pre-cleaned - certificates of analysis within data package.

The canister vacuums (field initial, field final and lab receipt) were all acceptable except for sample FB02 which had final field vacuum of 0 "Hg but lab receipt vacuum of 20.5"Hg according to report. This appears to be a documentation error since the lab reported DF=1 for this FB (instrument log indicates that FB02 was pressurized to 14.6 psi). Since results for FB02 will not directly impact the sample data, no action taken to qualify the FB02 data since it appears as though this is a documentation error (narrative did not mention anything about these vacuum issues).

Samples were all analyzed within 12 days of collection; therefore HT was met. No Action required.

ICALs: Instrument S Full Scan and SIM performed on 3/17-3/18/10. Full Scan = 6- to 8-level calibration from 0.05, 0.1, or 0.5 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 SIM for DF=1 analysis) were supported by the ICALs. Valid Calibration - No Action

Date: 4/12/10
Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003456B

Method of Analysis: TO-15 Hi/Lo

Associated Blanks: Method Blank: s032905 (Full Scan and SIM)
Field Blank: FB02 (reported in this Work Order)

Blank ID	Contaminant / Level ($\mu\text{g}/\text{m}^3$)	Action Level DF=	Sample and reported result ($\mu\text{g}/\text{m}^3$)	Corrected Database Result
s032905	None		No Blank Action Required	
FB02	None		No Blank Action Required	

Date: 4/12/10

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

Lab: Air Toxics Ltd.

Work Order #: 1003456B

Method of Analysis: TO-15 Hi/Lo

Additional Notes:

CCALs: s032902 & s032902sim - % 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 and 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: s032903 & s032903sim - %Recovery acceptable for all 22 Targets; therefore, acceptable accuracy for method demonstrated. No Action Required.

LD analysis performed on sample IA0910. LD precision was acceptable for all VOCs; therefore, No Action required (see LD precision report in eCVP).

FD Pair: IA0907 and DUP924. Sample IA0907 was reported in Work Order #1003456A while FD, DUP924, was reported in this Work Order. Comparison of results shown on page 4.

FD precision was acceptable for all detected VOCs in this FD pair. No Action required.

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.

The results were unchanged as a consequence of this review

Date: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003456B

Method of Analysis: TO-15 Hi/Lo

Field Duplicate Evaluation_ Sample IDs:

Sample = IA0907 (reported in WO#1003456A)

FD = DUP924 (reported in this W.O.)

Analyte Name	CAS No.	DF = 1.61*	Sample Result			FD	FD Result			RPD	Action
		RL (µg/m³)		µg/m³	Q	Level	µg/m³	Q	Level		
Freon 12	75-71-8	0.8		2.4		>RL but < 5xRL	2.3		>RL but < 5xRL	4.3	None
Freon 11	75-69-4	0.9		3.1		>RL but < 5xRL	3.1		>RL but < 5xRL	0.0	None
Freon 113	76-13-1	1.2		1.2	U	RL	1.2	U	RL	NA	None
1,1-Dichloroethene	75-35-4	0.64		0.64	U	RL	0.64	U	RL	NA	None
Acetone	67-64-1	1.9		4.1		>RL but < 5xRL	4.4		>RL but < 5xRL	7.1	None
Methylene Chloride	75-09-2	1.1		1.1	U	RL	1.1	U	RL	NA	None
cis-1,2-Dichloroethene	156-59-2	0.64		0.64	U	RL	0.64	U	RL	NA	None
1,1,1-Trichloroethane	71-55-6	0.88		3.6		>RL but < 5xRL	0.88	U	RL	NA	None
Benzene	71-43-2	0.51		0.56		>RL but < 5xRL	0.56		>RL but < 5xRL	0.0	None
Toluene	108-88-3	0.61		2.6		>RL but < 5xRL	2.7		>RL but < 5xRL	3.8	None
Tetrachloroethene	127-18-4	1.1		1.1	U	RL	1.1	U	RL	NA	None
Chlorobenzene	108-90-7	0.74		0.74	U	RL	0.74	U	RL	NA	None
Ethyl Benzene	100-41-4	0.7		0.7	U	RL	0.7	U	RL	NA	None
m,p-Xylene	108-38-3/106-42-3	0.7		0.7	U	RL	0.7	U	RL	NA	None
o-Xylene	95-47-6	0.7		0.7	U	RL	0.7	U	RL	NA	None
1,3-Dichlorobenzene	541-73-1	0.97		0.97	U	RL	0.97	U	RL	NA	None
1,4-Dichlorobenzene	106-46-7	0.97		0.97	U	RL	0.97	U	RL	NA	None
1,2-Dichlorobenzene	95-50-1	0.97		0.97	U	RL	0.97	U	RL	NA	None
1,2,4-Trichlorobenzene	120-82-1	6		6	U	RL	6	U	RL	NA	None
Vinyl Chloride	75-01-4	0.041		0.041	U	RL	0.041	U	RL	NA	None
Carbon Tetrachloride	56-23-5	0.2		0.44		>RL but < 5xRL	0.42		>RL but < 5xRL	4.7	None
Trichloroethene	79-01-6	0.17		0.17	U	RL	0.17	U	RL	NA	None

*This is the sample and FD DF and RLs

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: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Air Toxics Ltd.

Work Order #: 1003456B

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	Full Scan (Full) or SIM	RL (µg/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: 4/12/10

Data Reviewer: Nancy C. Rothman, Ph.D.

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

Lab: Air Toxics Ltd.

Work Order #: 1003456B

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

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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

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