West 42nd Street Works Site
Report of Evaluation of Indoor Air Sampling

Conducted at
River Place I
650 West 42nd Street (Site No. V00531-2)
Manhattan, New York
April 16, 2003 and April 23, 2004

Prepared by:

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RETEC Project Number: CECN8-16916-224

Prepared for:

Consolidated Edison Company of New York, Inc.
31-01 20th Avenue, Building No. 138
Long Island City, NY 11105

August 4, 2004

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August 4, 2004

Executive Summary

An evaluation of the potential for sub-surface vapor intrusion at River Place I, at the West 42nd Street Works former manufactured gas plant (MGP) site, in west Manhattan, New York was conducted in April 2003, with additional evaluation work being performed in April 2004 to address New York State Department of Environmental Conservation (NYSDEC) / New York State Department of Health (NYSDOH) comments on the initial evaluation report. The overall goal of the work was to ascertain whether air quality within the building was being adversely affected by residual sub-surface impacts that might remain from the former MGP operations that had historically occurred on the property.

Samples were collected from ambient air, indoor air, and soil gas during the following two sampling events:

- April 2003 - Four indoor air samples (three indoor air samples, and one field duplicate for quality assurance/quality control purposes) were collected from the ground floor of the building (representing areas of potential vapor intrusion). Also, four ambient air samples were collected from outside of the building for comparison purposes.

- April 2004 - Fifteen samples were collected, consisting of four outdoor (ambient) samples, five soil gas samples, four indoor air samples, and two field duplicate samples (one soil gas and one indoor air). The indoor air samples were collected from the ground floor of the building.

All samples were submitted to a commercial laboratory for chemical analyses.

The indoor air results were evaluated by comparisons to outdoor air results, published background data for residences in New York State, and comparison to the soil gas results. Results indicate that the air quality, as measured on each specific sampling day, was not impacted by sub-surface intrusion of vapors emanating from any MGP-related material that may be present at the site. Compounds detected in the indoor air samples were present in concentrations within the range of typical background levels for indoor air quality, or were comparable to the results of the outdoor air samples, indicating outdoor sources, as noted below. The soil gas samples did not contain any of the compounds included in the analysis that may be typically (though not uniquely) associated with MGP sources (naphthalene, indene, indan, or thiophene). Other compounds that could be associated with MGP operations, including benzene, were relatively low, indicating a low potential for future vapor intrusion.

Toluene was the only compound possibly related to MGP operations that was detected in indoor air at concentrations above the typical range for background residential indoor air (above the 95th percentile), in one sample, collected during April 2004. During both sampling events, all other compounds possibly related to MGP operations were either below the typical range for background residential indoor air, or were comparable to the results of the outdoor air samples, indicating the presence of outdoor sources. The most likely source of toluene in the indoor air was brass lacquer. The brass lacquer had been applied to doors located in the vicinity of the indoor air sample with elevated toluene

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concentrations. The manufacturer's information confirmed that the lacquer material contains 35% toluene.

The results of the two sampling events indicated that the indoor air quality did not appear to be impacted by sub-surface intrusion of vapors related to MGP materials at the site.

No additional indoor air or soil gas sampling is recommended at this time.

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1 Introduction

This report has been prepared for Consolidated Edison Company of New York, Inc. (Con Edison) to present the evaluation of sub-surface vapor intrusion at the River Place I property on the West 42nd Street Works former manufactured gas plant (MGP) site.

The investigation activities were conducted in general accordance with the Work Plan for Evaluation of Sub-Surface Vapor Intrusion (Work Plan) [RETEC, 2002], and in cooperation with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). The Work Plan was prepared for general use in the program that Con Edison has initiated to evaluate sub-surface vapor intrusion that may be associated with its former MGP sites.

The initial sampling event was conducted in April 2003 and included ambient and indoor air sampling only. In response to comments by the NYSDEC and NYSDOH, additional sampling was conducted during a second event in April 2004. Ambient air, indoor air and soil gas samples were collected during the second event.

The NYSDEC and NYSDOH have commented on the results of the air sampling program conducted at the River Place I property; these comment letters are provided in Appendix A.

1.1 Purpose of Report

The overall goal of the work was to ascertain whether air quality within the River Place I building was being adversely affected by residual sub-surface impacts that might remain from the former MGP operations which had historically occurred on the property. The purpose of this report is to describe the investigation activities, present the results, and interpret their meaning.

1.2 Scope of Work

The scope of work for the evaluation at the River Place I property was determined during an initial site visit on January 3, 2003 at which Mr. Joseph Moloughney, the NYSDEC Project Manager, was present. Additional work tasks were determined during subsequent site visits prior to the April 2003 and April 2004 sampling events.

The scope of work consisted of the following two field tasks:

- Initial site visit and building inspection; and
- Indoor and ambient air sampling;
- Soil gas sampling.

1.3 Report Organization

The remainder of this report is organized as follows:

- Section 2 describes the site and provides a summary of its history.
- Section 3 describes investigation activities, including the sampling locations and procedures.
- Section 4 provides a summary of the on-site observations and field measurements.
- Section 5 presents the analytical laboratory results.
- Section 6 presents an evaluation of the findings and provides recommendations.
- Section 7 lists the references cited in this report.
- Documentation of results and data quality information is provided in the appendices.

2 Site Description and History

The site description and historical information provided in this section has been summarized from recent site history reports [Parsons, 2002].

The site is located in Manhattan, New York City, New York. The original former MGP property encompassed approximately five acres extending from West 41st to West 42nd Street and 11th Avenue to 12th Avenue. The site is currently occupied by a high rise apartment/retail building (River Place I), a landscaped park-like area, and a paved parking lot.

The site was formerly used as a gas manufacturing and storage facility, the West 42nd Street Works, from 1863 to the early 1920s. Gas was produced by the coal carbonization gas processes and stored in gas holders until the property was sold in 1924.

The former MGP property switched ownership many times before it was sold to the Silverstein 42nd Associates in 1996. The River Place I building was constructed on part of the site in 2000. This building does not have any sub-surface space; it is constructed at or above the previous site grade. A historical use map which shows the locations of the former MGP structures in approximate relationship to the existing building is shown in Figure 2-1.

3 Investigation Activities

This section describes the activities undertaken to collect data and information for the purposes of the indoor air quality screening evaluation. The building inspections and collection of indoor and ambient air samples, and collection of soil gas samples, are described.

3.1 Building Inspections

Building inspections were conducted at the beginning of the project and prior to the start of the two sampling events. The purpose of the building inspections was to determine the layout of the building, utilities, and proposed sampling locations. Details of the building inspections are provided in the following sections.

3.1.1 Initial Building Inspection

The initial building inspection was conducted on December 5, 2002. A tour of the building and grounds was conducted. Representatives of Con Edison, River Place I property, Clayton Group Services, Inc. (Clayton), and The RETEC Group, Inc. (RETEC) participated. The inspection included a walk-through of the ground floor of the building and the surrounding grounds. The information obtained during the site walk is summarized in the NYSDOH Indoor Air Quality Questionnaire and Building Inventory, provided in Appendix A.

3.1.2 April 2003 Building Inspection

A second building inspection and site walk-through occurred on April 16, 2003, the day of the indoor and ambient air sampling to confirm sample locations. A chemical inventory was conducted by Clayton on the day of sampling. It focused on the management office, retail space, and café located on the ground floor of the building. The inventory is provided in Appendix A. Observations were made regarding potential indoor sources of hydrocarbon vapors, as further described in Section 4.

3.1.3 March 2004 Building Inspection

A third building inspection and site walk-through occurred on March 30, 2004, prior to the indoor and ambient air, and soil gas sampling on April 23, 2004. The purpose of the inspection and walk-through was to confirm sample locations with reference to the utility clearance activities, as described in Section 3.3. RETEC conducted a chemical inventory on the day of sampling, focusing on the management office, empty retail spaces, and café located on the ground floor of the building where sampling occurred. Observations were

made regarding potential indoor sources of hydrocarbon vapors, as further described in Section 4.

3.2 Indoor and Ambient Air Sampling

Two indoor and ambient air sampling events occurred, in April 2003 and April 2004, to complete the characterization of indoor air within the building on the site.

3.2.1 April 2003 Indoor and Ambient Air Sampling

During the first event, two initial ambient air samples, four indoor air samples, and two final ambient air samples were collected on April 16, 2003 by Clayton. Sampling locations inside and outside of the building were established and marked during the initial building inspection on March 30, 2003. The locations were determined with reference to the historical overlay map (Figure 2-1), and the building floor plan.

The rationale for selecting the locations of the ambient samples was to "bracket" the building by collecting air from the prevailing upwind direction and the prevailing downwind direction.

The rationale for selection of sample locations in the building was to obtain samples from areas nearest to the former locations of MGP structures such as gas holders. The April 2003 sampling locations are shown in Figure 3-1. Table 3-1 lists the full sample numbers, locations and rationale for selection of each location sampled in April 2003.

The building had been closed for approximately 12 hours prior to the start of sampling. Six-liter Summa canisters with flow regulators were used to collect each sample over a one-hour period. Samples were submitted for laboratory analysis as described in Section 5. A photographic record of the sampling locations is provided in Appendix B.

Collection of meteorological data, VOC emissions using a photoionization detector (PID) from vapor intrusion points, and volatile cyanide was also conducted by Clayton at the building on April 16, 2003. Results are described in Section 4.

3.2.2 April 2004 Indoor and Ambient Air Sampling

A second indoor and ambient air sampling event occurred on April 23, 2004. During this event, RETEC collected two initial ambient air samples, four indoor air samples, and two final ambient air samples. The indoor air samples were collected at four relatively evenly spaced intervals within the building. The sampling locations for this sampling event are presented in Figure 3-2.

Table 3-2 lists the full sample numbers, locations, and rationale for selection of each location.

All samples were collected by RETEC following the same procedures described in Section 3.2.1. Collection of meteorological data, PID measurements from vapor intrusion points, and volatile cyanide was also conducted by RETEC during this event. Results are described in Section 4.

3.3 Soil Gas Sampling

Soil gas samples were collected during the April 2004 sampling event. Details of sampling procedures for the event are discussed below.

The approximate sampling locations for the April 2004 event were established and marked during the March 30, 2004 building inspection. Ground penetrating radar (GPR) and a magnetometer were used at the locations as an additional utility clearance safety measure. The exact locations were determined with reference to the building floor plans and the utility clearance results so as to avoid underground utilities and sub-surface obstructions, such as concrete pile caps.

Soil gas samples were collected to match the indoor air sampling locations for comparison purposes. Figure 3-2 shows the soil gas sampling locations with abbreviated sample numbers.

Soil gas sampling occurred April 23, 2004 immediately after the indoor and ambient air sampling. Four samples, plus one field duplicate, were collected by RETEC during the sampling event.

Collection of the samples required drilling of concrete on the bottom floor of the building. Thickness of the concrete ranged from 6 to 12 inches.

Prior to the installation of the soil gas probes, the differential pressure between the sub-slab space and the above ground area was measured. A two-inch diameter rubber "J" plug was inserted into the open concrete core. Hydrated bentonite was applied around the joint separating the plug material and the concrete, creating an air tight seal. The "J" plug was fitted with an open air probe so that a Dwyer Magnahelic pressure gauge could be affixed by using a section of poly tubing and the pressure could be measured in inches of water.

After removal of the plug from the hole in the floor, the soil gas sampling probes were advanced by hand. The indoor soil gas samples were sampled at a depth no greater than two feet below ground surface.

A steel probe, containing disposable tubing, sealed at the tip, was hand driven to the desired depth. The probe was then pulled back from the drive point.

Prior to soil gas sampling, the holes containing the sample probes were advanced by hand and then backfilled to ensure that a representative sample of the soil gas was collected. The backfill consisted of a six-inch layer of hydrated bentonite. This seal ensured that indoor air was not entrained into the soil gas sample. After sealing, the probe was purged using the PID as a vacuum pump. Upon completion of purging, the soil gas sample was collected.

Six-liter, laboratory-certified Summa canisters with flow regulators were used to collect each sample over an approximate one-hour period. Samples were submitted for laboratory analysis as described in Section 5.

All borings and concrete holes were then backfilled with bentonite and cemented to match the grade of the surrounding floor.

A summary of field observations for each soil gas sample location, including differential pressure measurements, is provided in Table 3-3. A photographic record of the sampling locations is provided in Appendix B.

4 On-site Observations

This section documents the observations and field measurements made during the on-site building inspection and during the sample collection events.

4.1 Building Observations

Observations of the heating, ventilation, and air conditioning (HVAC) system, odors, and potential hydrocarbon sources were made during the indoor air and soil gas sampling events. These observations are important for the correct interpretation of the results. Appendix A contains the complete and updated NYSDEC Indoor Air Quality Questionnaire and Building Inventory form.

4.1.1 HVAC

The HVAC of the building was described by the building staff as having a central heating and central air conditioning system. The HVAC system was not running in the retail spaces or the café during the times of sampling in April 2003 and April 2004.

4.1.2 Odors

During the initial indoor and ambient air sampling event in April 2003, distinct hydrocarbon odors (paint) were observed in the café during the time of sampling; the café had been painted the week before.

No odors were noted during the building inspection on March 30, 2004.

Throughout the day on April 23, 2004, polishing chemicals and a clear lacquer were applied to the brass surfaces of the main entrance to the building. A distinct, sweet volatile-like odor was present around that area throughout the day. The lacquer was identified and recorded in the DOH Building Questionnaire and Chemical Inventory found in Appendix A.

4.1.3 Potential VOC Sources

The retail space and café contained a wide variety of commercial products that are potential VOC sources, including gasoline, paint, and paint thinners. During the April 2003 sampling event, the brass doorway and window molding in the lobby were also being polished. Cigarette smoke and newly painted walls could also be potential sources of VOCs in the building.

During the April 2004 sampling event, all containers of potential source materials were removed from the sample areas. Yet brass-polishing activities

performed in the main entrance and lobby area on that day are a potential source of hydrocarbons.

4.2 Observations and Measurements During Sampling

Observations made during the April 2003 air sampling event included meteorological data, PID measurements, and volatile cyanide measurements using Draeger tubes. Clayton's records of these observations are provided in Appendix C. Meteorological data show a relatively constant barometric pressure throughout the sampling event inside and outside of the building (29.95 – 29.97 inches Hg). Wind speed was mostly out of the west at 0 – 6 miles per hour. Field measurements of VOCs in indoor air near walls and corners of the rooms using a PID did not indicate vapor intrusion. The presence of cyanide in air was not detected throughout the entire building.

RETEC made similar observations during the April 2004 sampling. Meteorological data shows a relatively constant barometric pressure reading (30.02 – 30.08 inches Hg). Wind speed was mostly from the east-northeast at 3.5 – 20.7 miles per hour. Field measurements of VOCs in indoor air near walls and corners of the rooms using a ppb RAE PID unit did not indicate vapor intrusion. Cyanide compounds were not detected in any of the sample areas. Differential pressure measurements in the soil gas locations indicated a range of values, the lowest being 0 inches of H_2O at location SG-02, and the highest value of +0.5 inches of H_2O at SG-05 (positive pressure measurements indicated pressure upward from below the slab into the building). Locations SG-01 and SG-03 had differential pressures ranging from +0.13 to +0.15 inches of H_2O, while at location SG-04, the differential pressure ranges from +0.03 to +0.05 inches of H_2O.

5 Analytical Laboratory Results

This section presents summaries of the laboratory results for analysis performed on ambient air and indoor air collected at the site during the April 2003 and April 2004 sampling events, and soil gas collected during the April 2004 sampling event. The results are discussed and evaluated with regard to potential intrusion of vapors related to historic MGP operations.

The laboratory analytical methods and data quality are also discussed in this section, with the applicable Data Usability Summary Reports provided in Appendix D. It is concluded that the data quality meets all applicable requirements.

5.1 Summary of Results

Table 5-1 presents the ambient (outdoor) and indoor air results from the April 2003 sampling event, and Table 5-2 presents the outdoor and indoor air, and soil gas results from the April 2004 sampling event. In each table, the ambient air results are presented to the left of the table. In Table 5-2, each soil gas result is presented to the right of its corresponding indoor air sample.

The two right-most columns present background indoor air values obtained from New York State analyses of air samples from within typical (non-contaminated) residences. The background values are expressed as the 75th and 95th percentile values derived statistically from the datasets [NYSDOH, 2003]. The indoor air and ambient values that exceed the 75th percentile of background are highlighted in Tables 5-1 and 5-2 for screening purposes. However, values within the 95th percentile are considered to be within the range of typical background, especially considering that the background data were obtained primarily from residences. Apartment buildings and commercial buildings may contain higher VOC concentrations than residences because of the presence of larger quantities and use of products such as industrial-strength floor tile cleaners, floor polishes, and more frequent use of paints and other products by contractors operating within the buildings.

The detected compounds in Tables 5-1 and 5-2 are divided into two categories:

1) Compounds including BTEX and naphthalene, that could possibly be related to MGP sources, but may just as likely be related to non-MGP sources; and

2) Compounds including chlorinated hydrocarbons and MTBE (the gasoline additive) that are certainly not related to MGP sources.

All samples were analyzed for volatile organic compounds by EPA Method TO-15, with the following compounds added to the typical analyte list: naphthalene, 2-methylpentane, isopentane, 2,3-dimethylpentane, 2,2,4-trimethylpentane, indene, indan, and thiophene. Air Toxics Laboratory, Inc. provided the analytical services for all samples during the investigation.

5.2 Evaluation of Results

The results from both sampling events were compiled into tables and reviewed by RETEC. The general trends and comparisons are discussed below, followed by discussions of the specific results of interest.

As anticipated, and based on the results obtained from previous investigations in similar buildings and settings, some VOCs were detected in all of the samples, including the ambient samples.

Ambient and indoor air samples that were collected during both sampling events, in April 2003 and April 2004, were compared to each other. This comparison indicated that the compounds detected were consistently low, with no substantial differences between the events with the exception of toluene, as discussed in Section 5.2.4. One indoor air sample collected during the April 2003 sampling event had some VOCs detected above the typical background concentrations, however, similar concentrations were detected in one of the ambient air samples.

Soil gas samples were collected only during the April 2004 sampling event, and are discussed in further detail in Section 5.2.4.

The evaluation of the results in subsequent sections focuses on the VOCs that are possibly related to MGP operations or other sources and is based on comparisons to the following four values:

1. Worker guidance values (the lowest of the OSHA-PEL, NIOSH-REL, or ACGIH-TLV). The intent of this comparison was to identify immediate health considerations that might warrant immediate corrective action. It is recognized that worker guidance values are not appropriate for evaluation of long-term considerations for this building.

2. NYSDOH Background Indoor Air Concentration. The intent of this comparison was to determine whether the measured indoor air concentrations fell within the ranges that are typical of air inside of buildings. The statistical data was provided for use in the project by NYSDOH.

3. Maximum Ambient Air Concentration. If indoor air concentrations were above the typical background range, then the intent of this comparison would be to determine whether compounds detected in the outdoor air

samples might be sources for those compounds found in indoor air. Ambient air is drawn into the building through air intakes.

4. Soil Gas Results. If soil gas results match the indoor air results, that is an indication that the soil gas could be a source of at least some of the compounds detected in the indoor air sample. If not all of the compounds detected in soil gas were detected in the corresponding indoor air sample, or if concentrations were far out of proportion, then this would indicate that the soil gas is not a source of the indoor air concentrations. An additional, similar line of evidence is whether or not the soil gas concentrations were above those found in the indoor air. Where the soil gas concentration of a compound was below that for the corresponding indoor air sample, the soil gas is probably not be the source of the indoor air concentrations.

5.2.1 Comparison to Worker Guidance Values

The VOC concentrations in indoor air samples were first compared to worker guidance values (the lowest of the OSHA-PEL, NIOSH-REL, or ACGIH-TLV). It is recognized that worker guidance values are not appropriate for evaluation of long-term health considerations for these buildings. The intent of this comparison was to identify concentrations of concern that might warrant immediate corrective action. All of the results were several orders of magnitude below the worker guidance values.

5.2.2 Comparison to Typical Background Values

The VOC concentrations in indoor air samples were evaluated to determine whether the measured indoor air concentrations fell within the ranges that are typical of air inside of residences. All of the indoor air samples, the soil gas, and even the ambient air samples contained some VOCs at concentrations above the NYSDOH 75th percentile of residential background. Some of the detected VOCs, such as freon and acetone, were not of concern with regard to the evaluation of MGP impacts.

During the April 2003 sampling event, indoor air samples collected from the three locations contained VOC concentrations exceeding the 95th percentile and were thus slightly above the typical range of VOCs in residences:

Specifically, the concentration of o-xylene, m,p-xylene, and ethylbenzene in the center of the larger retail space (RP-1-IA-1) exceeded the NYSDOH 95th percentile background concentrations. However, these compounds, which are components of gasoline, were also detected at similar concentrations in one of the ambient (outdoor) samples, RP-1-AMB-3. Gasoline vapors are present in ambient and indoor air in this urban setting, as indicated by the modern gasoline additive MTBE, which was present in this ambient sample and

indoor sample RP-1-IA-1 at concentrations of 21 and 51 μg/m^3, respectively. These facts indicate an outdoor source not related to the former MGP.

During the April 2004 sampling event, indoor air samples collected from the four locations contained VOC concentrations exceeding the 95th percentile and were thus slightly above the typical range of VOCs in residences.

Specifically, the concentration of toluene in the management area conference room (IA-02) exceeded the NYSDOH 95th percentile background concentrations. The concentration of 78 μg/m^3 was also above that found in the other indoor and outdoor (ambient) air samples. In order to determine the potential contribution from vapor intrusion, this indoor air result was compared to the nearby soil gas results, as discussed in Section 5.2.4. The brass cleaner/polish that was being used on the main entrance door and window molding contained a significant amount of toluene. The management conference room is on the same level as the main entrance.

5.2.3 Comparison to Ambient Air

Although several compounds were detected in indoor air at concentrations above the typical ranges for background indoor air, these compounds had concentrations comparable to those detected in the ambient air samples.

Many of these compounds, such as Freon 12, are not attributable to MGP operations. The occurrence of these compounds at similar concentrations throughout the building and also in ambient air during both sampling events indicates that these VOCs are attributable to other sources such as fuel emissions, cigarette smoke, floor waxes, paints, or the chemical cleaning products routinely used in the building.

Acetone was detected in all of the samples collected during both sampling events (except soil gas SG-02), including the ambient air samples. In all of the samples, the concentration detected was similar, indicating outdoor sources.

During the April 2003 sampling event, bromomethane was detected in the café and management office in concentrations greater than the NYSDOH 95th percentile for indoor air. Bromomethane was also detected in ambient air samples at similar concentrations, indicating outdoor sources. Bromomethane was not detected in any samples during the April 2004 sampling event.

5.2.4 Comparison to Soil Gas Results

The results of soil gas and indoor air samples collected in April 2004 were evaluated and compared for all of the locations. In most cases, VOCs in soil gas were detected at higher concentrations than in the corresponding indoor air sample. However, with the exception of toluene, overall concentration levels in soil gas and indoor air were low and not considered significant.

Toluene is discussed below. In summary, there was no evidence of soil vapor intrusion, so it was concluded that soil gas was not a source of indoor air VOCs found in the building.

The toluene concentration of indoor air sample from the conference room (IA-02) was 78 μg/m^3, while the toluene concentrations measured in the three closest soil gas samples were 34, 9.2, and 28 μg/m^3 (SG-03, SG-04, and SG-05, respectively). Thus the soil gas concentrations are actually lower than the indoor air concentrations, which would support the conclusion that a source other than vapor intrusion is responsible for the presence of toluene in the indoor air. This conclusion is further supported by consideration of the typical attenuation factor of 0.1, which can be applied to shallow soil gas results [U.S. EPA, 2002]. The application of the attenuation factor means that the soil gas concentrations would need to be ten-fold higher than the indoor air concentration (or 780 μg/m^3) to be of concern as a potential source of the indoor air result. Similarly, the soil gas concentrations would need to be ten-fold higher than the indoor air 75th or 95th percentiles (250 and 490 μg/m^3, respectively) to be of concern as a potential source of vapor intrusion above typical background levels. The measured soil gas concentrations are an order of magnitude below any of these threshold concentrations.

It should be noted that application of an attenuation factor implies that migration of soil gas from the subslab soil into the indoor air is occurring. However, this migration pathway was not established in this study.

Toluene is a commonly used chemical found in many modern consumer products. Some of the possible sources of toluene are brass lacquer, automotive cleaners, spray paints and primers, gasoline, contact adhesives and solvents [Century Brass Lacquer RFU; http://householdproducts.nlm.nih.gov; http://www.atsdr.cdc.gov]. The most likely source of the toluene in the indoor air in the building is the brass lacquer that had recently been used in the vicinity of the office area. The brass lacquer had been applied to a door and window molding at the main building entrance located in the vicinity of the indoor air sample that contained toluene concentrations. The main building entrance and management conference room are on the same level. The manufacturer's information confirmed that the lacquer material contains 35% toluene. The material safety data sheet (MSDS) for the material is provided in Appendix A.

5.3 Analytical Laboratory Methods and Quality Control

To meet the data quality objectives for this project, NYSDEC Analytical Service Protocols (ASP) were used with Category B deliverables [NYSDEC, 2000]. This analysis was completed by Air Toxics Laboratory, Inc. Air Toxics is currently listed with the New York State Department of Health

Environmental Accreditation Program and has current CLP certification for all analyte categories.

The data were validated by a qualified member of the RETEC Environmental Chemistry Group using U.S. EPA *Method TO-15 specifications* with reference to *U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999, document number EPA 540/R-99/008. The findings of the validation were summarized in a Data Usability Summary Report (DUSR), included as Appendix D of this report. As part of the data validation process, the analytical results were verified and U.S. EPA-defined data qualifiers were added where necessary to alert the data user(s) of data quality issues. The data validation qualifiers were included in the summary tables in this report. All results reported by the laboratory were usable with some qualification in response to nonconforming initial and continuing calibrations laboratory control standard recovery nonconformances, and/or calibration range exceedances.

- Several results for naphthalene, isopentane, indene, and heptane were qualified as estimates (i.e., UJ or J).

- All other findings pertained to volatile organic compounds that were not site compounds of interest (non-MGP related compounds); there was no impact on the investigation results.

Laboratory quality control samples, which included laboratory blanks, laboratory duplicates, and laboratory control samples, were prepared and analyzed for this investigation. Laboratory precision, accuracy, and method compliance were acceptable. In addition, field duplicate samples were collected and analyzed. Field duplicate precision, as measured by the relative percent differences between the primary and field duplicate detections, were within recommended method limits. The field duplicate sample results closely matched the results of the primary samples.

The data validation did not find significant data quality concerns. The data were of adequate quality for evaluation of the investigation results.

6 Conclusions and Recommendations

Based on the results of the ambient air and indoor air sampling in April 2003 and ambient air, indoor air, and soil gas sampling in April 2004, the indoor air quality does not appear to be impacted by sub-surface intrusion of vapors related to previous MGP operations that occurred at the location where the River Place I building is now situated. Compounds detected in the indoor air samples, with the exception of toluene during the April 2004 sampling event, were present in concentrations within the range of typical background levels for indoor air quality, or were comparable to the results of the outdoor air samples, indicating outdoor sources. The most likely source of toluene in the indoor air was the brass lacquer being applied at the time of sampling.

Based on these results, intrusion of vapors originating from any MGP-related material that may be present at the site was not evident. Neither additional indoor air sampling nor soil gas sampling for MGP constituents appear to be warranted.

7 References

Century Brass Lacquer RFU, Made by: G.J. Nikolas & Co., Inc., 2800 Washington Blvd., Bellwood, IL 60104, Phone: 708-544-0320

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Tables

Table 3-1
Summary of Ambient and Indoor Air Sample Locations and Collection Parameters
April 16, 2003
River Place I

			Time		Pressure (in. Hg)	
Sample ID	**Canister Number**	**Location**	**Start**	**End**	**Start**	**End**
RP1-AMB-1	6615/000002542	Outdoor, near southwest corner of intersection of 42nd Street and 11th Avenue next to public telephone.	5:42	6:42	-30.0	-9.5
RP1-AMB-2	6619/000002548	Outdoor, northeast corner of intersection of 41st Street and 12th Avenue.	5:47	6:47	-30.0	-8.5
RP1-IA-1	30850/000002561	Ground Floor, center of Retail Space #1.	7:16	8:23	-30.0	-8.0
RP1-IA-2	6994/0000001678	Café.	7:04	8:08	-28.5	-8.5
RP1-IA-2 FD	4049/000002802	Café (field duplicate).	7:04	8:08	-30.0	-8.5
RP1-IA-3	7000/0000001727	Ground Floor, Management Office, in Conference Room.	7:27	8:26	-29.0	-9.0
RP1-AMB-3	13344/0000000082	Outdoor, on 11th Avenue, near fire hydrant by parking lot.	8:37	9:37	-30.0	-10.0
RP1-AMB-4	423/0000000976	Outdoor, northeast corner of intersection of 41st Street and 12th Avenue.	8:38	9:38	-29.0	-8.5

Field Observations:

1. Noticeable paint odor in Café because the space was painted a week before sampling.
2. Brass doorway and window molding were being polished in lobby during indoor air sampling.
3. HVAC system was on in the management office during sampling. HVAC system was off in Café and Retail Space #3 during sampling. River Place I employee that provided access to the Retail Space #3 started smoking cigarette while in space after the sample was started. Clayton requested that the cigarette be extinguished immediately and the employee complied.

Table 3-2
Summary of Ambient and Indoor Air Sample Locations and Collection Parameters
April 23, 2004
River Place I

			Time		Pressure (in. Hg)	
Sample ID	**Canister Number**	**Location**	**Start**	**End**	**Start**	**End**
AMB-01	31426	Outdoor, on the northeast corner of intersection at 11th Avenue and 42nd Street.	7:33	8:03	-29.5	-3.0
AMB-02	33565	Outdoor, on the southwest corner of intersection at 12th Avenue and 41st Street.	7:31	8:48	-29.5	-4.0
IA-01	23995	Center of Park Storage room.	8:58	10:17	-30.0	-4.5
IA-01 FD	34498	Center of Park Storage room (field duplicate).	8:58	10:17	-27.5	-3.0
IA-02	34306	Ground Floor, Management Office, in Conference Room.	9:02	10:26	-30.0	-5.0
IA-03	34371	Retail Space #2, containing old deli counter.	9:04	10:44	-30.0	-5.0
IA-04	34350	Retail Space #1, on west end of the building, adjacent to 12th Avenue.	9:09	10:29	-30.0	-4.0
AMB-03	12714	Outdoor, on the northeast corner of intersection at 11th Avenue and 42nd Street.	11:03	12:20	-30.0	-5.0
AMB-04	33565	Outdoor, on the southwest corner of intersection at 12th Avenue and 41st Street.	10:51	12:05	-29.5	-5.0

Table 3-3
Summary of Soil Gas Sample Locations and Collection Parameters
April 23, 2004
River Place 1

Sample ID	SUMMA Canister ID	Locations & Observations	Differential Pressure (in. H_2O)	Core Thickness (in.)	Time		Pressure (in. Hg)		Final PID Reading
					Start	End	Start	End	
SG-01	32109	Retail Space #1, northwest corner near 42nd Street.	+0.015	9	13:45	15:10	-28.5	-4.0	24 ppb
SG-02	33792	Retail Space #1, southwest corner near 41st Street.	+0.5	9.5	13:18	14:29	-29.0	-5.0	59.1 ppm
SG-03	13858	Retail Space #2, central location.	0	10	15:53	17:00	-29.0	-5.0	> 199 ppm
SG-04	34021	Park Storage room, central location.	+0.13 - 0.15	10	16:30	17:44	-28.5	-4.5	97.7 ppm
SG-05	20945	Loading Dock, central location.	+0.03 - 0.05	10	12:31	13:55	-30.0	-3.0	7,341 ppb
SG-05 FD	129521	Loading Dock, central location (field duplicate).	+0.03 - 0.05	10	12:31	13:55	-29.5	-5.0	7,341 ppb

Note:
+ Designates a positive, upward pressure from the floor slab.

Table 5-1
Summary Table of Ambient and Indoor Air Results
River Place I - West 42nd Street Works Site
Sampling Event - April 16, 2003

		Sample Number, Location and Results in ug/m^3								Background Indoor Air Values	
Compound	**CAS number**	**Ambient Air**	**Ambient Air**	**Ambient Air**	**Ambient Air**	**Indoor Air**	**Indoor Air**	**Indoor Air**	**Indoor Air**	**DOH 75th ug/m^3**	**DOH 95th ug/m^3**
		Outdoor, SW Corner 42nd St & 11th Ave	**Outdoor, NE Corner 12th Ave & 41st St**	**Outdoor, 11th Ave Near Fire Hydrant by Parking Lot**	**Outdoor, NE Corner 12th Ave & 41st St**	**Ground Floor Center of Retail Space**	**Café**	**Café Field Duplicate**	**Ground Floor, Mgmt Office, in Conf Room**		
Sampling Date		**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**		
Sample ID		**RP1-AMB-1**	**RP1-AMB-2**	**RP1-AMB-3**	**RP1-AMB-4**	**RP1-IA-1**	**RP1-IA-2**	**RP1-IA-2FD**	**RP1-IA-3**		
Possibly MGP Related or Other Sources [1]											
1,2,4-trimethylbenzene	95-63-6	**1.7**	-	**7.3**	**2.2**	**4.5**	-	**1.2**	-	7	20
1,3,5-trimethylbenzene	108-67-8	-	-	**2**	-	**1.2**	-	-	-	<10	<10
2,3-Dimethylpentane	565-59-3	-	-	-	-	**6**	-	-	-	NA	NA
2-Hexanone	591-78-6	-	-	-	-	-	-	-	-	NA	NA
2-Methylpentane	107-83-5	**3.4**	-	**11**	**4.5**	**18**	-	-	-	NA	NA
4-Ethyltoluene	622-96-8	-	-	**5.9**	-	-	-	-	-	NA	NA
4-Methyl-2-pentanone	108-10-1	-	-	-	-	**9.4**	-	-	-	NA	NA
benzene	71-43-2	**2.4**	**1.7**	**7.1**	**4.5**	**4.8**	**1.8**	**1.7**	**2.1**	5	14
carbon disulfide	75-15-0	-	-	-	-	-	-	-	-	NA	NA
Cyclohexane	110-82-7	-	-	-	-	-	-	-	-	NA	NA
ethylbenzene	100-41-4	**2.2**	**0.99**	**6.4**	**2.2**	**7.9**	**0.81**	**1.4**	**0.89**	4.8	6.5
heptane	142-82-5	-	-	-	-	-	-	-	-	NA	NA
hexane	110-54-3	-	-	**4**	-	**3.9**	-	-	-	3.6	14
2,2,4-trimethylpentane	540-84-1	-	-	**7.5**	-	**11**	-	-	-	NA	NA
Indan	496-11-7	-	-	-	-	-	-	-	-	NA	NA
Indene	95-13-6	-	-	-	-	-	-	-	-	NA	NA
Isopentane	78-784	**19**	**14**	**29**	**13**	**73**	**130**	**130**	**12**	NA	NA
naphthalene	91-20-3	-	-	-	-	-	-	-	-	<10	<10
styrene	100-42-5	**0.9**	-	**0.9**	-	-	-	-	-	<10	<10
Thiophene	110-02-1	-	-	-	-	-	-	-	-	NA	NA
toluene	108-88-3	**12**	**5.5**	**41**	**12**	**39**	**17**	**22**	**7.6**	25	49
m/p-xylenes	136777-61-2	**8.1**	**3.1**	**24**	**8.1**	**33**	**1.5**	**3.6**	**2.3**	9.5	21
o-xylene	95-47-6	**2.2**	**0.93**	**8.2**	**2.4**	**8.9**	-	**0.97**	-	5	7.9
Not MGP Related [2]											
1,1,1-trichloroethane	71-55-6	-	-	-	-	-	-	-	-	6.7	28
1,1,2,2-tetrachloroethane	79-34-5	-	-	-	-	-	-	-	-	<9	<10
1,1,2-trichloroethane	79-00-5	-	-	-	-	-	-	-	-	<9	<10
1,1-dichloroethane	75-34-3	-	-	-	-	-	-	-	-	<1	<10
1,1-dichloroethene	75-35-4	-	-	-	-	-	-	-	-	<1	<8
1,2,4-trichlorobenzene	120-82-1	-	-	-	-	-	-	-	-	<10	<10
1,2-dibromoethane (EDB)	106-93-4	-	-	-	-	-	-	-	-	<1.5	<1.5
1,2-dichlorobenzene	95-50-1	-	-	-	-	-	-	-	-	<6	<10
1,2-dichloroethane	107-06-2	-	-	-	-	-	-	-	-	<1	<10
1,2-dichloropropane	78-87-5	-	-	-	-	-	-	-	-	<10	<10
1,3-Butadiene	106-99-0	-	-	-	-	-	-	-	-	NA	NA
1,3-dichlorobenzene	541-73-1	-	-	-	-	-	-	-	-	<8	<10
1,4-dichlorobenzene	106-46-7	-	-	-	-	-	-	-	-	<5	5.1
1,4-Dioxane	123-91-1	-	-	-	-	-	-	-	-	NA	NA
2-butanone (MEK)	78-93-3	-	-	-	**3.4**	**14**	**5.5**	**5.5**	**7.4**	NA	NA
acetone	67-64-1	**8.1**	**7.4**	**8.7**	**12**	**28**	**15**	**17**	**33**	NA	NA
benzyl chloride	100-44-7	**1**	-	-	-	-	-	-	-	<1	<1
bromodichloromethane	75-27-4	-	-	-	-	-	-	-	-	<10	<10
bromoform	75-25-2	-	-	-	-	-	-	-	-	<10	<10
bromomethane	74-83-9	**1.2**	**1**	-	**1.1**	**0.85**	**1.3 J**	**1.2 J**	**1.2 J**	<1	<1
carbon tetrachloride	56-23-5	-	-	-	-	-	-	-	-	<6.2	<10
chlorobenzene	108-90-7	-	-	-	-	-	-	-	-	<10	<10
chloroethane	75-00-3	-	-	-	-	-	-	-	-	<1	<1
chloroform	67-66-3	-	-	-	-	-	-	-	-	4.3	<10
chloromethane	74-87-3	**1.1**	**0.98**	**0.94**	**0.97**	**1.1**	**1.2**	**1.1**	**1.1**	<2	2.6
cis-1,2-dichloroethene	156-59-2	-	-	-	-	-	-	-	-	<10	<10
cis-1,3-dichloropropene	10061-01-5	-	-	-	-	-	-	-	-	<9	<10
dibromochloromethane	124-48-1	-	-	-	-	-	-	-	-	<10	<10
Ethanol	64-17-5	**8.5 J**	**7.4 J**	**12 J**	**11 J**	**71 J**	**57 J**	**53 J**	**45 J**	NA	NA
trichlorofluoromethane (Freon 11)	75-69-4	**1.5**	**1.4**	**1.4**	**1.4**	**1.6**	**2**	**2**	**2**	3.8	5.9
1,1,2-trichlorotrifluoroethane (Freon 113)	76-13-1	-	-	-	-	-	-	-	-	<1	<1
1,2-dichlorotetrafluoroethane	76-14-2	-	-	-	-	-	-	-	-	<1.5	<1.5
dichlorodifluoromethane (Freon 12)	75-71-8	**2.8**	**2.5**	**2.9**	**2.9**	**2.8**	**4.1**	**4.1**	**3.4**	<1	<5
hexachlorobutadiene (C-46)	87-68-3	-	-	-	-	-	-	-	-	<2	<6
Methyl tert-Butyl Ether	1634-04-4	**8**	**5.3**	**21**	**5**	**51**	**5.1**	**4.1**	**4**	NA	NA
methylene chloride (dichloromethane)	75-09-2	**0.71**	**0.73**	**0.99**	**1.1**	**4.8**	**0.81**	**1.1**	**2.8**	5.6	45
2-Propanol	67-63-0	-	-	**2.7**	-	**5.7**	**3**	**3.7**	**6.5**	NA	NA
Propene	115-07-1	-	-	-	-	-	-	-	-	NA	NA
tetrachloroethene	127-18-4	-	-	**1.5**	**1.2**	**1.3**	-	-	-	<10	7.3
Tetrahydrofuran	109-99-9	-	-	-	-	-	-	-	-	NA	NA
trans-1,2-dichloroethene	156-60-5	-	-	-	-	-	-	-	-	<10	<10
trans-1,3-dichloropropene	10061-02-6	-	-	-	-	-	-	-	-	<9	<10
trichloroethene	79-01-6	-	-	-	-	-	-	-	-	<5.3	<10
Vinyl Acetate	108-05-4	-	-	-	-	-	-	-	-	NA	NA
vinyl chloride	75-01-4	-	-	-	-	-	-	-	-	<1	<5

Notes:

Shaded concentrations indicate that the concentration is greater than the NYSDOH 75th percentile.

[1] These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

[2] These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

NA - Not Available. No data available for background concentrations of these compounds.

- Not detected at the detection limit indicated.

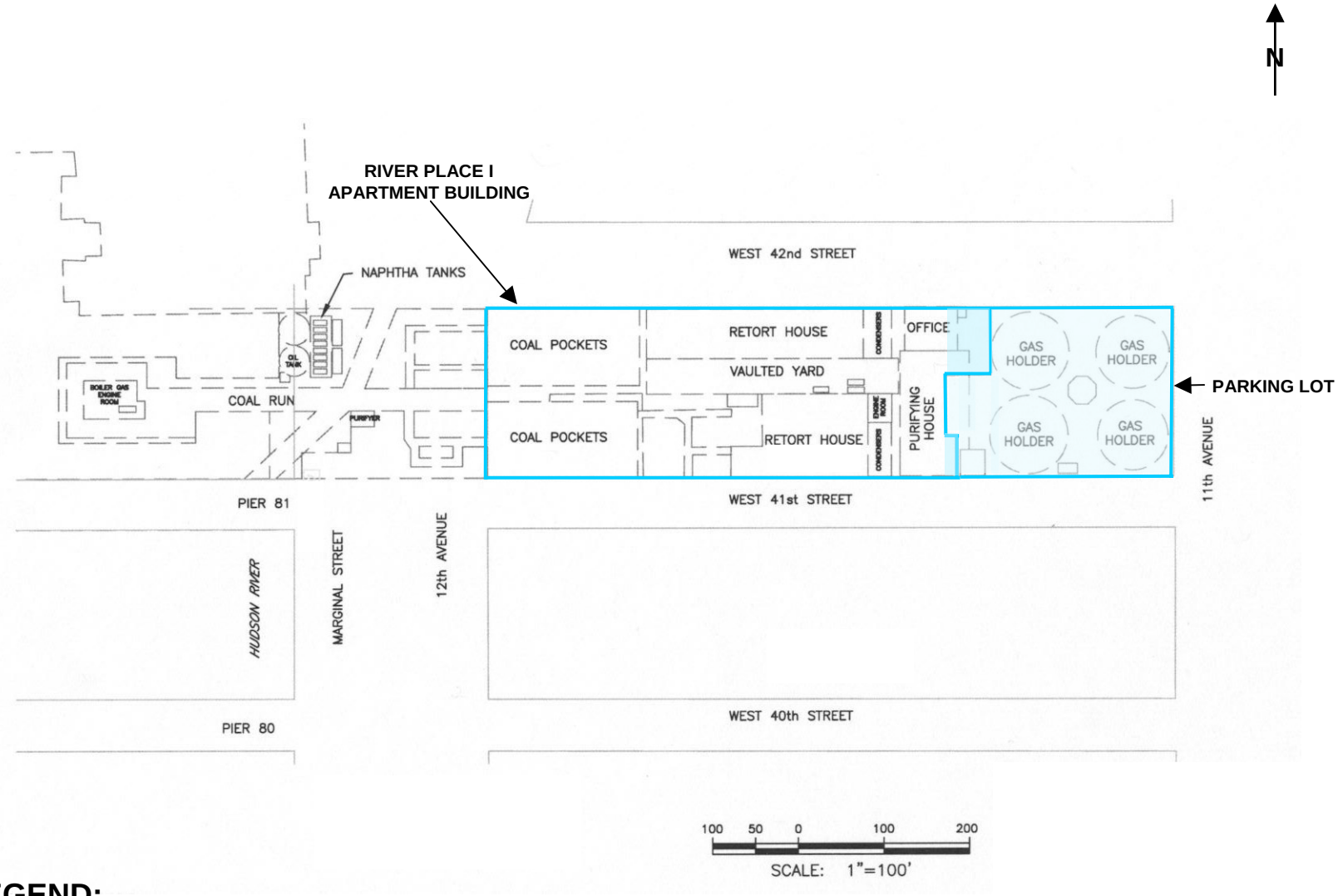
J - Estimated Concentration.

Table 5-2
Summary Table of Ambient, Indoor Air, and Soil Gas Results
River Place I Apartment Building - West 42nd Street Works Site
Resampling Event - April 23, 2004

Compound	CAS number	Sample Number, Location, and Results in ug/m3															Background Indoor Air Values	
Type of Sample		Ambient Air	Ambient Air	Ambient Air	Ambient Air	Indoor Air	Indoor Air-FD	Soil Gas	Soil Gas	Indoor Air	Soil Gas	Indoor Air	Indoor Air	Soil Gas	Soil Gas	Soil Gas-FD	DOH 75th ug/m3	DOH 95th ug/m3
Sample Location		Outdoor Northeast	Outdoor Southwest	Outdoor Northeast	Outdoor Southwest	Center, of Park Storage Room	Field Duplicate Center, of Park Storage Room	Northwest Corner, Retail Space #1	Southwest Corner, Retail Space #1	Center, Retail Space #2	Center, Retail Space #2	Center, Retail Space #1	Mgmt Office Conf Room	Entry, Park Storage	Center, Loading Dock	Field Duplicate Center, Loading Dock		
Sampling Date		4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004		
Sample ID		AMB-01	AMB-02	AMB-03	AMB-04	IA-01	IA-01 FD	SG-01	SG-02	IA-03	SG-03	IA-04	IA-02	SG-04	SG-05	SG-05 FD		
Possibly MGP Related or Other Sources [1]																		
1,2,4-Trimethylbenzene	95-63-6	1.6	2.0	1.6	2.7	0.99	0.99	7.7	-	0.98	21	4.6	1.3	3.1	4.4	4.5	7	20
1,3,5-Trimethylbenzene	108-67-8	-	-	-	0.86	-	-	2.3	-	-	10	1.4	-	0.89	2.0	2.1	<10	<10
2,3-Dimethylpentane	565-59-3	-	-	-	-	-	-	43	82	-	-	-	-	-	17	19	NA	NA
2-Hexanone	591-78-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
2-Methylpentane	107-83-5	3.1	4.2	-	3.7	-	-	15	47	-	-	4.9	-	-	8.7	9.8	NA	NA
4-Ethyltoluene	622-96-8	-	-	-	-	-	-	6.5	-	-	33	4.5	-	-	-	-	NA	NA
4-Methyl-2-pentanone	108-10-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
Benzene	71-43-2	2.9	4.1	2.9	4.6	1.5	1.6	31	-	1.5	2.7	4.6	2.0	1.6	77	83	5	14
Carbon Disulfide	75-15-0	-	-	-	-	-	-	23	-	4.2	3.3	-	-	-	10	12	NA	NA
Cyclohexane	110-82-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
Ethylbenzene	100-41-4	1.3	1.4	1.1	1.9	0.95	0.83	5.8	-	0.83	9.9	3.6	1.2	1.8	5.0	5.7	4.8	6.5
Heptane	142-82-5	-	-	-	-	-	-	6.5	-	-	-	-	-	-	-	-	NA	NA
Hexane	110-54-3	-	-	-	-	-	-	16	-	-	-	-	-	-	7.2	8.0	3.6	14
2,2,4-Trimethylpentane	540-84-1	-	-	-	-	-	-	40	14	-	-	-	-	-	-	-	NA	NA
Indan	496-11-7	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	NA	NA
Indene	95-13-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
Isopentane	78-784	6.9	7.3	5.7	9.0	3.2	3.0	18	7.8	3.7	-	11	3.8	-	14	17	NA	NA
Naphthalene	91-20-3	-	-	-	-	-	-	5.9	-	-	-	-	-	-	-	-	<10	<10
Styrene	100-42-5	-	-	-	-	-	-	2.5	-	-	4.0	-	-	3.4	6.0	5.6	<10	<10
Thiophene	110-02-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
Toluene	108-88-3	6.4	9.8	9.1	12	8.7	8.1	22	-	36	34	16	78	9.2	28	30	25	49
m/p-Xylenes	136777-61-2	3.9	4.6	3.6	6.3	3.1	2.6	13	-	2.6	33	13	3.9	6.4	15	16	9.5	21
o-Xylene	95-47-6	1.3	1.7	1.2	2.3	1.2	1.0	4.9	-	0.89	16	4.1	1.2	2.5	6.5	6.7	5	7.9
Not MGP Related [2]																		
1,1,1-Trichloroethane	71-55-6	-	-	-	-	-	-	1.1	-	-	-	-	-	-	3.1	3.7	6.7	28
1,1,2,2-Tetrachloroethane	79-34-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<9	<10
1,1,2-Trichloroethane	79-00-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<9	<10
1,1-Dichloroethane	75-34-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<10
1,1-Dichloroethene	75-35-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<8
1,2,4-Trichlorobenzene	120-82-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
1,2-Dibromoethane (EDB)	106-93-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	<1.5
1,2-Dichlorobenzene	95-50-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	<10
1,2-Dichloroethane	107-06-2	-	-	-	-	-	-	0.70	-	-	-	-	-	-	-	-	<1	<10
1,2-Dichloropropane	78-87-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
1,3-Butadiene	106-99-0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
1,3-Dichlorobenzene	541-73-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<8	<10
1,4-Dichlorobenzene	106-46-7	-	-	-	-	-	-	0.97	-	-	-	-	-	-	-	-	<5	5.1
1,4-Dioxane	123-91-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
2-Butanone (MEK)	78-93-3	-	3.2	-	3.0	4.6	5.6	15	-	60	10	5.0	91	5.3	5.3	6.3	NA	NA
Acetone	67-64-1	8.2	10	12	14	15	21	70	-	90 J	260 J	27	110 J	19	21	26	NA	NA
Benzyl Chloride	100-44-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1
Bromodichloromethane	75-27-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
Bromoform	75-25-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
Bromomethane	74-83-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1
Carbon Tetrachloride	56-23-5	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	<6.2	<10
Chlorobenzene	108-90-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
Chloroethane	75-00-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1
Chloroform	67-66-3	-	-	-	-	-	-	5.0	-	-	6.3	-	-	4.8	11	13	4.3	<10
Chloromethane	74-87-3	1.1	0.98	1.1	1.0	0.97	0.99	0.45	-	1.1	-	1.2	1.1	0.47	-	1.2	<2	2.6
cis-1,2-Dichloroethene	156-59-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
cis-1,3-Dichloropropene	10061-01-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<9	<10
Dibromochloromethane	124-48-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
Ethanol	64-17-5	7.9	11	7.7	12	11	15	14	-	84 J	210 J	55 J	31	5.2	3.1	3.9	NA	NA
Trichlorofluoromethane (Freon 11)	75-69-4	1.7	1.7	1.7	1.6	1.7	1.7	1.7	-	5.4	1.6	1.6	1.6	1.9	2.2	2.4	3.8	5.9
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1
1,2-Dichlorotetrafluoroethane	76-14-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	<1.5
Dichlorodifluoromethane (Freon 12)	75-71-8	3.1	3.0	2.9	2.8	2.8	3.0	3.0	-	3.6	2.8	3.1	3.1	3.0	4.7	5.0	<1	<5
Hexachlorobutadiene (C-46)	87-68-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<6
Methyl tert-Butyl Ether	1634-04-4	-	-	-	3.5	-	-	-	-	-	-	3.7	-	-	-	-	NA	NA
Methylene Chloride (Dichloromethane)	75-09-2	0.55	-	1.6	2.0	1.4	1.4	-	-	5.2	-	1.1	14	-	-	-	5.6	45
2-Propanol	67-63-0	-	-	-	2.4	-	-	6.4	-	13	15	9.7	6.4	-	-	-	NA	NA
Propene	115-07-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
Tetrachloroethene	127-18-4	-	-	1.5	-	1.7	-	2.1	-	22	2.7	2.1	4.5	1.6	3.6	4.1	<10	7.3
Tetrahydrofuran	109-99-9	-	-	-	-	-	-	-	-	-	5.2	-	-	-	-	-	NA	NA
trans-1,2-Dichloroethene	156-60-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10
trans-1,3-Dichloropropene	10061-02-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<9	<10
Trichloroethene	79-01-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5.3	<10
Vinyl Acetate	108-05-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
Vinyl Chloride	75-01-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.89	<1	<5

Notes:
Shaded concentrations indicate that the concentration is greater than the NYSDOH 75th percentile.
[1] These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.
[2] These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.
NA - Not Available. No data available for background concentrations of these compounds.
- Not detected at the detection limit indicated.
J - Estimated Concentration.

Figures



LEGEND:

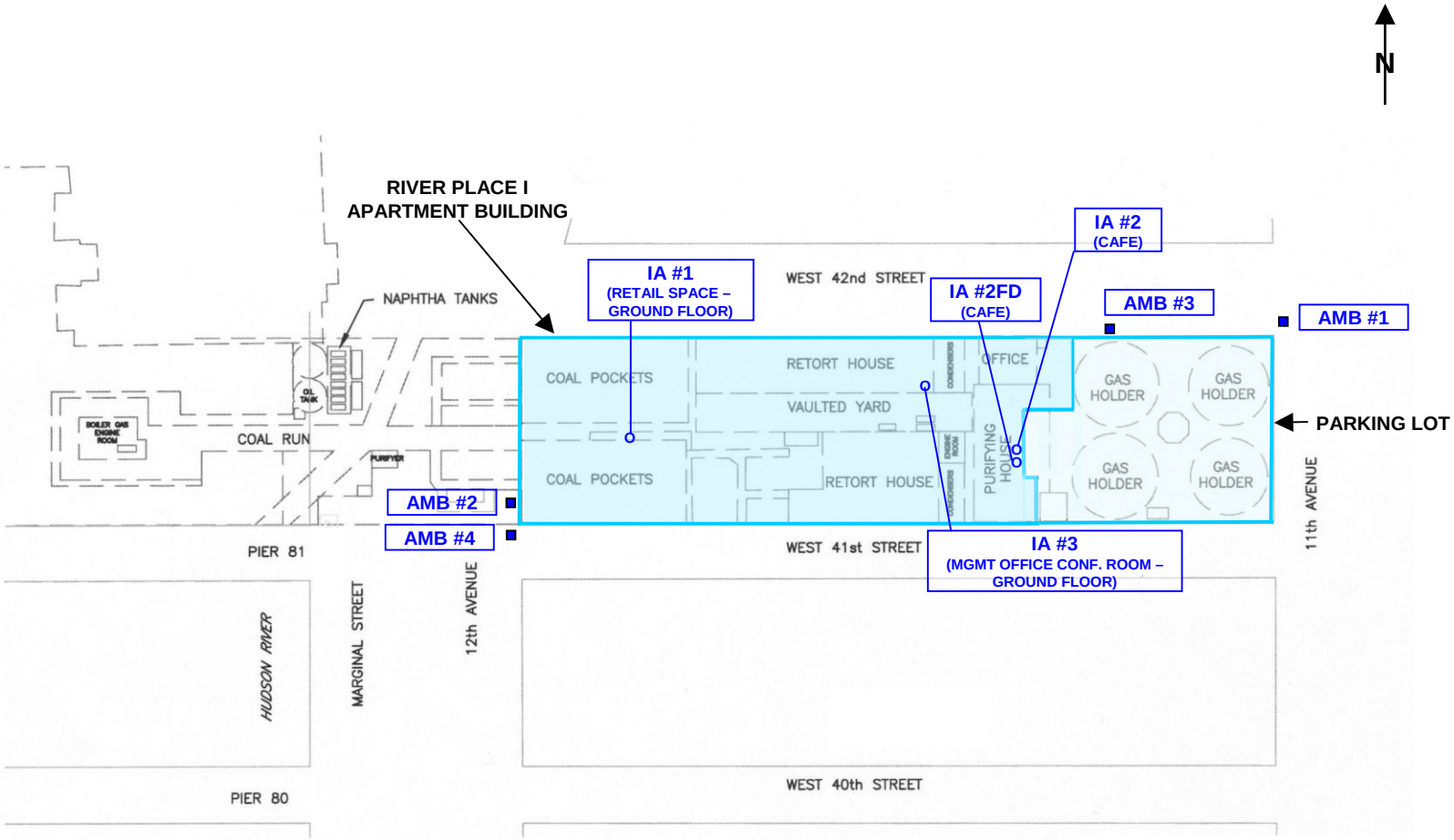
CURRENT SITE STRUCTURES

FORMER MGP STRUCTURE

NOTE: BASE MAP SOURCE PARSONS SITE HISTORY REPORT, 2002

RETEC

CONSOLIDATED EDISON FORMER WEST 42ND STREET WORKS CECN3-16197-121		HISTORIC USE COMPOSITE MAP RIVER PLACE I	
DATE: 5/07/03	DRWN: SBW-ITH		Figure 2-1



LEGEND:

- CURRENT SITE STRUCTURES
- FORMER MGP STRUCTURE
- O IA # — INDOOR AIR SAMPLING LOCATION
- AMB # — AMBIENT AIR SAMPLING LOCATION
- FD — FIELD DUPLICATE

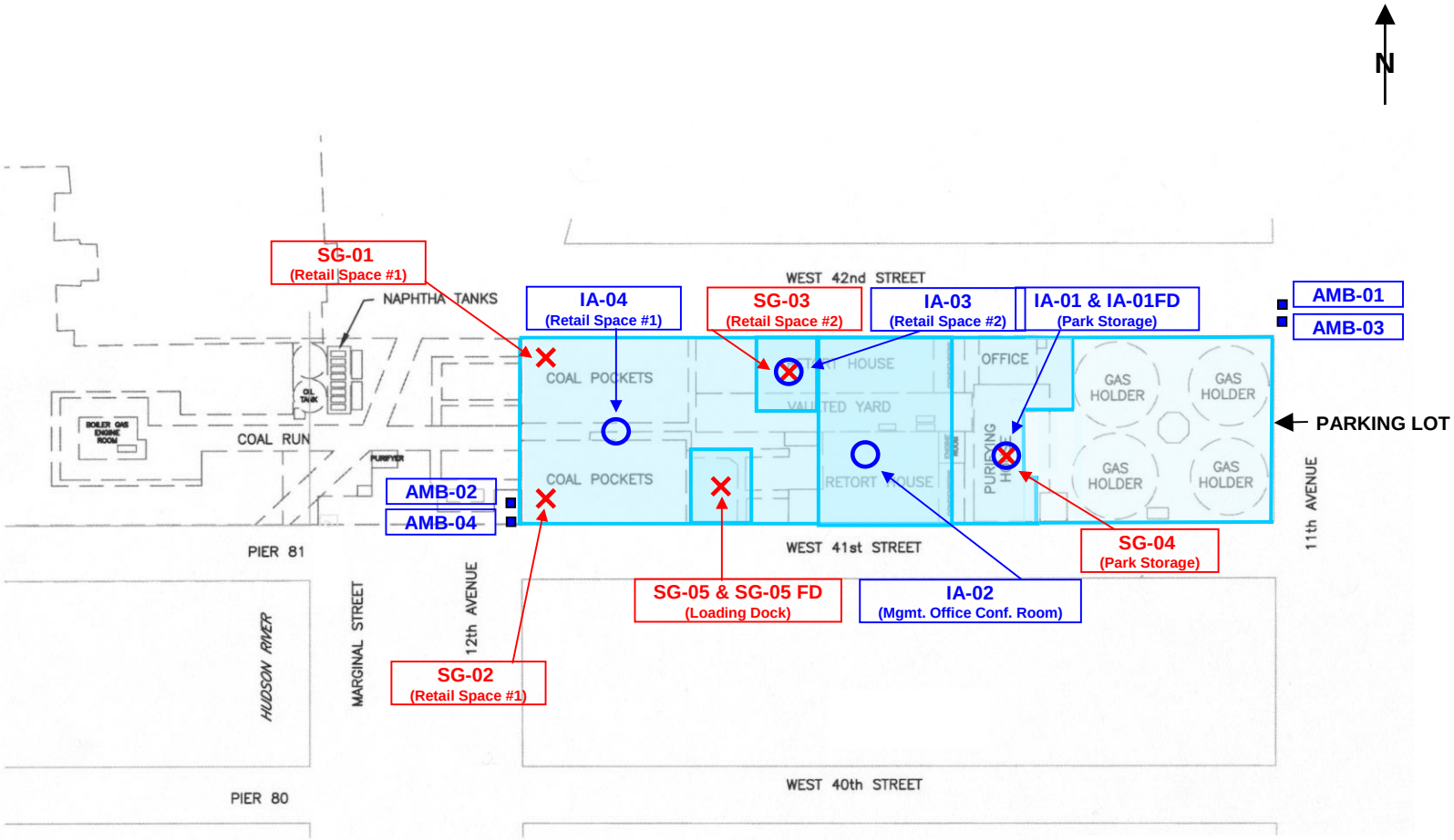
100 50 0 100 200

SCALE: 1"=100'

NOTES: BASE MAP SOURCE PARSONS SITE HISTORY REPORT, 2002

RETEC

CONSOLIDATED EDISON FORMER WEST 42ND STREET WORKS CECN3-16197-121		AIR MONITORING LOCATIONS – APRIL 2003 RIVER PLACE I	
DATE: 5/07/03	DRWN: SBW-ITH		Figure 3-1



LEGEND:

- CURRENT SITE STRUCTURES
- FORMER MGP STRUCTURE
- × SG-## SOIL GAS SAMPLING LOCATION
- O IA-## INDOOR AIR SAMPLING LOCATION
- ■ AMB-## AMBIENT AIR SAMPLING LOCATION
- FD FIELD DUPLICATE

NOTES: BASE MAP SOURCE PARSONS SITE HISTORY REPORT, 2002
SOIL GAS SAMPLE LOCATIONS WILL BE CONFIRMED DURING UTILITY CLEARANCE ACTIVITIES.

RETEC

CONSOLIDATED EDISON FORMER WEST 42ND STREET WORKS CECN8-16916		AIR MONITORING & SOIL GAS LOCATIONS APRIL 2004 RIVER PLACE I BUILDING	
DATE: 5/25/04	DRWN: AKW-PHL		Figure 3-2

Appendix A

NYSDEC/NYSDOH Letters and NYSDOH Questionnaire and Chemical Inventory

NYSDEC/NYSDOH Letters

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway, Albany, New York 12233-7010
Phone: (518) 402-9564 • **FAX:** (518) 402-9679
Website: www.dec.state.ny.us

2004 JAN 12 PM 1:4

Erin M. Crotty
Commissione

January 5, 2004

Eddy Louie, P.E.
Consolidated Edison Company
31-01 20th Avenue, Bldg. 136
Long Island City, NY 11105-2048

Re: West 42nd Street Works
River Place I
Indoor Air Evaluation Report
Site No. V00531-2

Dear Mr. Louie:

The Department has received the attached December 30, 2003 letter form the New York State Department of Health (NYSDOH) reflecting their evaluation of indoor air samples collected at the subject site. Our review of that evaluation indicates that the DOH has not identified the need for an immediate response action to reduce exposures at the property.

While an immediate response is not required, the NYSDOH does not believe that a conclusive determination can be made at this time to rule out an MGP impact to the indoor air. Additional sampling of the sub-slab soil gas is required before any determination can be made as to the likelihood of future exposure.

If you have any questions, please call me at 518-402-9564.

Sincerely,

Joseph Moloughney, P.E.
Environmental Engineer 2
MGP Remedial Section
Division of Environmental Remediation

ec: J. O'Connell, NYSDEC
B. Callaghan, NYSDOH
D. Walsh, NYSDEC

File

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

December 30, 2003

Mr. Joseph Moloughney
Division of Environmental Remediation
Remedial Bureau C, Section C
NYS Department of Environmental Conservation
625 Broadway – 11th Floor
Albany, NY 12233-7014

Re: **Indoor Air Evaluation Report**
West 42nd Street
Site # V005312
New York, New York County

Dear Mr. Moloughney:

I have reviewed the *Indoor Air Evaluation Report* dated September 3, 2003, for the above-referenced site and I offer the following comments:

1. The recommendation of no further action regarding potential vapor intrusion of manufactured gas plant (MGP) by-products into indoor air is unacceptable. Chemicals potentially related to manufactured gas plant waste were detected in indoor air at levels above the ambient outdoor air samples and the New York State Department of Health and United States Environmental Protection Agency background databases. The conclusion that the detection of these chemicals is due entirely to various household products stored on-site and ambient air sources cannot be supported due to the lack of any sub-surface vapor characterization.

2. Over-time, the competency of the building slab may degrade and represent a situation where vapor intrusion may occur. Furthermore, the historic identification of MGP waste beneath the River Place I building, as well as the presence of MGP waste on the neighboring parking lot (the future location of the River Place II building), indicates that the future potential for vapor intrusion must be fully evaluated. Toward this end, the Volunteer must submit a work plan to characterize sub-surface vapor conditions.

3. Data collected from this single sampling event does not fully characterize actual site conditions over time. The consultant must submit a comprehensive indoor air monitoring plan to characterize site conditions under various seasons and heating, ventilation and air conditioning system operations.

I thank you for the opportunity to comment on this project and look forward to its progress. If you have any questions, please contact me at (518) 402-7880.

Sincerely,

Bridget K. Callaghan
Public Health Specialist II
Bureau of Environmental Exposure Investigation

cc: Mr. G. Litwin / Mr. G. Laccetti / file
Ms. J. Prudhomme – NYCDOH
Mr. B. Devine – MARO
Mr. G. Harris – NYSDEC
Mr. D. Walsh – NYSDEC, Reg.2
Mr. D. Greeley – NYCDOH

P:\Bureau\Sites\Region_2\NEW_YORK\V005312\IAR#1.doc

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway, Albany, New York 12233-7010
Phone: (518) 402-9564 • **FAX:** (518) 402-9679
Website: www.dec.state.ny.us

2004 JUL 22 AM 10: 03

Erin M. Crotty
Commissioner

July 17, 2004

Eddy Louie, P.E.
Consolidated Edison Company
31-01 20th Avenue, Bldg. 136
Long Island City, NY 11105-2048

Re: West 42nd Street Works
River Place I
Revised Draft Report of Indoor Air Quality Investigation
Site No. V00531-2

Dear Mr. Louie:

The Department has received the attached July 15, 2004 communication from the New York State Department of Health (NYSDOH) reflecting their evaluation of indoor air samples collected at the subject site. Our review of that evaluation indicates that the DOH has not identified the need for an immediate response action to reduce exposures at the property. Please modify the language in the revised report to address the NYSDOH comments.

If you have any questions, please call me at 518-402-9564.

Sincerely,

Joseph Moloughney, P.E.
Environmental Engineer 2
MGP Remedial Section
Division of Environmental Remediation

ec: J. O'Connell, NYSDEC
D. Hettrick, NYSDOH
D. Walsh, NYSDEC

----- Message from "Dawn E. Hettrick" <deh02@health.state.ny.us> on Thu, 15 Jul 2004 10:25:56 -0400 -----

To: "Joseph Moloughney" <jmmoloug@gw.dec.state.ny.us>

Subject W. 42nd St air report

:

Joe,

My only comment on this report is that they should remove the reference to Work Guidance Values in the Executive Summary. Although the statement is factual, since that they compared the indoor air concentrations to OSHA, NIOSH and ACGIH guidance values, space does not allow inclusion of the caveats associated with this comparison. The comparison to worker guidance values is irrelevant given the residential use of the building - a point that is acknowledged in the body of the report. Furthermore, discussion of this comparison in the Executive Summary over emphasizes its importance.

Thanks,
Dawn

DEC Indoor Air Revised Report comment

NYSDOH Questionnaire and Chemical Inventory

OSR-3

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH ASSESSMENT
BUREAU OF TOXIC SUBSTANCE ASSESSMENT

INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Dan Shearer Inspection date / Date Prepared 12/05/02

Preparer's Affiliation RETEC Phone No. 607-277-5716

1. **OCCUPANT** Manager's Name: Toni C. Giliberti

Address: River Place I, 650 W. 42nd Street

New York, NY 10036

County:

Home Phone No. Office Phone No 212-868-0330

2. **OWNER OR LANDLORD:** Name: Silverstein Properties Inc.
(If different than occupant)

Address: 120 Broadway

New York, NY 10271

Phone No. 212-577-9736

A. Building Construction Characteristics

Type (circle appropriate responses): Single Family (Multiple Dwelling) Commercial

Ranch	2-Family
Raised Ranch	Duplex
Split Level	(Apartment House) Units
Colonial	Number of floors 39
Mobile Home	Other specify

Residence Age 2 year General Description of Building Construction Materials concrete

Is the building insulated? (Yes) / No How air tight is the building tight

OSR-3 (continued)

B. Basement construction characteristics (circle all that apply):

1. Full basement, crawlspace, slab on grade, other _____
2. Basement floor: concrete, dirt, other NA
3. Concrete floor: unsealed, painted, covered; with NA
4. Foundation walls: poured concrete, block, laid up stone, other NA
5. The basement is: wet, damp, dry NA Sump present? y / n _____ Water in sump? y / n _____
6. The basement is: finished, unfinished NA
7. Identify potential soil vapor entry points (e.g., cracks, utility ports, etc.)
   The floor is between 8 and 12 inches thick and newly poured – there were no cracks in it.
8. Describe how air tight the basement is NA

C. HVAC (circle all that apply):

1. The type of heating system(s) used in this residence is/are:

Hot Air Circulation	Heat Pump
Hot Water Radiation	Unvented Kerosene Heater
Steam Radiation	Wood stove
Electric Baseboard	Other (specify)_____

2. The type(s) of fuel(s) used is/are: Natural Gas, Fuel Oil, Electric, Wood, Coal Solar
   Other (specify)_____.
3. Is the heating system's power plant located in the basement or another area: Mechanical Room .
4. Is there air-conditioning? Yes / No Central Air or Window Units?
   Specify the location Mechanical Room
5. Are there air distribution ducts present? Yes / No
6. Describe the supply and cold air return duct work in the basement including whether there is a cold air return, the tightness of duct joints
   There is a cold air return in the mechanical room; all joints are air tight.

OSR-3 (continued)

D. Potential Indoor Sources of Pollution

1. Has the house ever had a fire? Yes / (No)
2. Is there an attached garage? Yes / (No)
3. Is a vehicle normally parked in the garage? Yes / (No)
4. Is there a kerosene heater present? Yes / (No)
5. Is there a workshop, hobby or craft area in the residence? Yes / (No)
6. An inventory of all products used or stored in the home should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached product inventory form should be used for this purpose.
7. Is there a kitchen exhaust fan? Yes / No Where is it vented? _____
8. Has the house ever been fumigated? If yes describe date, type and location of treatment.

_____

E. Water and Sewage (Circle the appropriate response)

Source of Water

(Public Water) Drilled Well Driven Well Dug Well Other (Specify)_____

Water Well Specifications:

Well Diameter _____ Grouted or Ungrouted _____

Well Depth _____ Type of Storage Tank _____

Depth to Bedrock _____ Size of Storage Tank _____

Feet of Casing _____ Describe type(s) of Treatment _____

_____

Water Quality:

Taste and/or odor problems? y / n If so, describe Not Tasted

How long has the taste and/or odor been present? Not Tasted

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Other (Specify) _____

Distance from well to septic system_____ Type of septic tank additive _____

F. <u>Plan View</u>

Draw a plan view sketch for each floor of the residence and if applicable, indicate air sampling locations, possible indoor air pollution sources and PID meter readings.

Plan view provided in site-specific Work Plan

OSR-3 (continued)

G. <u>Potential Outdoor Sources of Pollution</u>

Draw a sketch of the area surrounding the residence being sampled. If applicable, provide information on the spill location (if known), potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system if applicable, and a qualifying statement to help locate the site on a topographical map.

Plan View provided in site-specific Work Plan. Major outdoor sources include vehicle emissions from West 42nd Street, 11th Avenue, 12th Avenue, and West 41st Avenue.

Household Products Inventory

Occupant / residence _____

Investigator: Dan Shearer Date: 12/4/02

Product description (dispenser, size, manufacturer …)	VOC Ingredients	PID Reading
#6 Fuel Oil Tank in Retail Space	Unknown	No PID readings were taken.
Gasoline in machines in Retail Space	unknown	No PID readings were taken.

OSR-3

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH ASSESSMENT
BUREAU OF TOXIC SUBSTANCE ASSESSMENT

INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Dan Shearer (updated A. Williams 4/22/2004) Date Prepared Dec 05, 2002

Preparer's Affiliation The RETEC Group, Inc. Phone No. 607-277-5716

1. **OCCUPANT**

Name: Multiple occupants

Address: River Place 1, 650 W. 42nd Street

New York, NY 10036

County:

Home Phone No. Office Phone No 212-868-0330

2. **OWNER OR LANDLORD:**

(If different than occupant)

Name: Toni C. Giliberti
Silverstein Properties, Inc.

Address: 120 Broadway

New York, NY 10271

Phone No. 212-577-9736

A. Building Construction Characteristics

Type (circle appropriate responses): Single Family (Multiple Dwelling) Commercial

Ranch	2-Family
Raised Ranch	Duplex
Split Level	(Apartment House) Units
Colonial	Number of floors 39
Mobile Home	Other specify also contains retail spaces

Residence Age since yr. 2000 General Description of Building Construction Materials Concrete, masonry, glass

Is the building insulated? (Yes) / No How air tight is the building substantially air tight

OSR-3 (continued)

B. Basement construction characteristics (circle all that apply):

1. Slab on Grade, crawlspace, full basement, other _____
2. Basement floor: concrete, dirt, other NA
3. Concrete floor: unsealed, painted, covered; with NA
4. Foundation walls: poured concrete, block, laid up stone, other NA
5. The basement is: wet, damp, dry NA Sump present? NA Water in sump? y / n _____
6. The basement is: finished, unfinished NA
7. Identify potential soil vapor entry points (e.g., cracks, utility ports, etc.)
   The floor is between 8 & 12 inches thick and newly poured – with no cracks (Some cracking noted on floors in Park Storage and Retail Space #2, no other obvious confounding factors. AKW 4/22/04)
8. Describe how air tight the basement is NA

C. HVAC (circle all that apply):

1. The type of heating system(s) used in this residence is/are:

Hot Air Circulation	Heat Pump
Hot Water Radiation	Unvented Kerosene Heater
Steam Radiation	Wood stove
Electric Baseboard	Other (specify)_____

2. The type(s) of fuel(s) used is/are: Natural Gas, Fuel Oil, Electric, Wood, Coal Solar
   Other (specify)_____.
3. Is the heating system's power plant located in the basement or another area: Mechanical Room
4. Is there air-conditioning? Yes / No Central Air or Window Units?
   Specify the location Mechanical Room
5. Are there air distribution ducts present? Yes / No
6. Describe the supply and cold air return duct work in the basement including whether there is a cold air return, the tightness of duct joints
   There is a cold air return in the mechanical room; all joints are air tight.

OSR-3 (continued)

D. Potential Indoor Sources of Pollution

1. Has the house ever had a fire? Yes / (No) Not recently
2. Is there an attached garage? Yes / (No)
3. Is a vehicle normally parked in the garage? Yes / (No)
4. Is there a kerosene heater present? Yes / (No)
5. Is there a workshop, hobby or craft area in the residence? Yes / (No)
6. An inventory of all products used or stored in the home should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached product inventory form should be used for this purpose.
7. Is there a kitchen exhaust fan? Yes / No _____ Where is it vented? _____
8. Has the house ever been fumigated? If yes describe date, type and location of treatment.

_____

E. Water and Sewage (Circle the appropriate response)

Source of Water

(Public Water) Drilled Well Driven Well Dug Well Other (Specify)_____

Water Well Specifications: Not Applicable

Well Diameter _____ Grouted or Ungrouted _____

Well Depth _____ Type of Storage Tank _____

Depth to Bedrock _____ Size of Storage Tank _____

Feet of Casing _____ Describe type(s) of Treatment _____

_____

Water Quality: Not Applicable

Taste and/or odor problems? y / n If so, describe _____

How long has the taste and/or odor been present? _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Other (Specify) _____

Distance from well to septic system_____ Type of septic tank additive _____

OSR-3 (continued)

F. <u>Plan View</u>

Draw a plan view sketch for each floor of the residence and if applicable, indicate air sampling locations, possible indoor air pollution sources and PID meter readings.

Provided in the site specific work plan.

OSR-3 (continued)

G. Potential Outdoor Sources of Pollution

Draw a sketch of the area surrounding the residence being sampled. If applicable, provide information on the spill location (if known), potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system if applicable, and a qualifying statement to help locate the site on a topographical map.

See reports, including site history report and site specific work plan.

Household Products Inventory

Occupant / residence River Place 1, 650 W. 42nd Street

Investigator: Ali Williams Date: 4/22/04

Product description (dispenser, size, manufacturer …)	VOC Ingredients	PID Reading
#6 Fuel Oil Tank in Retail Space	Unknown	No PID Readings were taken.
Gasoline in machines in Retail Space	Unknown	No PID Readings were taken.
Century Brass Lacquer RFU (used on outdoor brass accents on entrance and windows; strong sweet, volatile odors.)	Unknown (see attachments).	No PID Readings were taken.
Made By: **G.J. Nikolas & Co., Inc.** 2800 Washington Blvd. Bellwood, Illinois 60104 Phone: 708-544-0320	6.90 Lb. VOC per Gallon	

Material Safety Data Sheet
for
Century Brass Lacquer RFU

MATERIAL SAFETY DATA SHEET

SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CENTURY BRASS LACQUER RFU
IDENTIFICATION NUMBER: LCENTURY DATE PRINTED: 01/07/04
PRODUCT USE/CLASS :

SUPPLIER:
G. J. NIKOLAS & CO., INC.
2800 Washington Blvd.
Bellwood, IL 60104

MANUFACTURER:
G. J. NIKOLAS & CO., INC.
2800 Washington Blvd.
Bellwood, IL 60104

EMERGENCY TELEPHONE: 800-424-9300
24 hours

EMERGENCY TELEPHONE: 800-424-9300
24 hours

PREPARER: JM, PHONE: 708-544-0320, PREPARE DATE: 01/07/04

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	WT. PERCENT IS LESS THAN	OCCUPATIONAL EXPOSURE LIMITS TLV-TWA	TLV-STEL	PEL-TWA	PEL-CEILING	SKIN
AROMATIC HYDROCARBON TOLUENE	108-88-3	35.0 %	50/ppm	150/ppm*			NO
ESTER	123-86-4	30.0 %	150 PPM	200 PPM			NO
ALCOHOL	71-36-3	10.0 %	C50 ppm	NO INFO*			YES
ESTER	763-69-9	10.0 %	NO INFO	NO INFO			NO
ESTER	141-78-6	10.0 %	400 ppm	NO INFO			NO
ALCOHOL	67-63-0	5.0 %	400	500			NO

(See Section II for abbreviation legend) * - Ceiling Value

SECTION III - PHYSICAL DATA

BOILING RANGE : 171 - 329 F
ODOR : CHARACTERISTIC
APPEARANCE : CLEAR LIQUID
SOLUBILITY IN H2O : LACQUER SOLVENT
VOLATILE BY WEIGHT: 90.4%
VOCS, lbs/gal : 6.84

VAPOR DENSITY : Is heavier than air
SPECIFIC GRAVITY:
EVAPORATION RATE: Is slower than Ether

VOLATILE BY VOL.: 94.3%
VOCS, grams/ltr : 819

(See Section XI for abbreviation legend)

(Continued on Page 2)

Product: LCENTURY Preparation Date: 01/07/04 Page 2

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 24 F (SETAFLASH CLOSED CUP)

LOWER EXPLOSIVE LIMIT: 1.0 %
UPPER EXPLOSIVE LIMIT: 11.5 %

EXTINGUISHING MEDIA: ALCOHOL FOAM CO2 DRY CHEMICAL FOAM WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Isolate from heat, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Do not use when smoking or where electrical sparks or open flame is present.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes moderate irritation. May cause: redness, swelling, pain, or eye injury.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause mild irritation. Prolonged and repeated contact with skin can cause defatting and drying of the skin which may result in skin irritation and dermatitis. Prolonged contact may cause: discomfort, pain, redness, swelling, or tissue destruction.

EFFECTS OF OVEREXPOSURE - INHALATION: Causes moderate irritation. Vapors may irritate: nose, throat, or respiratory tract. May cause: chest pain or coughing. Inhalation overexposure may lead to central nervous system depression producing effects such as: nausea, vomiting, headache, dizziness, drowsiness, weakness, and loss of consciousness. May produce signs and symptoms of toxicity similar to those described for swallowing. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

EFFECTS OF OVEREXPOSURE - INGESTION: May cause moderate irritation. Mildly toxic by ingestion. May cause: abdominal discomfort, nausea, vomiting, diarrhea, dizziness, drowsiness, headache, or unconsciousness. Liquid ingestion may result in vomiting; aspiration (breathing of liquid into the lungs) must be avoided as liquid contact with the lungs can result in chemical pneumonitis and pulmonary edema/hemorrhage. Prolonged or repeated exposure may cause damage to the liver.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Eye disorders. Skin disorders. Respiratory system disorders.

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lenses if possible.

(Continued on Page 3)

SECTION V - HEALTH HAZARD DATA

FIRST AID - SKIN CONTACT: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Discard contaminated leather articles such as shoes and belt. Do not apply oils or ointments unless ordered by the physician.

FIRST AID - INHALATION: Remove to FRESH air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

FIRST AID - INGESTION: If fully conscious, give two glasses of water, then induce vomiting by touching back of throat with finger. Keep head below hips to prevent aspiration of liquid into the lungs. CALL A PHYSICIAN immediately. Never induce vomiting or give anything by mouth to an unconscious victim.
NOTE TO PHYSICIANS: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Individuals experiencing breathing difficulties after exposure to vapor generated in aerosol applications should be observed for at least 48 hours in case delayed respiratory complications develop.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT SKIN ABSORPTION INHALATION INGESTION EYE CONTACT

SECTION VI - REACTIVITY DATA

HAZARDOUS DECOMPOSITION PRODUCTS: Burning can produce carbon-dioxide and/or carbon monoxide.

CONDITIONS TO AVOID: none known.

INCOMPATABILITY: Alkali metal hydroxides, such as sodium hydroxide, strong oxidizing agents such as nitric acid, strong acids, excessive heat and ignition sources.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid breathing solvent vapor. Ensure adequate ventilation. Avoid sparks, flames, and anything which could cause fire.

WASTE DISPOSAL METHOD: Soak liquids with sawdust or rags and remove. Flush

(Continued on Page 4)

SECTION VII - SPILL OR LEAK PROCEDURES

with water if possible. Avoid skin contact. Disposal should be in accordance with Local, State, and Federal Regulations.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: NIOSH/OSHA approved respirator types suitable for materials in section II recommended. Approved chemical/mechanical filters recommended when ventilation is restricted. Approved airline type respirators or hoods recommended in confined areas.

VENTILATION: Sufficient ventilation, in volume and pattern, should be provided to keep air contamination below current applicable OSHA permissible exposure limit or ACGHI'S TLV limit.

SKIN PROTECTION: Rubber or neoprene. Wear protective clothing sufficient td cover exposed skin surfaces. For applications where skin contact is likely use gloves and/or clothing made of neoprene rubber or butyl rubber.

EYE PROTECTION: Chemical-type splash goggles with side shields or face shield recommended.

OTHER PROTECTIVE EQUIPMENT: Use protective creams where skin contact is likely. Remove and wash contaminated clothing before reuse. Clothing adequate to protect skin, eyebath, and safety shower.

HYGIENIC PRACTICES: Wash hands before eating or smoking. Smoke in designated areas only.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: GROUNDING: when transferring, fill stem and container must be grounded and bonded. Store in a cool dry area with ventilation suitable for storing materials shown in section II. Keep away from heat, sparks and open flame. Do not cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death.

OTHER PRECAUTIONS: Provide respiratory protection against fumes generated during burning. Avoid prolonged contact with skin and breathing of vapors.

SECTION X - HMIS RATINGS

HMIS RATINGS - HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 2

(Continued on Page 5)

Product: LCENTURY Preparation Date: 01/07/04 Page 5

SECTION X - HMIS RATINGS

SECTION XI - OTHER REGULATIONS

SARA SECTION 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	WT/WT % IS LESS THAN
AROMATIC HYDROCARBON TOLUENE	108-88-3	35.0 %
ALCOHOL	71-36-3	10.0 %
ESTER	141-78-6	10.0 %
ALCOHOL	67-63-0	5.0 %

PREVIOUS MSDS REVISION DATE: 06/25/03

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

<END OF MSDS>

Appendix B

Photographic Record

Appendix B
Photo Log
April 25, 2004
River Place 1 Apartments

Photo 1: Indoor air samples IA-01 and IA-01FD taken in Park Storage Room.

Photo 2: Indoor air sample IA-02 and IA-01FD taken in Conference Room.

Photo 3: An alternative view of Indoor air sample IA-02.

Photo 4: Indoor Air sample IA-03 taken in Retail Space #2.

Photo 5: Indoor Air sample IA-04 taken in Retail Space #1.

Photo 6: Soil Gas sample IA-01 taken in Retail Space #1.

Photo 7: Soil Gas sample IA-02 taken in Retail Space #1.

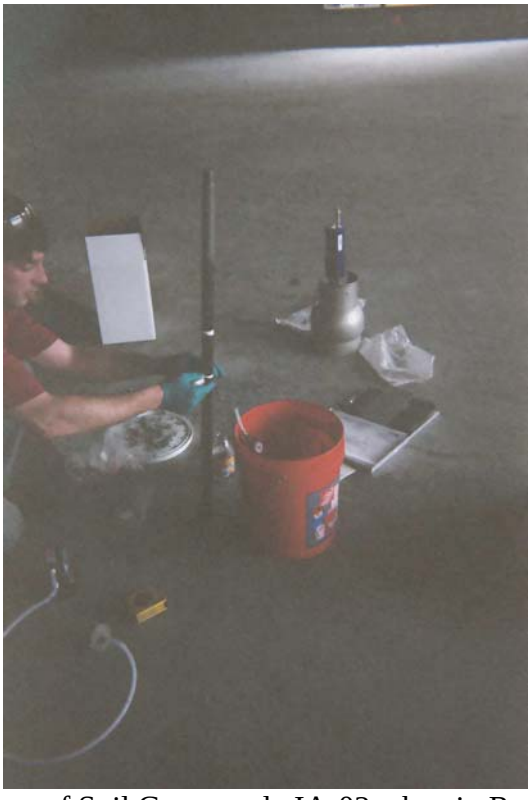


Photo 8: In progress photo of Soil Gas sample IA-02 taken in Retail Space #1.

Photo 9: Soil Gas sample IA-04 taken in Park Storage Room.

Photo 10: Soil Gas samples IA-05 and IA-05FD taken in Loading Dock.

Appendix C

Observations and Measurements During Sampling

Observations and Measurements During Sampling

April 2003

Table C-1
River Place I
SUMMA CANISTER SAMPLES
Clayton Project No. 40-03487.00
April 16, 2003

			Sample Duration		Canister Pressure	
Sample Number	**Canister Number**	**Location**	**Start**	**Stop**	**Initial**	**Final**
RP1-AMB-1	6615/ 000002542	Outdoor, near southwest corner of intersection of 42nd Street and 11th Avenue, next to public telephone	0542	0642	-30.0	-9.5
RP1-AMB-2	6619/ 000002548	Outdoor, northeast corner of intersection of 12th Avenue and 41st Street	0547	0647	-30.0	-8.5
RP1-IA-1	30850/ 000002561	Ground Floor, center of retail space	0716	0823	-30.0	-8.0
RP1-IA-2	6994/ 0000001678	Café	0704	0808	-28.5	-8.5
RP1-IA-2FD	4049/ 000002802	Café (field duplicate)	0704	0808	-30.0	-8.5
RP1-IA-3	7000/ 0000001727	Ground Floor, Management Office, in Conference Room	0727	0826	-29.0	-9.0
RP1-AMB-3	13344/ 0000000082	Outdoor, on 11th Avenue, near fire hydrant by parking lot	0837	0937	-30.0	-10.0
RP1-AMB-4	423/ 0000000976	Outdoor, northeast corner of intersection of 12th Avenue and 41st Street	0838	0938	-29.0	-8.5

Field Observations:

1. Noticeable paint odor in Café because the space was painted week before sampling.

2. Brass doorway and window moulding were being polished in lobby during indoor air sampling.

3. HVAC system was on in the management office during sampling. HVAC was off in Café and retail space during sampling. River Place employee that provided access to the retail space started smoking cigarette while in the space after the sample was started. Clayton requested that the cigarette be extinguished immediately and the employee complied.

Table C-2
River Place I
PID READINGS
Clayton Project No. 40-03487.00
April 16, 2003

Time	VOC[a] Concentration (ppm)[b]	Summa Canister Sample Number	Location
0551	0.0	RP1-AMB-1	Outdoor, near southwest corner of intersection of 42nd Street and 11th Avenue, next to public telephone
0600	0.0	RP1-AMB-2	Outdoor, northeast corner of intersection of 12th Avenue and 41st Street
0720	0.0-0.3	RP1-IA-1	Ground Floor, retail space, center of room
0705	0.0	RP1-IA-2	Café
0705	0.0	RP1-IA-2FD	Café (field duplicate)
0728	0.0-0.2	RP1-IA-3	Ground Floor, Management Office, in Conference Room
0920	0.0-0.2	RP1-AMB-3	Outdoor, on 11th Avenue, near fire hydrant by parking lot
0840	0.0-0.2	RP1-AMB-4	Outdoor, northeast corner of intersection of 12th Avenue and 41st Street

[a] volatile organic compound
[b] parts per million parts of air

Table C-3
River Place I
CYANIDE READINGS
Clayton Project No. 40-03487.00
April 16, 2003

Time	Cyanide Concentration (mg/m^3)[a]	Summa Canister Sample Number	Location
0720	ND[b]	RP1-IA-1	Ground Floor, center of retail space
0705	ND	RP1-IA-2	Café
0730	ND	RP1-IA-3	Ground Floor, Management Office, in Conference Room

[a] milligrams of cyanide per cubic meter of air
[b] no discoloration

Table C-4
River Place I
WEATHER STATION MEASUREMENTS
Clayton Project No. 40-03487.00
April 16, 2003

Time	Location	Temperature (ºF)	Relative Humidity (percent)	Barometric Pressure (in Hg)	Wind Speed (mph)	Direction Wind is Coming From
0547	Outdoor, near east end of River Place I property, near parking lot	62	64	29.96	0-2	Southwest-South
0645	Outdoor, near east end of River Place I property, near parking lot	61	72	29.96	0-2	West
0706	Café	68	57	29.96	----	----
0720	Center of Retail Space	72	60	29.97	----	----
0730	Ground Floor, Management Office, in Conference Room	73	53	29.97	----	----
0850	Outdoor, near east end of River Place I property, near parking lot	70	51	29.96	2-5	West-Northwest
0935	Outdoor, near east end of River Place I property, near parking lot	76	39	29.95	2-6	West-Northwest

Table C-5

River Place I
SMOKE TUBE
Clayton Project No. 40-03487.00
April 16, 2003

NOTE: Smoke tube testing was not performed due lack of HVAC in retail space and Café and lack of a basement or penetrations (pipes, drains, conduits, etc.) into or out of any of the spaces.

Observations and Measurements During Sampling

April 2004

Table C-1
Summary of Volatile Organic Compounds in Air Measured Using a Photoionization Detector During Collection of Air Samples
April 22, 2004
River Place I

Time	Location	VOC[a] Concentration (ppm)[b]	VOC Concentration (ppb)[c]
9:39	Park Storage room, central location.	--	4
10:02	Retail Space #2, central location.	--	122
10:17	Loading Dock, central location.	--	50 (200 to 300 ppb in garbage cans)
10:35	Retail Space #1.	--	37 ppb to 76 ppb
10:50	Conference Room.	--	26

Notes
[a] volatile organic compound
[b] parts of VOCs per million parts of air
[c] parts of VOCs per billion parts of air

Table C-2
Summary of Cyanide Measured in Air using Colorimetric Indicator Tubes
April 22, 2004
River Place I

Time	Location	Cyanide Concentration (mg/m^3)[a]
9:39	Park Storage room, central location.	[b]ND
10:02	Retail Space #2, central location.	ND
10:17	Loading Dock, central location.	ND
10:35	Retail Space #1.	ND
10:50	Conference Room.	ND

Notes

[a] milligrams of cyanide per cubic meter of air

[b] No color change was observed in sample tube

Table C-3
Summary of Meteorological Measurements Made
During the Collection of Air Samples
April 23, 2004
River Place I

Time	Temperature (°F)	Humidity (%)	Pressure (in. Hg)	Wind Speed (mph)	Wind Direction (from)
6:51	57.9	75	30.02	3.5	--
7:51	57.0	81	30.05	6.9	--
8:51	60.1	72	30.05	20.7	East Northeast
9:51	57.9	67	30.06	17.3	East Northeast
10:51	59.0	67	30.07	10.4	East Northeast
11:51	57.9	75	30.06	18.4	East Northeast
12:51	55.9	77	30.08	9.2	Northeast

Appendix D

Data Usability Summary Report and Analytical Data

Table D-1
Data Usability Summary Report
River Place I - West 42nd Street Works Site
Sampling Event - April 16, 2003

		Sample Number, Location and Results in ug/m^3								Background Indoor Air Values	
Compound	**CAS number**	**Ambient Air**	**Ambient Air**	**Ambient Air**	**Ambient Air**	**Indoor Air**	**Indoor Air**	**Indoor Air**	**Indoor Air**	**DOH 75th ug/m^3**	**DOH 95th ug/m^3**
		Outdoor, SW Corner 42nd St & 11th Ave	**Outdoor, NE Corner 12th Ave & 41st St**	**Outdoor, 11th Ave Near Fire Hydrant by Parking Lot**	**Outdoor, NE Corner 12th Ave & 41st St**	**Ground Floor Center of Retail Space**	**Café**	**Café Field Duplicate**	**Ground Floor, Mgmt Office, in Conf Room**		
Sampling Date		**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**	**4/16/2003**		
Sample ID		**RP1-AMB-1**	**RP1-AMB-2**	**RP1-AMB-3**	**RP1-AMB-4**	**RP1-IA-1**	**RP1-IA-2**	**RP1-IA-2FD**			
Possibly MGP Related or Other Sources [1]											
1,2,4-trimethylbenzene	95-63-6	**1.7**	0.91 U	**7.3**	**2.2**	**4.5**	0.91 U	**1.2**	0.95 U	7	20
1,3,5-trimethylbenzene	108-67-8	0.91 U	0.91 U	**2**	0.93 U	**1.2**	0.91 U	0.89 U	0.95 U	<10	<10
2,3-Dimethylpentane	565-59-3	3.8 U	3.8 U	4 U	3.9 U	**6**	3.8 U	3.7 U	4 U	NA	NA
2-Hexanone	591-78-6	3.8 U	3.8 U	4 U	3.9 U	3.6 U	3.8 U	3.7 U	4 U	NA	NA
2-Methylpentane	107-83-5	**3.4**	3.3 U	**11**	**4.5**	**18**	3.3 U	3.2 U	3.4 U	NA	NA
4-Ethyltoluene	622-96-8	4.6 U	4.6 U	**5.9**	4.7 U	4.4 U	4.6 U	4.5 U	4.8 U	NA	NA
4-Methyl-2-pentanone	108-10-1	3.8 U	3.8 U	4 U	3.9 U	**9.4**	3.8 U	3.7 U	4 U	NA	NA
benzene	71-43-2	**2.4**	**1.7**	**7.1**	**4.5**	**4.8**	**1.8**	**1.7**	**2.1**	5	14
carbon disulfide	75-15-0	2.9 U	2.9 U	3 U	3 U	2.8 U	2.9 U	2.8 U	3 U	NA	NA
Cyclohexane	110-82-7	3.2 U	3.2 U	3.3 U	3.3 U	3.1 U	3.2 U	3.1 U	3.3 U	NA	NA
ethylbenzene	100-41-4	**2.2**	**0.99**	**6.4**	**2.2**	**7.9**	**0.81**	**1.4**	**0.89**	4.8	6.5
heptane	142-82-5	3.8 U	3.8 U	4 U	3.9 U	3.6 U	3.8 U	3.7 U	4 U	NA	NA
hexane	110-54-3	3.3 U	3.3 U	**4**	3.3 U	**3.9**	3.3 U	3.2 U	3.4 U	3.6	14
2,2,4-trimethylpentane	540-84-1	4.3 U	4.3 U	**7.5**	4.4 U	**11**	4.3 U	4.2 U	4.5 U	NA	NA
Indan	496-11-7	4.5 U	4.5 U	4.7 U	4.6 U	4.3 U	4.5 U	4.4 U	4.7 U	NA	NA
Indene	95-13-6	4.4 U	4.4 U	4.6 U	4.5 U	4.2 U	4.4 U	4.3 U	4.6 U	NA	NA
Isopentane	78-784	**19**	**14**	**29**	**13**	**73**	**130**	**130**	**12**	NA	NA
naphthalene	91-20-3	4.9 UJ	4.9 UJ	5.1 UJ	5 UJ	4.7 UJ	4.9 UJ	4.8 UJ	5.1 UJ	<10	<10
styrene	100-42-5	**0.9**	0.79 U	**0.9**	0.81 U	0.76 U	0.79 U	0.77 U	0.83 U	<10	<10
Thiophene	110-02-1	3.2 U	3.2 U	3.3 U	3.3 U	3.1 U	3.2 U	3.1 U	3.3 U	NA	NA
toluene	108-88-3	**12**	**5.5**	**41**	**12**	**39**	**17**	**22**	**7.6**	25	49
m/p-xylenes	136777-61-2	**8.1**	**3.1**	**24**	**8.1**	**33**	**1.5**	**3.6**	**2.3**	9.5	21
o-xylene	95-47-6	**2.2**	**0.93**	**8.2**	**2.4**	**8.9**	0.81 U	**0.97**	0.84 U	5	7.9
Not MGP Related [2]											
1,1,1-trichloroethane	71-55-6	1 U	1 U	1 U	1 U	0.97 U	1 U	0.99 U	1 U	6.7	28
1,1,2,2-tetrachloroethane	79-34-5	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	1.3 U	1.2 U	1.3 U	<9	<10
1,1,2-trichloroethane	79-00-5	1 U	1 U	1 U	1 U	0.97 U	1 U	0.99 U	1 U	<9	<10
1,1-dichloroethane	75-34-3	0.75 U	0.75 U	0.78 U	0.77 U	0.72 U	0.75 U	0.74 U	0.78 U	<1	<10
1,1-dichloroethene	75-35-4	0.74 U	0.74 U	0.77 U	0.75 U	0.7 U	0.74 U	0.72 U	0.77 U	<1	<8
1,2,4-trichlorobenzene	120-82-1	6.9 U	6.9 U	7.2 U	7 U	6.6 U	6.9 U	6.8 U	7.2 U	<10	<10
1,2-dibromoethane (EDB)	106-93-4	1.4 U	1.4 U	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	<1.5	<1.5
1,2-dichlorobenzene	95-50-1	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	<6	<10
1,2-dichloroethane	107-06-2	0.75 UJ	0.75 UJ	0.78 UJ	0.77 UJ	0.72 UJ	0.75 U	0.74 U	0.78 U	<1	<10
1,2-dichloropropane	78-87-5	0.86 U	0.86 U	0.9 U	0.88 U	0.82 U	0.86 U	0.84 U	0.9 U	<10	<10
1,3-Butadiene	106-99-0	2 U	2 U	2.1 U	2.1 U	2 U	2 U	2 U	2.1 U	NA	NA
1.3-dichlorobenzene	541-73-1	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	<8	<10
1,4-dichlorobenzene	106-46-7	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	<5	5.1
1,4-Dioxane	123-91-1	3.4 U	3.4 U	3.5 U	3.4 U	3.2 U	3.4 U	3.3 U	3.5 U	NA	NA
2-butanone (MEK)	78-93-3	2.7 U	2.7 U	2.9 U	**3.4**	**14**	**5.5**	**5.5**	**7.4**	NA	NA
acetone	67-64-1	**8.1**	**7.4**	**8.7**	**12**	**28**	**15**	**17**	**33**	NA	NA
benzyl chloride	100-44-7	**1**	0.96 U	1 U	0.98 U	0.92 U	0.96 U	0.94 U	1 U	<1	<1
bromodichloromethane	75-27-4	6.2 U	6.2 U	6.5 U	6.4 U	6 U	6.2 U	6.1 U	6.5 U	<10	<10
bromoform	75-25-2	9.6 U	9.6 U	10 U	9.8 U	9.2 U	9.6 U	9.4 U	10 U	<10	<10
bromomethane	74-83-9	**1.2**	**1**	0.75 U	**1.1**	**0.85**	**1.3 J**	**1.2 J**	**1.2 J**	<1	<1
carbon tetrachloride	56-23-5	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	<6.2	<10
chlorobenzene	108-90-7	0.86 U	0.86 U	0.89 U	0.88 U	0.82 U	0.86 U	0.84 U	0.89 U	<10	<10
chloroethane	75-00-3	0.49 U	0.49 U	0.51 U	0.5 U	0.47 U	0.49 U	0.48 U	0.51 U	<1	<1
chloroform	67-66-3	0.91 U	0.91 U	0.95 U	0.93 U	0.87 U	0.91 U	0.89 U	0.95 U	4.3	<10
chloromethane	74-87-3	**1.1**	**0.98**	**0.94**	**0.97**	**1.1**	**1.2**	**1.1**	**1.1**	<2	2.6
cis-1,2-dichloroethene	156-59-2	0.74 U	0.74 U	0.77 U	0.75 U	0.7 U	0.74 U	0.72 U	0.77 U	<10	<10
cis-1,3-dichloropropene	10061-01-5	0.84 U	0.84 U	0.88 U	0.86 U	0.81 U	0.84 U	0.82 U	0.88 U	<9	<10
dibromochloromethane	124-48-1	7.9 U	7.9 U	8.3 U	8.1 U	7.6 U	7.9 U	7.7 U	8.3 U	<10	<10
Ethanol	64-17-5	**8.5 J**	**7.4 J**	**12 J**	**11 J**	**71 J**	**57 J**	**53 J**	**45 J**	NA	NA
trichlorofluoromethane (Freon 11)	75-69-4	**1.5**	**1.4**	**1.4**	**1.4**	**1.6**	**2**	**2**	**2**	3.8	5.9
1,1,2-trichlorotrifluoroethane (Freon 113)	76-13-1	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	<1	<1
1,2-dichlorotetrafluoroethane	76-14-2	1.3 U	1.3 U	1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.4 U	<1.5	<1.5
dichlorodifluoromethane (Freon 12)	75-71-8	**2.8**	**2.5**	**2.9**	**2.9**	**2.8**	**4.1**	**4.1**	**3.4**	<1	<5
hexachlorobutadiene (C-46)	87-68-3	9.9 U	9.9 U	10 U	10 U	9.5 U	9.9 U	9.7 U	10 U	<2	<6
Methyl tert-Butyl Ether	1634-04-4	**8**	**5.3**	**21**	**5**	**51**	**5.1**	**4.1**	**4**	NA	NA
methylene chloride (dichloromethane)	75-09-2	**0.71**	**0.73**	**0.99**	**1.1**	**4.8**	**0.81**	**1.1**	**2.8**	5.6	45
2-Propanol	67-63-0	2.3 U	2.3 U	**2.7**	2.3 U	**5.7**	**3**	**3.7**	**6.5**	NA	NA
Propene	115-07-1	1.6 U	1.6 U	1.7 U	1.6 U	1.5 U	1.6 U	1.6 U	1.7 U	NA	NA
tetrachloroethene	127-18-4	1.3 U	1.3 U	**1.5**	**1.2**	**1.3**	1.3 U	1.2 U	1.3 U	<10	7.3
Tetrahydrofuran	109-99-9	2.7 U	2.7 U	2.9 U	2.8 U	2.6 U	2.7 U	2.7 U	2.9 U	NA	NA
trans-1,2-dichloroethene	156-60-5	3.7 U	3.7 U	3.8 U	3.8 U	3.5 U	3.7 U	3.6 U	3.8 U	<10	<10
trans-1,3-dichloropropene	10061-02-6	0.84 U	0.84 U	0.88 U	0.86 U	0.81 U	0.84 U	0.82 U	0.88 U	<9	<10
trichloroethene	79-01-6	1 U	1 U	1 U	1 U	0.96 U	1 U	0.98 U	1 U	<5.3	<10
Vinyl Acetate	108-05-4	3.3 U	3.3 U	3.4 U	3.3 U	3.1 U	3.3 U	3.2 U	3.4 U	NA	NA
vinyl chloride	75-01-4	0.48 U	0.48 U	0.5 U	0.48 U	0.45 U	0.48 U	0.46 U	0.5 U	<1	<5

Notes:

Shaded concentrations indicate that the concentration is greater than the NYSDOH 75th percentile.

[1] These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

[2] These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

NA - Not Available. No data available for background concentrations of these compounds.

U - Not detected at the detection limit indicated.

J - Estimated Concentration.

Table D-2
Data Usability Summary Report
River Place I Apartment Building - West 42nd Street Works Site
Resampling Event - April 23, 2004

Compound	CAS number	Sample Number, Location, and Results in ug/m^3															Background Indoor Air Values	
Type of Sample		Ambient Air	Ambient Air	Ambient Air	Ambient Air	Indoor Air	Indoor Air-FD	Soil Gas	Soil Gas	Indoor Air	Soil Gas	Indoor Air	Indoor Air	Soil Gas	Soil Gas	Soil Gas-FD	DOH 75th ug/m^3	DOH 95th ug/m^3
Sample Location		Outdoor Northeast	Outdoor Southwest	Outdoor Northeast	Outdoor Southwest	Center, of Park Storage Room	Field Duplicate Center, of Park Storage Room	Northwest Corner, Retail Space #1	Southwest Corner, Retail Space #1	Center, Retail Space #2	Center, Retail Space #2	Center, Retail Space #1	Mgmt Office Conf Room	Entry, Park Storage	Center, Loading Dock	Field Duplicate Center, Loading Dock		
Sampling Date		4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004	4/23/2004		
Sample ID		AMB-01	AMB-02	AMB-03	AMB-04	IA-01	IA-01 FD	SG-01	SG-02	IA-03	SG-03	IA-04	IA-02	SG-04	SG-05	SG-05 FD		
Possibly MGP Related or Other Sources [1]																		
1,2,4-Trimethylbenzene	95-63-6	1.6	2.0	1.6	2.7	0.99	0.99	7.7	0.79 U	0.98	21	4.6	1.3	3.1	4.4	4.5	7	20
1,3,5-Trimethylbenzene	108-67-8	0.70 U	0.77 U	0.79 U	0.86	0.77 U	0.79 U	2.3	0.79 U	0.73 U	10	1.4	0.76 U	0.89	2.0	2.1	<10	<10
2,3-Dimethylpentane	565-59-3	2.9 U	3.2 U	3.3 U	3.4 U	3.2 U	3.3 U	43	82	3.0 U	3.5 U	3.3 U	3.2 U	3.3 U	17	19	NA	NA
2-Hexanone	591-78-6	2.9 U	3.2 U	3.3 U	3.4 U	3.2 U	3.3 U	3.2 U	3.3 U	3.0 U	3.5 U	3.3 U	3.2 U	3.3 U	6.3 U	6.7 U	NA	NA
2-Methylpentane	107-83-5	3.1	4.2	2.8 U	3.7	2.8 U	2.8 U	15	47	2.6 U	3.0 U	4.9	2.7 U	2.8 U	8.7	9.8	NA	NA
4-Ethyltoluene	622-96-8	3.5 U	3.9 U	3.9 U	4.0 U	3.9 U	3.9 U	6.5	3.9 U	3.6 U	33	4.5	3.8 U	3.9 U	7.6 U	8.0 U	NA	NA
4-Methyl-2-pentanone	108-10-1	2.9 U	3.2 U	3.3 U	3.4 U	3.2 U	3.3 U	3.2 U	3.3 U	3.0 U	3.5 U	3.3 U	3.2 U	3.3 U	6.3 U	6.7 U	NA	NA
Benzene	71-43-2	2.9	4.1	2.9	4.6	1.5	1.6	31	0.51 U	1.5	2.7	4.6	2.0	1.6	77	83	5	14
Carbon Disulfide	75-15-0	2.2 U	2.4 U	2.5 U	2.5 U	2.4 U	2.5 U	23	2.5 U	4.2	3.3	2.5 U	2.4 U	2.5 U	10	12	NA	NA
Cyclohexane	110-82-7	2.5 U	2.7 U	2.8 U	2.8 U	2.7 U	2.8 U	2.7 U	2.8 U	2.6 U	2.9 U	2.8 U	2.6 U	2.8 U	5.3 U	5.6 U	NA	NA
Ethylbenzene	100-41-4	1.3	1.4	1.1	1.9	0.95	0.83	5.8	0.70 U	0.83	9.9	3.6	1.2	1.8	5.0	5.7	4.8	6.5
Heptane	142-82-5	2.9 U	3.2 U	3.3 U	3.4 U	3.2 U	3.3 U	6.5	3.3 U	3.0 U	3.5 U	3.3 U	3.2 U	3.3 U	6.3 U	6.7 U	NA	NA
Hexane	110-54-3	2.5 U	2.8 U	2.8 U	2.9 U	2.8 U	2.8 U	16	2.8 U	2.6 U	3.0 U	2.8 U	2.7 U	2.8 U	7.2	8.0	3.6	14
2,2,4-Trimethylpentane	540-84-1	3.3 U	3.7 U	3.8 U	3.8 U	3.7 U	3.8 U	40	14	3.5 U	4.0 U	3.8 U	3.6 U	3.8 U	7.2 U	7.6 U	NA	NA
Indan	496-11-7	3.5 U	3.8 U	3.9 U	4.0 U	3.8 U	3.9 U	3.8 U	3.9 U	3.6 U	5.6	3.9 U	3.7 U	3.9 U	7.5 U	7.9 U	NA	NA
Indene	95-13-6	3.4 U	3.7 U	3.8 U	3.9 U	3.7 U	3.8 U	3.7 U	3.8 U	3.5 U	4.0 U	3.8 U	3.7 U	3.8 U	7.3 U	7.7 U	NA	NA
Isopentane	78-784	6.9	7.3	5.7	9.0	3.2	3.0	18	7.8	3.7	2.5 U	11	3.8	2.4 U	14	17	NA	NA
Naphthalene	91-20-3	3.8 UJ	4.1 UJ	4.2 UJ	4.3 UJ	4.1 UJ	4.2 UJ	5.9	4.2 U	3.9 U	4.5 U	4.2 U	4.0 UJ	4.2 U	8.1 U	8.5 U	<10	<10
Styrene	100-42-5	0.61 U	0.67 U	0.68 U	0.70 U	0.67 U	0.68 U	2.5	0.68 U	0.63 U	4.0	0.68 U	0.66 U	3.4	6.0	5.6	<10	<10
Thiophene	110-02-1	2.5 U	2.7 U	2.8 U	2.8 U	2.7 U	2.8 U	2.7 U	2.8 U	2.6 U	2.9 U	2.8 U	2.6 U	2.8 U	5.3 U	5.6 U	NA	NA
Toluene	108-88-3	6.4	9.8	9.1	12	8.7	8.1	22	0.60 U	36	34	16	78	9.2	28	30	25	49
m/p-Xylenes	136777-61-2	3.9	4.6	3.6	6.3	3.1	2.6	13	0.70 U	2.6	33	13	3.9	6.4	15	16	9.5	21
o-Xylene	95-47-6	1.3	1.7	1.2	2.3	1.2	1.0	4.9	0.70 U	0.89	16	4.1	1.2	2.5	6.5	6.7	5	7.9
Not MGP Related [2]																		
1,1,1-Trichloroethane	71-55-6	0.78 U	0.86 U	0.88 U	0.89 U	0.86 U	0.88 U	1.1	0.88 U	0.81 U	0.93 U	0.88 U	0.84 U	0.88 U	3.1	3.7	6.7	28
1,1,2,2-Tetrachloroethane	79-34-5	0.98 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.2 U	1.1 U	1.1 U	1.1 U	2.1 U	2.2 U	<9	<10
1,1,2-Trichloroethane	79-00-5	0.78 U	0.86 U	0.88 U	0.89 U	0.86 U	0.88 U	0.86 U	0.88 U	0.81 U	0.93 U	0.88 U	0.84 U	0.88 U	1.7 U	1.8 U	<9	<10
1,1-Dichloroethane	75-34-3	0.58 U	0.64 U	0.65 U	0.66 U	0.64 U	0.65 U	0.64 U	0.65 U	0.60 U	0.69 U	0.65 U	0.62 U	0.65 U	1.2 U	1.3 U	<1	<10
1,1-Dichloroethene	75-35-4	0.57 U	0.62 U	0.64 U	0.65 U	0.62 U	0.64 U	0.62 U	0.64 U	0.59 U	0.68 U	0.64 U	0.61 U	0.64 U	1.2 U	1.3 U	<1	<8
1,2,4-Trichlorobenzene	120-82-1	5.3 UJ	5.8 UJ	6.0 U	6.1 U	5.8 UJ	6.0 UJ	5.8 U	6.0 U	5.5 U	6.3 U	6.0 U	5.7 UJ	6.0 U	11 U	12 U	<10	<10
1,2-Dibromoethane (EDB)	106-93-4	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	2.4 U	2.5 U	<1.5	<1.5
1,2-Dichlorobenzene	95-50-1	0.86 U	0.95 U	0.96 U	0.98 U	0.95 U	0.96 U	0.95 U	0.96 U	0.89 U	1.0 U	0.96 U	0.93 U	0.96 U	1.8 U	2.0 U	<6	<10
1,2-Dichloroethane	107-06-2	0.58 U	0.64 U	0.65 U	0.66 U	0.64 U	0.65 U	0.70	0.65 U	0.60 U	0.69 U	0.65 U	0.62 U	0.65 U	1.2 U	1.3 U	<1	<10
1,2-Dichloropropane	78-87-5	0.66 U	0.73 U	0.74 U	0.76 U	0.73 U	0.74 U	0.73 U	0.74 U	0.68 U	0.79 U	0.74 U	0.71 U	0.74 U	1.4 U	1.5 U	<10	<10
1,3-Butadiene	106-99-0	1.6 U	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U	1.6 U	1.9 U	1.8 U	1.7 U	1.8 U	3.4 U	3.6 U	NA	NA
1,3-Dichlorobenzene	541-73-1	0.86 U	0.95 U	0.96 U	0.98 U	0.95 U	0.96 U	0.95 U	0.96 U	0.89 U	1.0 U	0.96 U	0.93 U	0.96 U	1.8 U	2.0 U	<8	<10
1,4-Dichlorobenzene	106-46-7	0.86 U	0.95 U	0.96 U	0.98 U	0.95 U	0.96 U	0.97	0.96 U	0.89 U	1.0 U	0.96 U	0.93 U	0.96 U	1.8 U	2.0 U	<5	5.1
1,4-Dioxane	123-91-1	2.6 U	2.8 U	2.9 U	2.9 U	2.8 U	2.9 U	2.8 U	2.9 U	2.7 U	3.1 U	2.9 U	2.8 U	2.9 U	5.6 U	5.9 U	NA	NA
2-Butanone (MEK)	78-93-3	2.1 U	3.2	2.4 U	3.0	4.6	5.6	15	2.4 U	60	10	5.0	91	5.3	5.3	6.3	NA	NA
Acetone	67-64-1	8.2	10	12	14	15	21	70	1.9 U	90 J	260 J	27	110 J	19	21	26	NA	NA
Benzyl Chloride	100-44-7	0.74 U	0.82 U	0.83 U	0.85 U	0.82 U	0.83 U	0.82 U	0.83 U	0.77 U	0.88 U	0.83 U	0.80 U	0.83 U	1.6 U	1.7 U	<1	<1
Bromodichloromethane	75-27-4	4.8 U	5.3 U	5.4 U	5.5 U	5.3 U	5.4 U	5.3 U	5.4 U	5.0 U	5.7 U	5.4 U	5.2 U	5.4 U	10 U	11 U	<10	<10
Bromoform	75-25-2	7.4 U	8.1 U	8.3 U	8.4 U	8.1 U	8.3 U	8.1 U	8.3 U	7.7 U	8.8 U	8.3 U	8.0 U	8.3 U	16 U	17 U	<10	<10
Bromomethane	74-83-9	0.56 U	0.61 U	0.62 U	0.64 U	0.61 U	0.62 U	0.61 U	0.62 U	0.58 U	0.66 U	0.62 U	0.60 U	0.62 U	1.2 U	1.3 U	<1	<1
Carbon Tetrachloride	56-23-5	0.90 UJ	0.99 UJ	1.0 UJ	1.0 UJ	0.99 UJ	1.0 UJ	0.99 U	1.0 UJ	0.93 U	1.1 U	1.0 U	0.97 UJ	1.2	1.9 U	2.0 U	<6.2	<10
Chlorobenzene	108-90-7	0.66 U	0.72 U	0.74 U	0.75 U	0.72 U	0.74 U	0.72 U	0.74 U	0.68 U	0.79 U	0.74 U	0.71 U	0.74 U	1.4 U	1.5 U	<10	<10
Chloroethane	75-00-3	0.38 U	0.42 U	0.42 U	0.43 U	0.42 U	0.42 U	0.42 U	0.42 U	0.39 U	0.45 U	0.42 U	0.41 U	0.42 U	0.82 U	0.86 U	<1	<1
Chloroform	67-66-3	0.70 U	0.77 U	0.78 U	0.80 U	0.77 U	0.78 U	5.0	0.78 U	0.72 U	6.3	0.78 U	0.75 U	4.8	11	13	4.3	<10
Chloromethane	74-87-3	1.1	0.98	1.1	1.0	0.97	0.99	0.45	0.33 U	1.1	0.35 U	1.2	1.1	0.47	0.64 U	1.2	<2	2.6
cis-1,2-Dichloroethene	156-59-2	0.57 U	0.62 U	0.64 U	0.65 U	0.62 U	0.64 U	0.62 U	0.64 U	0.59 U	0.68 U	0.64 U	0.61 U	0.64 U	1.2 U	1.3 U	<10	<10
cis-1,3-Dichloropropene	10061-01-5	0.65 U	0.72 U	0.73 U	0.74 U	0.72 U	0.73 U	0.72 U	0.73 U	0.67 U	0.78 U	0.73 U	0.70 U	0.73 U	1.4 U	1.5 U	<9	<10
Dibromochloromethane	124-48-1	6.1 U	6.7 U	6.8 U	7.0 U	6.7 U	6.8 U	6.7 U	6.8 U	6.3 U	7.3 U	6.8 U	6.6 U	6.8 U	13 U	14 U	<10	<10
Ethanol	64-17-5	7.9	11	7.7	12	11	15	14	1.5 U	84 J	210 J	55 J	31	5.2	3.1	3.9	NA	NA
Trichlorofluoromethane (Freon 11)	75-69-4	1.7	1.7	1.7	1.6	1.7	1.7	1.7	0.90 U	5.4	1.6	1.6	1.6	1.9	2.2	2.4	3.8	5.9
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	2.4 U	2.5 U	<1	<1
1,2-Dichlorotetrafluoroethane	76-14-2	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.2 U	1.1 U	1.1 U	1.1 U	2.2 U	2.3 U	<1.5	<1.5
Dichlorodifluoromethane (Freon 12)	75-71-8	3.1	3.0	2.9	2.8	2.8	3.0	3.0	0.79 U	3.6	2.8	3.1	3.1	3.0	4.7	5.0	<1	<5
Hexachlorobutadiene (C-46)	87-68-3	7.6 UJ	8.4 UJ	8.6 U	8.7 U	8.4 UJ	8.6 UJ	8.4 U	8.6 U	7.9 U	9.1 U	8.6 U	8.2 UJ	8.6 U	16 U	17 U	<2	<6
Methyl tert-Butyl Ether	1634-04-4	2.6 U	2.8 U	2.9 U	3.5	2.8 U	2.9 U	2.8 U	2.9 U	2.7 U	3.1 U	3.7	2.8 U	2.9 U	5.6 U	5.9 U	NA	NA
Methylene Chloride (Dichloromethane)	75-09-2	0.55	0.55U	1.6	2.0	1.4	1.4	0.55 U	0.56 U	5.2	0.59 U	1.1	14	0.56 U	1.1 U	1.1 U	5.6	45
2-Propanol	67-63-0	1.8 U	1.9 U	2.0 U	2.4	1.9 U	2.0 U	6.4	2.0 U	13	15	9.7	6.4	2.0 U	3.8 U	4.0 U	NA	NA
Propene	115-07-1	1.2 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.3 U	1.5 U	1.4 U	1.3 U	1.4 U	2.6 U	2.8 U	NA	NA
Tetrachloroethene	127-18-4	0.97 U	1.1 U	1.5	1.1 U	1.7	1.1 U	2.1	1.1 U	22	2.7	2.1	4.5	1.6	3.6	4.1	<10	7.3
Tetrahydrofuran	109-99-9	2.1 U	2.3 U	2.4 U	2.4 U	2.3 U	2.4 U	2.3 U	2.4 U	2.2 U	5.2	2.4 U	2.3 U	2.4 U	4.6 U	4.8 U	NA	NA
trans-1,2-Dichloroethene	156-60-5	2.8 U	3.1 U	3.2 U	3.2 U	3.1 U	3.2 U	3.1 U	3.2 U	2.9 U	3.4 U	3.2 U	3.1 U	3.2 U	6.1 U	6.4 U	<10	<10
trans-1,3-Dichloropropene	10061-02-6	0.65 U	0.72 U	0.73 U	0.74 U	0.72 U	0.73 U	0.72 U	0.73 U	0.67 U	0.78 U	0.73 U	0.70 U	0.73 U	1.4 U	1.5 U	<9	<10
Trichloroethene	79-01-6	0.77 U	0.85 U	0.86 U	0.88 U	0.85 U	0.86 U	0.85 U	0.86 U	0.80 U	0.92 U	0.86 U	0.83 U	0.86 U	1.7 U	1.7 U	<5.3	<10
Vinyl Acetate	108-05-4	*U	*U	*U	*U	*U	*U	*U	*U	*U	*U	*U	*U	*U	*U	*U	NA	NA
Vinyl Chloride	75-01-4	0.37 U	0.40 U	0.41 U	0.42 U	0.40 U	0.41 U	0.40 U	0.41 U	0.38 U	0.44 U	0.41 U	0.39 U	0.41 U	0.79 U	0.89	<1	<5

Notes:
[1] These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.
[2] These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.
NA - Not Available. No data available for background concentrations of these compounds.
* - Vinyl Acetate was analyzed as a TIC and was found Not Detected in all samples. Since there is no Reporting Limit applicable to TICs, there was none entered for Vinyl Acetate.
U - Not detected at the detection limit indicated.
J - Estimated Concentration.

Data Usability Summary Report

DATE: May 11, 2003

TO: Mr. John Finn
The RETEC Group, Inc.
1001 West Seneca Street, Suite 204
Ithaca, NY 14850

FROM: Gretchen Phipps
Data Validator

SUBJECT: Con Edison – River Place I
April 2003 Air Sampling Event

Data Validation:

Air Toxics LTD.: 0304361

Overview

Air Toxics LTD. sample delivery group (SDG) 0304361 contained eight (8) air samples, including one (1) field duplicate (RP1-IA-2 FD), collected during the April 2003 Air Sampling Event at River Place I.

Air Toxics LTD., 180 Blue Ravine Road, Suite B, Folsom, CA 95630 analyzed the samples for Volatile Organic Compounds (VOCs) using USEPA Compendium Method TO-15.

Summary

Data quality for this organic analysis was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance, internal standards, initial and continuing calibrations, continuing calibration verifications, surrogate recoveries, laboratory control standards (LCS), laboratory blanks, laboratory duplicates, compound identification, and compound quantitation.

The Form 1s attached as Appendix A were revised to include the data validation qualifiers. All USEPA-defined data qualifiers and changes made by the data evaluators were added in red ink. A glossary of data qualifier definitions is included as Attachment 1.

All samples were analyzed successfully and the results are useable with some qualification. Completeness of 100% was achieved for this data set.

Each specific issue of concern with respect to data usability is addressed below. Support documentation for data qualifications was included in Appendix B. Specific page references are provided in each item header for the supporting documentation.

Volatile Organic Compounds

a. Calibrations (pp. 0360-0362, 0540, 0554, 0565, 0571): The initial calibration relative standard deviations (RSDs) for ethanol, vinyl acetate, and hexachlorobutadiene were greater than the 30% specification limit on 04-28-03 on instrument msdw. All samples were affected. All results reported for vinyl acetate and hexachlorobutadiene were nondetect. Therefore, validation action was not required. The positive results reported for ethanol were qualified as estimated concentrations, "J."

The continuing calibration percent differences (%Ds) for 1,2,4-trichlorobenzene and hexachlorobutadiene were outside of the 30% specification limit on 04-29-03 at 11:30 on instrument msdw. Samples RP1-AMB-1, RP1-AMB-2, RP1-AMB-3, RP1-AMB-4, and RP1-IA-1 were affected. All associated results reported for 1,2,4-trichlorobenzene and hexachlorobutadiene in the affected samples were nondetect and were qualified as estimated, "UJ," due to poor instrument performance.

The continuing calibration %Ds for 1,2,4-trichlorobenzene and hexachlorobutadiene were outside of the 30% specification limit on 04-30-03 at 01:32 on instrument msdw. Samples RP1-IA-2, RP1-IA-2 FD, and RP1-IA-3 were affected. All associated results reported for 1,2,4-trichlorobenzene and hexachlorobutadiene in the affected samples were nondetect and were qualified as estimated, "UJ," due to poor instrument performance.

The %D for naphthalene was outside of the 30% specification limit on 04-29-03 at 14:09 on instrument msdw. Samples RP1-AMB-1, RP1-AMB-2, RP1-AMB-3, RP1-AMB-4, and RP1-IA-1 were affected. All associated results reported for naphthalene in the affected samples were nondetect and were qualified as estimated, "UJ," due to poor instrument performance.

The continuing calibration %D for naphthalene was outside of the 30% specification limit on 04-30-03 at 05:39 on instrument msdw. Samples RP1-IA-2, RP1-IA-2 FD, and RP1-IA-3 were affected. All associated results reported for naphthalene in the affected samples were nondetect and were qualified as estimated, "UJ," due to poor instrument performance.

b. Continuing Calibration Verifications (pp. 0537, 0551): The percent recoveries (%Rs) for 1,2,4-trichlorobenzene and vinyl acetate were less than the lower specification limits for the continuing calibration verification (CCV) standard analyzed on 04-29-03. A low instrument bias is indicated. Samples RP1-AMB-1, RP1-AMB-2, RP1-AMB-3, RP1-AMB-4, and RP1-IA-1 were affected. All associated results reported for 1,2,4-trichlorobenzene and hexachlorobutadiene in the affected samples were nondetect and were qualified as estimated, "UJ," due to low instrument bias.

The %Rs for 1,2,4-trichlorobenzene and vinyl acetate were less than the lower specification limits for the continuing calibration verification (CCV) standard analyzed on 04-30-03. A low instrument bias is indicated. Samples RP1-IA-2, RP1-IA-2 FD, and RP1-IA-3 were affected. All associated results reported for 1,2,4-trichlorobenzene and hexachlorobutadiene in the affected samples were nondetect and were qualified as estimated, "UJ," due to low instrument bias.

c. Laboratory Control Samples (pp. 0577, 0651): The %Rs for 1,2-dichloroethane, 1,2,4-trichlorobenzene, and hexachlorobutadiene were less than the lower quality control limits for LCS 030436-11A. An LCS %R outside of the quality control limits is an indication of poor laboratory and/or method performance. Samples RP1-AMB-1, RP1-AMB-2, RP1-AMB-3, RP1-AMB-4, and RP1-IA-1 were affected. The 1,2-dichloroethane, 1,2,4-trichlorobenzene, and hexachlorobutadiene results in the affected samples were nondetect and were qualified as estimated, "UJ," because of low bias.

The %Rs for 1,2,4-trichlorobenzene and hexachlorobutadiene were less than the lower quality control limits for LCS 030436-11B. The %Rs for bromomethane and styrene were greater than the upper quality control limits for LCS 030436-11B. An LCS %R outside of the quality control limits is an indication of poor laboratory and/or method performance. Samples RP1-IA-2, RP1-IA-2 FD, and RP1-IA-3 were affected. The 1,2,4-trichlorobenzene and hexachlorobutadiene results in the affected samples were nondetect and were qualified as estimated, "UJ," because of low bias. The positive results reported for bromomethane in the affected samples were qualified as estimated, "J," due to high bias. The results reported for styrene in the affected samples were nondetect. Therefore, validation action for styrene was not required.

c. Internal Standards (pp. 0356, 0357): The internal standard area counts for chlorobenzene-d5 and 1,4-difluorobenzene were less than the lower specification limits for samples RP1-IA-2 and RP1-IA-2 FD. The internal standard area counts for chlorobenzene-d5, 1,4-difluorobenzene, and bromochloromethane were less than the lower specification limits for sample RP1-IA-3. Samples RP1-IA-2, RP1-IA-2 FD, and RP1-IA-3 were reanalyzed on 04-30-03. The internal standard area counts were acceptable for the reanalyses. Results for sample RP1-IA-2, RP1-IA-2 FD, and RP1-IA-3 were reported for the reanalyses on 04-30-03. Validation action was not required.

d. Tentatively Identified Compounds: Tentatively Identified Compounds (TICs) were identified by the laboratory and are included on the Form 1s.

e. Field Duplicates (pp. 0203-0205, 0238-0240): Samples RP1-IA-2 and RP1-IA-2 FD were the primary and field duplicate samples collected for this sampling event. No data qualifications are required based on the %RPD of field duplicate sample data alone. However, the positive results are presented in the table below to evaluate precision and sample homogeneity. An RPD greater than the advisory limit of 25% is an indication of poor field and/or laboratory precision or sample heterogeneity with respect to that compound. No data qualifications were required.

Field Duplicate Comparison
Con Ed, River Place I

Parameter	RP1-IA-2 (ppbv)	RP1-IA-2 FD (ppbv)	RPD (%)
Freon 12	0.81	0.82	1
Chloromethane	0.56	0.53	6
Bromomethane	0.32 J[1]	0.30 J[1]	6
Freon 11	0.36	0.36	0
Methylene Chloride	0.23	0.31	30
Benzene	0.55	0.53	4
Toluene	4.5	5.8	25
Ethylbenzene	0.18	0.31	53
m,p-Xylenes	0.34	0.81	82
o-Xylene	0.18 U	0.22	NC
1,2,4-Trimethylbenzene	0.18 U	0.24	NC
Acetone	6.3	6.9	9
2-Propanol	1.2	1.5	22
2-Butanone	1.8	1.8	0
Ethanol	30	28	7
Methyl tert-butyl ether	1.4	1.1	24
Isopentane	44	42	5

NC: RPD cannot be calculated.
J[1]: Result was estimated due to LCS nonconformance.

Notes

The data were reviewed according to USEPA Compendium Method TO-15, Determination of VOCs in Air Collected in Specially Prepared-Canisters and Analyzed by Gas Chromatography / Mass Spectrometry (GC/MS), January 1999, and with reference to *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, February, 1994, document number EPA 540/R-94/012.

Positive results less than the reporting limits, but greater than the method detection limits (MDLs) were qualified as estimated, "J," by the laboratory due to uncertainty near the detection limit.

The sample tag did not match the chain of custody (COC) report for sample RP1-AMB-3. The COC record was used to log-in the sample.

Attachments

1. Glossary of EPA-defined data qualifier codes.

Appendices

1. Appendix A – Data Summary
2. Appendix B – Support Documentation

Attachment 1 of 1

Glossary of Data Qualifier Codes

GLOSSARY OF DATA QUALIFIER CODES

Codes Relating to Identification

U - The analyte was analyzed for, but was not detected above the level of the reported samples quantitation limit.

R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

Codes Related to Quantitation

J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

Appendix A

Data Summary Tables

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-1

ID#: 0304361-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042909	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.18	0.92	0.56	2.8
Freon 114	0.18	1.3	Not Detected	Not Detected
Chloromethane	0.18	0.38	0.54	1.1
Vinyl Chloride	0.18	0.48	Not Detected	Not Detected
Bromomethane	0.18	0.72	0.31	1.2
Chloroethane	0.18	0.49	Not Detected	Not Detected
Freon 11	0.18	1.0	0.27	1.5
1,1-Dichloroethene	0.18	0.74	Not Detected	Not Detected
Freon 113	0.18	1.4	Not Detected	Not Detected
Methylene Chloride	0.18	0.65	0.20	0.71
1,1-Dichloroethane	0.18	0.75	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.18	0.74	Not Detected	Not Detected
Chloroform	0.18	0.91	Not Detected	Not Detected
1,1,1-Trichloroethane	0.18	1.0	Not Detected	Not Detected
Carbon Tetrachloride	0.18	1.2	Not Detected	Not Detected
Benzene	0.18	0.59	0.75	2.4
1,2-Dichloroethane	0.18	0.75	Not Detected UJ	Not Detected UJ
Trichloroethene	0.18	1.0	Not Detected	Not Detected
1,2-Dichloropropane	0.18	0.86	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.18	0.84	Not Detected	Not Detected
Toluene	0.18	0.70	3.3	12
trans-1,3-Dichloropropene	0.18	0.84	Not Detected	Not Detected
1,1,2-Trichloroethane	0.18	1.0	Not Detected	Not Detected
Tetrachloroethene	0.18	1.3	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.18	1.4	Not Detected	Not Detected
Chlorobenzene	0.18	0.86	Not Detected	Not Detected
Ethyl Benzene	0.18	0.81	0.50	2.2
m,p-Xylene	0.18	0.81	1.8	8.1
o-Xylene	0.18	0.81	0.51	2.2
Styrene	0.18	0.79	0.21	0.90
1,1,2,2-Tetrachloroethane	0.18	1.3	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.18	0.91	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.18	0.91	0.34	1.7
1,3-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.18	0.96	0.20	1.0
1,2-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.92	6.9	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.92	9.9	Not Detected U J	Not Detected U J
Propylene	0.92	1.6	Not Detected	Not Detected
1,3-Butadiene	0.92	2.0	Not Detected	Not Detected
Acetone	0.92	2.2	3.4	8.1

0006

5-10-03

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-1

ID#: 0304361-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042909	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.92	2.9	Not Detected	Not Detected
2-Propanol	0.92	2.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	0.92	3.7	Not Detected	Not Detected
Vinyl Acetate	0.92	3.3	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	2.7	Not Detected	Not Detected
Hexane	0.92	3.3	Not Detected	Not Detected
Tetrahydrofuran	0.92	2.7	Not Detected	Not Detected
Cyclohexane	0.92	3.2	Not Detected	Not Detected
1,4-Dioxane	0.92	3.4	Not Detected	Not Detected
Bromodichloromethane	0.92	6.2	Not Detected	Not Detected
4-Methyl-2-pentanone	0.92	3.8	Not Detected	Not Detected
2-Hexanone	0.92	3.8	Not Detected	Not Detected
Dibromochloromethane	0.92	7.9	Not Detected	Not Detected
Bromoform	0.92	9.6	Not Detected	Not Detected
4-Ethyltoluene	0.92	4.6	Not Detected	Not Detected
Ethanol	0.92	1.8	4.4 J	8.5 J
Methyl tert-butyl ether	0.92	3.4	2.2	8.0
Heptane	0.92	3.8	Not Detected	Not Detected
Naphthalene	0.92	4.9	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.92	3.3	0.94	3.4
Isopentane	0.92	2.7	6.3	19
2,3-Dimethylpentane	0.92	3.8	Not Detected	Not Detected
Isooctane	0.92	4.3	Not Detected	Not Detected
Indene	0.92	4.4	Not Detected	Not Detected
Indan	0.92	4.5	Not Detected	Not Detected
Thiophene	0.92	3.2	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	6.8
Propane, 2-methyl-	75-28-5	45%	4.7
Butane	106-97-8	64%	6.3
Unknown	NA	NA	2.4
Pentane	109-66-0	64%	2.5
2-Pentanol	6032-29-7	56%	3.0
Unknown	NA	NA	2.8
Butane, 2,3-dimethyl-	79-29-8	50%	1.9

Container Type: 6 Liter Summa Canister (100% Certified)

ygd 5-10-03

0007

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-1

ID#: 0304361-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042909	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/29/03

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	94	70-130

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-2

ID#: 0304361-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042910	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.18	0.92	0.50	2.5
Freon 114	0.18	1.3	Not Detected	Not Detected
Chloromethane	0.18	0.38	0.47	0.98
Vinyl Chloride	0.18	0.48	Not Detected	Not Detected
Bromomethane	0.18	0.72	0.27	1.0
Chloroethane	0.18	0.49	Not Detected	Not Detected
Freon 11	0.18	1.0	0.24	1.4
1,1-Dichloroethene	0.18	0.74	Not Detected	Not Detected
Freon 113	0.18	1.4	Not Detected	Not Detected
Methylene Chloride	0.18	0.65	0.21	0.73
1,1-Dichloroethane	0.18	0.75	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.18	0.74	Not Detected	Not Detected
Chloroform	0.18	0.91	Not Detected	Not Detected
1,1,1-Trichloroethane	0.18	1.0	Not Detected	Not Detected
Carbon Tetrachloride	0.18	1.2	Not Detected	Not Detected
Benzene	0.18	0.59	0.52	1.7
1,2-Dichloroethane	0.18	0.75	Not Detected UJ	Not Detected UJ
Trichloroethene	0.18	1.0	Not Detected	Not Detected
1,2-Dichloropropane	0.18	0.86	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.18	0.84	Not Detected	Not Detected
Toluene	0.18	0.70	1.4	5.5
trans-1,3-Dichloropropene	0.18	0.84	Not Detected	Not Detected
1,1,2-Trichloroethane	0.18	1.0	Not Detected	Not Detected
Tetrachloroethene	0.18	1.3	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.18	1.4	Not Detected	Not Detected
Chlorobenzene	0.18	0.86	Not Detected	Not Detected
Ethyl Benzene	0.18	0.81	0.22	0.99
m,p-Xylene	0.18	0.81	0.70	3.1
o-Xylene	0.18	0.81	0.21	0.93
Styrene	0.18	0.79	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.18	1.3	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.18	0.91	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.18	0.91	Not Detected	Not Detected
1,3-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.18	0.96	Not Detected	Not Detected
1,2-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.92	6.9	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.92	9.9	Not Detected U J	Not Detected U J
Propylene	0.92	1.6	Not Detected	Not Detected
1,3-Butadiene	0.92	2.0	Not Detected	Not Detected
Acetone	0.92	2.2	3.1	7.4

5-10-03

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-2

ID#: 0304361-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042910	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.92	2.9	Not Detected	Not Detected
2-Propanol	0.92	2.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	0.92	3.7	Not Detected	Not Detected
Vinyl Acetate	0.92	3.3	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	2.7	Not Detected	Not Detected
Hexane	0.92	3.3	Not Detected	Not Detected
Tetrahydrofuran	0.92	2.7	Not Detected	Not Detected
Cyclohexane	0.92	3.2	Not Detected	Not Detected
1,4-Dioxane	0.92	3.4	Not Detected	Not Detected
Bromodichloromethane	0.92	6.2	Not Detected	Not Detected
4-Methyl-2-pentanone	0.92	3.8	Not Detected	Not Detected
2-Hexanone	0.92	3.8	Not Detected	Not Detected
Dibromochloromethane	0.92	7.9	Not Detected	Not Detected
Bromoform	0.92	9.6	Not Detected	Not Detected
4-Ethyltoluene	0.92	4.6	Not Detected	Not Detected
Ethanol	0.92	1.8	3.8 J	7.4 J
Methyl tert-butyl ether	0.92	3.4	1.4	5.3
Heptane	0.92	3.8	Not Detected	Not Detected
Naphthalene	0.92	4.9	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.92	3.3	Not Detected	Not Detected
Isopentane	0.92	2.7	4.6	14
2,3-Dimethylpentane	0.92	3.8	Not Detected	Not Detected
Isooctane	0.92	4.3	Not Detected	Not Detected
Indene	0.92	4.4	Not Detected	Not Detected
Indan	0.92	4.5	Not Detected	Not Detected
Thiophene	0.92	3.2	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	5.1
Methane, chlorodifluoro-	75-45-6	83%	2.6
Propane, 2-methyl-	75-28-5	9.0%	4.4
Butane	106-97-8	78%	5.0
Unknown	NA	NA	2.4
Pentane	109-66-0	86%	2.6
2-Pentanol	6032-29-7	40%	5.4
Unknown	NA	NA	5.9

Container Type: 6 Liter Summa Canister (100% Certified)

5-10-03

0044

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-2

ID#: 0304361-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042910	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/29/03

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-3

ID#: 0304361-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042911	Date of Collection: 4/16/03
Dil. Factor:	1.91	Date of Analysis: 4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.19	0.96	0.58	2.9
Freon 114	0.19	1.4	Not Detected	Not Detected
Chloromethane	0.19	0.40	0.45	0.94
Vinyl Chloride	0.19	0.50	Not Detected	Not Detected
Bromomethane	0.19	0.75	Not Detected	Not Detected
Chloroethane	0.19	0.51	Not Detected	Not Detected
Freon 11	0.19	1.1	0.25	1.4
1,1-Dichloroethene	0.19	0.77	Not Detected	Not Detected
Freon 113	0.19	1.5	Not Detected	Not Detected
Methylene Chloride	0.19	0.67	0.28	0.99
1,1-Dichloroethane	0.19	0.78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.19	0.77	Not Detected	Not Detected
Chloroform	0.19	0.95	Not Detected	Not Detected
1,1,1-Trichloroethane	0.19	1.0	Not Detected	Not Detected
Carbon Tetrachloride	0.19	1.2	Not Detected	Not Detected
Benzene	0.19	0.62	2.2	7.1
1,2-Dichloroethane	0.19	0.78	Not Detected U J	Not Detected U J
Trichloroethene	0.19	1.0	Not Detected	Not Detected
1,2-Dichloropropane	0.19	0.90	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.19	0.88	Not Detected	Not Detected
Toluene	0.19	0.73	11	41
trans-1,3-Dichloropropene	0.19	0.88	Not Detected	Not Detected
1,1,2-Trichloroethane	0.19	1.0	Not Detected	Not Detected
Tetrachloroethene	0.19	1.3	0.22	1.5
1,2-Dibromoethane (EDB)	0.19	1.5	Not Detected	Not Detected
Chlorobenzene	0.19	0.89	Not Detected	Not Detected
Ethyl Benzene	0.19	0.84	1.5	6.4
m,p-Xylene	0.19	0.84	5.5	24
o-Xylene	0.19	0.84	1.8	8.2
Styrene	0.19	0.83	0.21	0.90
1,1,2,2-Tetrachloroethane	0.19	1.3	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.19	0.95	0.41	2.0
1,2,4-Trimethylbenzene	0.19	0.95	1.4	7.3
1,3-Dichlorobenzene	0.19	1.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.19	1.2	Not Detected	Not Detected
alpha-Chlorotoluene	0.19	1.0	Not Detected	Not Detected
1,2-Dichlorobenzene	0.19	1.2	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.96	7.2	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.96	10	Not Detected U J	Not Detected U J
Propylene	0.96	1.7	Not Detected	Not Detected
1,3-Butadiene	0.96	2.1	Not Detected	Not Detected
Acetone	0.96	2.3	3.6	8.7

5-10-03

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-3

ID#: 0304361-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042911	Date of Collection:	4/16/03
Dil. Factor:	1.91	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.96	3.0	Not Detected	Not Detected
2-Propanol	0.96	2.4	1.1	2.7
trans-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Vinyl Acetate	0.96	3.4	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	2.9	Not Detected	Not Detected
Hexane	0.96	3.4	1.1	4.0
Tetrahydrofuran	0.96	2.9	Not Detected	Not Detected
Cyclohexane	0.96	3.3	Not Detected	Not Detected
1,4-Dioxane	0.96	3.5	Not Detected	Not Detected
Bromodichloromethane	0.96	6.5	Not Detected	Not Detected
4-Methyl-2-pentanone	0.96	4.0	Not Detected	Not Detected
2-Hexanone	0.96	4.0	Not Detected	Not Detected
Dibromochloromethane	0.96	8.3	Not Detected	Not Detected
Bromoform	0.96	10	Not Detected	Not Detected
4-Ethyltoluene	0.96	4.8	1.2	5.9
Ethanol	0.96	1.8	6.0 J	12 J
Methyl tert-butyl ether	0.96	3.5	5.8	21
Heptane	0.96	4.0	Not Detected	Not Detected
Naphthalene	0.96	5.1	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.96	3.4	3.0	11
Isopentane	0.96	2.9	9.6	29
2,3-Dimethylpentane	0.96	4.0	Not Detected	Not Detected
Isooctane	0.96	4.5	1.6	7.5
Indene	0.96	4.6	Not Detected	Not Detected
Indan	0.96	4.7	Not Detected	Not Detected
Thiophene	0.96	3.3	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
3-Butenoic acid	625-38-7	78%	6.7
Propane, 2-methyl-	75-28-5	9.0%	5.3
Butane	106-97-8	64%	10
Unknown	NA	NA	3.2
Pentane	109-66-0	86%	4.6
Pentane, 3-methyl-	96-14-0	80%	3.4
Butanal	123-72-8	90%	3.0
Hexane, 3-methyl-	589-34-4	72%	2.5
Pentane, 2,3,3-trimethyl-	560-21-4	78%	2.7

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AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-3

ID#: 0304361-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042911	Date of Collection:	4/16/03
Dil. Factor:	1.91	Date of Analysis:	4/29/03

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	98	70-130

AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-4

ID#: 0304361-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042912	Date of Collection:	4/16/03
Dil. Factor:	1.87	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.19	0.94	0.57	2.9
Freon 114	0.19	1.3	Not Detected	Not Detected
Chloromethane	0.19	0.39	0.46	0.97
Vinyl Chloride	0.19	0.48	Not Detected	Not Detected
Bromomethane	0.19	0.74	0.29	1.1
Chloroethane	0.19	0.50	Not Detected	Not Detected
Freon 11	0.19	1.1	0.25	1.4
1,1-Dichloroethene	0.19	0.75	Not Detected	Not Detected
Freon 113	0.19	1.4	Not Detected	Not Detected
Methylene Chloride	0.19	0.66	0.30	1.1
1,1-Dichloroethane	0.19	0.77	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.19	0.75	Not Detected	Not Detected
Chloroform	0.19	0.93	Not Detected	Not Detected
1,1,1-Trichloroethane	0.19	1.0	Not Detected	Not Detected
Carbon Tetrachloride	0.19	1.2	Not Detected	Not Detected
Benzene	0.19	0.61	1.4	4.5
1,2-Dichloroethane	0.19	0.77	Not Detected UJ	Not Detected UJ
Trichloroethene	0.19	1.0	Not Detected	Not Detected
1,2-Dichloropropane	0.19	0.88	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.19	0.86	Not Detected	Not Detected
Toluene	0.19	0.72	3.1	12
trans-1,3-Dichloropropene	0.19	0.86	Not Detected	Not Detected
1,1,2-Trichloroethane	0.19	1.0	Not Detected	Not Detected
Tetrachloroethene	0.19	1.3	0.18 J	1.2 J
1,2-Dibromoethane (EDB)	0.19	1.5	Not Detected	Not Detected
Chlorobenzene	0.19	0.88	Not Detected	Not Detected
Ethyl Benzene	0.19	0.82	0.50	2.2
m,p-Xylene	0.19	0.82	1.8	8.1
o-Xylene	0.19	0.82	0.54	2.4
Styrene	0.19	0.81	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.19	1.3	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.19	0.93	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.19	0.93	0.43	2.2
1,3-Dichlorobenzene	0.19	1.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.19	1.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.19	0.98	Not Detected	Not Detected
1,2-Dichlorobenzene	0.19	1.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.94	7.0	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.94	10	Not Detected U J	Not Detected U J
Propylene	0.94	1.6	Not Detected	Not Detected
1,3-Butadiene	0.94	2.1	Not Detected	Not Detected
Acetone	0.94	2.2	5.1	12

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AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-4

ID#: 0304361-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042912	Date of Collection: 4/16/03
Dil. Factor:	1.87	Date of Analysis: 4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.94	3.0	Not Detected	Not Detected
2-Propanol	0.94	2.3	Not Detected	Not Detected
trans-1,2-Dichloroethene	0.94	3.8	Not Detected	Not Detected
Vinyl Acetate	0.94	3.3	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	2.8	1.1	3.4
Hexane	0.94	3.3	Not Detected	Not Detected
Tetrahydrofuran	0.94	2.8	Not Detected	Not Detected
Cyclohexane	0.94	3.3	Not Detected	Not Detected
1,4-Dioxane	0.94	3.4	Not Detected	Not Detected
Bromodichloromethane	0.94	6.4	Not Detected	Not Detected
4-Methyl-2-pentanone	0.94	3.9	Not Detected	Not Detected
2-Hexanone	0.94	3.9	Not Detected	Not Detected
Dibromochloromethane	0.94	8.1	Not Detected	Not Detected
Bromoform	0.94	9.8	Not Detected	Not Detected
4-Ethyltoluene	0.94	4.7	Not Detected	Not Detected
Ethanol	0.94	1.8	5.8 J	11 J
Methyl tert-butyl ether	0.94	3.4	1.4	5.0
Heptane	0.94	3.9	Not Detected	Not Detected
Naphthalene	0.94	5.0	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.94	3.3	1.3	4.5
Isopentane	0.94	2.8	4.5	13
2,3-Dimethylpentane	0.94	3.9	Not Detected	Not Detected
Isooctane	0.94	4.4	Not Detected	Not Detected
Indene	0.94	4.5	Not Detected	Not Detected
Indan	0.94	4.6	Not Detected	Not Detected
Thiophene	0.94	3.3	Not Detected	Not Detected

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 1-nitro-	108-03-2	2.0%	5.8
Unknown	NA	NA	3.9
Butane	106-97-8	64%	7.4
Unknown	NA	NA	2.4
Pentane	109-66-0	86%	6.1
Cyclopropane, 1,1-dimethyl-	1630-94-0	68%	4.2
2-Pentene, (Z)-	627-20-3	52%	3.2
Unknown	NA	NA	7.5

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AIR TOXICS LTD.

SAMPLE NAME: RP1-AMB-4

ID#: 0304361-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042912	Date of Collection:	4/16/03
Dil. Factor:	1.87	Date of Analysis:	4/29/03

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	92	70-130

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-1

ID#: 0304361-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042913	Date of Collection: 4/16/03
Dil. Factor:	1.75	Date of Analysis: 4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.18	0.88	0.55	2.8
Freon 114	0.18	1.2	Not Detected	Not Detected
Chloromethane	0.18	0.37	0.50	1.1
Vinyl Chloride	0.18	0.45	Not Detected	Not Detected
Bromomethane	0.18	0.69	0.22	0.85
Chloroethane	0.18	0.47	Not Detected	Not Detected
Freon 11	0.18	1.0	0.27	1.6
1,1-Dichloroethene	0.18	0.70	Not Detected	Not Detected
Freon 113	0.18	1.4	Not Detected	Not Detected
Methylene Chloride	0.18	0.62	1.4	4.8
1,1-Dichloroethane	0.18	0.72	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.18	0.70	Not Detected	Not Detected
Chloroform	0.18	0.87	Not Detected	Not Detected
1,1,1-Trichloroethane	0.18	0.97	Not Detected	Not Detected
Carbon Tetrachloride	0.18	1.1	Not Detected	Not Detected
Benzene	0.18	0.57	1.5	4.8
1,2-Dichloroethane	0.18	0.72	Not Detected UJ	Not Detected UJ
Trichloroethene	0.18	0.96	Not Detected	Not Detected
1,2-Dichloropropane	0.18	0.82	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.18	0.81	Not Detected	Not Detected
Toluene	0.18	0.67	10	39
trans-1,3-Dichloropropene	0.18	0.81	Not Detected	Not Detected
1,1,2-Trichloroethane	0.18	0.97	Not Detected	Not Detected
Tetrachloroethene	0.18	1.2	0.19	1.3
1,2-Dibromoethane (EDB)	0.18	1.4	Not Detected	Not Detected
Chlorobenzene	0.18	0.82	Not Detected	Not Detected
Ethyl Benzene	0.18	0.77	1.8	7.9
m,p-Xylene	0.18	0.77	7.4	33
o-Xylene	0.18	0.77	2.0	8.9
Styrene	0.18	0.76	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.18	1.2	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.18	0.87	0.24	1.2
1,2,4-Trimethylbenzene	0.18	0.87	0.90	4.5
1,3-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.18	0.92	Not Detected	Not Detected
1,2-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.88	6.6	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.88	9.5	Not Detected U J	Not Detected U J
Propylene	0.88	1.5	Not Detected	Not Detected
1,3-Butadiene	0.88	2.0	Not Detected	Not Detected
Acetone	0.88	2.1	11	28

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AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-1

ID#: 0304361-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042913	Date of Collection:	4/16/03
Dil. Factor:	1.75	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.88	2.8	Not Detected	Not Detected
2-Propanol	0.88	2.2	2.3	5.7
trans-1,2-Dichloroethene	0.88	3.5	Not Detected	Not Detected
Vinyl Acetate	0.88	3.1	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	2.6	4.6	14
Hexane	0.88	3.1	1.1	3.9
Tetrahydrofuran	0.88	2.6	Not Detected	Not Detected
Cyclohexane	0.88	3.1	Not Detected	Not Detected
1,4-Dioxane	0.88	3.2	Not Detected	Not Detected
Bromodichloromethane	0.88	6.0	Not Detected	Not Detected
4-Methyl-2-pentanone	0.88	3.6	2.2	9.4
2-Hexanone	0.88	3.6	Not Detected	Not Detected
Dibromochloromethane	0.88	7.6	Not Detected	Not Detected
Bromoform	0.88	9.2	Not Detected	Not Detected
4-Ethyltoluene	0.88	4.4	Not Detected	Not Detected
Ethanol	0.88	1.7	37 J	71 J
Methyl tert-butyl ether	0.88	3.2	14	51
Heptane	0.88	3.6	Not Detected	Not Detected
Naphthalene	0.88	4.7	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.88	3.1	4.9	18
Isopentane	0.88	2.6	24	73
2,3-Dimethylpentane	0.88	3.6	1.4	6.0
Isooctane	0.88	4.2	2.3	11
Indene	0.88	4.2	Not Detected	Not Detected
Indan	0.88	4.3	Not Detected	Not Detected
Thiophene	0.88	3.1	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
2-Butenal, (E)-	123-73-9	78%	4.2
Unknown	NA	NA	28
Unknown	NA	NA	5.6
Pentane	109-66-0	86%	9.5
2-Butene, 2-methyl-	513-35-9	80%	3.3
2-Pentene, (E)-	646-04-8	80%	4.6
Unknown	NA	NA	3.2
Butane, 2,2-dimethyl-	75-83-2	59%	4.4
Butane, 2,3-dimethyl-	79-29-8	72%	5.4
Pentane, 3-methyl-	96-14-0	72%	4.5

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AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-1

ID#: 0304361-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042913	Date of Collection:	4/16/03
Dil. Factor:	1.75	Date of Analysis:	4/29/03

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	104	70-130

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-2

ID#: 0304361-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w043010**	**Date of Collection:**	**4/16/03**
Dil. Factor:	**1.83**	**Date of Analysis:**	**4/30/03**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.18	0.92	0.81	4.1
Freon 114	0.18	1.3	Not Detected	Not Detected
Chloromethane	0.18	0.38	0.56	1.2
Vinyl Chloride	0.18	0.48	Not Detected	Not Detected
Bromomethane	0.18	0.72	0.32 J	1.3 J
Chloroethane	0.18	0.49	Not Detected	Not Detected
Freon 11	0.18	1.0	0.36	2.0
1,1-Dichloroethene	0.18	0.74	Not Detected	Not Detected
Freon 113	0.18	1.4	Not Detected	Not Detected
Methylene Chloride	0.18	0.65	0.23	0.81
1,1-Dichloroethane	0.18	0.75	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.18	0.74	Not Detected	Not Detected
Chloroform	0.18	0.91	Not Detected	Not Detected
1,1,1-Trichloroethane	0.18	1.0	Not Detected	Not Detected
Carbon Tetrachloride	0.18	1.2	Not Detected	Not Detected
Benzene	0.18	0.59	0.55	1.8
1,2-Dichloroethane	0.18	0.75	Not Detected	Not Detected
Trichloroethene	0.18	1.0	Not Detected	Not Detected
1,2-Dichloropropane	0.18	0.86	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.18	0.84	Not Detected	Not Detected
Toluene	0.18	0.70	4.5	17
trans-1,3-Dichloropropene	0.18	0.84	Not Detected	Not Detected
1,1,2-Trichloroethane	0.18	1.0	Not Detected	Not Detected
Tetrachloroethene	0.18	1.3	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.18	1.4	Not Detected	Not Detected
Chlorobenzene	0.18	0.86	Not Detected	Not Detected
Ethyl Benzene	0.18	0.81	0.18	0.81
m,p-Xylene	0.18	0.81	0.34	1.5
o-Xylene	0.18	0.81	Not Detected	Not Detected
Styrene	0.18	0.79	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.18	1.3	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.18	0.91	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.18	0.91	Not Detected	Not Detected
1,3-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.18	0.96	Not Detected	Not Detected
1,2-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.92	6.9	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.92	9.9	Not Detected U J	Not Detected U J
Propylene	0.92	1.6	Not Detected	Not Detected
1,3-Butadiene	0.92	2.0	Not Detected	Not Detected
Acetone	0.92	2.2	6.3	15

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AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-2

ID#: 0304361-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043010	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/30/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.92	2.9	Not Detected	Not Detected
2-Propanol	0.92	2.3	1.2	3.0
trans-1,2-Dichloroethene	0.92	3.7	Not Detected	Not Detected
Vinyl Acetate	0.92	3.3	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	2.7	1.8	5.5
Hexane	0.92	3.3	Not Detected	Not Detected
Tetrahydrofuran	0.92	2.7	Not Detected	Not Detected
Cyclohexane	0.92	3.2	Not Detected	Not Detected
1,4-Dioxane	0.92	3.4	Not Detected	Not Detected
Bromodichloromethane	0.92	6.2	Not Detected	Not Detected
4-Methyl-2-pentanone	0.92	3.8	Not Detected	Not Detected
2-Hexanone	0.92	3.8	Not Detected	Not Detected
Dibromochloromethane	0.92	7.9	Not Detected	Not Detected
Bromoform	0.92	9.6	Not Detected	Not Detected
4-Ethyltoluene	0.92	4.6	Not Detected	Not Detected
Ethanol	0.92	1.8	30 J	57 J
Methyl tert-butyl ether	0.92	3.4	1.4	5.1
Heptane	0.92	3.8	Not Detected	Not Detected
Naphthalene	0.92	4.9	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.92	3.3	Not Detected	Not Detected
Isopentane	0.92	2.7	44	130
2,3-Dimethylpentane	0.92	3.8	Not Detected	Not Detected
Isooctane	0.92	4.3	Not Detected	Not Detected
Indene	0.92	4.4	Not Detected	Not Detected
Indan	0.92	4.5	Not Detected	Not Detected
Thiophene	0.92	3.2	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	6.4
Methane, chlorodifluoro-	75-45-6	91%	5.2
Butane	106-97-8	59%	5.7
Unknown	NA	NA	3.3
Pentane	109-66-0	90%	180
Unknown	NA	NA	2.1
Propanal	123-38-6	64%	3.2
Cyanic acid, ethyl ester	627-48-5	52%	3.5
Hexanal	66-25-1	64%	3.9

0204

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AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-2

ID#: 0304361-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043010	Date of Collection:	4/16/03
Dil. Factor:	1.83	Date of Analysis:	4/30/03

Container Type: 6 Liter Summa Canister (100% Certified)

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

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-2FD

ID#: 0304361-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043011	Date of Collection: 4/16/03
Dil. Factor:	1.79	Date of Analysis: 4/30/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.18	0.90	0.82	4.1
Freon 114	0.18	1.3	Not Detected	Not Detected
Chloromethane	0.18	0.38	0.53	1.1
Vinyl Chloride	0.18	0.46	Not Detected	Not Detected
Bromomethane	0.18	0.71	0.30 J	1.2 J
Chloroethane	0.18	0.48	Not Detected	Not Detected
Freon 11	0.18	1.0	0.36	2.0
1,1-Dichloroethene	0.18	0.72	Not Detected	Not Detected
Freon 113	0.18	1.4	Not Detected	Not Detected
Methylene Chloride	0.18	0.63	0.31	1.1
1,1-Dichloroethane	0.18	0.74	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.18	0.72	Not Detected	Not Detected
Chloroform	0.18	0.89	Not Detected	Not Detected
1,1,1-Trichloroethane	0.18	0.99	Not Detected	Not Detected
Carbon Tetrachloride	0.18	1.1	Not Detected	Not Detected
Benzene	0.18	0.58	0.53	1.7
1,2-Dichloroethane	0.18	0.74	Not Detected	Not Detected
Trichloroethene	0.18	0.98	Not Detected	Not Detected
1,2-Dichloropropane	0.18	0.84	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.18	0.82	Not Detected	Not Detected
Toluene	0.18	0.68	5.8	22
trans-1,3-Dichloropropene	0.18	0.82	Not Detected	Not Detected
1,1,2-Trichloroethane	0.18	0.99	Not Detected	Not Detected
Tetrachloroethene	0.18	1.2	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.18	1.4	Not Detected	Not Detected
Chlorobenzene	0.18	0.84	Not Detected	Not Detected
Ethyl Benzene	0.18	0.79	0.31	1.4
m,p-Xylene	0.18	0.79	0.81	3.6
o-Xylene	0.18	0.79	0.22	0.97
Styrene	0.18	0.77	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.18	1.2	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.18	0.89	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.18	0.89	0.24	1.2
1,3-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
alpha-Chlorotoluene	0.18	0.94	Not Detected	Not Detected
1,2-Dichlorobenzene	0.18	1.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.90	6.8	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.90	9.7	Not Detected U J	Not Detected U J
Propylene	0.90	1.6	Not Detected	Not Detected
1,3-Butadiene	0.90	2.0	Not Detected	Not Detected
Acetone	0.90	2.2	6.9	17

0238 5-10-03

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-2FD

ID#: 0304361-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043011	Date of Collection:	4/16/03
Dil. Factor:	1.79	Date of Analysis:	4/30/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.90	2.8	Not Detected	Not Detected
2-Propanol	0.90	2.2	1.5	3.7
trans-1,2-Dichloroethene	0.90	3.6	Not Detected	Not Detected
Vinyl Acetate	0.90	3.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	2.7	1.8	5.5
Hexane	0.90	3.2	Not Detected	Not Detected
Tetrahydrofuran	0.90	2.7	Not Detected	Not Detected
Cyclohexane	0.90	3.1	Not Detected	Not Detected
1,4-Dioxane	0.90	3.3	Not Detected	Not Detected
Bromodichloromethane	0.90	6.1	Not Detected	Not Detected
4-Methyl-2-pentanone	0.90	3.7	Not Detected	Not Detected
2-Hexanone	0.90	3.7	Not Detected	Not Detected
Dibromochloromethane	0.90	7.7	Not Detected	Not Detected
Bromoform	0.90	9.4	Not Detected	Not Detected
4-Ethyltoluene	0.90	4.5	Not Detected	Not Detected
Ethanol	0.90	1.7	28 J	53 J
Methyl tert-butyl ether	0.90	3.3	1.1	4.1
Heptane	0.90	3.7	Not Detected	Not Detected
Naphthalene	0.90	4.8	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.90	3.2	Not Detected	Not Detected
Isopentane	0.90	2.7	42	130
2,3-Dimethylpentane	0.90	3.7	Not Detected	Not Detected
Isooctane	0.90	4.2	Not Detected	Not Detected
Indene	0.90	4.3	Not Detected	Not Detected
Indan	0.90	4.4	Not Detected	Not Detected
Thiophene	0.90	3.1	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
2-Butenal, (E)-	123-73-9	72%	5.9
Methane, chlorodifluoro-	75-45-6	83%	4.8
Unknown	NA	NA	3.8
Butane	106-97-8	72%	4.9
Unknown	NA	NA	3.1
Pentane	109-66-0	90%	170
Unknown	NA	NA	2.1
Unknown	NA	NA	2.7
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy	4889-83-2	90%	2.2
Undecane	1120-21-4	91%	3.7

0239

5-10-03

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-2FD

ID#: 0304361-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043011	Date of Collection:	4/16/03
Dil. Factor:	1.79	Date of Analysis:	4/30/03

Container Type: 6 Liter Silonite Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-3

ID#: 0304361-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w043012**	**Date of Collection:**	**4/16/03**
Dil. Factor:	**1.91**	**Date of Analysis:**	**4/30/03**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.19	0.96	0.67	3.4
Freon 114	0.19	1.4	Not Detected	Not Detected
Chloromethane	0.19	0.40	0.52	1.1
Vinyl Chloride	0.19	0.50	Not Detected	Not Detected
Bromomethane	0.19	0.75	0.29 J	1.2 J
Chloroethane	0.19	0.51	Not Detected	Not Detected
Freon 11	0.19	1.1	0.35	2.0
1,1-Dichloroethene	0.19	0.77	Not Detected	Not Detected
Freon 113	0.19	1.5	Not Detected	Not Detected
Methylene Chloride	0.19	0.67	0.80	2.8
1,1-Dichloroethane	0.19	0.78	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.19	0.77	Not Detected	Not Detected
Chloroform	0.19	0.95	Not Detected	Not Detected
1,1,1-Trichloroethane	0.19	1.0	Not Detected	Not Detected
Carbon Tetrachloride	0.19	1.2	Not Detected	Not Detected
Benzene	0.19	0.62	0.64	2.1
1,2-Dichloroethane	0.19	0.78	Not Detected	Not Detected
Trichloroethene	0.19	1.0	Not Detected	Not Detected
1,2-Dichloropropane	0.19	0.90	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.19	0.88	Not Detected	Not Detected
Toluene	0.19	0.73	2.0	7.6
trans-1,3-Dichloropropene	0.19	0.88	Not Detected	Not Detected
1,1,2-Trichloroethane	0.19	1.0	Not Detected	Not Detected
Tetrachloroethene	0.19	1.3	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.19	1.5	Not Detected	Not Detected
Chlorobenzene	0.19	0.89	Not Detected	Not Detected
Ethyl Benzene	0.19	0.84	0.20	0.89
m,p-Xylene	0.19	0.84	0.52	2.3
o-Xylene	0.19	0.84	Not Detected	Not Detected
Styrene	0.19	0.83	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.19	1.3	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.19	0.95	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.19	0.95	Not Detected	Not Detected
1,3-Dichlorobenzene	0.19	1.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.19	1.2	Not Detected	Not Detected
alpha-Chlorotoluene	0.19	1.0	Not Detected	Not Detected
1,2-Dichlorobenzene	0.19	1.2	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.96	7.2	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.96	10	Not Detected U J	Not Detected U J
Propylene	0.96	1.7	Not Detected	Not Detected
1,3-Butadiene	0.96	2.1	Not Detected	Not Detected
Acetone	0.96	2.3	14	33

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5-10-03

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-3

ID#: 0304361-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043012#1	Date of Collection: 4/16/03
Dil. Factor:	1.91	Date of Analysis: 4/30/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.96	3.0	Not Detected	Not Detected
2-Propanol	0.96	2.4	2.6	6.5
trans-1,2-Dichloroethene	0.96	3.8	Not Detected	Not Detected
Vinyl Acetate	0.96	3.4	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	2.9	2.5	7.4
Hexane	0.96	3.4	Not Detected	Not Detected
Tetrahydrofuran	0.96	2.9	Not Detected	Not Detected
Cyclohexane	0.96	3.3	Not Detected	Not Detected
1,4-Dioxane	0.96	3.5	Not Detected	Not Detected
Bromodichloromethane	0.96	6.5	Not Detected	Not Detected
4-Methyl-2-pentanone	0.96	4.0	Not Detected	Not Detected
2-Hexanone	0.96	4.0	Not Detected	Not Detected
Dibromochloromethane	0.96	8.3	Not Detected	Not Detected
Bromoform	0.96	10	Not Detected	Not Detected
4-Ethyltoluene	0.96	4.8	Not Detected	Not Detected
Ethanol	0.96	1.8	24 J	45 J
Methyl tert-butyl ether	0.96	3.5	1.1	4.0
Heptane	0.96	4.0	Not Detected	Not Detected
Naphthalene	0.96	5.1	Not Detected UJ	Not Detected UJ
2-Methylpentane	0.96	3.4	Not Detected	Not Detected
Isopentane	0.96	2.9	4.2	12
2,3-Dimethylpentane	0.96	4.0	Not Detected	Not Detected
Isooctane	0.96	4.5	Not Detected	Not Detected
Indene	0.96	4.6	Not Detected	Not Detected
Indan	0.96	4.7	Not Detected	Not Detected
Thiophene	0.96	3.3	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	5.8
Unknown	NA	NA	2.2
Unknown	NA	NA	9.0
Butane	106-97-8	42%	5.9
Unknown	NA	NA	2.6
Pentane	109-66-0	86%	2.3

Container Type: 6 Liter Summa Canister (100% Certified)

0277

5-10-03

AIR TOXICS LTD.

SAMPLE NAME: RP1-IA-3

ID#: 0304361-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043012	Date of Collection:	4/16/03
Dil. Factor:	1.91	Date of Analysis:	4/30/03

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

Appendix B

Support Documentation

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0304361

Work Order Summary

CLIENT:	Mr. John Finn The Retec Group 1001 W. Seneca St. Suite 204 Ithaca, NY 14850	**BILL TO:**	Mr. John Finn The Retec Group 1001 W. Seneca St. Suite 204 Ithaca, NY 14850
PHONE:	607-277-5716	**P.O. #**	
FAX:		**PROJECT #**	CECN3-16197-122
DATE RECEIVED:	4/17/2003	**CONTACT:**	Betty Chu
DATE COMPLETED:	4/30/2003		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	RP1-AMB-1	Modified TO-15-S/TICs	8.0 "Hg
02A	RP1-AMB-2	Modified TO-15-S/TICs	8.0 "Hg
03A	RP1-AMB-3	Modified TO-15-S/TICs	9.0 "Hg
04A	RP1-AMB-4	Modified TO-15-S/TICs	8.5 "Hg
05A	RP1-IA-1	Modified TO-15-S/TICs	7.0 "Hg
06A	RP1-IA-2	Modified TO-15-S/TICs	8.0 "Hg
07A	RP1-IA-2FD	Modified TO-15-S/TICs	7.5 "Hg
08A	RP1-IA-3	Modified TO-15-S/TICs	9.0 "Hg
08AA	RP1-IA-3 Duplicate	Modified TO-15-S/TICs	9.0 "Hg
09A	Lab Blank	Modified TO-15-S/TICs	NA
09B	Lab Blank	Modified TO-15-S/TICs	NA
10A	CCV	Modified TO-15-S/TICs	NA
10B	CCV	Modified TO-15-S/TICs	NA
11A	LCS	Modified TO-15-S/TICs	NA
11B	LCS	Modified TO-15-S/TICs	NA

CERTIFIED BY: Linda J. Fruman DATE: 04/30/03

Laboratory Director

Certfication numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-15 Low Level
The Retec Group
Workorder# 0304361

Seven 6 Liter Summa Canister (100% Certified) and One 6 Liter Silonite Canister (100% Certified) samples were received on April 17, 2003. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 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. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	*TO-15 Low Level*	*ATL Modifications*
Sample load volume	400 mL	Up to 0.5 liter
Blank	Humid air blank	Humid air blank for standard analysis. Dry air blank for low level analysis.
BFB absolute abundance criteria	Within 10% of that from previous day.	CCV surrogate recoveries demonstrate stability from one day to the next
Dilutions for initial calibration	Dynamic dilutions or static using canisters.	Syringe dilutions
IS recoveries	Within 40% of mean over ICAL for blanks, and w/in 40% of daily CCV for samples.	Within 40% of CCV recoveries for blank and samples.
Daily CCV	70 - 130%	70 - 130% with two compounds allowed out to 60 -140%.
MSD scan range	35 - 300 amu	35 - 350 amu/ 29 - 350 amu for Methanol analysis
IS RT's	± 0.33 min from most recent calibration (either ICAL or daily)	± 0.33 min from daily CCV
BFB acceptance criteria	CLP protocol	SW-846 protocol

Receiving Notes

The chain of custody information for sample RP1-AMB-3 did not match the entry on the sample tag. The discrepancy was noted in the Login email and the information on the chain of custody was used to process and report the sample.

Analytical Notes

The following compounds 1,2,4-Trichlorobenzene and Hexachlorobutadiene indicated low bias (less than 70% expected recovery) in the daily CCV analyzed on April 29 and 30, 2003. Associated non-detects in samples RP1-AMB-1, RP1-AMB-2, RP1-AMB-3, RP1-AMB-4, RP1-IA-1, RP1-IA-2, RP1-IA-2FD, RP1-IA-3 and RP1-IA-3 Duplicate were flagged to indicate estimated results with low bias.

Definition of Data Qualifying Flags

Seven 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

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
RP1-AMB-1	0304361-01A	4/16/2003	4/17/2003	NA	13	4/29/2003	NA	Good
RP1-AMB-2	0304361-02A	4/16/2003	4/17/2003	NA	13	4/29/2003	NA	Good
RP1-AMB-3	0304361-03A	4/16/2003	4/17/2003	NA	13	4/29/2003	NA	Good
RP1-AMB-4	0304361-04A	4/16/2003	4/17/2003	NA	13	4/29/2003	NA	Good
RP1-IA-1	0304361-05A	4/16/2003	4/17/2003	NA	13	4/29/2003	NA	Good
RP1-IA-2	0304361-06A	4/16/2003	4/17/2003	NA	14	4/30/2003	NA	Good
RP1-IA-2FD	0304361-07A	4/16/2003	4/17/2003	NA	14	4/30/2003	NA	Good
RP1-IA-3	0304361-08A	4/16/2003	4/17/2003	NA	14	4/30/2003	NA	Good
RP1-IA-3 Duplicate	0304361-08AA	4/16/2003	4/17/2003	NA	14	4/30/2003	NA	Good
Lab Blank	0304361-09A	NA	NA	NA	NA	4/29/2003	NA	Good
Lab Blank	0304361-09B	NA	NA	NA	NA	4/30/2003	NA	Good
CCV	0304361-10A	NA	NA	NA	NA	4/29/2003	NA	Good
CCV	0304361-10B	NA	NA	NA	NA	4/30/2003	NA	Good
LCS	0304361-11A	NA	NA	NA	NA	4/29/2003	NA	Good
LCS	0304361-11B	NA	NA	NA	NA	4/30/2003	NA	Good

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304361-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042908	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.10	0.50	Not Detected	Not Detected
Freon 114	0.10	0.71	Not Detected	Not Detected
Chloromethane	0.10	0.21	Not Detected	Not Detected
Vinyl Chloride	0.10	0.26	Not Detected	Not Detected
Bromomethane	0.10	0.39	Not Detected	Not Detected
Chloroethane	0.10	0.27	Not Detected	Not Detected
Freon 11	0.10	0.57	Not Detected	Not Detected
1,1-Dichloroethene	0.10	0.40	Not Detected	Not Detected
Freon 113	0.10	0.78	Not Detected	Not Detected
Methylene Chloride	0.10	0.35	Not Detected	Not Detected
1,1-Dichloroethane	0.10	0.41	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.10	0.40	Not Detected	Not Detected
Chloroform	0.10	0.50	Not Detected	Not Detected
1,1,1-Trichloroethane	0.10	0.55	Not Detected	Not Detected
Carbon Tetrachloride	0.10	0.64	Not Detected	Not Detected
Benzene	0.10	0.32	Not Detected	Not Detected
1,2-Dichloroethane	0.10	0.41	Not Detected	Not Detected
Trichloroethene	0.10	0.55	Not Detected	Not Detected
1,2-Dichloropropane	0.10	0.47	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.10	0.46	Not Detected	Not Detected
Toluene	0.10	0.38	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.10	0.46	Not Detected	Not Detected
1,1,2-Trichloroethane	0.10	0.55	Not Detected	Not Detected
Tetrachloroethene	0.10	0.69	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.10	0.78	Not Detected	Not Detected
Chlorobenzene	0.10	0.47	Not Detected	Not Detected
Ethyl Benzene	0.10	0.44	Not Detected	Not Detected
m,p-Xylene	0.10	0.44	Not Detected	Not Detected
o-Xylene	0.10	0.44	Not Detected	Not Detected
Styrene	0.10	0.43	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.10	0.70	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.10	0.50	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.10	0.50	Not Detected	Not Detected
1,3-Dichlorobenzene	0.10	0.61	Not Detected	Not Detected
1,4-Dichlorobenzene	0.10	0.61	Not Detected	Not Detected
alpha-Chlorotoluene	0.10	0.53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.10	0.61	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.50	3.8	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.50	5.4	Not Detected U J	Not Detected U J
Propylene	0.50	0.87	Not Detected	Not Detected
1,3-Butadiene	0.50	1.1	Not Detected	Not Detected
Acetone	0.50	1.2	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304361-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042908	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/29/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.50	1.6	Not Detected	Not Detected
2-Propanol	0.50	1.2	Not Detected	Not Detected
trans-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Vinyl Acetate	0.50	1.8	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	1.5	Not Detected	Not Detected
Hexane	0.50	1.8	Not Detected	Not Detected
Tetrahydrofuran	0.50	1.5	Not Detected	Not Detected
Cyclohexane	0.50	1.7	Not Detected	Not Detected
1,4-Dioxane	0.50	1.8	Not Detected	Not Detected
Bromodichloromethane	0.50	3.4	Not Detected	Not Detected
4-Methyl-2-pentanone	0.50	2.1	Not Detected	Not Detected
2-Hexanone	0.50	2.1	Not Detected	Not Detected
Dibromochloromethane	0.50	4.3	Not Detected	Not Detected
Bromoform	0.50	5.2	Not Detected	Not Detected
4-Ethyltoluene	0.50	2.5	Not Detected	Not Detected
Ethanol	0.50	0.96	Not Detected	Not Detected
Methyl tert-butyl ether	0.50	1.8	Not Detected	Not Detected
Heptane	0.50	2.1	Not Detected	Not Detected
Naphthalene	0.50	2.7	Not Detected	Not Detected
2-Methylpentane	0.50	1.8	Not Detected	Not Detected
Isopentane	0.50	1.5	Not Detected	Not Detected
2,3-Dimethylpentane	0.50	2.1	Not Detected	Not Detected
Isooctane	0.50	2.4	Not Detected	Not Detected
Indene	0.50	2.4	Not Detected	Not Detected
Indan	0.50	2.4	Not Detected	Not Detected
Thiophene	0.50	1.7	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	75	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	88	70-130

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304361-09B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043009	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/30/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.10	0.50	Not Detected	Not Detected
Freon 114	0.10	0.71	Not Detected	Not Detected
Chloromethane	0.10	0.21	Not Detected	Not Detected
Vinyl Chloride	0.10	0.26	Not Detected	Not Detected
Bromomethane	0.10	0.39	Not Detected	Not Detected
Chloroethane	0.10	0.27	Not Detected	Not Detected
Freon 11	0.10	0.57	Not Detected	Not Detected
1,1-Dichloroethene	0.10	0.40	Not Detected	Not Detected
Freon 113	0.10	0.78	Not Detected	Not Detected
Methylene Chloride	0.10	0.35	Not Detected	Not Detected
1,1-Dichloroethane	0.10	0.41	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.10	0.40	Not Detected	Not Detected
Chloroform	0.10	0.50	Not Detected	Not Detected
1,1,1-Trichloroethane	0.10	0.55	Not Detected	Not Detected
Carbon Tetrachloride	0.10	0.64	Not Detected	Not Detected
Benzene	0.10	0.32	Not Detected	Not Detected
1,2-Dichloroethane	0.10	0.41	Not Detected	Not Detected
Trichloroethene	0.10	0.55	Not Detected	Not Detected
1,2-Dichloropropane	0.10	0.47	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.10	0.46	Not Detected	Not Detected
Toluene	0.10	0.38	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.10	0.46	Not Detected	Not Detected
1,1,2-Trichloroethane	0.10	0.55	Not Detected	Not Detected
Tetrachloroethene	0.10	0.69	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.10	0.78	Not Detected	Not Detected
Chlorobenzene	0.10	0.47	Not Detected	Not Detected
Ethyl Benzene	0.10	0.44	Not Detected	Not Detected
m,p-Xylene	0.10	0.44	Not Detected	Not Detected
o-Xylene	0.10	0.44	Not Detected	Not Detected
Styrene	0.10	0.43	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.10	0.70	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.10	0.50	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.10	0.50	Not Detected	Not Detected
1,3-Dichlorobenzene	0.10	0.61	Not Detected	Not Detected
1,4-Dichlorobenzene	0.10	0.61	Not Detected	Not Detected
alpha-Chlorotoluene	0.10	0.53	Not Detected	Not Detected
1,2-Dichlorobenzene	0.10	0.61	Not Detected	Not Detected
1,2,4-Trichlorobenzene	0.50	3.8	Not Detected U J	Not Detected U J
Hexachlorobutadiene	0.50	5.4	Not Detected U J	Not Detected U J
Propylene	0.50	0.87	Not Detected	Not Detected
1,3-Butadiene	0.50	1.1	Not Detected	Not Detected
Acetone	0.50	1.2	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0304361-09B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043009	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/30/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	0.50	1.6	Not Detected	Not Detected
2-Propanol	0.50	1.2	Not Detected	Not Detected
trans-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Vinyl Acetate	0.50	1.8	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	1.5	Not Detected	Not Detected
Hexane	0.50	1.8	Not Detected	Not Detected
Tetrahydrofuran	0.50	1.5	Not Detected	Not Detected
Cyclohexane	0.50	1.7	Not Detected	Not Detected
1,4-Dioxane	0.50	1.8	Not Detected	Not Detected
Bromodichloromethane	0.50	3.4	Not Detected	Not Detected
4-Methyl-2-pentanone	0.50	2.1	Not Detected	Not Detected
2-Hexanone	0.50	2.1	Not Detected	Not Detected
Dibromochloromethane	0.50	4.3	Not Detected	Not Detected
Bromoform	0.50	5.2	Not Detected	Not Detected
4-Ethyltoluene	0.50	2.5	Not Detected	Not Detected
Ethanol	0.50	0.96	Not Detected	Not Detected
Methyl tert-butyl ether	0.50	1.8	Not Detected	Not Detected
Heptane	0.50	2.1	Not Detected	Not Detected
Naphthalene	0.50	2.7	Not Detected	Not Detected
2-Methylpentane	0.50	1.8	Not Detected	Not Detected
Isopentane	0.50	1.5	Not Detected	Not Detected
2,3-Dimethylpentane	0.50	2.1	Not Detected	Not Detected
Isooctane	0.50	2.4	Not Detected	Not Detected
Indene	0.50	2.4	Not Detected	Not Detected
Indan	0.50	2.4	Not Detected	Not Detected
Thiophene	0.50	1.7	Not Detected	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	86	70-130

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 0304361
Lab File ID: w042904.d
Date Analyzed: 04/29/2003
Instrument ID: msdw.i
Time Analyzed: 11:30 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	1985272		21.36		2285642		17.02		529568		15.56	
	UPPER LIMIT	2779381		21.86		3199899		17.52		741395		16.06	
	LOWER LIMIT	1191163		20.86		1371385		16.52		317741		15.06	
	CLIENT SAMPLE NO												
01	RP1-AMB-1	1428194		21.36		1767315		17.02		424099		15.56	
02	RP1-AMB-2	1376548		21.36		1739144		17.02		424527		15.56	
03	RP1-AMB-3	1368367		21.35		1623784		17.02		382605		15.59	
04	RP1-AMB-4	1204516		21.36		1524654		17.02		371341		15.59	
05	RP1-IA-1	1213336		21.36		1480093		17.02		362140		15.59	
06	RP1-IA-2	1154288	*	21.36		1355322	*	17.02		338552		15.56	
07	RP1-IA-2FD	1114118	*	21.36		1255042	*	17.02		320108		15.59	
08	RP1-IA-3	1025019	*	21.36		1211863	*	17.02		308550	*	15.56	
09	Lab Blank	1618898		21.36		1926802		17.02		450276		15.56	
10	Lab Blank	1213187		21.36		1485353		17.02		345395		15.56	
11	CCV	1985272		21.36		2285642		17.02		529568		15.56	
12	CCV	1231532		21.36		1414984		17.02		342600		15.56	
13	LCS	1809436		21.36		2133703		17.02		493341		15.56	
14	LCS	1330818		21.36		1561811		17.02		365205		15.56	
15													
16													
17													
18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.50 minutes of internal standard RT
RT Lower Limit=-0.50 minutes of internal standard RT

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 0304361
Lab File ID: w043003.d
Date Analyzed: 04/30/2003
Instrument ID: msdw.i
Time Analyzed: 01:32 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	1231532		21.36		1414984		17.02		342600		15.56	
	UPPER LIMIT	1724145		21.86		1980978		17.52		479640		16.06	
	LOWER LIMIT	738919		20.86		848990		16.52		205560		15.06	
	CLIENT SAMPLE NO												
01	RP1-IA-2	1154288		21.36		1355322		17.02		338552		15.56	
02	RP1-IA-2FD	1114118		21.36		1255042		17.02		320108		15.59	
03	RP1-IA-3	1025019		21.36		1211863		17.02		308550		15.56	
04	RP1-IA-3 Duplicate	1089174		21.36		1277262		17.02		323950		15.56	
05	Lab Blank	1213187		21.36		1485353		17.02		345395		15.56	
06	CCV	1231532		21.36		1414984		17.02		342600		15.56	
07	LCS	1330818		21.36		1561811		17.02		365205		15.56	
08													
09													
10													
11													
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18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.50 minutes of internal standard RT
RT Lower Limit=-0.50 minutes of internal standard RT

* Designates values outside of QC limits

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2003 13:01
End Cal Date : 28-APR-2003 14:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-28apr.b/to14425l.m
Cal Date : 28-Apr-2003 14:58 mjordan
Curve Type : Average

Calibration File Names:
Level 1: /chem/msdw.i/w-25apra.b/w042507.d
Level 2: /chem/msdw.i/w-28apr.b/w042804.d
Level 3: /chem/msdw.i/w-28apr.b/w042805.d
Level 4: /chem/msdw.i/w-28apr.b/w042806.d
Level 5: /chem/msdw.i/w-28apr.b/w042807.d
Level 6: /chem/msdw.i/w-28apr.b/w042808.d

	0.10000	0.50000	2.000	5.000	20.000	40.000	___		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	
1 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
2 Propylene	+++++	2.91284	1.86545	1.80654	1.97603	2.20130	2.15243	20.955	
3 Dichlorodifluoromethane/Fr12	6.12286	5.63822	5.44025	5.36156	5.97299	6.41634	5.82537	7.111	
4 Freon 114	3.19629	3.06467	2.80963	2.79473	3.17625	3.56874	3.10172	9.272	
5 Chloromethane	2.44726	1.96396	1.71747	1.77209	2.01319	2.25560	2.02826	13.837	
6 Vinyl Chloride	1.81814	1.80434	1.72143	1.70035	1.93364	2.18777	1.86094	9.684	
7 1,3-Butadiene	+++++	1.59833	1.49535	1.45489	1.70326	1.92758	1.63588	11.580	
8 Freon 22	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
9 Bromomethane	1.14483	1.09645	0.94853	0.91037	0.99323	1.08886	1.03038	9.038	
10 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
11 Chloroethane	0.84132	0.80979	0.76174	0.77757	0.89034	1.00404	0.84747	10.560	
12 Isopentane	+++++	1.25609	1.33523	1.35094	1.19461	0.81453	1.19028	18.424	
13 Trichlorofluoromethane/Fr11	5.06642	5.04841	5.03408	4.82749	5.41183	5.99916	5.23123	8.041	
14 Ethanol	+++++	0.47411	0.53105	0.62758	0.87377	1.00346	0.70200	32.412	
15 1,1-Dichloroethene	2.94282	2.55603	2.69178	2.82595	3.30898	3.49471	2.97005	12.237	
16 Freon 113	2.74460	2.46687	2.45008	2.38703	2.71734	2.83797	2.60065	7.232	
17 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
18 Acetone	+++++	3.84483	3.49043	3.80416	4.40560	4.65472	4.03995	11.789	
19 Carbon Disulfide	+++++	4.58718	4.52676	4.59258	5.38204	5.26425	4.87056	8.542	
20 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
21 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
22 2-Propanol	+++++	2.79920	2.66060	3.00635	4.03038	4.42922	3.38515	23.439	
23 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
24 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
25 Methylene Chloride	2.68935	2.34641	2.08547	2.09321	2.36710	2.36645	2.32467	9.577	

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2003 13:01
End Cal Date : 28-APR-2003 14:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-28apr.b/to14425l.m
Cal Date : 28-Apr-2003 14:58 mjordan
Curve Type : Average

	Compound	0.10000 Level 1	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	40.000 Level 6	___ RRF	% RSD	
26	2-Methylpentane	+++++	1.02898	1.02908	1.08659	1.37735	1.39184	1.18277	15.709	
27	MTBE	+++++	4.36971	4.93122	5.50603	6.84662	6.96593	5.72390	20.134	
28	trans-1,2-Dichloroethene	+++++	2.78954	2.72674	2.78942	3.26608	3.31422	2.97720	9.651	
29	Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
30	Hexane	+++++	2.45792	2.86841	3.13198	3.66224	3.65289	3.15469	16.424	
31	1,1-Dichloroethane	3.25803	3.02473	3.00642	3.00486	3.45254	3.46732	3.20232	6.910	
32	Vinyl Acetate	+++++	2.93107	3.69854	4.41551	5.89774	6.41441	4.67145	31.357	
33	1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
34	2-Butanone	+++++	3.57531	3.82061	4.37541	5.47126	5.76658	4.60183	21.258	
35	cis-1,2-Dichloroethene	2.14472	2.04301	2.18691	2.24918	2.66175	2.69855	2.33069	11.977	
36	Tetrahydrofuran	+++++	2.20869	2.24662	2.51274	3.00511	3.11439	2.61751	16.127	
38	Chloroform	3.65643	3.67052	3.48542	3.51766	4.06542	4.12427	3.75329	7.331	
39	Cyclohexane	+++++	2.07554	2.34403	2.51049	2.98372	3.00578	2.58391	15.711	
40	1,1,1-Trichloroethane	4.11917	4.18811	4.21608	4.23565	4.93860	5.03936	4.45616	9.331	
41	Carbon Tetrachloride	3.69575	3.73558	3.74115	3.83977	4.50692	4.61895	4.02302	10.499	
42	2,3-Dimethylpentane	+++++	0.57484	0.61338	0.91627	0.78204	0.79484	0.73627	19.098	
44	Benzene	1.13733	1.02935	0.99432	1.01690	1.16954	1.21180	1.09320	8.335	
45	1,2-Dichloroethane	0.77270	0.70855	0.66328	0.68096	0.77841	0.83096	0.73914	8.804	
46	Heptane	+++++	0.82282	0.92022	1.01661	1.19200	1.26402	1.04313	17.631	
47	2,2,4-Trimethylpentane	+++++	0.09248	0.09650	0.10913	0.13120	0.13222	0.11231	16.697	
49	Thiophene	+++++	0.55912	0.52776	0.56070	0.68863	0.70139	0.60752	13.344	
50	Trichloroethene	0.51185	0.49809	0.49611	0.50930	0.60095	0.63615	0.54207	11.177	
51	1,2-Dichloropropane	0.39253	0.37541	0.37111	0.38323	0.45143	0.47181	0.40759	10.542	
52	Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
53	1,4-Dioxane	+++++	0.25706	0.24137	0.28758	0.35954	0.38733	0.30658	20.880	
54	Bromodichloromethane	+++++	1.10923	1.09340	1.14851	1.35276	1.45203	1.23119	13.112	
55	cis-1,3-Dichloropropene	0.46962	0.45388	0.52090	0.61095	0.75469	0.80529	0.60256	24.701	
56	4-Methyl-2-pentanone	+++++	0.91931	1.07600	1.24917	1.59046	1.74464	1.31592	26.283	
58	Toluene	1.31335	1.28482	1.27947	1.37815	1.58841	1.69200	1.42270	12.314	
59	trans-1,3-Dichloropropene	0.69278	0.60827	0.64283	0.72714	0.88002	0.92185	0.74548	17.146	
60	1,1,2-Trichloroethane	0.53313	0.52442	0.50659	0.51574	0.57967	0.59131	0.54181	6.489	
61	Tetrachloroethene	0.76860	0.78218	0.72136	0.74568	0.81958	0.83533	0.77879	5.559	
62	2-Hexanone	+++++	0.92955	1.06454	1.18538	1.58468	1.82764	1.31836	28.472	

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2003 13:01
End Cal Date : 28-APR-2003 14:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-28apr.b/to14425l.m
Cal Date : 28-Apr-2003 14:58 mjordan
Curve Type : Average

	Compound	0.10000 Level 1	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	40.000 Level 6	___ RRF	% RSD	
	63 Dibromochloromethane	+++++	1.10099	1.14026	1.20148	1.40653	1.48018	1.26589	13.267	
	64 1,2-Dibromoethane	0.72117	0.74049	0.71023	0.76919	0.88204	0.92227	0.79090	11.301	
	65 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	67 Chlorobenzene	1.45666	1.36703	1.27459	1.30966	1.45458	1.49556	1.39301	6.421	
	68 Ethyl Benzene	0.54203	0.56475	0.56235	0.61625	0.69904	0.72836	0.61880	12.611	
	69 1,1,1,2-Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	70 m,p-Xylene	0.55298	0.64172	0.67659	0.77046	0.87673	0.91952	0.73966	19.168	
	71 o-Xylene	0.51373	0.58769	0.63383	0.73951	0.84082	0.89467	0.70171	21.229	
	72 Styrene	0.72535	0.79609	0.92523	1.14837	1.38056	1.51132	1.08115	29.580	
	73 Bromoform	+++++	0.93673	0.96061	1.07881	1.24701	1.34431	1.11349	15.997	
	74 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	76 1,1,2,2-Tetrachloroethane	1.35877	1.23111	1.07942	1.16216	1.23727	1.33656	1.23422	8.510	
	77 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	78 trans-1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	79 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	80 4-Ethyltoluene	+++++	2.41723	2.50884	3.02759	3.29047	3.62445	2.97372	17.249	
	81 1,3,5-Trimethylbenzene	1.60180	2.09938	2.00638	2.40269	2.53326	2.78465	2.23803	18.859	
	162 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	82 1,2,4-Trimethylbenzene	1.24273	1.58021	1.69069	2.22904	2.38773	2.66062	1.96517	27.660	
	83 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	84 1,3-Dichlorobenzene	1.51370	1.47831	1.30028	1.52861	1.62914	1.82934	1.54656	11.329	
	85 1,4-Dichlorobenzene	1.50302	1.43223	1.27879	1.52190	1.63845	1.84301	1.53623	12.452	
	86 alpha-Chlorotoluene	1.78734	1.26903	1.28157	1.62836	1.94425	2.36256	1.71218	24.381	
	87 Indan	+++++	2.09735	1.62064	2.25802	1.91471	2.05232	1.98861	12.041	
	88 1,2-Dichlorobenzene	1.52100	1.48625	1.27946	1.49080	1.53532	1.71640	1.50487	9.269	
	89 Indene	+++++	1.37049	1.05834	1.51959	1.31631	1.49242	1.35143	13.627	
	90 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	91 1,2,4-Trichlorobenzene	+++++	0.54627	0.36803	0.38168	0.27389	0.30765	0.37550	27.989	
	92 Hexachlorobutadiene	+++++	1.05137	0.58702	0.66333	0.47352	0.49034	0.65312	36.057	<-
	93 Naphthalene	+++++	0.60316	0.57870	0.60439	0.38388	0.48317	0.53066	18.074	
$	43 1,2-Dichloroethane-d4	1.98536	1.97696	1.95437	1.93304	1.91921	1.97800	1.95782	1.380	
$	57 Toluene-d8	1.04132	1.05620	1.06581	1.08378	1.07581	1.11062	1.07226	2.236	

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2003 13:01
End Cal Date : 28-APR-2003 14:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-28apr.b/to14425l.m
Cal Date : 28-Apr-2003 14:58 mjordan
Curve Type : Average

Compound	0.10000 Level 1	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	40.000 Level 6	___ RRF	% RSD
$ 75 Bromofluorobenzene	0.77193	0.77363	0.79669	0.82155	0.83405	0.85169	0.80826	4.059

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 25-APR-2003 13:01
End Cal Date : 28-APR-2003 14:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-28apr.b/to14425l.m
Cal Date : 28-Apr-2003 14:58 mjordan
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 14.8095855
Maximun Average %RSD = 30
* Passed Average %RSD Test.

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304361-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/29/03

Compound	%Recovery
Freon 12	82
Freon 114	99
Chloromethane	82
Vinyl Chloride	90
Bromomethane	114
Chloroethane	104
Freon 11	87
1,1-Dichloroethene	95
Freon 113	104
Methylene Chloride	82
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	98
Chloroform	93
1,1,1-Trichloroethane	89
Carbon Tetrachloride	90
Benzene	100
1,2-Dichloroethane	77
Trichloroethene	99
1,2-Dichloropropane	98
cis-1,3-Dichloropropene	105
Toluene	103
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	105
Tetrachloroethene	106
1,2-Dibromoethane (EDB)	105
Chlorobenzene	102
Ethyl Benzene	109
m,p-Xylene	115
o-Xylene	115
Styrene	109
1,1,2,2-Tetrachloroethane	93
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	91
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	51 Q
Hexachlorobutadiene	58 Q
Propylene	70
1,3-Butadiene	83
Acetone	81

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304361-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042904	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/29/03

Compound	%Recovery
Carbon Disulfide	109
2-Propanol	86
trans-1,2-Dichloroethene	97
Vinyl Acetate	92
2-Butanone (Methyl Ethyl Ketone)	86
Hexane	107
Tetrahydrofuran	86
Cyclohexane	115
1,4-Dioxane	103
Bromodichloromethane	88
4-Methyl-2-pentanone	82
2-Hexanone	79
Dibromochloromethane	99
Bromoform	96
4-Ethyltoluene	97
Ethanol	85
Methyl tert-butyl ether	108
Heptane	88
Naphthalene	61
2-Methylpentane	93
Isopentane	110
2,3-Dimethylpentane	82
Isooctane	95
Indene	89
Indan	97
Thiophene	91

Q = Exceeds Quality Control limits.

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	75	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 29-APR-2003 11:30
Analysis Type: AIR Init. Cal. Times: 13:01 14:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-29apr.b/to14425l.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.95782	1.47690	0.010	24.56391	30.00000	Averaged
$ 57 Toluene-d8	1.07226	1.03813	0.010	3.18256	30.00000	Averaged
$ 75 Bromofluorobenzene	0.80826	0.75592	0.010	6.47487	30.00000	Averaged
2 Propylene	2.15243	1.51330	0.010	29.69348	40.00000	Averaged
3 Dichlorodifluoromethane/Fr1	5.82537	4.81171	0.010	17.40076	30.00000	Averaged
4 Freon 114	3.10172	3.08159	0.010	0.64889	30.00000	Averaged
5 Chloromethane	2.02826	1.66378	0.010	17.97007	30.00000	Averaged
6 Vinyl Chloride	1.86094	1.67523	0.010	9.97981	30.00000	Averaged
7 1,3-Butadiene	1.63588	1.35294	0.010	17.29622	40.00000	Averaged
9 Bromomethane	1.03038	1.17459	0.010	-13.99593	30.00000	Averaged
11 Chloroethane	0.84747	0.87863	0.010	-3.67669	30.00000	Averaged
13 Trichlorofluoromethane/Fr11	5.23123	4.53294	0.010	13.34850	30.00000	Averaged
14 Ethanol	0.70200	0.59755	0.010	14.87829	40.00000	Averaged
16 Freon 113	2.60065	2.70578	0.010	-4.04248	30.00000	Averaged
15 1,1-Dichloroethene	2.97005	2.81412	0.010	5.25005	30.00000	Averaged
18 Acetone	4.03995	3.27904	0.010	18.83463	40.00000	Averaged
19 Carbon Disulfide	4.87056	5.31848	0.010	-9.19640	40.00000	Averaged
22 2-Propanol	3.38515	2.89728	0.010	14.41208	40.00000	Averaged
25 Methylene Chloride	2.32467	1.90850	0.010	17.90236	30.00000	Averaged
27 MTBE	5.72390	6.15766	0.010	-7.57803	40.00000	Averaged
28 trans-1,2-Dichloroethene	2.97720	2.89298	0.010	2.82863	40.00000	Averaged
30 Hexane	3.15469	3.36634	0.010	-6.70930	40.00000	Averaged
31 1,1-Dichloroethane	3.20232	3.08188	0.010	3.76085	30.00000	Averaged
32 Vinyl Acetate	4.67145	4.31664	0.010	7.59530	40.00000	Averaged
35 cis-1,2-Dichloroethene	2.33069	2.29123	0.010	1.69272	30.00000	Averaged
34 2-Butanone	4.60183	3.95056	0.010	14.15257	40.00000	Averaged
36 Tetrahydrofuran	2.61751	2.23818	0.010	14.49200	40.00000	Averaged
38 Chloroform	3.75329	3.47982	0.010	7.28609	30.00000	Averaged
39 Cyclohexane	2.58391	2.98095	0.010	-15.36561	40.00000	Averaged
40 1,1,1-Trichloroethane	4.45616	3.95016	0.010	11.35505	30.00000	Averaged
41 Carbon Tetrachloride	4.02302	3.61188	0.010	10.21968	30.00000	Averaged
44 Benzene	1.09320	1.09947	0.010	-0.57324	30.00000	Averaged
45 1,2-Dichloroethane	0.73914	0.57044	0.010	22.82375	30.00000	Averaged
46 Heptane	1.04313	0.91341	0.010	12.43618	40.00000	Averaged
50 Trichloroethene	0.54207	0.53670	0.010	0.99186	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 29-APR-2003 11:30
Analysis Type: AIR Init. Cal. Times: 13:01 14:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-29apr.b/to14425l.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
51 1,2-Dichloropropane	0.40759	0.39883	0.010	2.14785	30.00000	Averaged	
53 1,4-Dioxane	0.30658	0.31572	0.010	-2.98432	40.00000	Averaged	
54 Bromodichloromethane	1.23119	1.08856	0.010	11.58478	40.00000	Averaged	
55 cis-1,3-Dichloropropene	0.60256	0.63123	0.010	-4.75859	30.00000	Averaged	
56 4-Methyl-2-pentanone	1.31592	1.08277	0.010	17.71743	40.00000	Averaged	
58 Toluene	1.42270	1.46919	0.010	-3.26775	30.00000	Averaged	
59 trans-1,3-Dichloropropene	0.74548	0.70457	0.010	5.48703	30.00000	Averaged	
60 1,1,2-Trichloroethane	0.54181	0.56674	0.010	-4.60243	30.00000	Averaged	
61 Tetrachloroethene	0.77879	0.82873	0.010	-6.41264	30.00000	Averaged	
62 2-Hexanone	1.31836	1.04174	0.010	20.98202	40.00000	Averaged	
63 Dibromochloromethane	1.26589	1.25544	0.010	0.82539	40.00000	Averaged	
64 1,2-Dibromoethane	0.79090	0.82834	0.010	-4.73373	30.00000	Averaged	
67 Chlorobenzene	1.39301	1.41418	0.010	-1.51955	30.00000	Averaged	
68 Ethyl Benzene	0.61880	0.67684	0.010	-9.38003	30.00000	Averaged	
70 m,p-Xylene	0.73966	0.84828	0.010	-14.68484	30.00000	Averaged	
71 o-Xylene	0.70171	0.80637	0.010	-14.91479	30.00000	Averaged	
72 Styrene	1.08115	1.18106	0.010	-9.24119	30.00000	Averaged	
73 Bromoform	1.11349	1.06544	0.010	4.31565	40.00000	Averaged	
76 1,1,2,2-Tetrachloroethane	1.23422	1.14398	0.010	7.31146	30.00000	Averaged	
80 4-Ethyltoluene	2.97372	2.88198	0.010	3.08484	40.00000	Averaged	
81 1,3,5-Trimethylbenzene	2.23803	2.25471	0.010	-0.74516	30.00000	Averaged	
82 1,2,4-Trimethylbenzene	1.96517	2.10056	0.010	-6.88921	30.00000	Averaged	
84 1,3-Dichlorobenzene	1.54656	1.56303	0.010	-1.06511	30.00000	Averaged	
85 1,4-Dichlorobenzene	1.53623	1.55863	0.010	-1.45818	30.00000	Averaged	
86 alpha-Chlorotoluene	1.71218	1.55515	0.010	9.17169	30.00000	Averaged	
88 1,2-Dichlorobenzene	1.50487	1.47360	0.010	2.07795	30.00000	Averaged	
91 1,2,4-Trichlorobenzene	0.37550	0.19139	0.010	49.03030	30.00000	Averaged	<-
92 Hexachlorobutadiene	0.65312	0.38055	0.010	41.73350	30.00000	Averaged	<-

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304361-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/30/03

Compound	%Recovery
Freon 12	104
Freon 114	107
Chloromethane	80
Vinyl Chloride	98
Bromomethane	128
Chloroethane	110
Freon 11	111
1,1-Dichloroethene	105
Freon 113	113
Methylene Chloride	94
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	108
Chloroform	111
1,1,1-Trichloroethane	112
Carbon Tetrachloride	114
Benzene	109
1,2-Dichloroethane	105
Trichloroethene	112
1,2-Dichloropropane	106
cis-1,3-Dichloropropene	109
Toluene	114
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	115
Tetrachloroethene	116
1,2-Dibromoethane (EDB)	117
Chlorobenzene	113
Ethyl Benzene	120
m,p-Xylene	125
o-Xylene	122
Styrene	119
1,1,2,2-Tetrachloroethane	101
1,3,5-Trimethylbenzene	117
1,2,4-Trimethylbenzene	119
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	82
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	39 Q
Hexachlorobutadiene	54 Q
Propylene	77
1,3-Butadiene	90
Acetone	96

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0304361-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/30/03

Compound	%Recovery
Carbon Disulfide	111
2-Propanol	88
trans-1,2-Dichloroethene	108
Vinyl Acetate	96
2-Butanone (Methyl Ethyl Ketone)	96
Hexane	110
Tetrahydrofuran	94
Cyclohexane	117
1,4-Dioxane	114
Bromodichloromethane	110
4-Methyl-2-pentanone	97
2-Hexanone	87
Dibromochloromethane	118
Bromoform	108
4-Ethyltoluene	111
Ethanol	82
Methyl tert-butyl ether	113
Heptane	102
Naphthalene	69
2-Methylpentane	97
Isopentane	122
2,3-Dimethylpentane	87
Isooctane	94
Indene	95
Indan	103
Thiophene	95

Q = Exceeds Quality Control limits.

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
None Identified			

Container Type: NA - Not Applicable

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

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Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 30-APR-2003 01:32
Analysis Type: AIR Init. Cal. Times: 13:01 14:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdw.i/w-30apr.b/to14425l.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.95782	1.83236	0.010	6.40829	30.00000	Averaged
$ 57 Toluene-d8	1.07226	1.08176	0.010	-0.88613	30.00000	Averaged
$ 75 Bromofluorobenzene	0.80826	0.79490	0.010	1.65241	30.00000	Averaged
2 Propylene	2.15243	1.66584	0.010	22.60633	40.00000	Averaged
3 Dichlorodifluoromethane/Fr1	5.82537	6.03684	0.010	-3.63020	30.00000	Averaged
4 Freon 114	3.10172	3.31367	0.010	-6.83344	30.00000	Averaged
5 Chloromethane	2.02826	1.62067	0.010	20.09560	30.00000	Averaged
6 Vinyl Chloride	1.86094	1.81840	0.010	2.28615	30.00000	Averaged
7 1,3-Butadiene	1.63588	1.47735	0.010	9.69098	40.00000	Averaged
9 Bromomethane	1.03038	1.31707	0.010	-27.82407	30.00000	Averaged
11 Chloroethane	0.84747	0.93335	0.010	-10.13351	30.00000	Averaged
13 Trichlorofluoromethane/Fr11	5.23123	5.81413	0.010	-11.14262	30.00000	Averaged
14 Ethanol	0.70200	0.57715	0.010	17.78513	40.00000	Averaged
16 Freon 113	2.60065	2.93379	0.010	-12.80989	30.00000	Averaged
15 1,1-Dichloroethene	2.97005	3.13133	0.010	-5.43022	30.00000	Averaged
18 Acetone	4.03995	3.86914	0.010	4.22793	40.00000	Averaged
19 Carbon Disulfide	4.87056	5.39703	0.010	-10.80927	40.00000	Averaged
22 2-Propanol	3.38515	2.97444	0.010	12.13288	40.00000	Averaged
25 Methylene Chloride	2.32467	2.17779	0.010	6.31797	30.00000	Averaged
27 MTBE	5.72390	6.49035	0.010	-13.39032	40.00000	Averaged
28 trans-1,2-Dichloroethene	2.97720	3.22438	0.010	-8.30243	40.00000	Averaged
30 Hexane	3.15469	3.47280	0.010	-10.08372	40.00000	Averaged
31 1,1-Dichloroethane	3.20232	3.32541	0.010	-3.84395	30.00000	Averaged
32 Vinyl Acetate	4.67145	4.46507	0.010	4.41792	40.00000	Averaged
35 cis-1,2-Dichloroethene	2.33069	2.51420	0.010	-7.87398	30.00000	Averaged
34 2-Butanone	4.60183	4.44494	0.010	3.40927	40.00000	Averaged
36 Tetrahydrofuran	2.61751	2.45712	0.010	6.12745	40.00000	Averaged
38 Chloroform	3.75329	4.18064	0.010	-11.38605	30.00000	Averaged
39 Cyclohexane	2.58391	3.03050	0.010	-17.28322	40.00000	Averaged
40 1,1,1-Trichloroethane	4.45616	4.99662	0.010	-12.12832	30.00000	Averaged
41 Carbon Tetrachloride	4.02302	4.57932	0.010	-13.82786	30.00000	Averaged
44 Benzene	1.09320	1.18989	0.010	-8.84387	30.00000	Averaged
45 1,2-Dichloroethane	0.73914	0.77809	0.010	-5.26971	30.00000	Averaged
46 Heptane	1.04313	1.06425	0.010	-2.02408	40.00000	Averaged
50 Trichloroethene	0.54207	0.60903	0.010	-12.35264	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 30-APR-2003 01:32
Analysis Type: AIR Init. Cal. Times: 13:01 14:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdw.i/w-30apr.b/to14425l.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
51 1,2-Dichloropropane	0.40759	0.43326	0.010	-6.29781	30.00000	Averaged	
53 1,4-Dioxane	0.30658	0.34961	0.010	-14.03652	40.00000	Averaged	
54 Bromodichloromethane	1.23119	1.34857	0.010	-9.53444	40.00000	Averaged	
55 cis-1,3-Dichloropropene	0.60256	0.65690	0.010	-9.01794	30.00000	Averaged	
56 4-Methyl-2-pentanone	1.31592	1.28276	0.010	2.52000	40.00000	Averaged	
58 Toluene	1.42270	1.61908	0.010	-13.80328	30.00000	Averaged	
59 trans-1,3-Dichloropropene	0.74548	0.80233	0.010	-7.62575	30.00000	Averaged	
60 1,1,2-Trichloroethane	0.54181	0.62122	0.010	-14.65707	30.00000	Averaged	
61 Tetrachloroethene	0.77879	0.90706	0.010	-16.47003	30.00000	Averaged	
62 2-Hexanone	1.31836	1.14357	0.010	13.25827	40.00000	Averaged	
63 Dibromochloromethane	1.26589	1.48787	0.010	-17.53581	40.00000	Averaged	
64 1,2-Dibromoethane	0.79090	0.92561	0.010	-17.03339	30.00000	Averaged	
67 Chlorobenzene	1.39301	1.57533	0.010	-13.08816	30.00000	Averaged	
68 Ethyl Benzene	0.61880	0.74364	0.010	-20.17454	30.00000	Averaged	
70 m,p-Xylene	0.73966	0.92170	0.010	-24.61004	30.00000	Averaged	
71 o-Xylene	0.70171	0.86013	0.010	-22.57655	30.00000	Averaged	
72 Styrene	1.08115	1.28518	0.010	-18.87177	30.00000	Averaged	
73 Bromoform	1.11349	1.20180	0.010	-7.93022	40.00000	Averaged	
76 1,1,2,2-Tetrachloroethane	1.23422	1.24549	0.010	-0.91362	30.00000	Averaged	
80 4-Ethyltoluene	2.97372	3.29210	0.010	-10.70645	40.00000	Averaged	
81 1,3,5-Trimethylbenzene	2.23803	2.62566	0.010	-17.32020	30.00000	Averaged	
82 1,2,4-Trimethylbenzene	1.96517	2.33436	0.010	-18.78658	30.00000	Averaged	
84 1,3-Dichlorobenzene	1.54656	1.65517	0.010	-7.02232	30.00000	Averaged	
85 1,4-Dichlorobenzene	1.53623	1.63345	0.010	-6.32861	30.00000	Averaged	
86 alpha-Chlorotoluene	1.71218	1.41230	0.010	17.51475	30.00000	Averaged	
88 1,2-Dichlorobenzene	1.50487	1.49978	0.010	0.33815	30.00000	Averaged	
91 1,2,4-Trichlorobenzene	0.37550	0.14731	0.010	60.77053	30.00000	Averaged	<-
92 Hexachlorobutadiene	0.65312	0.34999	0.010	46.41145	30.00000	Averaged	<-

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 29-APR-2003 14:09
Analysis Type: AIR Init. Cal. Times: 13:01 14:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-29apr.b/to14425l.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.95782	1.48243	0.010	24.28186	30.00000	Averaged
$ 57 Toluene-d8	1.07226	1.00193	0.010	6.55858	30.00000	Averaged
$ 75 Bromofluorobenzene	0.80826	0.72732	0.010	10.01388	30.00000	Averaged
12 Isopentane	1.19028	1.31134	0.010	-10.17054	40.00000	Averaged
26 2-Methylpentane	1.18277	1.10554	0.010	6.52990	40.00000	Averaged
42 2,3-Dimethylpentane	0.73627	0.60738	0.010	17.50638	40.00000	Averaged
47 2,2,4-Trimethylpentane	0.11231	0.10619	0.010	5.45158	40.00000	Averaged
49 Thiophene	0.60752	0.55119	0.010	9.27252	40.00000	Averaged
87 Indan	1.98861	1.91905	0.010	3.49780	40.00000	Averaged
89 Indene	1.35143	1.20942	0.010	10.50789	40.00000	Averaged
93 Naphthalene	0.53066	0.32502	0.010	38.75130	40.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 30-APR-2003 05:39
Analysis Type: AIR Init. Cal. Times: 13:01 14:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdw.i/w-30apr.b/to14425l.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.95782	1.79713	0.010	8.20778	30.00000	Averaged
$ 57 Toluene-d8	1.07226	1.00045	0.010	6.69695	30.00000	Averaged
$ 75 Bromofluorobenzene	0.80826	0.72613	0.010	10.16151	30.00000	Averaged
12 Isopentane	1.19028	1.45449	0.010	-22.19714	40.00000	Averaged
26 2-Methylpentane	1.18277	1.14366	0.010	3.30671	40.00000	Averaged
42 2,3-Dimethylpentane	0.73627	0.63925	0.010	13.17778	40.00000	Averaged
47 2,2,4-Trimethylpentane	0.11231	0.10580	0.010	5.79130	40.00000	Averaged
49 Thiophene	0.60752	0.57487	0.010	5.37373	40.00000	Averaged
87 Indan	1.98861	2.04730	0.010	-2.95119	40.00000	Averaged
89 Indene	1.35143	1.28148	0.010	5.17614	40.00000	Averaged
93 Naphthalene	0.53066	0.36356	0.010	31.48989	40.00000	Averaged

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304361-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/29/03

Compound	%Recovery
Freon 12	82
Freon 114	97
Chloromethane	78
Vinyl Chloride	90
Bromomethane	116
Chloroethane	107
Freon 11	77
1,1-Dichloroethene	80
Freon 113	90
Methylene Chloride	70
1,1-Dichloroethane	79
cis-1,2-Dichloroethene	85
Chloroform	78
1,1,1-Trichloroethane	73
Carbon Tetrachloride	81
Benzene	93
1,2-Dichloroethane	67 Q
Trichloroethene	83
1,2-Dichloropropane	85
cis-1,3-Dichloropropene	102
Toluene	95
trans-1,3-Dichloropropene	98
1,1,2-Trichloroethane	92
Tetrachloroethene	96
1,2-Dibromoethane (EDB)	83
Chlorobenzene	91
Ethyl Benzene	104
m,p-Xylene	108
o-Xylene	108
Styrene	115
1,1,2,2-Tetrachloroethane	82
1,3,5-Trimethylbenzene	90
1,2,4-Trimethylbenzene	89
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	80
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	82
1,2,4-Trichlorobenzene	43 Q
Hexachlorobutadiene	51 Q
Propylene	63
1,3-Butadiene	61
Acetone	71

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304361-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/29/03

Compound	%Recovery
Carbon Disulfide	98
2-Propanol	76
trans-1,2-Dichloroethene	92
Vinyl Acetate	80
2-Butanone (Methyl Ethyl Ketone)	75
Hexane	92
Tetrahydrofuran	76
Cyclohexane	99
1,4-Dioxane	99
Bromodichloromethane	71
4-Methyl-2-pentanone	70
2-Hexanone	72
Dibromochloromethane	86
Bromoform	76
4-Ethyltoluene	90
Ethanol	76
Methyl tert-butyl ether	94
Heptane	72
Naphthalene	Not Spiked
2-Methylpentane	Not Spiked
Isopentane	Not Spiked
2,3-Dimethylpentane	Not Spiked
Isooctane	Not Spiked
Indene	Not Spiked
Indan	Not Spiked
Thiophene	Not Spiked

Q = Exceeds Quality Control limits.

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	74	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304361-11B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/30/03

Compound	%Recovery
Freon 12	117
Freon 114	127
Chloromethane	96
Vinyl Chloride	116
Bromomethane	147 Q
Chloroethane	127
Freon 11	113
1,1-Dichloroethene	108
Freon 113	113
Methylene Chloride	92
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	113
Chloroform	108
1,1,1-Trichloroethane	106
Carbon Tetrachloride	117
Benzene	114
1,2-Dichloroethane	103
Trichloroethene	108
1,2-Dichloropropane	104
cis-1,3-Dichloropropene	130
Toluene	120
trans-1,3-Dichloropropene	129
1,1,2-Trichloroethane	116
Tetrachloroethene	120
1,2-Dibromoethane (EDB)	104
Chlorobenzene	111
Ethyl Benzene	127
m,p-Xylene	128
o-Xylene	121
Styrene	134 Q
1,1,2,2-Tetrachloroethane	94
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	91
1,4-Dichlorobenzene	83
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	82
1,2,4-Trichlorobenzene	18 Q
Hexachlorobutadiene	34 Q
Propylene	82
1,3-Butadiene	83
Acetone	100

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0304361-11B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043006	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/30/03	

Compound	%Recovery
Carbon Disulfide	125
2-Propanol	95
trans-1,2-Dichloroethene	124
Vinyl Acetate	102
2-Butanone (Methyl Ethyl Ketone)	101
Hexane	117
Tetrahydrofuran	100
Cyclohexane	126
1,4-Dioxane	120
Bromodichloromethane	101
4-Methyl-2-pentanone	89
2-Hexanone	76
Dibromochloromethane	115
Bromoform	94
4-Ethyltoluene	100
Ethanol	93
Methyl tert-butyl ether	125
Heptane	99
Naphthalene	Not Spiked
2-Methylpentane	Not Spiked
Isopentane	Not Spiked
2,3-Dimethylpentane	Not Spiked
Isooctane	Not Spiked
Indene	Not Spiked
Indan	Not Spiked
Thiophene	Not Spiked

Q = Exceeds Quality Control limits.

TENTATIVELY IDENTIFIED COMPOUNDS - Top 10 Reported

Compound	CAS Number	Match Quality	Amount (ppbv)
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

0652

GC/MS Tuning and Mass Calibration (BFB)

BFB File ID: W042901
BFB Injection Date: 4-29-03
BFB Injection Time: 0902

Tekmar Purge Flow:	—
Vacuum:	1.5X10⁻⁵

m/e	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of the base peak	18.42
75	30 - 60% of the base peak	46.31
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.63
173	Less than 2% of mass 174	(0.00)1
174	Greater than 50% of mass 95	73.46
175	5.0 - 9.0% of mass 174	(7.54)1
176	Greater than 95% but less than 101% of mass 174	(96.45)1
177	5.0 - 9.0% of mass 176	(6.52)2

1 - value in parenthesis is % mass 174 2 - value in parenthesis is % mass 176

#1010-163I.S.	Area counts
BCM	4529568
1,4-DFB	2285642
CB-d5	1985272

THIS TUNE CHECK APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS Low Level.

	Use	File #	Sample Name/Client	Can #	Pressure	Amount	Dilution Factor	Date Analyzed	Time Analyzed	Init.	Comments
1	✓	W042901	BFB Tune check	843562	50psig	2.0mL	1.0	4.29.03	0902	NK	
2	X	W042902	1046-29 (100 ppbv)	9918	5.0 ppbv per 4/29/03	25mL	1.0	4.29.03	0924	NK	
3	X	W042903	1046-29(50ppbv)	9918	5.0ppbv	50mL	1.0	4.29.03	1014	NK	
4	✓	W042904	[redacted]		5.0ppbv	50mL	1.0	[redacted]	1150	NK	CCV
5	X	W042905	1046-26(100ppbv)	33921	5.0ppbv	25mL	1.0	4.29.03	1223	NK	
6	✓	W042906	1046-26(100ppbv)	33921	5.0ppbv	25mL	1.0	4.29.03	1313	NK	LCS 1,2,4-TCB ≤ 50%
7	✓	W042907	[redacted]	02241	5.0ppbv	12.5mL	1.0	[redacted]	1405	NK	SP. CCV
8	✓	W042908	Lab blank	33663	Dry	50mL	1.0	4.29.03	1511	NK	
9	✓	W042909	Retec [redacted] -03A	6615	8.8"Hg -5psi	50mL	1.83	4-29-03	1611	MM	
10	✓	W042910	[redacted] -03A	6619	8.0"Hg -5psi	500mL	1.83	4-29-03	1650	MM	
11	✓	W042911	[redacted] -03A	13344	9.0"Hg -5psi	500mL	1.91	4-29-03	1742	MM	
12	✓	W042912	[redacted] -03A	423	8.5"Hg -5psi	500mL	1.87	4-29-03	1837	MM	
13	✓	W042913	[redacted] -03A	30850	7.0"Hg -5psi	500mL	1.75	4-29-03	1926	MM	
14	X	W042914	[redacted] -03A	6794	8.0"Hg -5psi	50mL	1.83	4-29-03	2257	MJ	IS ↓
15	X	W042915	[redacted] -03A	4049	7.5"Hg -5psi	500 mL	1.79	4.29.03	2340	MJ	IS ↓

Calculation Check: File ID: W042904 Compound: 1,2-DCA-d4 Initials: NK

ppbv in sample = Area of Compound in Sample x Conc. Int. Standard (ppbv) x Dilution Factor
Area of Int. Standard in Sample ICAL RRF

ppbv in sample = (082121) x (10) x (1.0) = 7.544
(529568) (995782)

Reported Result: 7.544

N. Kim
Signed

4/30/03
Date

Instrument RunLog

@Air Toxics Ltd.

Log Book #: 819

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GC/MS Tuning and Mass Calibration (BFB)

BFB File ID: W043001
BFB Injection Date: 04-30-03
BFB Injection Time: 0019

m/e	Ion Abundance Criteria	% Relative Abundance
50	15 - 40% of the base peak	24.58
75	30 - 60% of the base peak	53.30
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.29
173	Less than 2% of mass 174	(0.42) 1
174	Greater than 50% of mass 95	72.94
175	5.0 - 9.0% of mass 174	(7.44) 1
176	Greater than 95% but less than 101% of mass 174	(95.91) 1
177	5.0 - 9.0% of mass 176	(6.61) 2

1 - value in parenthesis is % mass 174 2 - value in parenthesis is % mass 176

Tekmar Purge Flow:	
Vacuum:	

#1010-163 I.S.	Area counts
BCM	~~342600~~ 273071
1,4-DFB	~~1414,979~~ 1036951
$CB-d_5$	~~1,231,532~~ 945579

LF 4-30-03

THIS TUNE CHECK APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS

	Use	File #	Sample Name/Client	Can #	Pressure	Amount	Dilution Factor	Date Analyzed	Time Analyzed	Init.	Comments
1	✓	W043001	BFB Tune Check	843-562	50ng	2.0 mL	1.0	4.30.03	0019	MJ	BFB
2	X	W043002	#1046-47(50ppbv)	13859	5.0ppbv	50 mL	1.0	4.30.03	0046	MJ	
3	✓	W043003	#[redacted]	[redacted]9	5.0ppbv	50 mL	1.0	[redacted]		MJ	CCV 1,2,4-TCB <50% RL
4	X	W043004	#1046-26(100ppbv)	33921	5.0ppbv	25 mL	1.0	4.30.03	0226	MJ	
5	X	W043005	#1046-26(100ppbv)	33921	5.0ppbv	25 mL	1.0	4.30.03	0309	MJ	
6	✓	W043006	#1046-46(50ppbv)	927	5.0ppbv	50 mL	1.0	4.30.03	0450	MJ	LCS 1,2,4-TCB Hexachloro } <50% RL
7	X	W043007	#1010-162(200ppbv)	02241	5.0ppbv	12.5 mL	1.0	4.30.03	0449	MJ	
8	✓	W043008	#1010-162(200ppbv)	02241	5.0ppbv	12.5 mL	1.0	[redacted]0539		MJ	Sp. CCV
9	✓	W043009	Lab Blank	9926	Dry	500 mL	1.0	4.30.03	0631	MJ	
10	✓	W043010	~~0304436-06A~~	6994	9.0"Hg-5psi	500ml	1.85	4-30-03	0935	NK	
11	✓	W043011	~~0304361-01A~~	4049	7.5" Hg-5psi	500ml	1.79 ~~1.00~~	4-30-03	1036	LF	
12	✓	W043012	~~0304361-02A~~	7000	9.0" Hg-5psi	500ml	1.91	4-30-03	1130	LF	
13	✓	W043013	~~0304361-02AA~~	7000	9.0" Hg-5psi	500ml	1.91	4-30-03	1218	LF	
14		~~W043014~~	~~0304503-01A~~	~~33782~~	~~4.0" Hg-5psi~~	~~500ml~~	~~1.55~~	~~4-30-03~~		~~LF~~	4-30-03 Not Run
15											

Calculation Check: File ID: W043003 Compound: 1,2-DCA-d4 Initials: LF

ppbv in sample = (Area of Compound in Sample / Area of Int. Standard in Sample) x (Conc. Int. Standard (ppbv) / ICAL RRF) x Dilution Factor

ppbv in sample = ((522152) / (~~342600~~ 273071 LF 4-30-03)) x ((10.00) / (1.89286)) x (1.00) = 10.1019

Reported Result: 10.101

Signed: [signature] Date: 4-30-03

Revised: 06/29/99

0726

Please e-mail results to lschumann@claytongrp.com and jfinn@retec.com

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing 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. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

0749

Contact Person John Finn
Company The RETEC Group, Inc.
Address 1001 W. Seneca Street, Suite 204 City Ithaca State NY Zip 14850-3342
Phone 607-277-5716 FAX 607-277-9057
Collected By: Signature Ritesh Ramraj

Project info:
P.O. #
Project # CECN3-16197-122
Project Name

Turn Around Time:
☐ Normal
☐ Rush ______ Specify

ML 4/19/03

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
01A	~~RTI-AMB-1~~	4/16/03	Retec list (EPA TO-15, TIC, ozone precursors)			8.0"Hg
02A	[redacted]	↓	↓			8.0"Hg
03A	[redacted]					9.0"Hg
04A	[redacted]					8.5"Hg
05A	[redacted]					7.0"Hg
06A	[redacted]					8.0"Hg
07A	[redacted]					7.5"Hg
08A	[redacted]	↓	↓			9.0"Hg

Relinquished By: (Signature) Date/Time Ritesh Ramraj 4/16/03
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time [signature] ATL 4/17/03 930

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx	454204583848	eA	—	Good	Yes No (None)	0304361

Form 1293 rev.03

Sample Discrepancy Report

If Section III or IV is filled out, Client Services or Team leader must receive form within 24 hrs of initiation

Initiated By: TB Date: 4/17 Given To: _____

Sections I - IV must be filled out by person initiating this Sample Discrepancy Report.

Team Leader: _____ Date: _____ Given To: _____

Verify Sections I and IV were filled out correctly and completely. Forward form to Client Services or file to folder.

Client Service: _____ Date: _____ Given To: _____

Section V must be filled out by Client Serv. Personnel only and form returned to Workorder Folder.

I. Work order(s) affected: 0304361

Sample(s) affected: 03A

II. Login Discrepancies ***(Document in Login FAX/E-mail and Lab Narrative)***

- ❑ Chain of Custody Record (COC) improperly relinquished.
- ❑ COC was not filled out in ink.
- ❑ Number of samples on the COC does not match the number of samples that were received.
- ❑ Sampling date / time is not documented for some samples.
- ☒ Sample tags/labels do not match the COC.
- ❑ Samples received at wrong temperature, however coolant was present.
- ❑ Canister sample received at >15"Hg (not identified as a Trip/Field Blank).
- ❑ Sample container (Tube/VOA vial) was received broken, however, sample was intact.
- ❑ No brass cap on canister.
- ❑ Custody Seal on the outside of the container was broken.
- ❑ Flow controller used - canister samples received at <2.5"Hg.
- ❑ Other (describe below)

Describe the Discrepancy: Sample tag: AMB-3

Initials: TB **Date:** 4/17

III. Login Discrepancies requiring Client Services notification ***(document in Login Fax/E-mail and Lab Narrative)***

- ❑ Chain of Custody Record (COC) was not received with sample(s).
- ❑ Analysis method(s) is not specified on the COC.
- ❑ Sample(s) received out of Holding Time.
- ❑ Sampling date / time is not documented for any samples.
- ❑ Samples received at wrong temperature, no coolant present (or coolant melted).
- ❑ Sample container (Tube/VOA vial/DNPH Bottle, etc.) was received broken or leaking.
- ❑ Container for VOA analysis received with headspace.
- ❑ Samples for RSK-175 CO_2 analysis received preserved with HCL.
- ❑ Tedlar Bag received leaking/flat.
- ❑ Canister received with a leaky valve, or found to be leaking at the time of pressurization.
- ❑ Tedlar bag / canister received emitting a strong odor (sample cannot be analyzed).
- ❑ Initial laboratory Vac./Press. does not match final field pressure (> 5 psi/"Hg difference).
- ❑ Tedlar Bag for Sulfur analysis has metal fitting.
- ❑ Incorrect sampling media/container for analysis requested.
- ❑ Other (describe below)

Describe the Discrepancy: _____

Initials: _____ **Date:** _____ ***(Section V must be filled out by Client Services)***

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 Low Level

Data file : /chem/msdw.i/w-29apr.b/w042911.d
Lab Smp Id: 0304361-03A Client Smp ID: RP1-AMB-3
Inj Date : 29-APR-2003 17:42
Operator : WW Inst ID: msdw.i
Smp Info : 500mL Can#13344
Misc Info : 9.0"Hg-5psi Retec
Comment :
Method : /chem/msdw.i/w-29apr.b/to14425l.m
Meth Date : 29-Apr-2003 16:06 wwong Quant Type: ISTD
Cal Date : 28-APR-2003 14:18 Cal File: w042808.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP RTE Compound Sublist: AT+RETEK.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 37 Bromochloromethane					CAS #: 74-97-5			
15.587	15.560 (1.000)	130	382605	10.0000		80.00- 120.00	100.00	
15.587	15.560 (1.000)	128	297246			27.76- 127.76	77.69	
15.559	15.560 (1.000)	49	536669			93.93- 193.93	140.27	
* 48 1,4-Difluorobenzene					CAS #: 540-36-3			
17.022	17.022 (1.000)	114	1623784	10.0000		80.00- 120.00	100.00	9454
17.022	17.022 (0.000)	88	97088			0.00- 64.90	5.98	
* 66 Chlorobenzene-d5					CAS #: 3114-55-4			
21.355	21.355 (1.000)	117	1368367	10.0000		80.00- 120.00	100.00	
21.355	21.355 (1.000)	82	821384			10.38- 110.38	60.03	
$ 43 1,2-Dichloroethane-d4					CAS #: 17060-07-0			
16.442	16.443 (1.055)	65	691042	9.22531	9.225	80.00- 120.00	100.00	10000
16.442	16.443 (0.000)	67	98344			0.00- 96.61	14.23	
$ 57 Toluene-d8					CAS #: 2037-26-5			
19.119	19.120 (1.123)	98	1619390	9.30088	9.301	80.00- 120.00	100.00	9886
19.119	19.120 (0.000)	70	64974			0.00- 61.43	4.01	

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 57 Toluene-d8 (continued)								
19.119	19.120 (0.000)	100	315968			14.73- 114.73	19.51	
$ 75 Bromofluorobenzene					CAS #: 460-00-4			
23.176	23.177 (1.085)	95	1080189	9.76670	9.767	80.00- 120.00	100.00	8444
23.176	23.177 (0.000)	174	300032			27.64- 127.64	27.78	
23.176	23.177 (0.000)	176	286848			25.27- 125.27	26.56	
3 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8			
4.548	4.575 (0.292)	85	67877	0.30454	0.5817	80.00- 120.00	100.00	8667
4.548	4.575 (0.000)	87	2804			0.00- 83.13	4.13	
5 Chloromethane					CAS #: 74-87-3			
6.093	6.121 (0.391)	50	18120	0.23350	0.4460	80.00- 120.00	100.00	
6.093	6.121 (0.391)	52	7057			0.00- 78.60	38.95	
13 Trichlorofluoromethane/Fr11					CAS #: 75-69-4			
10.205	10.205 (0.655)	101	25899	0.12940	0.2472	80.00- 120.00	100.00	8866
10.205	10.205 (0.000)	103	3614			16.20- 116.20	13.95	
14 Ethanol					CAS #: 64-17-5			
11.282	11.227 (0.724)	45	84810	3.15763	6.031	80.00- 120.00	100.00	3570
11.282	11.227 (0.000)	43	5244			0.00- 76.37	6.18	
11.282	11.227 (0.000)	46	7759			0.00- 90.35	9.15	
18 Acetone					CAS #: 67-64-1			
12.082	12.055 (0.775)	43	293098	1.89621	3.622	80.00- 120.00	100.00	6530
12.082	12.055 (0.000)	58	23057			0.00- 74.34	7.87	
22 2-Propanol					CAS #: 67-63-0			
12.496	12.441 (0.802)	45	74454	0.57486	1.098	80.00- 120.00	100.00	7493
12.496	12.441 (0.000)	43	4153			0.00- 75.85	5.58	
12.496	12.441 (0.000)	59	771			0.00- 53.28	1.04	
25 Methylene Chloride					CAS #: 75-09-2			
12.965	12.965 (0.832)	49	13105	0.14734	0.2814	80.00- 120.00	100.00	8715
12.965	12.965 (0.000)	84	4185			23.86- 123.86	31.93	
12.965	12.965 (0.000)	51	1086			0.00- 79.33	8.29	
27 MTBE					CAS #: 1634-04-4			
13.379	13.352 (0.858)	73	670503	3.06167	5.848	80.00- 120.00	100.00	5310
13.379	13.352 (0.000)	57	17592			0.00- 72.81	2.62	
13.379	13.352 (0.000)	41	27544			0.00- 79.74	4.11	
30 Hexane					CAS #: 110-54-3			
13.765	13.766 (0.883)	57	70274	0.58222	1.112	80.00- 120.00	100.00	7270

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
30 Hexane (continued)								
13.765	13.766 (0.000)	43	12121			22.13- 122.13	17.25	
13.765	13.766 (0.000)	86	3383			0.00- 65.67	4.81	
44 Benzene					CAS #: 71-43-2			
16.442	16.443 (0.966)	78	203829	1.14825	2.193	80.00- 120.00	100.00	6032
16.442	16.443 (0.000)	77	15581			0.00- 72.44	7.64	
58 Toluene					CAS #: 108-88-3			
19.230	19.230 (1.130)	91	1283732	5.55690	10.614	80.00- 120.00	100.00	8696
19.230	19.230 (0.000)	92	287040			10.38- 110.38	22.36	
61 Tetrachloroethene					CAS #: 127-18-4			
20.030	20.030 (0.938)	166	12025	0.11284	0.2155	80.00- 120.00	100.00	9314
20.030	20.030 (0.000)	129	3270			20.75- 120.75	27.19	
20.030	20.030 (0.000)	131	3233			18.94- 118.94	26.89	
68 Ethyl Benzene					CAS #: 100-41-4			
21.465	21.466 (1.005)	106	64831	0.76565	1.462	80.00- 120.00	100.00	
21.465	21.466 (1.005)	91	217803			303.06- 403.06	335.96	
70 m,p-Xylene					CAS #: 108-38-3			
21.659	21.659 (1.014)	106	291210	2.87719	5.495	80.00- 120.00	100.00	
21.659	21.659 (1.014)	91	635378			174.78- 274.78	218.19	
71 o-Xylene					CAS #: 95-47-6			
22.293	22.293 (1.044)	106	93414	0.97286	1.858	80.00- 120.00	100.00	8770
22.293	22.293 (0.000)	91	80312			163.76- 263.76	85.97	
72 Styrene					CAS #: 100-42-5			
22.321	22.321 (1.045)	104	16044	0.10845	0.2071	80.00- 120.00	100.00	7910
22.321	22.321 (0.000)	78	2805			0.00- 94.30	17.48	
80 4-Ethyltoluene					CAS #: 622-96-8			
23.618	23.646 (1.106)	105	250827	0.61641	1.177	80.00- 120.00	100.00	9159
23.618	23.646 (0.000)	120	17479			0.00- 75.20	6.97	
81 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
23.756	23.756 (1.112)	105	65997	0.21550	0.4116	80.00- 120.00	100.00	
23.756	23.756 (1.112)	120	31464			0.26- 100.26	47.67	
82 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
24.391	24.363 (1.142)	105	204739	0.76137	1.454	80.00- 120.00	100.00	8561
24.391	24.363 (0.000)	120	28880			0.00- 93.73	14.11	
26 2-Methylpentane					CAS #: 107-83-5			
12.772	12.772 (0.819)	71	70948	1.56780	2.994	80.00- 120.00	100.00	7782

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
26 2-Methylpentane (continued)									
12.772	12.772	(0.000)	43	37074			223.67- 323.67	52.26	
12.772	12.772	(0.000)	42	15348			88.38- 188.38	21.63	
12 Isopentane						CAS #: 78-78-4			
9.488	9.488	(0.609)	57	228904	5.02636	9.600	80.00- 120.00	100.00	7301
9.488	9.488	(0.000)	43	53959			90.11- 190.11	23.57	
9.488	9.488	(0.000)	42	48177			69.18- 169.18	21.05	
47 2,2,4-Trimethylpentane						CAS #: 540-84-1			
16.415	16.415	(0.964)	99	15106	0.82834	1.582	80.00- 120.00	100.00	7867(Q)
16.415	16.415	(0.000)	56	20096			429.20- 529.20	133.03	
16.415	16.415	(0.000)	41	19304			400.14- 500.14	127.79	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Project No. CECN3-161977122 Page 1 of 1
Client ConEd Date 5-10-03
Site River Place I By GAP
Subject Sample Calc App.

ThermoRetec
Smart Solutions. Positive Outcomes.

RP 1-AMB-3
Toluene 11 ppbv

$$\frac{(\text{area})(\text{IS})(\text{DF})}{(\text{area IS})(\text{RRF})}$$

$$\frac{(1283732)(10)(1.91)}{(1623787)(1.42270)} = 10.61 = 11 \text{ ppbv}$$

Data Usability Summary Report

DATE: May 26, 2004

TO: Mr. John Finn
The RETEC Group, Inc.
1001 West Seneca Street, Suite 204
Ithaca, NY 14850

FROM: Gregory A. Malzone
Data Validator

SUBJECT: ConEdison – River Place I
April 2004 Air Sampling Event

Data Validation:

Air Toxics LTD. Work Order: 0404477

Overview

Air Toxics LTD. work order 0404477 contained fifteen (15) soil gas, ambient, and indoor air samples, including two (2) field duplicates (IA-01 FD and SG-05 FD) collected during the April 23, 2004 air sampling event at the River Place I site.

Air Toxics LTD., 180 Blue Ravine Road, Suite B, Folsom, CA 95630 analyzed the samples for Volatile Organic Compounds (VOCs) using USEPA Compendium Method TO-15.

Summary

Data quality for this organic analysis was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance, internal standards, initial and continuing calibrations, continuing calibration verifications (CCVs), surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory duplicates, field duplicates, compound identification, and compound quantitation.

The Form 1s attached as Appendix A were revised to include the data validation qualifiers. All USEPA-defined data qualifiers and changes made by the data evaluators were added in red ink. A glossary of data qualifier definitions is included as Attachment 1.

All samples were analyzed successfully and the results are useable with some qualification. Completeness of 100% was achieved for this data set.

Each specific issue of concern with respect to data usability is addressed below. Support documentation for data qualifications was included in Appendix B. Specific page references were provided in each item header for the supporting documentation.

Work Order 0404477

Volatile Organic Compounds

a. Calibrations (pp. 0646-0649, 0779-0782, 0793-0796, 0807-0810, 0820, 0826, 0832): The 04-23-04 initial calibration relative standard deviation (RSD) for 1,2,4-trichlorobenzene was greater than the 30% specification limit on instrument msdv.i. All samples were affected. All 1,2,4-trichlorobenzene results were nondetect. Therefore, no data qualifications were required.

   The 04-28-04 and 04-30-04 continuing calibration percent differences (%Ds) for carbon tetrachloride were less than the -30% specification limit on instrument msdv.i. In addition, the continuing calibration verification (CCV) standard percent recoveries (%Rs) for carbon tetrachloride were less than the lower method specification limit of 70%. The carbon tetrachloride results for associated samples AMB-01, AMB-02, AMB-03, AMB-04, IA-01, IA-01 FD, IA-02, and SG-02 were nondetect and were qualified "UJ," because of the low bias due to poor instrument performance.

   The 04-28-04 continuing calibration %D for naphthalene was less than the -30% specification limit on instrument msdv.i. In addition, the CCV standard %R for naphthalene was less than the lower method specification limit of 70%. The naphthalene results for associated samples AMB-01, AMB-02, AMB-03, AMB-04, IA-01, IA-01 FD, IA-02, and SG-02 were nondetect and were qualified "UJ," because of the low bias due to poor instrument performance.

The 04-30-04 continuing calibration %D for indene was greater than the +30% specification limit on instrument msdv.i. In addition, the CCV standard %R for indene was greater than the upper method specification limit of 130%. The indene result for associated sample, SG-02, was nondetect. Therefore, no data qualifications were required.

b. Laboratory Control Samples (pp. 0837-0840, 0851-0854, 0865-0868): The %Rs for 1,2,4-trichlorobenzene and hexachlorobutadiene were less than the lower quality control limits for LCS 0404477-18A. The 1,2,4-trichlorobenzene and hexachlorobutadiene results for associated samples AMB-01, AMB-02, AMB-03, AMB-04, IA-01, IA-01 FD, and IA-02 were nondetect and were qualified as estimated, "UJ," because of low bias due to poor laboratory and/or method performance.

   The %Rs for 1,4-dioxane were greater than the upper quality control limit for LCS 0404477-18A and 0404477-18C. The 1,4-dioxane results for associated samples AMB-01, AMB-02, AMB-03, AMB-04, IA-01, IA-01 FD, and IA-02 were nondetect. Therefore, no data qualifications were required.

   The %R for tetrahydrofuran was greater than the upper quality control limit for LCS 0404477-18C. The tetrahydrofuran result for associated sample SG-02 was nondetect. Therefore, no data qualifications were required.

c. Calibration Range Exceedances (pp. 0179, 0216-0217, 0255, 0446-0447): Ethanol exceeded the instrument's linear calibration range in samples IA-03 and SG-03. Acetone exceeded the instrument's linear calibration range in samples IA-02, IA-03, and SG-03. The laboratory flagged the results with an "E." The "E" was changed to a "J" by the data validator. The results should be considered as estimates. The direction of bias cannot be determined.

d. Field Duplicates (pp. 0624-0626, 0663-0665): Samples IA-01 / IA-01 FD and SG-05 / SG-05 FD were the primary and field duplicate samples collected for this sampling event. No data qualifications are required based on the RPDs of field duplicate sample data alone. However, the positive results are presented in the tables below to evaluate precision and sample homogeneity. An RPD greater than the advisory limit of 25% is an indication of poor field and/or laboratory precision or sample heterogeneity with respect to that compound. No data qualifications were required.

Field Duplicate Comparison
ConEd, River Place I

Parameter	IA-01 (ppbv)	IA-01 FD (ppbv)	RPD (%)
Freon 12	0.56	0.60	7
Chloromethane	0.46	0.47	2
Freon 11	0.30	0.30	0
Methylene Chloride	0.41	0.41	0
Benzene	0.46	0.51	10
Toluene	2.3	2.1	9

Field Duplicate Comparison (Cont'd)
ConEd, River Place I

Parameter	IA-01 (ppbv)	IA-01 FD (ppbv)	RPD (%)
Tetrachloroethene	0.24	0.16 U	NC
Ethylbenzene	0.22	0.19	15
m,p-Xylenes	0.70	0.59	17
o-Xylene	0.28	0.23	20
1,2,4-Trimethylbenzene	0.20	0.20	0
Acetone	6.2	8.6	32
2-Butanone	1.5	1.9	24
Ethanol	5.8	7.8	29
Isopentane	1.1	1.0	10

Parameter	SG-05 (ppbv)	SG-05 FD (ppbv)	RPD (%)
Freon 12	0.93	1.0	7
Chloromethane	0.30 U	0.57	NC
Vinyl Chloride	0.30 U	0.34	NC
Freon 11	0.38	0.42	10
Chloroform	2.2	2.6	17
1,1,1-Trichloroethane	0.56	0.67	18
Benzene	24	26	8
Toluene	7.2	7.8	8
Tetrachloroethene	0.52	0.59	13
Ethylbenzene	1.1	1.3	17
m,p-Xylenes	3.3	3.6	9
o-Xylene	1.5	1.5	0
Styrene	1.4	1.3	7
1,3,5-Trimethylbenzene	0.41	0.42	2
1,2,4-Trimethylbenzene	0.87	0.90	3
Acetone	8.8	11	22
Carbon Disulfide	3.2	3.8	17
2-Butanone	1.8	2.1	15
Hexane	2.0	2.2	10
Ethanol	1.6	2.0	22
2-Methylpentane	2.4	2.7	12
Isopentane	4.8	5.6	15
2,3-Dimethylpentane	4.0	4.5	12

Notes

The laboratory indicated that no second source (i.e., independently traceable) standard was commercially available for naphthalene, 2-methylpentane, isopentane, 2,3-dimethylpentane, 2,2,4-trimethylpentane, indene,

indan, and thiophene. These analytes were not spiked into the LCS samples.

Tentatively Identified Compounds (TICs) were identified by the laboratory and are included on the Form 1s.

Vinyl Acetate recovered below 50% for the laboratory control standards. Approval was given for vinyl acetate to be reported as a TIC. This was done in order meet the holding time and data due dates.

The RPDs between the primary and field duplicate acetone results for IA-01/IA-01 FD exceeded the maximum advisory limit of 25% indicating poor laboratory and/or field sampling precision. Tetrachloroethene was detected in the primary sample, IA-01, but not in the field duplicate, IA-01 FD.

Chloromethane and vinyl chloride were detected in the field duplicate, SG-05 FD, but not in the primary sample, SG-05.

The data were reviewed according to USEPA *Compendium Method TO-15, Determination of VOCs in Air Collected in Specially Prepared-Canisters and Analyzed by Gas Chromatography / Mass Spectrometry (GC/MS)*, January 1999, and with reference to *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999, document number EPA 540/R-99/008.

Attachments

Glossary of USEPA-defined data qualifier codes.

Appendices

1. Appendix A – Data Summary
2. Appendix B – Support Documentation

Attachment 1 of 1

Glossary of Data Qualifier Codes

GLOSSARY OF DATA QUALIFIER CODES

Codes Relating to Identification

U - The analyte was analyzed for, but was not detected above the level of the reported samples quantitation limit.

R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

Codes Related to Quantitation

J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

Appendix A

Data Summary Tables

AIR TOXICS LTD.

SAMPLE NAME: AMB-01

ID#: 0404477-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042811**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.41**	**Date of Analysis: 4/28/04 06:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.61	0.71	3.1
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.14	0.51	0.30	1.1
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
Bromomethane	0.14	Not Detected	0.56	Not Detected
Chloroethane	0.14	Not Detected	0.38	Not Detected
Freon 11	0.14	0.29	0.80	1.7
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Freon 113	0.14	Not Detected	1.1	Not Detected
Methylene Chloride	0.14	0.16	0.50	0.55
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Chloroform	0.14	Not Detected	0.70	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Carbon Tetrachloride	0.14 UJ	Not Detected ~~UJ~~	0.90 UJ	Not Detected ~~UJ~~
Benzene	0.14	0.90	0.46	2.9
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
Trichloroethene	0.14	Not Detected	0.77	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
Toluene	0.14	1.7	0.54	6.4
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	Not Detected	0.97	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	0.29	0.62	1.3
m,p-Xylene	0.28	0.88	1.2	3.9
o-Xylene	0.14	0.30	0.62	1.3
Styrene	0.14	Not Detected	0.61	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.98	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.70	Not Detected
1,2,4-Trimethylbenzene	0.14	0.31	0.70	1.6
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.74	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.70 UJ	Not Detected	5.3 UJ	Not Detected
Hexachlorobutadiene	0.70 UJ	Not Detected	7.6 UJ	Not Detected
Propylene	0.70	Not Detected	1.2	Not Detected
1,3-Butadiene	0.70	Not Detected	1.6	Not Detected
Acetone	0.70	3.4	1.7	8.2

0007

AIR TOXICS LTD.

SAMPLE NAME: AMB-01

ID#: 0404477-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042811**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.41**	**Date of Analysis: 4/28/04 06:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.70	Not Detected	2.2	Not Detected
2-Propanol	0.70	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.70	Not Detected	2.1	Not Detected
Hexane	0.70	Not Detected	2.5	Not Detected
Tetrahydrofuran	0.70	Not Detected	2.1	Not Detected
Cyclohexane	0.70	Not Detected	2.5	Not Detected
1,4-Dioxane	0.70	Not Detected	2.6	Not Detected
Bromodichloromethane	0.70	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	0.70	Not Detected	2.9	Not Detected
2-Hexanone	0.70	Not Detected	2.9	Not Detected
Dibromochloromethane	0.70	Not Detected	6.1	Not Detected
Bromoform	0.70	Not Detected	7.4	Not Detected
4-Ethyltoluene	0.70	Not Detected	3.5	Not Detected
Ethanol	0.70	4.1	1.4	7.9
Methyl tert-butyl ether	0.70	Not Detected	2.6	Not Detected
Heptane	0.70	Not Detected	2.9	Not Detected
Naphthalene	0.70 UJ	Not Detected	3.8 UJ	Not Detected
2-Methylpentane	0.70	0.86	2.5	3.1
Isopentane	0.70	2.3	2.1	6.9
2,3-Dimethylpentane	0.70	Not Detected	2.9	Not Detected
2,2,4-Trimethylpentane	0.70	Not Detected	3.3	Not Detected
Indene	0.70	Not Detected	3.4	Not Detected
Indan	0.70	Not Detected	3.5	Not Detected
Thiophene	0.70	Not Detected	2.5	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Methane, chlorodifluoro-	75-45-6	9.0%	10
Propane, 2-methyl-	75-28-5	42%	26
Butane	106-97-8	9.0%	48
Acetaldehyde	75-07-0	9.0%	17
Pentane	109-66-0	80%	28
2-Pentene	109-68-2	32%	14
Unknown	NA	NA	21
N-(PENTAFLUOROBENZYLIDENE)-BETA,4-BIS(TR	0-00-0	50%	1.3
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: AMB-01

ID#: 0404477-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042811**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.41**	**Date of Analysis: 4/28/04 06:35 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

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

AIR TOXICS LTD.

SAMPLE NAME: AMB-01 Duplicate

ID#: 0404477-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042814	**Date of Collection:**	4/23/04
Dil. Factor:	1.41	**Date of Analysis:**	4/28/04 09:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.59	0.71	3.0
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.14	0.50	0.30	1.0
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
Bromomethane	0.14	Not Detected	0.56	Not Detected
Chloroethane	0.14	Not Detected	0.38	Not Detected
Freon 11	0.14	0.28	0.80	1.6
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Freon 113	0.14	Not Detected	1.1	Not Detected
Methylene Chloride	0.14	0.16	0.50	0.55
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Chloroform	0.14	Not Detected	0.70	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Carbon Tetrachloride	0.14 UJ	Not Detected ~~UJ~~	0.90 UJ	Not Detected ~~UJ~~
Benzene	0.14	0.86	0.46	2.8
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
Trichloroethene	0.14	Not Detected	0.77	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
Toluene	0.14	1.7	0.54	6.4
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	Not Detected	0.97	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	0.30	0.62	1.3
m,p-Xylene	0.28	0.99	1.2	4.4
o-Xylene	0.14	0.30	0.62	1.3
Styrene	0.14	Not Detected	0.61	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.98	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.70	Not Detected
1,2,4-Trimethylbenzene	0.14	0.34	0.70	1.7
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.74	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.70 UJ	Not Detected	5.3 UJ	Not Detected
Hexachlorobutadiene	0.70 UJ	Not Detected	7.6 UJ	Not Detected
Propylene	0.70	Not Detected	1.2	Not Detected
1,3-Butadiene	0.70	Not Detected	1.6	Not Detected
Acetone	0.70	3.3	1.7	7.9

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AIR TOXICS LTD.

SAMPLE NAME: AMB-01 Duplicate

ID#: 0404477-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042814**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.41**	**Date of Analysis: 4/28/04 09:06 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.70	Not Detected	2.2	Not Detected
2-Propanol	0.70	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.70	Not Detected	2.1	Not Detected
Hexane	0.70	Not Detected	2.5	Not Detected
Tetrahydrofuran	0.70	Not Detected	2.1	Not Detected
Cyclohexane	0.70	Not Detected	2.5	Not Detected
1,4-Dioxane	0.70	Not Detected	2.6	Not Detected
Bromodichloromethane	0.70	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	0.70	Not Detected	2.9	Not Detected
2-Hexanone	0.70	Not Detected	2.9	Not Detected
Dibromochloromethane	0.70	Not Detected	6.1	Not Detected
Bromoform	0.70	Not Detected	7.4	Not Detected
4-Ethyltoluene	0.70	Not Detected	3.5	Not Detected
Ethanol	0.70	5.3	1.4	10
Methyl tert-butyl ether	0.70	Not Detected	2.6	Not Detected
Heptane	0.70	Not Detected	2.9	Not Detected
Naphthalene	0.70 UJ	Not Detected	3.8 UJ	Not Detected
2-Methylpentane	0.70	0.87	2.5	3.1
Isopentane	0.70	2.3	2.1	7.0
2,3-Dimethylpentane	0.70	Not Detected	2.9	Not Detected
2,2,4-Trimethylpentane	0.70	Not Detected	3.3	Not Detected
Indene	0.70	Not Detected	3.4	Not Detected
Indan	0.70	Not Detected	3.5	Not Detected
Thiophene	0.70	Not Detected	2.5	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Methane, chlorodifluoro-	75-45-6	90%	0.93
Propane, 2-methyl-	75-28-5	50%	2.4
Butane	106-97-8	50%	4.7
Acetaldehyde	75-07-0	9.0%	1.5
Pentane	109-66-0	86%	2.1
2-Pentene	109-68-2	64%	0.87
N-(PENTAFLUOROBENZYLIDENE)-BETA,4-BIS(TR	0-00-0	1.0%	1.4
Unknown	NA	NA	1.4
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: AMB-01 Duplicate

ID#: 0404477-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042814**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.41**	**Date of Analysis: 4/28/04 09:06 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	98	70-130
Toluene-d8	99	70-130

AIR TOXICS LTD.

SAMPLE NAME: AMB-02

ID#: 0404477-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042812	**Date of Collection:**	4/23/04
Dil. Factor:	1.55	**Date of Analysis:**	4/28/04 07:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.60	0.78	3.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.47	0.32	0.98
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	Not Detected	0.61	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.29	0.88	1.7
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Carbon Tetrachloride	0.16 UJ	Not Detected ~~UJ~~	0.99 UJ	Not Detected ~~UJ~~
Benzene	0.16	1.3	0.50	4.1
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
Toluene	0.16	2.5	0.59	9.8
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.72	Not Detected
Ethyl Benzene	0.16	0.31	0.68	1.4
m,p-Xylene	0.31	1.0	1.4	4.6
o-Xylene	0.16	0.38	0.68	1.7
Styrene	0.16	Not Detected	0.67	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,2,4-Trimethylbenzene	0.16	0.41	0.77	2.0
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.78 UJ	Not Detected	5.8 UJ	Not Detected
Hexachlorobutadiene	0.78 UJ	Not Detected	8.4 UJ	Not Detected
Propylene	0.78	Not Detected	1.4	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Acetone	0.78	4.4	1.9	10

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AIR TOXICS LTD.

SAMPLE NAME: AMB-02

ID#: 0404477-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042812**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.55**	**Date of Analysis: 4/28/04 07:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
2-Propanol	0.78	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	1.1	2.3	3.2
Hexane	0.78	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Cyclohexane	0.78	Not Detected	2.7	Not Detected
1,4-Dioxane	0.78	Not Detected	2.8	Not Detected
Bromodichloromethane	0.78	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.78	Not Detected	6.7	Not Detected
Bromoform	0.78	Not Detected	8.1	Not Detected
4-Ethyltoluene	0.78	Not Detected	3.9	Not Detected
Ethanol	0.78	5.5	1.5	11
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
Heptane	0.78	Not Detected	3.2	Not Detected
Naphthalene	0.78 UJ	Not Detected	4.1 UJ	Not Detected
2-Methylpentane	0.78	1.2	2.8	4.2
Isopentane	0.78	2.4	2.3	7.3
2,3-Dimethylpentane	0.78	Not Detected	3.2	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.7	Not Detected
Indene	0.78	Not Detected	3.7	Not Detected
Indan	0.78	Not Detected	3.8	Not Detected
Thiophene	0.78	Not Detected	2.7	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	3.1
Methane, chlorodifluoro-	75-45-6	9.0%	1.2
Propane, 2-methyl-	75-28-5	50%	2.0
Unknown	NA	NA	4.5
Acetaldehyde	75-07-0	9.0%	3.0
Pentane	109-66-0	86%	2.8
Unknown	NA	NA	1.6
1-Pentene, 2,4,4-trimethyl-	107-39-1	81%	1.6
Cyclotetrasiloxane, octamethyl-	556-67-2	37%	1.8
Unknown	NA	NA	4.1
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: AMB-02

ID#: 0404477-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042812**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.55**	**Date of Analysis: 4/28/04 07:33 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

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

AIR TOXICS LTD.

SAMPLE NAME: IA-01

ID#: 0404477-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042813**	**Date of Collection:**	**4/23/04**
Dil. Factor:	**1.55**	**Date of Analysis:**	**4/28/04 08:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.56	0.78	2.8
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.46	0.32	0.97
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	Not Detected	0.61	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.30	0.88	1.7
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	0.41	0.55	1.4
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Carbon Tetrachloride	0.16 UJ	Not Detected ~~UJ~~	0.99 UJ	Not Detected ~~UJ~~
Benzene	0.16	0.46	0.50	1.5
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
Toluene	0.16	2.3	0.59	8.7
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	0.24	1.1	1.7
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.72	Not Detected
Ethyl Benzene	0.16	0.22	0.68	0.95
m,p-Xylene	0.31	0.70	1.4	3.1
o-Xylene	0.16	0.28	0.68	1.2
Styrene	0.16	Not Detected	0.67	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,2,4-Trimethylbenzene	0.16	0.20	0.77	0.99
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.78 UJ	Not Detected	5.8 UJ	Not Detected
Hexachlorobutadiene	0.78 UJ	Not Detected	8.4 UJ	Not Detected
Propylene	0.78	Not Detected	1.4	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Acetone	0.78	6.2	1.9	15

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AIR TOXICS LTD.

SAMPLE NAME: IA-01

ID#: 0404477-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042813	Date of Collection:	4/23/04
Dil. Factor:	1.55	Date of Analysis:	4/28/04 08:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
2-Propanol	0.78	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	1.5	2.3	4.6
Hexane	0.78	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Cyclohexane	0.78	Not Detected	2.7	Not Detected
1,4-Dioxane	0.78	Not Detected	2.8	Not Detected
Bromodichloromethane	0.78	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.78	Not Detected	6.7	Not Detected
Bromoform	0.78	Not Detected	8.1	Not Detected
4-Ethyltoluene	0.78	Not Detected	3.9	Not Detected
Ethanol	0.78	5.8	1.5	11
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
Heptane	0.78	Not Detected	3.2	Not Detected
Naphthalene	0.78 UJ	Not Detected	4.1 UJ	Not Detected
2-Methylpentane	0.78	Not Detected	2.8	Not Detected
Isopentane	0.78	1.1	2.3	3.2
2,3-Dimethylpentane	0.78	Not Detected	3.2	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.7	Not Detected
Indene	0.78	Not Detected	3.7	Not Detected
Indan	0.78	Not Detected	3.8	Not Detected
Thiophene	0.78	Not Detected	2.7	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	2.1
Methane, chlorodifluoro-	75-45-6	10%	4.4
Unknown	NA	NA	3.5
Unknown	NA	NA	2.8
Acetaldehyde	75-07-0	7.0%	1.6
Pentane	109-66-0	86%	1.5
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	3.3
Cyclotetrasiloxane, octamethyl-	556-67-2	64%	5.1
Undecane	1120-21-4	91%	1.2
Unknown	NA	NA	17
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: IA-01

ID#: 0404477-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042813**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.55**	**Date of Analysis: 4/28/04 08:19 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130
Toluene-d8	101	70-130

AIR TOXICS LTD.

SAMPLE NAME: IA-01 FD

ID#: 0404477-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042815	**Date of Collection:**	4/23/04
Dil. Factor:	1.58	**Date of Analysis:**	4/28/04 09:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.60	0.79	3.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.47	0.33	0.99
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	Not Detected	0.62	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.30	0.90	1.7
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	0.41	0.56	1.4
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Carbon Tetrachloride	0.16 UJ	Not Detected ~~UJ~~	1.0 UJ	Not Detected ~~UJ~~
Benzene	0.16	0.51	0.51	1.6
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	2.1	0.60	8.1
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.19	0.70	0.83
m,p-Xylene	0.32	0.59	1.4	2.6
o-Xylene	0.16	0.23	0.70	1.0
Styrene	0.16	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	0.20	0.79	0.99
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.79 UJ	Not Detected	6.0 UJ	Not Detected
Hexachlorobutadiene	0.79 UJ	Not Detected	8.6 UJ	Not Detected
Propylene	0.79	Not Detected	1.4	Not Detected
1,3-Butadiene	0.79	Not Detected	1.8	Not Detected
Acetone	0.79	8.6	1.9	21

AIR TOXICS LTD.

SAMPLE NAME: IA-01 FD

ID#: 0404477-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042815	Date of Collection:	4/23/04
Dil. Factor:	1.58	Date of Analysis:	4/28/04 09:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
2-Propanol	0.79	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	1.9	2.4	5.6
Hexane	0.79	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.4	Not Detected
Cyclohexane	0.79	Not Detected	2.8	Not Detected
1,4-Dioxane	0.79	Not Detected	2.9	Not Detected
Bromodichloromethane	0.79	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.3	Not Detected
2-Hexanone	0.79	Not Detected	3.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.8	Not Detected
Bromoform	0.79	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.79	Not Detected	3.9	Not Detected
Ethanol	0.79	7.8	1.5	15
Methyl tert-butyl ether	0.79	Not Detected	2.9	Not Detected
Heptane	0.79	Not Detected	3.3	Not Detected
Naphthalene	0.79 UJ	Not Detected	4.2 UJ	Not Detected
2-Methylpentane	0.79	Not Detected	2.8	Not Detected
Isopentane	0.79	1.0	2.4	3.0
2,3-Dimethylpentane	0.79	Not Detected	3.3	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.8	Not Detected
Indene	0.79	Not Detected	3.8	Not Detected
Indan	0.79	Not Detected	3.9	Not Detected
Thiophene	0.79	Not Detected	2.8	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	1.9
Methane, chlorodifluoro-	75-45-6	91%	4.6
Unknown	NA	NA	2.1
Unknown	NA	NA	2.9
Acetaldehyde	75-07-0	7.0%	3.8
Pentane	109-66-0	64%	1.4
2-Hexene, 5,5-dimethyl-, (Z)-	39761-61-0	72%	2.8
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	3.7
Cyclotetrasiloxane, octamethyl-	556-67-2	64%	3.1
Unknown	NA	NA	3.7
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: IA-01 FD

ID#: 0404477-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042815	Date of Collection:	4/23/04
Dil. Factor:	1.58	Date of Analysis:	4/28/04 09:53 PM

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	98	70-130
Toluene-d8	101	70-130

AIR TOXICS LTD.

SAMPLE NAME: IA-02

ID#: 0404477-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042816**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.52**	**Date of Analysis: 4/28/04 10:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.61	0.76	3.1
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.15	0.51	0.32	1.1
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
Bromomethane	0.15	Not Detected	0.60	Not Detected
Chloroethane	0.15	Not Detected	0.41	Not Detected
Freon 11	0.15	0.29	0.87	1.6
1,1-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Freon 113	0.15	Not Detected	1.2	Not Detected
Methylene Chloride	0.15	3.9	0.54	14
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Chloroform	0.15	Not Detected	0.75	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.84	Not Detected
Carbon Tetrachloride	0.15 UJ	Not Detected ~~UJ~~	0.97 UJ	Not Detected ~~UJ~~
Benzene	0.15	0.60	0.49	2.0
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.83	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.71	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.70	Not Detected
Toluene	0.15	20	0.58	78
trans-1,3-Dichloropropene	0.15	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.84	Not Detected
Tetrachloroethene	0.15	0.66	1.0	4.5
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.71	Not Detected
Ethyl Benzene	0.15	0.27	0.67	1.2
m,p-Xylene	0.30	0.89	1.3	3.9
o-Xylene	0.15	0.26	0.67	1.2
Styrene	0.15	Not Detected	0.66	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.76	Not Detected
1,2,4-Trimethylbenzene	0.15	0.26	0.76	1.3
1,3-Dichlorobenzene	0.15	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.93	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.76 UJ	Not Detected	5.7 UJ	Not Detected
Hexachlorobutadiene	0.76 UJ	Not Detected	8.2 UJ	Not Detected
Propylene	0.76	Not Detected	1.3	Not Detected
1,3-Butadiene	0.76	Not Detected	1.7	Not Detected
Acetone	0.76	44 ~~E~~ J	1.8	110 ~~E~~ J

AIR TOXICS LTD.

SAMPLE NAME: IA-02

ID#: 0404477-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042816**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.52**	**Date of Analysis: 4/28/04 10:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
2-Propanol	0.76	2.6	1.9	6.4
trans-1,2-Dichloroethene	0.76	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	30	2.3	91
Hexane	0.76	Not Detected	2.7	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.3	Not Detected
Cyclohexane	0.76	Not Detected	2.6	Not Detected
1,4-Dioxane	0.76	Not Detected	2.8	Not Detected
Bromodichloromethane	0.76	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	0.76	Not Detected	3.2	Not Detected
2-Hexanone	0.76	Not Detected	3.2	Not Detected
Dibromochloromethane	0.76	Not Detected	6.6	Not Detected
Bromoform	0.76	Not Detected	8.0	Not Detected
4-Ethyltoluene	0.76	Not Detected	3.8	Not Detected
Ethanol	0.76	16	1.4	31
Methyl tert-butyl ether	0.76	Not Detected	2.8	Not Detected
Heptane	0.76	Not Detected	3.2	Not Detected
Naphthalene	0.76 UJ	Not Detected	4.0 UJ	Not Detected
2-Methylpentane	0.76	Not Detected	2.7	Not Detected
Isopentane	0.76	1.3	2.3	3.8
2,3-Dimethylpentane	0.76	Not Detected	3.2	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Indene	0.76	Not Detected	3.7	Not Detected
Indan	0.76	Not Detected	3.7	Not Detected
Thiophene	0.76	Not Detected	2.6	Not Detected

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

~~E = Exceeds instrument calibration range.~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	1.3
Methane, chlorodifluoro-	75-45-6	10%	4.6
Unknown	NA	NA	3.2
Butane	106-97-8	72%	8.3
Acetaldehyde	75-07-0	9.0%	4.0
1-Hexene, 5,5-dimethyl-	7116-86-1	72%	2.0
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	7.3
Hexanal	66-25-1	72%	1.4
Unknown	NA	NA	6.9
Unknown	NA	NA	9.9

0180

AIR TOXICS LTD.

SAMPLE NAME: IA-02

ID#: 0404477-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042816**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.52**	**Date of Analysis: 4/28/04 10:46 PM**	

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Vinyl Acetate	108-05-4	NA	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

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

AIR TOXICS LTD.

SAMPLE NAME: IA-03

ID#: 0404477-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042910**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.46**	**Date of Analysis: 4/29/04 04:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.71	0.73	3.6
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.55	0.31	1.1
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
Bromomethane	0.15	Not Detected	0.58	Not Detected
Chloroethane	0.15	Not Detected	0.39	Not Detected
Freon 11	0.15	0.94	0.83	5.4
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Freon 113	0.15	Not Detected	1.1	Not Detected
Methylene Chloride	0.15	1.5	0.52	5.2
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Chloroform	0.15	Not Detected	0.72	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.93	Not Detected
Benzene	0.15	0.48	0.47	1.5
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.68	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.67	Not Detected
Toluene	0.15	9.4	0.56	36
trans-1,3-Dichloropropene	0.15	Not Detected	0.67	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	3.2	1.0	22
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Ethyl Benzene	0.15	0.19	0.64	0.83
m,p-Xylene	0.29	0.60	1.3	2.6
o-Xylene	0.15	0.20	0.64	0.89
Styrene	0.15	Not Detected	0.63	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	0.20	0.73	0.98
1,3-Dichlorobenzene	0.15	Not Detected	0.89	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.89	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.89	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.9	Not Detected
Propylene	0.73	Not Detected	1.3	Not Detected
1,3-Butadiene	0.73	Not Detected	1.6	Not Detected
Acetone	0.73	37 E J	1.8	90 E J

0216

AIR TOXICS LTD.

SAMPLE NAME: IA-03

ID#: 0404477-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042910**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.46**	**Date of Analysis: 4/29/04 04:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.73	1.3	2.3	4.2
2-Propanol	0.73	5.2	1.8	13
trans-1,2-Dichloroethene	0.73	Not Detected	2.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.73	20	2.2	60
Hexane	0.73	Not Detected	2.6	Not Detected
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Cyclohexane	0.73	Not Detected	2.6	Not Detected
1,4-Dioxane	0.73	Not Detected	2.7	Not Detected
Bromodichloromethane	0.73	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	0.73	Not Detected	3.0	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.73	Not Detected	6.3	Not Detected
Bromoform	0.73	Not Detected	7.7	Not Detected
4-Ethyltoluene	0.73	Not Detected	3.6	Not Detected
Ethanol	0.73	44 E J	1.4	84 E J
Methyl tert-butyl ether	0.73	Not Detected	2.7	Not Detected
Heptane	0.73	Not Detected	3.0	Not Detected
Naphthalene	0.73	Not Detected	3.9	Not Detected
2-Methylpentane	0.73	Not Detected	2.6	Not Detected
Isopentane	0.73	1.2	2.2	3.7
2,3-Dimethylpentane	0.73	Not Detected	3.0	Not Detected
2,2,4-Trimethylpentane	0.73	Not Detected	3.5	Not Detected
Indene	0.73	Not Detected	3.5	Not Detected
Indan	0.73	Not Detected	3.6	Not Detected
Thiophene	0.73	Not Detected	2.6	Not Detected

~~E = Exceeds instrument calibration range.~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Propane, 2-methyl-	75-28-5	50%	5.1
Butane	106-97-8	72%	8.2
Acetaldehyde	75-07-0	5.0%	7.1
1-Pentene, 2,4,4-trimethyl-	107-39-1	62%	1.1
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	5.4
Acetic acid, butyl ester	123-86-4	78%	1.1
Cyclotetrasiloxane, octamethyl-	556-67-2	86%	5.2
Limonene	138-86-3	94%	0.78
Tridecane	629-50-5	72%	0.84
Benzeneacetic acid, .alpha.,4-bis[(trime	55334-40-2	50%	6.4
Vinyl Acetate	108-05-4	NA	Not Detected

0217

AIR TOXICS LTD.

SAMPLE NAME: IA-03

ID#: 0404477-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042910**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.46**	**Date of Analysis: 4/29/04 04:44 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	98	70-130
Toluene-d8	99	70-130

AIR TOXICS LTD.

SAMPLE NAME: IA-04

ID#: 0404477-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042909**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.58**	**Date of Analysis: 4/29/04 03:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.61	0.79	3.1
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.58	0.33	1.2
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	Not Detected	0.62	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.28	0.90	1.6
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	0.32	0.56	1.1
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
Benzene	0.16	1.4	0.51	4.6
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	4.2	0.60	16
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	0.31	1.1	2.1
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.81	0.70	3.6
m,p-Xylene	0.32	2.9	1.4	13
o-Xylene	0.16	0.94	0.70	4.1
Styrene	0.16	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	0.28	0.79	1.4
1,2,4-Trimethylbenzene	0.16	0.93	0.79	4.6
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.6	Not Detected
Propylene	0.79	Not Detected	1.4	Not Detected
1,3-Butadiene	0.79	Not Detected	1.8	Not Detected
Acetone	0.79	11	1.9	27

0254

AIR TOXICS LTD.

SAMPLE NAME: IA-04

ID#: 0404477-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042909**	**Date of Collection:**	**4/23/04**
Dil. Factor:	**1.58**	**Date of Analysis:**	**4/29/04 03:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
2-Propanol	0.79	3.9	2.0	9.7
trans-1,2-Dichloroethene	0.79	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	1.7	2.4	5.0
Hexane	0.79	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.4	Not Detected
Cyclohexane	0.79	Not Detected	2.8	Not Detected
1,4-Dioxane	0.79	Not Detected	2.9	Not Detected
Bromodichloromethane	0.79	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.3	Not Detected
2-Hexanone	0.79	Not Detected	3.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.8	Not Detected
Bromoform	0.79	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.79	0.91	3.9	4.5
Ethanol	0.79	29 E J	1.5	55 E J
Methyl tert-butyl ether	0.79	1.0	2.9	3.7
Heptane	0.79	Not Detected	3.3	Not Detected
Naphthalene	0.79	Not Detected	4.2	Not Detected
2-Methylpentane	0.79	1.4	2.8	4.9
Isopentane	0.79	3.6	2.4	11
2,3-Dimethylpentane	0.79	Not Detected	3.3	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.8	Not Detected
Indene	0.79	Not Detected	3.8	Not Detected
Indan	0.79	Not Detected	3.9	Not Detected
Thiophene	0.79	Not Detected	2.8	Not Detected

~~E = Exceeds instrument calibration range.~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Ethane, 1,1-difluoro-	75-37-6	90%	24
Propane, 2-methyl-	75-28-5	64%	10
Unknown	NA	NA	7.9
Unknown	NA	NA	5.1
Pentane	109-66-0	78%	3.2
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	4.4
Cyclotetrasiloxane, octamethyl-	556-67-2	86%	20
D-Limonene	5989-27-5	94%	2.6
Dodecane	112-40-3	86%	2.8
Unknown	NA	NA	13
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: IA-04

ID#: 0404477-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042909**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.58**	**Date of Analysis: 4/29/04 03:32 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	102	70-130
Toluene-d8	99	70-130

AIR TOXICS LTD.

SAMPLE NAME: AMB-03

ID#: 0404477-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042818**	**Date of Collection:**	**4/23/04**
Dil. Factor:	**1.58**	**Date of Analysis:**	**4/29/04 12:12 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.58	0.79	2.9
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.52	0.33	1.1
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	Not Detected	0.62	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.29	0.90	1.7
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	0.46	0.56	1.6
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Carbon Tetrachloride	0.16 UJ	Not Detected ~~UJ~~	1.0 UJ	Not Detected ~~UJ~~
Benzene	0.16	0.88	0.51	2.9
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	2.4	0.60	9.1
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	0.22	1.1	1.5
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.24	0.70	1.1
m,p-Xylene	0.32	0.83	1.4	3.6
o-Xylene	0.16	0.28	0.70	1.2
Styrene	0.16	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	0.32	0.79	1.6
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.6	Not Detected
Propylene	0.79	Not Detected	1.4	Not Detected
1,3-Butadiene	0.79	Not Detected	1.8	Not Detected
Acetone	0.79	4.8	1.9	12

AIR TOXICS LTD.

SAMPLE NAME: AMB-03

ID#: 0404477-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042818**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.58**	**Date of Analysis: 4/29/04 12:12 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
2-Propanol	0.79	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	Not Detected	2.4	Not Detected
Hexane	0.79	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.4	Not Detected
Cyclohexane	0.79	Not Detected	2.8	Not Detected
1,4-Dioxane	0.79	Not Detected	2.9	Not Detected
Bromodichloromethane	0.79	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.3	Not Detected
2-Hexanone	0.79	Not Detected	3.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.8	Not Detected
Bromoform	0.79	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.79	Not Detected	3.9	Not Detected
Ethanol	0.79	4.0	1.5	7.7
Methyl tert-butyl ether	0.79	Not Detected	2.9	Not Detected
Heptane	0.79	Not Detected	3.3	Not Detected
Naphthalene	0.79 UJ	Not Detected	4.2 UJ	Not Detected
2-Methylpentane	0.79	Not Detected	2.8	Not Detected
Isopentane	0.79	1.9	2.4	5.7
2,3-Dimethylpentane	0.79	Not Detected	3.3	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.8	Not Detected
Indene	0.79	Not Detected	3.8	Not Detected
Indan	0.79	Not Detected	3.9	Not Detected
Thiophene	0.79	Not Detected	2.8	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	2.3
Unknown	NA	NA	2.6
Unknown	NA	NA	4.1
Unknown	NA	NA	1.7
Pentane	109-66-0	86%	1.9
Unknown	NA	NA	2.3
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	56%	2.3
Unknown	NA	NA	23
Benzeneacetic acid, .alpha.,4-bis[(trime	55334-40-2	50%	23
Nonanal	124-19-6	83%	1.5
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: AMB-03

ID#: 0404477-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042818**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.58**	**Date of Analysis: 4/29/04 12:12 AM**	

Container Type: 6 Liter Summa Special (100% Certified)

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

AIR TOXICS LTD.

SAMPLE NAME: AMB-04

ID#: 0404477-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042819	**Date of Collection:**	4/23/04
Dil. Factor:	1.61	**Date of Analysis:**	4/29/04 12:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.56	0.81	2.8
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.50	0.34	1.0
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
Bromomethane	0.16	Not Detected	0.64	Not Detected
Chloroethane	0.16	Not Detected	0.43	Not Detected
Freon 11	0.16	0.28	0.92	1.6
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	0.58	0.57	2.0
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Carbon Tetrachloride	0.16 UJ	Not Detected ~~UJ~~	1.0 UJ	Not Detected ~~UJ~~
Benzene	0.16	1.4	0.52	4.6
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
Toluene	0.16	3.1	0.62	12
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.75	Not Detected
Ethyl Benzene	0.16	0.43	0.71	1.9
m,p-Xylene	0.32	1.4	1.4	6.3
o-Xylene	0.16	0.52	0.71	2.3
Styrene	0.16	Not Detected	0.70	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	0.17	0.80	0.86
1,2,4-Trimethylbenzene	0.16	0.54	0.80	2.7
1,3-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.7	Not Detected
Propylene	0.80	Not Detected	1.4	Not Detected
1,3-Butadiene	0.80	Not Detected	1.8	Not Detected
Acetone	0.80	5.6	1.9	14

AIR TOXICS LTD.

SAMPLE NAME: AMB-04

ID#: 0404477-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042819**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.61**	**Date of Analysis: 4/29/04 12:52 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
2-Propanol	0.80	0.95	2.0	2.4
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	1.0	2.4	3.0
Hexane	0.80	Not Detected	2.9	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Cyclohexane	0.80	Not Detected	2.8	Not Detected
1,4-Dioxane	0.80	Not Detected	2.9	Not Detected
Bromodichloromethane	0.80	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.4	Not Detected
2-Hexanone	0.80	Not Detected	3.4	Not Detected
Dibromochloromethane	0.80	Not Detected	7.0	Not Detected
Bromoform	0.80	Not Detected	8.4	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
Ethanol	0.80	6.1	1.5	12
Methyl tert-butyl ether	0.80	0.96	2.9	3.5
Heptane	0.80	Not Detected	3.4	Not Detected
Naphthalene	0.80 UJ	Not Detected	4.3 UJ	Not Detected
2-Methylpentane	0.80	1.0	2.9	3.7
Isopentane	0.80	3.0	2.4	9.0
2,3-Dimethylpentane	0.80	Not Detected	3.4	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Indene	0.80	Not Detected	3.9	Not Detected
Indan	0.80	Not Detected	4.0	Not Detected
Thiophene	0.80	Not Detected	2.8	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	7.1
Unknown	NA	NA	6.4
Acetaldehyde	75-07-0	5.0%	5.3
Unknown	NA	NA	5.3
Pentane	109-66-0	86%	2.4
Cyclopropane, 1,1-dimethyl-	1630-94-0	53%	1.7
Pentane, 3-methyl-	96-14-0	86%	1.7
Benzene, (1-methylethyl)-	98-82-8	76%	2.2
Heptane, 3-(chloromethyl)-	123-04-6	50%	1.8
Unknown	NA	NA	1.0
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: AMB-04

ID#: 0404477-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042819**	**Date of Collection:**	**4/23/04**
Dil. Factor:	**1.61**	**Date of Analysis:**	**4/29/04 12:52 AM**

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	101	70-130

AIR TOXICS LTD.

SAMPLE NAME: SG-01

ID#: 0404477-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042908**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.55**	**Date of Analysis: 4/29/04 02:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.59	0.78	3.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.21	0.32	0.45
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	Not Detected	0.61	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.30	0.88	1.7
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Chloroform	0.16	1.0	0.77	5.0
1,1,1-Trichloroethane	0.16	0.21	0.86	1.1
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
Benzene	0.16	9.4	0.50	31
1,2-Dichloroethane	0.16	0.17	0.64	0.70
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
Toluene	0.16	5.7	0.59	22
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	0.31	1.1	2.1
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.72	Not Detected
Ethyl Benzene	0.16	1.3	0.68	5.8
m,p-Xylene	0.31	2.9	1.4	13
o-Xylene	0.16	1.1	0.68	4.9
Styrene	0.16	0.58	0.67	2.5
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	0.46	0.77	2.3
1,2,4-Trimethylbenzene	0.16	1.5	0.77	7.7
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	0.16	0.95	0.97
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.4	Not Detected
Propylene	0.78	Not Detected	1.4	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Acetone	0.78	29	1.9	70

AIR TOXICS LTD.

SAMPLE NAME: SG-01

ID#: 0404477-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042908**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.55**	**Date of Analysis: 4/29/04 02:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.78	7.1	2.4	23
2-Propanol	0.78	2.6	1.9	6.4
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	5.0	2.3	15
Hexane	0.78	4.5	2.8	16
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Cyclohexane	0.78	Not Detected	2.7	Not Detected
1,4-Dioxane	0.78	Not Detected	2.8	Not Detected
Bromodichloromethane	0.78	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.78	Not Detected	6.7	Not Detected
Bromoform	0.78	Not Detected	8.1	Not Detected
4-Ethyltoluene	0.78	1.3	3.9	6.5
Ethanol	0.78	7.1	1.5	14
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
Heptane	0.78	1.6	3.2	6.5
Naphthalene	0.78	1.1	4.1	5.9
2-Methylpentane	0.78	4.1	2.8	15
Isopentane	0.78	6.1	2.3	18
2,3-Dimethylpentane	0.78	10	3.2	43
2,2,4-Trimethylpentane	0.78	8.5	3.7	40
Indene	0.78	Not Detected	3.7	Not Detected
Indan	0.78	Not Detected	3.8	Not Detected
Thiophene	0.78	Not Detected	2.7	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Silanol, trimethyl-	1066-40-6	56%	96
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	43
Trisiloxane, octamethyl-	107-51-7	86%	40
Cyclotetrasiloxane, octamethyl-	556-67-2	35%	510
Decane, 2,2-dimethyl-	17302-37-3	83%	62
Nonane, 3-methyl-5-propyl-	31081-18-2	78%	110
Hexane, 2,2,5-trimethyl-	3522-94-9	50%	150
Decane, 2,7,7-trimethyl-	62338-15-2	50%	55
Unknown	NA	NA	30
P-TRIMETHYLSILOXYPHENYL-BIS(TRIMETHYLSIL	0-00-0	59%	270
Vinyl Acetate	108-05-4	NA	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

0372

AIR TOXICS LTD.

SAMPLE NAME: SG-01

ID#: 0404477-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042908**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.55**	**Date of Analysis: 4/29/04 02:30 PM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	129	70-130
Toluene-d8	103	70-130

AIR TOXICS LTD.

SAMPLE NAME: SG-02

ID#: 0404477-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w043008**	**Date of Collection:**	**4/23/04**
Dil. Factor:	**1.58**	**Date of Analysis:**	**4/30/04 03:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	Not Detected	0.79	Not Detected
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	Not Detected	0.33	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	Not Detected	0.62	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	Not Detected	0.90	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Carbon Tetrachloride	0.16 UJ	Not Detected ~~UJ~~	1.0 UJ	Not Detected ~~UJ~~
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	Not Detected	0.60	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	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
Styrene	0.16	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.6	Not Detected
Propylene	0.79	Not Detected	1.4	Not Detected
1,3-Butadiene	0.79	Not Detected	1.8	Not Detected
Acetone	0.79	Not Detected	1.9	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: SG-02

ID#: 0404477-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w043008**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.58**	**Date of Analysis: 4/30/04 03:06 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
2-Propanol	0.79	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	Not Detected	2.4	Not Detected
Hexane	0.79	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.4	Not Detected
Cyclohexane	0.79	Not Detected	2.8	Not Detected
1,4-Dioxane	0.79	Not Detected	2.9	Not Detected
Bromodichloromethane	0.79	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.3	Not Detected
2-Hexanone	0.79	Not Detected	3.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.8	Not Detected
Bromoform	0.79	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.79	Not Detected	3.9	Not Detected
Ethanol	0.79	Not Detected	1.5	Not Detected
Methyl tert-butyl ether	0.79	Not Detected	2.9	Not Detected
Heptane	0.79	Not Detected	3.3	Not Detected
Naphthalene	0.79	Not Detected	4.2	Not Detected
2-Methylpentane	0.79	13	2.8	47
Isopentane	0.79	2.6	2.4	7.8
2,3-Dimethylpentane	0.79	20	3.3	82
2,2,4-Trimethylpentane	0.79	2.9	3.8	14
Indene	0.79	Not Detected	3.8	Not Detected
Indan	0.79	Not Detected	3.9	Not Detected
Thiophene	0.79	Not Detected	2.8	Not Detected

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

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Pentane, 2,2-dimethyl-	590-35-2	64%	30
Cyclopentane, 1,1,3-trimethyl-	4516-69-2	76%	50
Hexane, 2,4-dimethyl-	589-43-5	56%	26
Cyclopentane, 1,1,3,4-tetramethyl-, tran	20309-77-7	59%	18
Cyclooctane, (1-methylpropyl)-	16538-89-9	64%	11
Cyclohexane, 1,3,5-trimethyl-, (1.alpha.	1795-26-2	94%	8.6
Cyclohexane, 1,1,3,5-tetramethyl-, cis-	50876-32-9	52%	8.4
3-Undecene, 6-methyl-, (E)-	74630-52-7	59%	10
Cyclotetrasiloxane, octamethyl-	556-67-2	78%	10
3-Octene, 2,6-dimethyl-	6874-28-8	60%	9.2
Vinyl Acetate	108-05-4	NA	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: SG-02

ID#: 0404477-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w043008**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.58**	**Date of Analysis: 4/30/04 03:06 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	109	70-130
Toluene-d8	105	70-130

AIR TOXICS LTD.

SAMPLE NAME: SG-03

ID#: 0404477-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042915**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.68**	**Date of Analysis: 4/29/04 11:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.55	0.84	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.17	Not Detected	0.35	Not Detected
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	Not Detected	0.66	Not Detected
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	0.29	0.96	1.6
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Freon 113	0.17	Not Detected	1.3	Not Detected
Methylene Chloride	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	1.3	0.83	6.3
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
Benzene	0.17	0.82	0.54	2.7
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
Toluene	0.17	8.9	0.64	34
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	0.39	1.2	2.7
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	2.2	0.74	9.9
m,p-Xylene	0.34	7.4	1.5	33
o-Xylene	0.17	3.7	0.74	16
Styrene	0.17	0.93	0.73	4.0
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3,5-Trimethylbenzene	0.17	2.1	0.84	10
1,2,4-Trimethylbenzene	0.17	4.1	0.84	21
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.1	Not Detected
Propylene	0.84	Not Detected	1.5	Not Detected
1,3-Butadiene	0.84	Not Detected	1.9	Not Detected
Acetone	0.84	110 E J	2.0	260 E J

AIR TOXICS LTD.

SAMPLE NAME: SG-03

ID#: 0404477-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042915**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.68**	**Date of Analysis: 4/29/04 11:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.84	1.0	2.6	3.3
2-Propanol	0.84	6.0	2.1	15
trans-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	3.4	2.5	10
Hexane	0.84	Not Detected	3.0	Not Detected
Tetrahydrofuran	0.84	1.7	2.5	5.2
Cyclohexane	0.84	Not Detected	2.9	Not Detected
1,4-Dioxane	0.84	Not Detected	3.1	Not Detected
Bromodichloromethane	0.84	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	0.84	Not Detected	3.5	Not Detected
2-Hexanone	0.84	Not Detected	3.5	Not Detected
Dibromochloromethane	0.84	Not Detected	7.3	Not Detected
Bromoform	0.84	Not Detected	8.8	Not Detected
4-Ethyltoluene	0.84	6.5	4.2	33
Ethanol	0.84	110 E J	1.6	210 E J
Methyl tert-butyl ether	0.84	Not Detected	3.1	Not Detected
Heptane	0.84	Not Detected	3.5	Not Detected
Naphthalene	0.84	Not Detected	4.5	Not Detected
2-Methylpentane	0.84	Not Detected	3.0	Not Detected
Isopentane	0.84	Not Detected	2.5	Not Detected
2,3-Dimethylpentane	0.84	Not Detected	3.5	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	4.0	Not Detected
Indene	0.84	Not Detected	4.0	Not Detected
Indan	0.84	1.1	4.1	5.6
Thiophene	0.84	Not Detected	2.9	Not Detected

~~E = Exceeds instrument calibration range.~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Silanol, trimethyl-	1066-40-6	64%	200
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	120
Aniline, 5-bromo-2-(p-fluorophenoxy)-	31081-30-8	42%	1300
Decane, 2,2-dimethyl-	17302-37-3	59%	45
Tetrasiloxane, decamethyl-	141-62-8	90%	130
Nonane, 3-methyl-5-propyl-	31081-18-2	72%	55
Bicyclo[2.2.1]hept-2-ene, 1,7,7-trimethy	464-17-5	55%	26
Heptane, 2,2,3,4,6,6-hexamethyl-	62108-32-1	50%	94
Octane, 6-ethyl-2-methyl-	62016-19-7	64%	34
P-TRIMETHYLSILOXYPHENYL-(TRIMETHYLSILOXY	0-00-0	47%	550
Vinyl Acetate	108-05-4	NA	Not Detected

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AIR TOXICS LTD.

SAMPLE NAME: SG-03

ID#: 0404477-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042915**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.68**	**Date of Analysis: 4/29/04 11:01 PM**	

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	110	70-130
Toluene-d8	99	70-130

AIR TOXICS LTD.

SAMPLE NAME: SG-04

ID#: 0404477-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042912**	**Date of Collection:**	**4/23/04**
Dil. Factor:	**1.58**	**Date of Analysis:**	**4/29/04 06:34 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.61	0.79	3.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.22	0.33	0.47
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	Not Detected	0.62	Not Detected
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.33	0.90	1.9
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	0.96	0.78	4.8
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Carbon Tetrachloride	0.16	0.19	1.0	1.2
Benzene	0.16	0.49	0.51	1.6
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	2.4	0.60	9.2
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	0.24	1.1	1.6
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.42	0.70	1.8
m,p-Xylene	0.32	1.4	1.4	6.4
o-Xylene	0.16	0.57	0.70	2.5
Styrene	0.16	0.78	0.68	3.4
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	0.18	0.79	0.89
1,2,4-Trimethylbenzene	0.16	0.61	0.79	3.1
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.6	Not Detected
Propylene	0.79	Not Detected	1.4	Not Detected
1,3-Butadiene	0.79	Not Detected	1.8	Not Detected
Acetone	0.79	7.9	1.9	19

AIR TOXICS LTD.

SAMPLE NAME: SG-04

ID#: 0404477-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042912**	**Date of Collection: 4/23/04**	
Dil. Factor:	**1.58**	**Date of Analysis: 4/29/04 06:34 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
2-Propanol	0.79	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	1.8	2.4	5.3
Hexane	0.79	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.4	Not Detected
Cyclohexane	0.79	Not Detected	2.8	Not Detected
1,4-Dioxane	0.79	Not Detected	2.9	Not Detected
Bromodichloromethane	0.79	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.3	Not Detected
2-Hexanone	0.79	Not Detected	3.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.8	Not Detected
Bromoform	0.79	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.79	Not Detected	3.9	Not Detected
Ethanol	0.79	2.7	1.5	5.2
Methyl tert-butyl ether	0.79	Not Detected	2.9	Not Detected
Heptane	0.79	Not Detected	3.3	Not Detected
Naphthalene	0.79	Not Detected	4.2	Not Detected
2-Methylpentane	0.79	Not Detected	2.8	Not Detected
Isopentane	0.79	Not Detected	2.4	Not Detected
2,3-Dimethylpentane	0.79	Not Detected	3.3	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.8	Not Detected
Indene	0.79	Not Detected	3.8	Not Detected
Indan	0.79	Not Detected	3.9	Not Detected
Thiophene	0.79	Not Detected	2.8	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Heptane, 2,2,4-trimethyl-	14720-74-2	59%	23
Decane, 2,2-dimethyl-	17302-37-3	83%	66
Heptadecane, 8-methyl-	13287-23-5	72%	150
Unknown	NA	NA	31
Heptane, 2,2-dimethyl-	1071-26-7	64%	180
Undecane, 3,8-dimethyl-	17301-30-3	64%	62
Decane, 2,5,9-trimethyl-	62108-22-9	50%	28
Unknown	NA	NA	160
Decane, 3,3,6-trimethyl-	62338-14-1	72%	23
Dodecane, 2,6,11-trimethyl-	31295-56-4	64%	35
Vinyl Acetate	108-05-4	NA	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

AIR TOXICS LTD.

SAMPLE NAME: SG-04

ID#: 0404477-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042912**	**Date of Collection:**	**4/23/04**
Dil. Factor:	**1.58**	**Date of Analysis:**	**4/29/04 06:34 PM**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	101	70-130
Toluene-d8	103	70-130

AIR TOXICS LTD.

SAMPLE NAME: SG-05

ID#: 0404477-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042914	Date of Collection:	4/23/04
Dil. Factor:	3.04	Date of Analysis:	4/29/04 10:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.30	0.93	1.5	4.7
Freon 114	0.30	Not Detected	2.2	Not Detected
Chloromethane	0.30	Not Detected	0.64	Not Detected
Vinyl Chloride	0.30	Not Detected	0.79	Not Detected
Bromomethane	0.30	Not Detected	1.2	Not Detected
Chloroethane	0.30	Not Detected	0.82	Not Detected
Freon 11	0.30	0.38	1.7	2.2
1,1-Dichloroethene	0.30	Not Detected	1.2	Not Detected
Freon 113	0.30	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	Not Detected	1.1	Not Detected
1,1-Dichloroethane	0.30	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.30	Not Detected	1.2	Not Detected
Chloroform	0.30	2.2	1.5	11
1,1,1-Trichloroethane	0.30	0.56	1.7	3.1
Carbon Tetrachloride	0.30	Not Detected	1.9	Not Detected
Benzene	0.30	24	0.99	77
1,2-Dichloroethane	0.30	Not Detected	1.2	Not Detected
Trichloroethene	0.30	Not Detected	1.7	Not Detected
1,2-Dichloropropane	0.30	Not Detected	1.4	Not Detected
cis-1,3-Dichloropropene	0.30	Not Detected	1.4	Not Detected
Toluene	0.30	7.2	1.2	28
trans-1,3-Dichloropropene	0.30	Not Detected	1.4	Not Detected
1,1,2-Trichloroethane	0.30	Not Detected	1.7	Not Detected
Tetrachloroethene	0.30	0.52	2.1	3.6
1,2-Dibromoethane (EDB)	0.30	Not Detected	2.4	Not Detected
Chlorobenzene	0.30	Not Detected	1.4	Not Detected
Ethyl Benzene	0.30	1.1	1.3	5.0
m,p-Xylene	0.61	3.3	2.7	15
o-Xylene	0.30	1.5	1.3	6.5
Styrene	0.30	1.4	1.3	6.0
1,1,2,2-Tetrachloroethane	0.30	Not Detected	2.1	Not Detected
1,3,5-Trimethylbenzene	0.30	0.41	1.5	2.0
1,2,4-Trimethylbenzene	0.30	0.87	1.5	4.4
1,3-Dichlorobenzene	0.30	Not Detected	1.8	Not Detected
1,4-Dichlorobenzene	0.30	Not Detected	1.8	Not Detected
alpha-Chlorotoluene	0.30	Not Detected	1.6	Not Detected
1,2-Dichlorobenzene	0.30	Not Detected	1.8	Not Detected
1,2,4-Trichlorobenzene	1.5	Not Detected	11	Not Detected
Hexachlorobutadiene	1.5	Not Detected	16	Not Detected
Propylene	1.5	Not Detected	2.6	Not Detected
1,3-Butadiene	1.5	Not Detected	3.4	Not Detected
Acetone	1.5	8.8	3.7	21

AIR TOXICS LTD.

SAMPLE NAME: SG-05

ID#: 0404477-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042914**	**Date of Collection: 4/23/04**	
Dil. Factor:	**3.04**	**Date of Analysis: 4/29/04 10:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	1.5	3.2	4.8	10
2-Propanol	1.5	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.5	Not Detected	6.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.5	1.8	4.6	5.3
Hexane	1.5	2.0	5.4	7.2
Tetrahydrofuran	1.5	Not Detected	4.6	Not Detected
Cyclohexane	1.5	Not Detected	5.3	Not Detected
1,4-Dioxane	1.5	Not Detected	5.6	Not Detected
Bromodichloromethane	1.5	Not Detected	10	Not Detected
4-Methyl-2-pentanone	1.5	Not Detected	6.3	Not Detected
2-Hexanone	1.5	Not Detected	6.3	Not Detected
Dibromochloromethane	1.5	Not Detected	13	Not Detected
Bromoform	1.5	Not Detected	16	Not Detected
4-Ethyltoluene	1.5	Not Detected	7.6	Not Detected
Ethanol	1.5	1.6	2.9	3.1
Methyl tert-butyl ether	1.5	Not Detected	5.6	Not Detected
Heptane	1.5	Not Detected	6.3	Not Detected
Naphthalene	1.5	Not Detected	8.1	Not Detected
2-Methylpentane	1.5	2.4	5.4	8.7
Isopentane	1.5	4.8	4.6	14
2,3-Dimethylpentane	1.5	4.0	6.3	17
2,2,4-Trimethylpentane	1.5	Not Detected	7.2	Not Detected
Indene	1.5	Not Detected	7.3	Not Detected
Indan	1.5	Not Detected	7.5	Not Detected
Thiophene	1.5	Not Detected	5.3	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	34
Unknown	NA	NA	7.7
Propane, 2-methyl-	75-28-5	64%	14
1-Propene, 2-methyl-	115-11-7	64%	16
Pentane	109-66-0	90%	6.4
Cyclohexane, methyl-	108-87-2	94%	11
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	50%	6.6
Cyclotetrasiloxane, octamethyl-	556-67-2	64%	320
Limonene	138-86-3	87%	6.9
Unknown	NA	NA	200
Vinyl Acetate	108-05-4	NA	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

0527

AIR TOXICS LTD.

SAMPLE NAME: SG-05

ID#: 0404477-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042914**	**Date of Collection: 4/23/04**	
Dil. Factor:	**3.04**	**Date of Analysis: 4/29/04 10:08 PM**	

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	109	70-130
Toluene-d8	99	70-130

AIR TOXICS LTD.

SAMPLE NAME: SG-05 FD

ID#: 0404477-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042913**	**Date of Collection: 4/23/04**	
Dil. Factor:	**3.20**	**Date of Analysis: 4/29/04 08:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.32	1.0	1.6	5.0
Freon 114	0.32	Not Detected	2.3	Not Detected
Chloromethane	0.32	0.57	0.67	1.2
Vinyl Chloride	0.32	0.34	0.83	0.89
Bromomethane	0.32	Not Detected	1.3	Not Detected
Chloroethane	0.32	Not Detected	0.86	Not Detected
Freon 11	0.32	0.42	1.8	2.4
1,1-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Freon 113	0.32	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
1,1-Dichloroethane	0.32	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.32	Not Detected	1.3	Not Detected
Chloroform	0.32	2.6	1.6	13
1,1,1-Trichloroethane	0.32	0.67	1.8	3.7
Carbon Tetrachloride	0.32	Not Detected	2.0	Not Detected
Benzene	0.32	26	1.0	83
1,2-Dichloroethane	0.32	Not Detected	1.3	Not Detected
Trichloroethene	0.32	Not Detected	1.7	Not Detected
1,2-Dichloropropane	0.32	Not Detected	1.5	Not Detected
cis-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
Toluene	0.32	7.8	1.2	30
trans-1,3-Dichloropropene	0.32	Not Detected	1.5	Not Detected
1,1,2-Trichloroethane	0.32	Not Detected	1.8	Not Detected
Tetrachloroethene	0.32	0.59	2.2	4.1
1,2-Dibromoethane (EDB)	0.32	Not Detected	2.5	Not Detected
Chlorobenzene	0.32	Not Detected	1.5	Not Detected
Ethyl Benzene	0.32	1.3	1.4	5.7
m,p-Xylene	0.64	3.6	2.8	16
o-Xylene	0.32	1.5	1.4	6.7
Styrene	0.32	1.3	1.4	5.6
1,1,2,2-Tetrachloroethane	0.32	Not Detected	2.2	Not Detected
1,3,5-Trimethylbenzene	0.32	0.42	1.6	2.1
1,2,4-Trimethylbenzene	0.32	0.90	1.6	4.5
1,3-Dichlorobenzene	0.32	Not Detected	2.0	Not Detected
1,4-Dichlorobenzene	0.32	Not Detected	2.0	Not Detected
alpha-Chlorotoluene	0.32	Not Detected	1.7	Not Detected
1,2-Dichlorobenzene	0.32	Not Detected	2.0	Not Detected
1,2,4-Trichlorobenzene	1.6	Not Detected	12	Not Detected
Hexachlorobutadiene	1.6	Not Detected	17	Not Detected
Propylene	1.6	Not Detected	2.8	Not Detected
1,3-Butadiene	1.6	Not Detected	3.6	Not Detected
Acetone	1.6	11	3.9	26

AIR TOXICS LTD.

SAMPLE NAME: SG-05 FD

ID#: 0404477-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042913**	**Date of Collection: 4/23/04**	
Dil. Factor:	**3.20**	**Date of Analysis: 4/29/04 08:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Carbon Disulfide	1.6	3.8	5.1	12
2-Propanol	1.6	Not Detected	4.0	Not Detected
trans-1,2-Dichloroethene	1.6	Not Detected	6.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.6	2.1	4.8	6.3
Hexane	1.6	2.2	5.7	8.0
Tetrahydrofuran	1.6	Not Detected	4.8	Not Detected
Cyclohexane	1.6	Not Detected	5.6	Not Detected
1,4-Dioxane	1.6	Not Detected	5.9	Not Detected
Bromodichloromethane	1.6	Not Detected	11	Not Detected
4-Methyl-2-pentanone	1.6	Not Detected	6.7	Not Detected
2-Hexanone	1.6	Not Detected	6.7	Not Detected
Dibromochloromethane	1.6	Not Detected	14	Not Detected
Bromoform	1.6	Not Detected	17	Not Detected
4-Ethyltoluene	1.6	Not Detected	8.0	Not Detected
Ethanol	1.6	2.0	3.1	3.9
Methyl tert-butyl ether	1.6	Not Detected	5.9	Not Detected
Heptane	1.6	Not Detected	6.7	Not Detected
Naphthalene	1.6	Not Detected	8.5	Not Detected
2-Methylpentane	1.6	2.7	5.7	9.8
Isopentane	1.6	5.6	4.8	17
2,3-Dimethylpentane	1.6	4.5	6.7	19
2,2,4-Trimethylpentane	1.6	Not Detected	7.6	Not Detected
Indene	1.6	Not Detected	7.7	Not Detected
Indan	1.6	Not Detected	7.9	Not Detected
Thiophene	1.6	Not Detected	5.6	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	32
Unknown	NA	NA	14
1-Propene, 2-methyl-	115-11-7	58%	16
Pentane	109-66-0	86%	7.0
Cyclohexane, methyl-	108-87-2	87%	12
Cyclotetrasiloxane, octamethyl-	556-67-2	38%	350
Tetrasiloxane, decamethyl-	141-62-8	90%	12
Limonene	138-86-3	91%	6.8
Heptane, 2,2-dimethyl-	1071-26-7	50%	6.8
Unknown	NA	NA	230
Vinyl Acetate	108-05-4	NA	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

0570

AIR TOXICS LTD.

SAMPLE NAME: SG-05 FD

ID#: 0404477-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042913**	**Date of Collection: 4/23/04**	
Dil. Factor:	**3.20**	**Date of Analysis: 4/29/04 08:59 PM**	

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

Appendix B

Support Documentation

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0404477

Work Order Summary

CLIENT:	Mr. John Finn The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850	**BILL TO:**	Mr. John Finn The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850
PHONE:	607-277-5716 x229	**P.O. #**	
FAX:		**PROJECT #**	CECN8-16916-222 RP1
DATE RECEIVED:	4/24/2004	**CONTACT:**	Betty Chu
DATE COMPLETED:	5/7/2004		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	AMB-01	Modified TO-15/TICs	1.5 "Hg
01AA	AMB-01 Duplicate	Modified TO-15/TICs	1.5 "Hg
02A	AMB-02	Modified TO-15/TICs	4.0 "Hg
03A	IA-01	Modified TO-15/TICs	4.0 "Hg
04A	IA-01 FD	Modified TO-15/TICs	4.5 "Hg
05A	IA-02	Modified TO-15/TICs	3.5 "Hg
06A	IA-03	Modified TO-15/TICs	2.5 "Hg
07A	IA-04	Modified TO-15/TICs	4.5 "Hg
08A	AMB-03	Modified TO-15/TICs	4.5 "Hg
09A	AMB-04	Modified TO-15/TICs	5.0 "Hg
10A	SG-01	Modified TO-15/TICs	4.0 "Hg
11A	SG-02	Modified TO-15/TICs	4.5 "Hg
12A	SG-03	Modified TO-15/TICs	6.0 "Hg
13A	SG-04	Modified TO-15/TICs	4.5 "Hg
14A	SG-05	Modified TO-15/TICs	3.5 "Hg
15A	SG-05 FD	Modified TO-15/TICs	3.5 "Hg
16A	Lab Blank	Modified TO-15/TICs	NA
16B	Lab Blank	Modified TO-15/TICs	NA
16C	Lab Blank	Modified TO-15/TICs	NA
17A	CCV	Modified TO-15/TICs	NA

Continued on next page

@ AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0404477

Work Order Summary

CLIENT:	Mr. John Finn The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850	**BILL TO:**	Mr. John Finn The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850
PHONE:	607-277-5716 x229	**P.O. #**	
FAX:		**PROJECT #**	CECN8-16916-222 RP1
DATE RECEIVED:	4/24/2004	**CONTACT:**	Betty Chu
DATE COMPLETED:	5/7/2004		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
17B	CCV	Modified TO-15/TICs	NA
17C	CCV	Modified TO-15/TICs	NA
18A	LCS	Modified TO-15/TICs	NA
18B	LCS	Modified TO-15/TICs	NA
18C	LCS	Modified TO-15/TICs	NA

CERTIFIED BY: Linda D. Truman DATE: 05/10/04

Laboratory Director

Certfication numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/03, Expiration date: 06/30/04
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-15
The RETEC Group, Inc.
Workorder# 0404477

Fifteen 6 Liter Summa Special (100% Certified) samples were received on April 24, 2004. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 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. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	*TO-14A/TO-15*	*ATL Modifications*
Blank	Humid air blank	Dry Nitrogen blank
BFB absolute abundance criteria	Within 10% of that from previous day (TO-14A)	CCV internal standard area counts are compared to ICAL; corrective action for > 40 %D.
Dilutions for initial calibration	Dynamic dilutions or static using canisters.	Syringe dilutions
Daily CCV	70-130%	70-130% with 4 compounds allowed at 60-140 , flag outliers
BFB acceptance criteria	CLP protocol (TO-15)	SW-846 protocol
Primary ions for quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91, 2-Butanone: 43.	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106, 2-Butanone: 72.
ICAL %RSD acceptance criteria	</= 30% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
IS Recoveries	Within 40% of mean over ICAL for blanks, and within 40% of daily CCV for samples (TO-15)	Within 40% of CCV recoveries for blank and samples.
Sample load volume	400 mL (TO-14A)	Varied to 1.0 liter
Sampling/concentrator system	Nafion Drier (TO-14A)	Multisorbent concentrator
Blank acceptance criteria	< 0.2 ppbv (TO-14A)	< Reporting Limit

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15

0003

compound list as per contract or verbal agreement.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Vinyl Acetate is reported as a special TIC in this workorder. Specific analytes that are reported as tentatively identified compounds (TICs) are determined by searching for each compound's characteristic spectra. If no chromatographic peak displaying the compound specific spectra exists, then the TIC is reported as not detected.

Definition of Data Qualifying Flags

Seven 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

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CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing 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. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

0915

Contact Person JOHN FINN
Company THE RETEC GROUP, INC.
Address 1001 W. SENECA City ITHACA State NY Zip
Phone 607-277-5716 FAX
Collected By: Signature

Project info:
P.O. #
Project # RETEC-16916-222
Project Name RPI

Turn Around Time:
☒ Normal
☐ Rush Specify

JV 4/26/04

Lab I.D.	Field Sample I.D.	Date & Time	Time START	Time END	Analyses Requested	CAN #	Canister Pressure / Vacuum Initial	Final	Receipt
01A	AMB 01 (24 hour flow cont.)	4/23	0733	0803	TO-15 RETEC MOD.	31426	-29.5	-3.0	1.5
02A	AMB 02		0731	0848		33656	-29.5	-4.0	4.0
03A	IA-01		0858	1017		23995	-30	-4.5	4.0
04A	IA-01 FD		0858	1017		34498	-29.5	-3.0	4.5
05A	IA-02		0902	1026		34306	-30.0	-5.0	3.5
06A	IA-03		0904	1044		34371	-30.0	-5.0	2.5
07A	IA-04		0909	1029		34350	-28.5	-4.0	4.5
08A	AMB-03		1103	1220		12714	-30.0	-5.0	4.5
09A	AMB-04		1051	1205		~~34371~~ 34404	-29.5	-5.0	5.0

Relinquished By: (Signature) Date/Time: 4/23/04 17:00
Received By: (Signature) Date/Time: FED EX
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time: 4/24/04 930

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Temp: (°C)	Condition	Custody Seals Intact?	Work Order #
	FEX	843504218593	AH	—	Good	Yes No None	0404477

Form 293 ev. 09

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CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing 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. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

Page 2 of 2

Contact Person JOHN FINN
Company THE RETEC GROUP, INC.
Address 100 W. SENECA City ITHACA State NY Zip
Phone FAX
Collected By: Signature [signature]

Project Info:
P.O. #
Project # CECNB-1616-777
Project Name AP1

Turn Around Time:
☒ Normal
☐ Rush ______ Specify

04/24/04

Lab I.D.	Field Sample I.D.	Date & Time	Time Start	Time End	Analyses Requested	Can #	Canister Pressure / Vacuum Initial	Final	Receipt
10A	SG-01	4/23	1345	1510	TO-15 RETEC MOD.	32109	-28.5	-4.0	4.5
11A	SG-02	↓	1318	1429	↓	33792	-29.0	-5.0	4.5
12A	SG-03	↓	1553	1700	↓	13858	-29.0	-5.0	6.0
13A	SG-04	↓	1630	1744	↓	34021	-28.5	-4.5	4.5
14A	SG-05	↓	1231	1355	↓	20945	-30.0	-3.0	3.5
15A	SG-05 FD	↓	1231	1355	↓	12958	-29.5	-5.0	3.5

Relinquished By: (Signature) Date/Time [signature] 4/23/04 1800
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time [signature] ATL 4/24/04 930

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	FEX	843504218641	[initials]	—	Good	Yes No (None)	0404477

Form 1293 rev. 09

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2004 14:19
End Cal Date : 21-APR-2004 20:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-21aprc.b/t141421.m
Cal Date : 23-Apr-2004 16:29 mjordan
Curve Type : Average

Calibration File Names:
Level 1: /chem/msdw.i/w-21aprc.b/w042107.d
Level 2: /chem/msdw.i/w-21aprc.b/w042108.d
Level 3: /chem/msdw.i/w-21aprc.b/w042109.d
Level 4: /chem/msdw.i/w-21aprc.b/w042110.d
Level 5: /chem/msdw.i/w-21aprc.b/w042115.d
Level 6: /chem/msdw.i/w-21aprc.b/w042112.d

	Compound	0.10000 Level 1	0.50000 Level 2	2.000 Level 3	5.000 Level 4	10.000 Level 5	20.000 Level 6	___ RRF	% RSD
1	Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2	Propylene	+++++	2.33697	2.36569	2.21994	2.20900	2.24885	2.27609	3.117
3	Dichlorodifluoromethane/Fr12	7.68669	6.67985	7.06307	6.71116	6.82527	6.69292	6.94316	5.641
4	Freon 114	4.12745	3.91400	3.84910	3.69074	3.70170	3.66583	3.82480	4.656
5	Chloromethane	3.11971	2.32317	2.36608	2.29451	2.22955	2.25879	2.43197	13.993
6	Vinyl Chloride	2.58408	2.32069	2.30612	2.23096	2.24373	2.23071	2.31938	5.837
7	1,3-Butadiene	+++++	1.82003	1.86860	1.80337	1.80403	1.83643	1.82649	1.488
8	Freon 22	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9	Bromomethane	1.38116	1.42163	1.35687	1.37235	1.44573	1.47774	1.40925	3.339
10	Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11	Chloroethane	1.29849	1.01646	1.00008	0.97842	0.96860	0.98708	1.04152	12.193
12	Isopentane	+++++	2.14445	2.22654	2.26742	1.79560	1.57016	2.00083	15.205
13	Trichlorofluoromethane/Fr11	5.45404	5.01936	5.29363	5.08442	4.48489	5.06228	5.06644	6.502
14	Ethanol	+++++	0.82750	0.43361	0.53995	0.70170	0.62626	0.62580	24.069
15	1,1-Dichloroethene	3.79475	2.76440	3.50265	2.70410	3.29947	3.10501	3.19506	13.277
16	Freon 113	3.18161	2.11623	3.18100	2.10530	2.94810	2.70080	2.70551	18.251
17	1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18	Acetone	+++++	4.24887	3.71071	3.51805	3.45426	3.55085	3.69655	8.735
19	Carbon Disulfide	+++++	5.51082	5.47639	5.27600	5.20245	5.32791	5.35872	2.454
20	Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21	Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22	2-Propanol	+++++	3.84232	2.85822	3.92367	4.03389	4.30573	3.79277	14.527
23	3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24	Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164	Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2004 14:19
End Cal Date : 21-APR-2004 20:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-21aprc.b/t141421.m
Cal Date : 23-Apr-2004 16:29 mjordan
Curve Type : Average

	0.10000	0.50000	2.000	5.000	10.000	20.000	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
25 Methylene Chloride	2.40898	2.34036	2.31830	2.23565	2.21216	2.22643	2.29031	3.413
26 2-Methylpentane	+++++	1.20336	1.24702	1.26393	1.54778	1.46608	1.34563	11.271
27 MTBE	+++++	5.37317	5.54708	5.48882	5.47274	5.54235	5.48483	1.283
28 trans-1,2-Dichloroethene	+++++	2.85968	2.95762	2.84506	2.83282	2.84615	2.86827	1.773
29 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Hexane	+++++	3.02491	2.98950	2.92984	2.93999	3.01994	2.98084	1.483
165 tert-Butyl Alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 1,1-Dichloroethane	3.43585	3.52802	3.48023	3.40950	3.39133	3.43976	3.44745	1.442
32 Vinyl Acetate	+++++	3.75487	3.77128	3.94466	3.93450	4.14883	3.91083	4.086
33 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 2-Butanone	+++++	0.94273	0.88616	0.88487	0.88621	0.90989	0.90197	2.780
35 cis-1,2-Dichloroethene	3.02985	3.07955	3.10942	3.05857	3.04143	3.11148	3.07172	1.119
36 Tetrahydrofuran	+++++	2.07350	2.11487	2.07558	2.12081	2.16298	2.10955	1.752
38 Chloroform	4.35563	3.85377	3.92333	3.83945	3.86702	3.86548	3.95078	5.072
39 Cyclohexane	+++++	2.53778	2.61664	2.62603	2.59249	2.58947	2.59248	1.324
40 1,1,1-Trichloroethane	3.76910	3.58023	3.68069	3.69423	3.74522	3.72498	3.69908	1.801
41 Carbon Tetrachloride	2.75077	2.88429	3.23707	3.35876	3.47941	3.58857	3.21648	10.363
42 2,3-Dimethylpentane	+++++	0.62060	0.60835	0.63579	0.75151	0.72278	0.66781	9.710
44 Benzene	1.43831	1.24557	1.20884	1.15945	1.15095	1.12393	1.22118	9.415
45 1,2-Dichloroethane	0.69338	0.59856	0.62448	0.62202	0.63435	0.61203	0.63080	5.228
46 Heptane	+++++	0.78445	0.78579	0.77166	0.77833	0.77090	0.77822	0.892
47 2,2,4-Trimethylpentane	+++++	0.09828	0.10453	0.10794	0.12907	0.12304	0.11257	11.514
49 Thiophene	+++++	0.82222	0.87117	0.92110	1.07154	1.03434	0.94407	11.246
50 Trichloroethene	0.69734	0.53905	0.53600	0.52286	0.52158	0.50934	0.55436	12.783
51 1,2-Dichloropropane	0.37156	0.40492	0.38807	0.37847	0.38536	0.37409	0.38375	3.169
52 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 1,4-Dioxane	+++++	0.31700	0.21327	0.29064	0.31695	0.31192	0.28996	15.253
54 Bromodichloromethane	+++++	0.86420	0.89879	0.91098	0.94054	0.91553	0.90601	3.076
55 cis-1,3-Dichloropropene	0.62728	0.68452	0.69046	0.69336	0.70538	0.69966	0.68344	4.163
56 4-Methyl-2-pentanone	+++++	0.95449	1.01757	0.97517	1.03985	1.04125	1.00567	3.891
58 Toluene	1.59709	1.50593	1.53634	1.49474	1.50315	1.45823	1.51591	3.101
59 trans-1,3-Dichloropropene	0.69676	0.72998	0.76603	0.75764	0.81134	0.79211	0.75898	5.465
60 1,1,2-Trichloroethane	0.57799	0.53849	0.54751	0.53582	0.55494	0.52719	0.54699	3.285

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2004 14:19
End Cal Date : 21-APR-2004 20:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-21aprc.b/t141421.m
Cal Date : 23-Apr-2004 16:29 mjordan
Curve Type : Average

	Compound	0.10000 Level 1	0.50000 Level 2	2.000 Level 3	5.000 Level 4	10.000 Level 5	20.000 Level 6	___ RRF	% RSD	
61	Tetrachloroethene	0.72694	0.71420	0.69636	0.67309	0.69277	0.65015	0.69225	4.005	
62	2-Hexanone	+++++	1.08739	1.11425	1.03101	1.18891	1.17137	1.11859	5.723	
63	Dibromochloromethane	+++++	0.81570	0.88930	0.91420	0.99043	0.95970	0.91387	7.382	
64	1,2-Dibromoethane	0.90443	0.84928	0.84974	0.85879	0.88110	0.84452	0.86464	2.713	
65	Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67	Chlorobenzene	1.56391	1.41960	1.40971	1.37264	1.40691	1.34396	1.41946	5.366	
68	Ethyl Benzene	0.77659	0.76107	0.76734	0.76304	0.78744	0.75170	0.76786	1.637	
69	1,1,1,2-Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70	m,p-Xylene	0.98231	0.95218	0.95657	0.94653	0.94688	0.89050	0.94583	3.189	
71	o-Xylene	0.89359	0.91479	0.91459	0.90851	0.92407	0.87309	0.90477	2.045	
72	Styrene	1.49011	1.46350	1.60091	1.46370	1.53374	1.47101	1.50383	3.621	
73	Bromoform	+++++	0.51304	0.60889	0.67760	0.74371	0.73829	0.65631	14.770	
74	Cumene	+++++	3.04105	3.11202	3.26873	3.14735	2.97965	3.10976	3.535	
76	1,1,2,2-Tetrachloroethane	0.80558	1.15098	1.16546	1.14444	1.15890	1.13017	1.09259	12.917	
77	1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78	trans-1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79	1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80	4-Ethyltoluene	+++++	2.51826	2.59750	2.38853	2.50680	2.38388	2.47899	3.696	
81	1,3,5-Trimethylbenzene	2.39583	2.37703	2.43733	2.42512	2.47371	2.32602	2.40584	2.141	
162	Propylbenzene	+++++	3.54821	3.65529	3.87429	3.63537	3.45454	3.63354	4.302	
82	1,2,4-Trimethylbenzene	2.24689	2.29126	2.41709	2.41509	2.43324	2.32128	2.35414	3.316	
83	Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84	1,3-Dichlorobenzene	1.43271	1.46860	1.50792	1.42261	1.41085	1.35149	1.43236	3.710	
85	1,4-Dichlorobenzene	1.38211	1.53041	1.55252	1.44490	1.42752	1.36980	1.45121	5.206	
86	alpha-Chlorotoluene	1.15836	1.59309	1.82243	1.63605	1.78775	1.79510	1.63213	15.329	
87	Indan	+++++	1.43313	1.57746	1.59483	1.62374	1.64501	1.57483	5.294	
88	1,2-Dichlorobenzene	1.31374	1.39129	1.41288	1.28496	1.28486	1.25313	1.32348	4.851	
89	Indene	+++++	0.75550	0.98118	1.19478	1.12537	1.35206	1.08178	20.891	
90	1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91	1,2,4-Trichlorobenzene	0.10066	0.17541	0.18205	0.07829	0.10206	0.13240	0.12848	33.168	<-
92	Hexachlorobutadiene	0.10566	0.14982	0.14991	0.08546	0.10489	0.12237	0.11968	21.838	
93	Naphthalene	+++++	0.24135	0.22080	0.25782	0.12511	0.20523	0.21006	24.524	

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 20-APR-2004 14:19
End Cal Date : 21-APR-2004 20:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdw.i/w-21aprc.b/t14l421.m
Cal Date : 23-Apr-2004 16:29 mjordan
Curve Type : Average

Compound	0.10000 Level 1	0.50000 Level 2	2.000 Level 3	5.000 Level 4	10.000 Level 5	20.000 Level 6	___ RRF	% RSD
$ 43 1,2-Dichloroethane-d4	1.73670	1.72503	1.81904	1.83559	1.85521	1.96716	1.82312	4.847
$ 57 Toluene-d8	0.98758	1.00280	0.99698	1.00816	0.98309	0.99331	0.99532	0.939
$ 75 Bromofluorobenzene	0.81013	0.82995	0.81694	0.82919	0.83098	0.82484	0.82367	1.021

Initial Calibration Narrative

A six point initial calibration was analyzed on MSDW on April 21, 2004. As noted on the accompanying analytical run logs, the following point Level 5 (w042111) was reanalyzed due to:

a. anomalous unacceptable linearity for Ethanol

Target compounds in the Calibration Stock Standard that were declared by the vendor to have a > 10% discrepancy in the certified value compared to the stated value have been corrected for use in the Initial Calibration.

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0404477-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/28/04 08:59 AM**	

Compound	%Recovery
Freon 12	110
Freon 114	106
Chloromethane	99
Vinyl Chloride	105
Bromomethane	105
Chloroethane	97
Freon 11	107
1,1-Dichloroethene	89
Freon 113	85
Methylene Chloride	99
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	95
Chloroform	96
1,1,1-Trichloroethane	82
Carbon Tetrachloride	68 Q
Benzene	96
1,2-Dichloroethane	108
Trichloroethene	95
1,2-Dichloropropane	96
cis-1,3-Dichloropropene	93
Toluene	102
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	100
Tetrachloroethene	104
1,2-Dibromoethane (EDB)	101
Chlorobenzene	100
Ethyl Benzene	102
m,p-Xylene	103
o-Xylene	102
Styrene	100
1,1,2,2-Tetrachloroethane	107
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	73
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	92
Hexachlorobutadiene	106
Propylene	111
1,3-Butadiene	103
Acetone	88

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0404477-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/28/04 08:59 AM**	

Compound	%Recovery
Carbon Disulfide	75
2-Propanol	77
trans-1,2-Dichloroethene	101
2-Butanone (Methyl Ethyl Ketone)	96
Hexane	97
Tetrahydrofuran	94
Cyclohexane	99
1,4-Dioxane	106
Bromodichloromethane	86
4-Methyl-2-pentanone	97
2-Hexanone	92
Dibromochloromethane	76
Bromoform	72
4-Ethyltoluene	99
Ethanol	104
Methyl tert-butyl ether	101
Heptane	100
Naphthalene	67
2-Methylpentane	120
Isopentane	102
2,3-Dimethylpentane	119
2,2,4-Trimethylpentane	122
Indene	115
Indan	114
Thiophene	121

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	101	70-130
Toluene-d8	102	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i
Lab File ID: w042802.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/msdw.i/w-28apr.b/t141421.m

Injection Date: 28-APR-2004 08:59
Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Init. Cal. Times: 14:19 20:59
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 43 1,2-Dichloroethane-d4	1.82312	1.83049	0.010	-0.40405	30.00000	Averaged	
$ 57 Toluene-d8	0.99532	1.01047	0.010	-1.52270	30.00000	Averaged	
$ 75 Bromofluorobenzene	0.82367	0.82903	0.010	-0.65001	30.00000	Averaged	
2 Propylene	2.27609	2.53281	0.010	-11.27893	30.00000	Averaged	
3 Dichlorodifluoromethane/Fr1	6.94316	7.66536	0.010	-10.40160	30.00000	Averaged	
4 Freon 114	3.82480	4.05733	0.010	-6.07942	30.00000	Averaged	
5 Chloromethane	2.43197	2.41619	0.010	0.64869	30.00000	Averaged	
6 Vinyl Chloride	2.31938	2.43397	0.010	-4.94035	30.00000	Averaged	
7 1,3-Butadiene	1.82649	1.88118	0.010	-2.99403	30.00000	Averaged	
9 Bromomethane	1.40925	1.47468	0.010	-4.64320	30.00000	Averaged	
11 Chloroethane	1.04152	1.00876	0.010	3.14552	30.00000	Averaged	
13 Trichlorofluoromethane/Fr11	5.06644	5.44535	0.010	-7.47893	30.00000	Averaged	
14 Ethanol	0.62580	0.65030	0.010	-3.91487	30.00000	Averaged	
16 Freon 113	2.70551	2.30169	0.010	14.92574	30.00000	Averaged	
15 1,1-Dichloroethene	3.19506	2.85508	0.010	10.64099	30.00000	Averaged	
18 Acetone	3.69655	3.23837	0.010	12.39471	30.00000	Averaged	
19 Carbon Disulfide	5.35872	4.01870	0.010	25.00632	30.00000	Averaged	
22 2-Propanol	3.79277	2.91225	0.010	23.21562	30.00000	Averaged	
25 Methylene Chloride	2.29031	2.27578	0.010	0.63467	30.00000	Averaged	
27 MTBE	5.48483	5.52918	0.010	-0.80849	30.00000	Averaged	
28 trans-1,2-Dichloroethene	2.86827	2.90190	0.010	-1.17246	30.00000	Averaged	
30 Hexane	2.98084	2.90447	0.010	2.56200	30.00000	Averaged	
31 1,1-Dichloroethane	3.44745	3.37336	0.010	2.14913	30.00000	Averaged	
35 cis-1,2-Dichloroethene	3.07172	2.92338	0.010	4.82915	30.00000	Averaged	
34 2-Butanone	0.90197	0.86753	0.010	3.81884	30.00000	Averaged	
36 Tetrahydrofuran	2.10955	1.98714	0.010	5.80269	30.00000	Averaged	
38 Chloroform	3.95078	3.81147	0.010	3.52620	30.00000	Averaged	
39 Cyclohexane	2.59248	2.55963	0.010	1.26713	30.00000	Averaged	
40 1,1,1-Trichloroethane	3.69908	3.04859	0.010	17.58524	30.00000	Averaged	
41 Carbon Tetrachloride	3.21648	2.18789	0.010	31.97884	30.00000	Averaged	<-
44 Benzene	1.22118	1.17408	0.010	3.85676	30.00000	Averaged	
45 1,2-Dichloroethane	0.63080	0.68058	0.010	-7.89123	30.00000	Averaged	
46 Heptane	0.77822	0.77999	0.010	-0.22626	30.00000	Averaged	
50 Trichloroethene	0.55436	0.52550	0.010	5.20569	30.00000	Averaged	
51 1,2-Dichloropropane	0.38375	0.37003	0.010	3.57373	30.00000	Averaged	

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 28-APR-2004 08:59
Lab File ID: w042802.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-28apr.b/t141421.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
53 1,4-Dioxane	0.28996	0.30743	0.010	-6.02497	30.00000	Averaged
54 Bromodichloromethane	0.90601	0.78203	0.010	13.68407	30.00000	Averaged
55 cis-1,3-Dichloropropene	0.68344	0.63355	0.010	7.30063	30.00000	Averaged
56 4-Methyl-2-pentanone	1.00567	0.97715	0.010	2.83558	30.00000	Averaged
58 Toluene	1.51591	1.55070	0.010	-2.29497	30.00000	Averaged
59 trans-1,3-Dichloropropene	0.75898	0.69432	0.010	8.51895	30.00000	Averaged
60 1,1,2-Trichloroethane	0.54699	0.54921	0.010	-0.40563	30.00000	Averaged
61 Tetrachloroethene	0.69225	0.71746	0.010	-3.64156	30.00000	Averaged
62 2-Hexanone	1.11859	1.03199	0.010	7.74191	30.00000	Averaged
63 Dibromochloromethane	0.91387	0.69556	0.010	23.88846	30.00000	Averaged
64 1,2-Dibromoethane	0.86464	0.87270	0.010	-0.93117	30.00000	Averaged
67 Chlorobenzene	1.41946	1.42526	0.010	-0.40914	30.00000	Averaged
68 Ethyl Benzene	0.76786	0.78700	0.010	-2.49168	30.00000	Averaged
70 m,p-Xylene	0.94583	0.97789	0.010	-3.38986	30.00000	Averaged
71 o-Xylene	0.90477	0.91928	0.010	-1.60340	30.00000	Averaged
72 Styrene	1.50383	1.50247	0.010	0.09052	30.00000	Averaged
73 Bromoform	0.65631	0.47079	0.010	28.26750	30.00000	Averaged
74 Cumene	3.10976	3.31742	0.010	-6.67787	30.00000	Averaged
76 1,1,2,2-Tetrachloroethane	1.09259	1.16472	0.010	-6.60196	30.00000	Averaged
80 4-Ethyltoluene	2.47899	2.46197	0.010	0.68672	30.00000	Averaged
81 1,3,5-Trimethylbenzene	2.40584	2.49375	0.010	-3.65400	30.00000	Averaged
162 Propylbenzene	3.63354	3.85274	0.010	-6.03270	30.00000	Averaged
82 1,2,4-Trimethylbenzene	2.35414	2.49155	0.010	-5.83700	30.00000	Averaged
84 1,3-Dichlorobenzene	1.43236	1.45522	0.010	-1.59579	30.00000	Averaged
85 1,4-Dichlorobenzene	1.45121	1.49145	0.010	-2.77264	30.00000	Averaged
86 alpha-Chlorotoluene	1.63213	1.18882	0.010	27.16152	30.00000	Averaged
88 1,2-Dichlorobenzene	1.32348	1.35437	0.010	-2.33421	30.00000	Averaged
91 1,2,4-Trichlorobenzene	0.12848	0.11829	0.010	7.92662	30.00000	Averaged
92 Hexachlorobutadiene	0.11968	0.12657	0.010	-5.75373	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 28-APR-2004 11:34
Lab File ID: w042805.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: Sp. CCV Quant Type: ISTD
Method: /chem/msdw.i/w-28apr.b/t141421.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.82312	1.76944	0.010	2.94451	30.00000	Averaged
$ 57 Toluene-d8	0.99532	0.98320	0.010	1.21751	30.00000	Averaged
$ 75 Bromofluorobenzene	0.82367	0.78508	0.010	4.68580	30.00000	Averaged
12 Isopentane	2.00083	2.04379	0.010	-2.14709	40.00000	Averaged
26 2-Methylpentane	1.34563	1.61914	0.010	-20.32531	40.00000	Averaged
42 2,3-Dimethylpentane	0.66781	0.79541	0.010	-19.10755	40.00000	Averaged
47 2,2,4-Trimethylpentane	0.11257	0.13689	0.010	-21.59904	40.00000	Averaged
49 Thiophene	0.94407	1.14580	0.010	-21.36786	40.00000	Averaged
87 Indan	1.57483	1.79660	0.010	-14.08221	40.00000	Averaged
89 Indene	1.08178	1.24149	0.010	-14.76402	40.00000	Averaged
93 Naphthalene	0.21006	0.14013	0.010	33.28928	40.00000	Averaged

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0404477-17B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042903	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/29/04 09:28 AM	

Compound	%Recovery
Freon 12	112
Freon 114	106
Chloromethane	98
Vinyl Chloride	102
Bromomethane	99
Chloroethane	97
Freon 11	110
1,1-Dichloroethene	92
Freon 113	87
Methylene Chloride	100
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	97
Chloroform	98
1,1,1-Trichloroethane	90
Carbon Tetrachloride	78
Benzene	99
1,2-Dichloroethane	113
Trichloroethene	98
1,2-Dichloropropane	101
cis-1,3-Dichloropropene	99
Toluene	106
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	102
Tetrachloroethene	104
1,2-Dibromoethane (EDB)	104
Chlorobenzene	101
Ethyl Benzene	105
m,p-Xylene	105
o-Xylene	103
Styrene	102
1,1,2,2-Tetrachloroethane	107
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	78
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	91
Hexachlorobutadiene	100
Propylene	112
1,3-Butadiene	102
Acetone	98

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AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0404477-17B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/29/04 09:28 AM**	

Compound	%Recovery
Carbon Disulfide	98
2-Propanol	83
trans-1,2-Dichloroethene	101
2-Butanone (Methyl Ethyl Ketone)	96
Hexane	97
Tetrahydrofuran	96
Cyclohexane	98
1,4-Dioxane	112
Bromodichloromethane	94
4-Methyl-2-pentanone	102
2-Hexanone	95
Dibromochloromethane	85
Bromoform	81
4-Ethyltoluene	100
Ethanol	104
Methyl tert-butyl ether	102
Heptane	103
Naphthalene	75
2-Methylpentane	118
Isopentane	106
2,3-Dimethylpentane	115
2,2,4-Trimethylpentane	121
Indene	127
Indan	113
Thiophene	117

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	100	70-130
Toluene-d8	105	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 29-APR-2004 09:28
Lab File ID: w042903.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-29apr.b/t141421.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.82312	1.79496	0.010	1.54480	30.00000	Averaged
$ 57 Toluene-d8	0.99532	1.04293	0.010	-4.78307	30.00000	Averaged
$ 75 Bromofluorobenzene	0.82367	0.82525	0.010	-0.19212	30.00000	Averaged
2 Propylene	2.27609	2.55848	0.010	-12.40666	30.00000	Averaged
3 Dichlorodifluoromethane/Fr1	6.94316	7.75964	0.010	-11.75955	30.00000	Averaged
4 Freon 114	3.82480	4.07044	0.010	-6.42228	30.00000	Averaged
5 Chloromethane	2.43197	2.38783	0.010	1.81492	30.00000	Averaged
6 Vinyl Chloride	2.31938	2.37555	0.010	-2.42190	30.00000	Averaged
7 1,3-Butadiene	1.82649	1.86729	0.010	-2.23359	30.00000	Averaged
9 Bromomethane	1.40925	1.39615	0.010	0.92925	30.00000	Averaged
11 Chloroethane	1.04152	1.01170	0.010	2.86335	30.00000	Averaged
13 Trichlorofluoromethane/Fr11	5.06644	5.59658	0.010	-10.46394	30.00000	Averaged
14 Ethanol	0.62580	0.64901	0.010	-3.70739	30.00000	Averaged
16 Freon 113	2.70551	2.34724	0.010	13.24219	30.00000	Averaged
15 1,1-Dichloroethene	3.19506	2.93129	0.010	8.25574	30.00000	Averaged
18 Acetone	3.69655	3.63007	0.010	1.79850	30.00000	Averaged
19 Carbon Disulfide	5.35872	5.24241	0.010	2.17043	30.00000	Averaged
22 2-Propanol	3.79277	3.16233	0.010	16.62205	30.00000	Averaged
25 Methylene Chloride	2.29031	2.29685	0.010	-0.28544	30.00000	Averaged
27 MTBE	5.48483	5.60147	0.010	-2.12646	30.00000	Averaged
28 trans-1,2-Dichloroethene	2.86827	2.88852	0.010	-0.70631	30.00000	Averaged
30 Hexane	2.98084	2.88100	0.010	3.34931	30.00000	Averaged
31 1,1-Dichloroethane	3.44745	3.39545	0.010	1.50835	30.00000	Averaged
35 cis-1,2-Dichloroethene	3.07172	2.99284	0.010	2.56805	30.00000	Averaged
34 2-Butanone	0.90197	0.86539	0.010	4.05580	30.00000	Averaged
36 Tetrahydrofuran	2.10955	2.02211	0.010	4.14499	30.00000	Averaged
38 Chloroform	3.95078	3.86589	0.010	2.14873	30.00000	Averaged
39 Cyclohexane	2.59248	2.54839	0.010	1.70080	30.00000	Averaged
40 1,1,1-Trichloroethane	3.69908	3.34444	0.010	9.58723	30.00000	Averaged
41 Carbon Tetrachloride	3.21648	2.49461	0.010	22.44294	30.00000	Averaged
44 Benzene	1.22118	1.20928	0.010	0.97397	30.00000	Averaged
45 1,2-Dichloroethane	0.63080	0.71201	0.010	-12.87290	30.00000	Averaged
46 Heptane	0.77822	0.80210	0.010	-3.06768	30.00000	Averaged
50 Trichloroethene	0.55436	0.54054	0.010	2.49391	30.00000	Averaged
51 1,2-Dichloropropane	0.38375	0.38742	0.010	-0.95832	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 29-APR-2004 09:28
Lab File ID: w042903.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-29apr.b/t141421.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF5	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
53 1,4-Dioxane	0.28996	0.32515	0.010	-12.13749	30.00000	Averaged
54 Bromodichloromethane	0.90601	0.85625	0.010	5.49219	30.00000	Averaged
55 cis-1,3-Dichloropropene	0.68344	0.67888	0.010	0.66789	30.00000	Averaged
56 4-Methyl-2-pentanone	1.00567	1.02619	0.010	-2.04109	30.00000	Averaged
58 Toluene	1.51591	1.60752	0.010	-6.04318	30.00000	Averaged
59 trans-1,3-Dichloropropene	0.75898	0.72733	0.010	4.16990	30.00000	Averaged
60 1,1,2-Trichloroethane	0.54699	0.55569	0.010	-1.59111	30.00000	Averaged
61 Tetrachloroethene	0.69225	0.71823	0.010	-3.75298	30.00000	Averaged
62 2-Hexanone	1.11859	1.06492	0.010	4.79735	30.00000	Averaged
63 Dibromochloromethane	0.91387	0.77704	0.010	14.97274	30.00000	Averaged
64 1,2-Dibromoethane	0.86464	0.89533	0.010	-3.54850	30.00000	Averaged
67 Chlorobenzene	1.41946	1.43462	0.010	-1.06808	30.00000	Averaged
68 Ethyl Benzene	0.76786	0.80457	0.010	-4.78041	30.00000	Averaged
70 m,p-Xylene	0.94583	0.99410	0.010	-5.10407	30.00000	Averaged
71 o-Xylene	0.90477	0.93328	0.010	-3.15028	30.00000	Averaged
72 Styrene	1.50383	1.53764	0.010	-2.24858	30.00000	Averaged
73 Bromoform	0.65631	0.53178	0.010	18.97357	30.00000	Averaged
74 Cumene	3.10976	3.34021	0.010	-7.41060	30.00000	Averaged
76 1,1,2,2-Tetrachloroethane	1.09259	1.17430	0.010	-7.47838	30.00000	Averaged
80 4-Ethyltoluene	2.47899	2.48321	0.010	-0.16994	30.00000	Averaged
81 1,3,5-Trimethylbenzene	2.40584	2.50886	0.010	-4.28212	30.00000	Averaged
162 Propylbenzene	3.63354	3.88889	0.010	-7.02755	30.00000	Averaged
82 1,2,4-Trimethylbenzene	2.35414	2.45836	0.010	-4.42716	30.00000	Averaged
84 1,3-Dichlorobenzene	1.43236	1.44359	0.010	-0.78365	30.00000	Averaged
85 1,4-Dichlorobenzene	1.45121	1.45797	0.010	-0.46555	30.00000	Averaged
86 alpha-Chlorotoluene	1.63213	1.27395	0.010	21.94552	30.00000	Averaged
88 1,2-Dichlorobenzene	1.32348	1.30528	0.010	1.37508	30.00000	Averaged
91 1,2,4-Trichlorobenzene	0.12848	0.11750	0.010	8.54198	30.00000	Averaged
92 Hexachlorobutadiene	0.11968	0.11977	0.010	-0.07445	30.00000	Averaged

Report Date: 29-Apr-2004 12:02

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 29-APR-2004 11:29
Lab File ID: w042905.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-29apr.b/t141421.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.82312	1.82208	0.010	0.05723	30.00000	Averaged
$ 57 Toluene-d8	0.99532	0.96759	0.010	2.78610	30.00000	Averaged
$ 75 Bromofluorobenzene	0.82367	0.79118	0.010	3.94464	30.00000	Averaged
12 Isopentane	2.00083	2.12425	0.010	-6.16851	40.00000	Averaged
26 2-Methylpentane	1.34563	1.59326	0.010	-18.40191	40.00000	Averaged
42 2,3-Dimethylpentane	0.66781	0.77010	0.010	-15.31824	40.00000	Averaged
47 2,2,4-Trimethylpentane	0.11257	0.13636	0.010	-21.12732	40.00000	Averaged
49 Thiophene	0.94407	1.10327	0.010	-16.86301	40.00000	Averaged
87 Indan	1.57483	1.77347	0.010	-12.61337	40.00000	Averaged
89 Indene	1.08178	1.37499	0.010	-27.10486	40.00000	Averaged
93 Naphthalene	0.21006	0.15811	0.010	24.73083	40.00000	Averaged

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0404477-17C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043002	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/30/04 09:49 AM	

Compound	%Recovery
Freon 12	97
Freon 114	100
Chloromethane	99
Vinyl Chloride	103
Bromomethane	93
Chloroethane	101
Freon 11	91
1,1-Dichloroethene	85
Freon 113	82
Methylene Chloride	99
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	98
Chloroform	93
1,1,1-Trichloroethane	80
Carbon Tetrachloride	65 Q
Benzene	96
1,2-Dichloroethane	96
Trichloroethene	91
1,2-Dichloropropane	102
cis-1,3-Dichloropropene	93
Toluene	102
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	97
Tetrachloroethene	93
1,2-Dibromoethane (EDB)	95
Chlorobenzene	93
Ethyl Benzene	97
m,p-Xylene	96
o-Xylene	97
Styrene	95
1,1,2,2-Tetrachloroethane	110
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	78
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	101
Propylene	108
1,3-Butadiene	100
Acetone	102

AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0404477-17C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w043002	**Date of Collection:**	NA
Dil. Factor:	1.00	**Date of Analysis:**	4/30/04 09:49 AM

Compound	%Recovery
Carbon Disulfide	104
2-Propanol	76
trans-1,2-Dichloroethene	98
2-Butanone (Methyl Ethyl Ketone)	98
Hexane	100
Tetrahydrofuran	104
Cyclohexane	99
1,4-Dioxane	103
Bromodichloromethane	85
4-Methyl-2-pentanone	102
2-Hexanone	92
Dibromochloromethane	72
Bromoform	73
4-Ethyltoluene	96
Ethanol	122
Methyl tert-butyl ether	102
Heptane	104
Naphthalene	94
2-Methylpentane	121
Isopentane	97
2,3-Dimethylpentane	121
2,2,4-Trimethylpentane	122
Indene	133
Indan	122
Thiophene	120

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	104	70-130
Toluene-d8	103	70-130

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Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 30-APR-2004 09:49
Lab File ID: w043002.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-30apr.b/t141421.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.82312	1.68091	0.010	7.80027	30.00000	Averaged
$ 57 Toluene-d8	0.99532	1.02599	0.010	-3.08176	30.00000	Averaged
$ 75 Bromofluorobenzene	0.82367	0.85539	0.010	-3.85037	30.00000	Averaged
2 Propylene	2.27609	2.44797	0.010	-7.55145	30.00000	Averaged
3 Dichlorodifluoromethane/Fr1	6.94316	6.75044	0.010	2.77572	30.00000	Averaged
4 Freon 114	3.82480	3.80764	0.010	0.44865	30.00000	Averaged
5 Chloromethane	2.43197	2.41027	0.010	0.89228	30.00000	Averaged
6 Vinyl Chloride	2.31938	2.39085	0.010	-3.08131	30.00000	Averaged
7 1,3-Butadiene	1.82649	1.82841	0.010	-0.10486	30.00000	Averaged
9 Bromomethane	1.40925	1.31121	0.010	6.95675	30.00000	Averaged
11 Chloroethane	1.04152	1.05335	0.010	-1.13554	30.00000	Averaged
13 Trichlorofluoromethane/Fr11	5.06644	4.62286	0.010	8.75523	30.00000	Averaged
14 Ethanol	0.62580	0.76044	0.010	-21.51380	30.00000	Averaged
16 Freon 113	2.70551	2.23284	0.010	17.47036	30.00000	Averaged
15 1,1-Dichloroethene	3.19506	2.70476	0.010	15.34571	30.00000	Averaged
18 Acetone	3.69655	3.76877	0.010	-1.95385	30.00000	Averaged
19 Carbon Disulfide	5.35872	5.57925	0.010	-4.11552	30.00000	Averaged
22 2-Propanol	3.79277	2.89663	0.010	23.62754	30.00000	Averaged
25 Methylene Chloride	2.29031	2.26142	0.010	1.26156	30.00000	Averaged
27 MTBE	5.48483	5.57693	0.010	-1.67906	30.00000	Averaged
28 trans-1,2-Dichloroethene	2.86827	2.81008	0.010	2.02858	30.00000	Averaged
30 Hexane	2.98084	2.98260	0.010	-0.05900	30.00000	Averaged
31 1,1-Dichloroethane	3.44745	3.39888	0.010	1.40872	30.00000	Averaged
35 cis-1,2-Dichloroethene	3.07172	3.02052	0.010	1.66673	30.00000	Averaged
34 2-Butanone	0.90197	0.88744	0.010	1.61120	30.00000	Averaged
36 Tetrahydrofuran	2.10955	2.19347	0.010	-3.97814	30.00000	Averaged
38 Chloroform	3.95078	3.69187	0.010	6.55338	30.00000	Averaged
39 Cyclohexane	2.59248	2.57519	0.010	0.66699	30.00000	Averaged
40 1,1,1-Trichloroethane	3.69908	2.96350	0.010	19.88538	30.00000	Averaged
41 Carbon Tetrachloride	3.21648	2.10329	0.010	34.60906	30.00000	Averaged <-
44 Benzene	1.22118	1.17629	0.010	3.67546	30.00000	Averaged
45 1,2-Dichloroethane	0.63080	0.60567	0.010	3.98472	30.00000	Averaged
46 Heptane	0.77822	0.80600	0.010	-3.56905	30.00000	Averaged
50 Trichloroethene	0.55436	0.50424	0.010	9.04119	30.00000	Averaged
51 1,2-Dichloropropane	0.38375	0.39147	0.010	-2.01171	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 30-APR-2004 09:49
Lab File ID: w043002.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdw.i/w-30apr.b/t141421.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
53 1,4-Dioxane	0.28996	0.29968	0.010	-3.35355	30.00000	Averaged
54 Bromodichloromethane	0.90601	0.76827	0.010	15.20238	30.00000	Averaged
55 cis-1,3-Dichloropropene	0.68344	0.63878	0.010	6.53456	30.00000	Averaged
56 4-Methyl-2-pentanone	1.00567	1.02402	0.010	-1.82486	30.00000	Averaged
58 Toluene	1.51591	1.54170	0.010	-1.70109	30.00000	Averaged
59 trans-1,3-Dichloropropene	0.75898	0.65395	0.010	13.83866	30.00000	Averaged
60 1,1,2-Trichloroethane	0.54699	0.52923	0.010	3.24691	30.00000	Averaged
61 Tetrachloroethene	0.69225	0.64523	0.010	6.79298	30.00000	Averaged
62 2-Hexanone	1.11859	1.02913	0.010	7.99698	30.00000	Averaged
63 Dibromochloromethane	0.91387	0.66232	0.010	27.52584	30.00000	Averaged
64 1,2-Dibromoethane	0.86464	0.82512	0.010	4.57121	30.00000	Averaged
67 Chlorobenzene	1.41946	1.32361	0.010	6.75227	30.00000	Averaged
68 Ethyl Benzene	0.76786	0.74437	0.010	3.05960	30.00000	Averaged
70 m,p-Xylene	0.94583	0.91182	0.010	3.59516	30.00000	Averaged
71 o-Xylene	0.90477	0.87740	0.010	3.02508	30.00000	Averaged
72 Styrene	1.50383	1.43417	0.010	4.63191	30.00000	Averaged
73 Bromoform	0.65631	0.48112	0.010	26.69334	30.00000	Averaged
76 1,1,2,2-Tetrachloroethane	1.09259	1.19965	0.010	-9.79907	30.00000	Averaged
80 4-Ethyltoluene	2.47899	2.38773	0.010	3.68154	30.00000	Averaged
81 1,3,5-Trimethylbenzene	2.40584	2.43087	0.010	-1.04033	30.00000	Averaged
82 1,2,4-Trimethylbenzene	2.35414	2.42913	0.010	-3.18557	30.00000	Averaged
84 1,3-Dichlorobenzene	1.43236	1.46355	0.010	-2.17745	30.00000	Averaged
85 1,4-Dichlorobenzene	1.45121	1.47714	0.010	-1.78703	30.00000	Averaged
86 alpha-Chlorotoluene	1.63213	1.28032	0.010	21.55514	30.00000	Averaged
88 1,2-Dichlorobenzene	1.32348	1.40606	0.010	-6.23976	30.00000	Averaged
91 1,2,4-Trichlorobenzene	0.12848	0.11547	0.010	10.12095	30.00000	Averaged
92 Hexachlorobutadiene	0.11968	0.12092	0.010	-1.03019	30.00000	Averaged

Report Date: 30-Apr-2004 12:55

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdw.i Injection Date: 30-APR-2004 12:27
Lab File ID: w043005.d Init. Cal. Date(s): 20-APR-2004 21-APR-2004
Analysis Type: AIR Init. Cal. Times: 14:19 20:59
Lab Sample ID: Quant Type: ISTD
Method: /chem/msdw.i/w-30apr.b/t141421.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 43 1,2-Dichloroethane-d4	1.82312	1.68917	0.010	7.34768	30.00000	Averaged
$ 57 Toluene-d8	0.99532	0.98375	0.010	1.16276	30.00000	Averaged
$ 75 Bromofluorobenzene	0.82367	0.80202	0.010	2.62806	30.00000	Averaged
12 Isopentane	2.00083	1.93083	0.010	3.49877	40.00000	Averaged
26 2-Methylpentane	1.34563	1.62901	0.010	-21.05887	40.00000	Averaged
42 2,3-Dimethylpentane	0.66781	0.80702	0.010	-20.84591	40.00000	Averaged
47 2,2,4-Trimethylpentane	0.11257	0.13762	0.010	-22.25159	40.00000	Averaged
49 Thiophene	0.94407	1.13690	0.010	-20.42483	40.00000	Averaged
87 Indan	1.57483	1.91996	0.010	-21.91528	40.00000	Averaged
89 Indene	1.08178	1.44003	0.010	-33.11690	40.00000	Averaged
93 Naphthalene	0.21006	0.19730	0.010	6.07242	40.00000	Averaged

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0404477-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/28/04 10:45 AM**	

Compound	%Recovery
Freon 12	119
Freon 114	114
Chloromethane	105
Vinyl Chloride	116
Bromomethane	128
Chloroethane	125
Freon 11	125
1,1-Dichloroethene	113
Freon 113	120
Methylene Chloride	106
1,1-Dichloroethane	110
cis-1,2-Dichloroethene	95
Chloroform	113
1,1,1-Trichloroethane	122
Carbon Tetrachloride	119
Benzene	118
1,2-Dichloroethane	128
Trichloroethene	129
1,2-Dichloropropane	127
cis-1,3-Dichloropropene	130
Toluene	117
trans-1,3-Dichloropropene	124
1,1,2-Trichloroethane	114
Tetrachloroethene	116
1,2-Dibromoethane (EDB)	107
Chlorobenzene	112
Ethyl Benzene	112
m,p-Xylene	110
o-Xylene	107
Styrene	117
1,1,2,2-Tetrachloroethane	104
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	116
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	59 Q
Hexachlorobutadiene	66 Q
Propylene	105
1,3-Butadiene	103
Acetone	109

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0404477-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/28/04 10:45 AM**	

Compound	%Recovery
Carbon Disulfide	113
2-Propanol	95
trans-1,2-Dichloroethene	119
2-Butanone (Methyl Ethyl Ketone)	116
Hexane	115
Tetrahydrofuran	128
Cyclohexane	122
1,4-Dioxane	135
Bromodichloromethane	120
4-Methyl-2-pentanone	121
2-Hexanone	112
Dibromochloromethane	113
Bromoform	99
4-Ethyltoluene	107
Ethanol	114
Methyl tert-butyl ether	114
Heptane	121
Naphthalene	Not Spiked
2-Methylpentane	Not Spiked
Isopentane	Not Spiked
2,3-Dimethylpentane	Not Spiked
2,2,4-Trimethylpentane	Not Spiked
Indene	Not Spiked
Indan	Not Spiked
Thiophene	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

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

Report Date: 10-May-2004 13:57

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: w-28apr
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: MJ
Data Type: MS DATA SampleType: LCS
SpikeList File: AT-VA.spk Quant Type: ISTD
Sublist File: AT-VA.sub
Method File: /chem/msdw.i/w-28apr.b/t141421.m
Misc Info: 5.0ppbv (50ml)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	5.260	105.21	60-140
3 Dichlorodifluorome	5.000	5.958	119.16	70-130
4 Freon 114	5.000	5.676	113.52	70-130
5 Chloromethane	5.000	5.232	104.63	70-130
6 Vinyl Chloride	5.000	5.796	115.93	70-130
7 1,3-Butadiene	5.000	5.138	102.75	60-140
9 Bromomethane	5.000	6.381	127.61	70-130
11 Chloroethane	5.000	6.256	125.13	70-130
13 Trichlorofluoromet	5.000	6.273	125.47	70-130
14 Ethanol	5.000	5.690	113.81	60-140
16 Freon 113	5.000	5.979	119.58	70-130
15 1,1-Dichloroethene	5.000	5.674	113.47	70-130
18 Acetone	5.000	5.430	108.61	60-140
19 Carbon Disulfide	5.000	5.650	113.01	60-140
22 2-Propanol	5.000	4.751	95.02	60-140
25 Methylene Chloride	5.000	5.307	106.14	70-130
27 MTBE	5.000	5.723	114.47	60-140
28 trans-1,2-Dichloro	5.000	5.941	118.82	60-140
30 Hexane	5.000	5.768	115.37	60-140
31 1,1-Dichloroethane	5.000	5.514	110.28	70-130
35 cis-1,2-Dichloroet	5.000	4.752	95.03	70-130
34 2-Butanone	5.000	5.805	116.10	60-140
36 Tetrahydrofuran	5.000	6.413	128.26	60-140
38 Chloroform	5.000	5.673	113.45	70-130
39 Cyclohexane	5.000	6.082	121.63	60-140
40 1,1,1-Trichloroeth	5.000	6.077	121.53	70-130
41 Carbon Tetrachlori	5.000	5.961	119.21	70-130
44 Benzene	5.000	5.922	118.45	70-130
45 1,2-Dichloroethane	5.000	6.392	127.85	70-130
46 Heptane	5.000	6.060	121.20	60-140
50 Trichloroethene	5.000	6.460	129.21	70-130
51 1,2-Dichloropropan	5.000	6.335	126.70	70-130
53 1,4-Dioxane	5.000	6.733	134.67	60-140

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
54 Bromodichlorometha	5.000	5.994	119.89	60-140
55 cis-1,3-Dichloropr	5.000	6.482	129.64	70-130
56 4-Methyl-2-pentano	5.000	6.046	120.93	60-140
58 Toluene	5.000	5.844	116.89	70-130
59 trans-1,3-Dichloro	5.000	6.196	123.92	70-130
60 1,1,2-Trichloroeth	5.000	5.727	114.54	70-130
61 Tetrachloroethene	5.000	5.797	115.94	70-130
62 2-Hexanone	5.000	5.618	112.36	60-140
63 Dibromochlorometha	5.000	5.647	112.94	60-140
64 1,2-Dibromoethane	5.000	5.360	107.20	70-130
67 Chlorobenzene	5.000	5.615	112.30	70-130
68 Ethyl Benzene	5.000	5.628	112.56	70-130
70 m,p-Xylene	10.000	11.013	110.13	70-130
71 o-Xylene	5.000	5.374	107.49	70-130
72 Styrene	5.000	5.838	116.77	70-130
73 Bromoform	5.000	4.956	99.12	60-140
74 Cumene	5.000	5.472	109.44	60-140
76 1,1,2,2-Tetrachlor	5.000	5.217	104.33	70-130
80 4-Ethyltoluene	5.000	5.344	106.88	60-140
81 1,3,5-Trimethylben	5.000	5.001	100.02	70-130
162 Propylbenzene	5.000	4.017	80.35	60-140
82 1,2,4-Trimethylben	5.000	4.615	92.30	70-130
84 1,3-Dichlorobenzen	5.000	5.086	101.71	70-130
85 1,4-Dichlorobenzen	5.000	4.698	93.96	70-130
86 alpha-Chlorotoluen	5.000	5.827	116.55	70-130
88 1,2-Dichlorobenzen	5.000	4.708	94.16	70-130
91 1,2,4-Trichloroben	5.000	2.966	59.33*	70-130
92 Hexachlorobutadien	5.000	3.284	65.69*	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 43 1,2-Dichloroethane	5.000	4.894	97.89	70-130
$ 57 Toluene-d8	5.000	5.200	104.00	70-130
$ 75 Bromofluorobenzene	5.000	4.946	98.92	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0404477-18B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	w042904	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/29/04 10:45 AM	

Compound	%Recovery
Freon 12	121
Freon 114	113
Chloromethane	103
Vinyl Chloride	117
Bromomethane	114
Chloroethane	121
Freon 11	123
1,1-Dichloroethene	110
Freon 113	115
Methylene Chloride	100
1,1-Dichloroethane	105
cis-1,2-Dichloroethene	93
Chloroform	108
1,1,1-Trichloroethane	117
Carbon Tetrachloride	112
Benzene	114
1,2-Dichloroethane	124
Trichloroethene	123
1,2-Dichloropropane	121
cis-1,3-Dichloropropene	122
Toluene	113
trans-1,3-Dichloropropene	119
1,1,2-Trichloroethane	113
Tetrachloroethene	112
1,2-Dibromoethane (EDB)	106
Chlorobenzene	109
Ethyl Benzene	110
m,p-Xylene	107
o-Xylene	104
Styrene	115
1,1,2,2-Tetrachloroethane	105
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	120
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	84
Propylene	107
1,3-Butadiene	102
Acetone	105

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0404477-18B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w042904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/29/04 10:45 AM**	

Compound	%Recovery
Carbon Disulfide	106
2-Propanol	85
trans-1,2-Dichloroethene	112
2-Butanone (Methyl Ethyl Ketone)	110
Hexane	112
Tetrahydrofuran	121
Cyclohexane	116
1,4-Dioxane	128
Bromodichloromethane	115
4-Methyl-2-pentanone	116
2-Hexanone	108
Dibromochloromethane	108
Bromoform	95
4-Ethyltoluene	107
Ethanol	102
Methyl tert-butyl ether	112
Heptane	115
Naphthalene	Not Spiked
2-Methylpentane	Not Spiked
Isopentane	Not Spiked
2,3-Dimethylpentane	Not Spiked
2,2,4-Trimethylpentane	Not Spiked
Indene	Not Spiked
Indan	Not Spiked
Thiophene	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	101	70-130
Toluene-d8	103	70-130

Report Date: 10-May-2004 13:56

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: w-29apr
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: nk
Data Type: MS DATA SampleType: LCS
SpikeList File: AT-VA.spk Quant Type: ISTD
Sublist File: AT-VA.sub
Method File: /chem/msdw.i/w-29apr.b/t141421.m
Misc Info: 5.0ppbv[50ml]

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	5.364	107.29	60-140
3 Dichlorodifluorome	5.000	6.069	121.38	70-130
4 Freon 114	5.000	5.668	113.35	70-130
5 Chloromethane	5.000	5.150	102.99	70-130
6 Vinyl Chloride	5.000	5.850	117.00	70-130
7 1,3-Butadiene	5.000	5.092	101.84	60-140
9 Bromomethane	5.000	5.728	114.55	70-130
11 Chloroethane	5.000	6.033	120.66	70-130
13 Trichlorofluoromet	5.000	6.168	123.37	70-130
14 Ethanol	5.000	5.089	101.78	60-140
16 Freon 113	5.000	5.731	114.62	70-130
15 1,1-Dichloroethene	5.000	5.487	109.74	70-130
18 Acetone	5.000	5.236	104.72	60-140
19 Carbon Disulfide	5.000	5.310	106.20	60-140
22 2-Propanol	5.000	4.270	85.39	60-140
25 Methylene Chloride	5.000	5.026	100.52	70-130
27 MTBE	5.000	5.605	112.11	60-140
28 trans-1,2-Dichloro	5.000	5.606	112.13	60-140
30 Hexane	5.000	5.587	111.74	60-140
31 1,1-Dichloroethane	5.000	5.251	105.03	70-130
35 cis-1,2-Dichloroet	5.000	4.672	93.44	70-130
34 2-Butanone	5.000	5.523	110.46	60-140
36 Tetrahydrofuran	5.000	6.037	120.75	60-140
38 Chloroform	5.000	5.405	108.10	70-130
39 Cyclohexane	5.000	5.789	115.78	60-140
40 1,1,1-Trichloroeth	5.000	5.841	116.83	70-130
41 Carbon Tetrachlori	5.000	5.582	111.65	70-130
44 Benzene	5.000	5.680	113.61	70-130
45 1,2-Dichloroethane	5.000	6.229	124.59	70-130
46 Heptane	5.000	5.769	115.39	60-140
50 Trichloroethene	5.000	6.142	122.84	70-130
51 1,2-Dichloropropan	5.000	6.036	120.73	70-130
53 1,4-Dioxane	5.000	6.410	128.19	60-140

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
54 Bromodichlorometha	5.000	5.748	114.96	60-140
55 cis-1,3-Dichloropr	5.000	6.094	121.87	70-130
56 4-Methyl-2-pentano	5.000	5.820	116.41	60-140
58 Toluene	5.000	5.663	113.26	70-130
59 trans-1,3-Dichloro	5.000	5.971	119.42	70-130
60 1,1,2-Trichloroeth	5.000	5.637	112.73	70-130
61 Tetrachloroethene	5.000	5.593	111.86	70-130
62 2-Hexanone	5.000	5.408	108.17	60-140
63 Dibromochlorometha	5.000	5.415	108.30	60-140
64 1,2-Dibromoethane	5.000	5.293	105.86	70-130
67 Chlorobenzene	5.000	5.440	108.81	70-130
68 Ethyl Benzene	5.000	5.523	110.46	70-130
70 m,p-Xylene	10.000	10.687	106.87	70-130
71 o-Xylene	5.000	5.229	104.58	70-130
72 Styrene	5.000	5.735	114.71	70-130
73 Bromoform	5.000	4.741	94.82	60-140
74 Cumene	5.000	5.364	107.29	60-140
76 1,1,2,2-Tetrachlor	5.000	5.241	104.81	70-130
80 4-Ethyltoluene	5.000	5.362	107.25	60-140
81 1,3,5-Trimethylben	5.000	5.075	101.50	70-130
162 Propylbenzene	5.000	4.004	80.09	60-140
82 1,2,4-Trimethylben	5.000	4.745	94.90	70-130
84 1,3-Dichlorobenzen	5.000	5.229	104.58	70-130
85 1,4-Dichlorobenzen	5.000	4.812	96.25	70-130
86 alpha-Chlorotoluen	5.000	6.018	120.35	70-130
88 1,2-Dichlorobenzen	5.000	4.970	99.40	70-130
91 1,2,4-Trichloroben	5.000	3.737	74.74	70-130
92 Hexachlorobutadien	5.000	4.196	83.92	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 43 1,2-Dichloroethane	5.000	4.960	99.20	70-130
$ 57 Toluene-d8	5.000	5.164	103.29	70-130
$ 75 Bromofluorobenzene	5.000	5.054	101.07	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0404477-18C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w043003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/30/04 10:39 AM**	

Compound	%Recovery
Freon 12	108
Freon 114	106
Chloromethane	101
Vinyl Chloride	115
Bromomethane	109
Chloroethane	126
Freon 11	116
1,1-Dichloroethene	109
Freon 113	117
Methylene Chloride	102
1,1-Dichloroethane	110
cis-1,2-Dichloroethene	96
Chloroform	109
1,1,1-Trichloroethane	112
Carbon Tetrachloride	105
Benzene	119
1,2-Dichloroethane	117
Trichloroethene	118
1,2-Dichloropropane	130
cis-1,3-Dichloropropene	125
Toluene	116
trans-1,3-Dichloropropene	118
1,1,2-Trichloroethane	114
Tetrachloroethene	112
1,2-Dibromoethane (EDB)	105
Chlorobenzene	110
Ethyl Benzene	110
m,p-Xylene	107
o-Xylene	105
Styrene	113
1,1,2,2-Tetrachloroethane	116
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	115
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	81
Hexachlorobutadiene	95
Propylene	102
1,3-Butadiene	101
Acetone	109

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0404477-18C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**w043003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/30/04 10:39 AM**	

Compound	%Recovery
Carbon Disulfide	113
2-Propanol	92
trans-1,2-Dichloroethene	117
2-Butanone (Methyl Ethyl Ketone)	116
Hexane	118
Tetrahydrofuran	132
Cyclohexane	121
1,4-Dioxane	134
Bromodichloromethane	112
4-Methyl-2-pentanone	123
2-Hexanone	109
Dibromochloromethane	106
Bromoform	95
4-Ethyltoluene	108
Ethanol	113
Methyl tert-butyl ether	115
Heptane	121
Naphthalene	Not Spiked
2-Methylpentane	Not Spiked
Isopentane	Not Spiked
2,3-Dimethylpentane	Not Spiked
2,2,4-Trimethylpentane	Not Spiked
Indene	Not Spiked
Indan	Not Spiked
Thiophene	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	98	70-130
Toluene-d8	102	70-130

Report Date: 10-May-2004 13:56

Air Toxics Ltd.

RECOVERY REPORT

Client Name:
Client SDG: w-30apr
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: BD
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT-VA.spk
Quant Type: ISTD
Sublist File: AT-VA.sub
Method File: /chem/msdw.i/w-30apr.b/t141421.m
Misc Info: 50mL [5.0ppbv]

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
2 Propylene	5.000	5.096	101.92	60-140
3 Dichlorodifluorome	5.000	5.376	107.51	70-130
4 Freon 114	5.000	5.289	105.78	70-130
5 Chloromethane	5.000	5.054	101.08	70-130
6 Vinyl Chloride	5.000	5.742	114.85	70-130
7 1,3-Butadiene	5.000	5.046	100.92	60-140
9 Bromomethane	5.000	5.434	108.69	70-130
11 Chloroethane	5.000	6.283	125.65	70-130
13 Trichlorofluoromet	5.000	5.788	115.77	70-130
14 Ethanol	5.000	5.649	112.98	60-140
16 Freon 113	5.000	5.842	116.85	70-130
15 1,1-Dichloroethene	5.000	5.449	108.97	70-130
18 Acetone	5.000	5.453	109.06	60-140
19 Carbon Disulfide	5.000	5.639	112.78	60-140
22 2-Propanol	5.000	4.592	91.84	60-140
25 Methylene Chloride	5.000	5.116	102.33	70-130
27 MTBE	5.000	5.737	114.74	60-140
28 trans-1,2-Dichloro	5.000	5.854	117.08	60-140
30 Hexane	5.000	5.889	117.79	60-140
31 1,1-Dichloroethane	5.000	5.484	109.68	70-130
35 cis-1,2-Dichloroet	5.000	4.790	95.80	70-130
34 2-Butanone	5.000	5.784	115.69	60-140
36 Tetrahydrofuran	5.000	6.591	131.83	60-140
38 Chloroform	5.000	5.464	109.29	70-130
39 Cyclohexane	5.000	6.044	120.88	60-140
40 1,1,1-Trichloroeth	5.000	5.586	111.72	70-130
41 Carbon Tetrachlori	5.000	5.254	105.08	70-130
44 Benzene	5.000	5.946	118.92	70-130
45 1,2-Dichloroethane	5.000	5.830	116.61	70-130
46 Heptane	5.000	6.070	121.40	60-140
50 Trichloroethene	5.000	5.906	118.12	70-130
51 1,2-Dichloropropan	5.000	6.475	129.50	70-130
53 1,4-Dioxane	5.000	6.716	134.31	60-140

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
54 Bromodichlorometha	5.000	5.617	112.34	60-140
55 cis-1,3-Dichloropr	5.000	6.256	125.12	70-130
56 4-Methyl-2-pentano	5.000	6.132	122.64	60-140
58 Toluene	5.000	5.791	115.82	70-130
59 trans-1,3-Dichloro	5.000	5.907	118.14	70-130
60 1,1,2-Trichloroeth	5.000	5.726	114.51	70-130
61 Tetrachloroethene	5.000	5.596	111.92	70-130
62 2-Hexanone	5.000	5.467	109.34	60-140
63 Dibromochlorometha	5.000	5.276	105.51	60-140
64 1,2-Dibromoethane	5.000	5.245	104.89	70-130
67 Chlorobenzene	5.000	5.523	110.47	70-130
68 Ethyl Benzene	5.000	5.506	110.11	70-130
70 m,p-Xylene	10.000	10.664	106.64	70-130
71 o-Xylene	5.000	5.253	105.05	70-130
72 Styrene	5.000	5.634	112.67	70-130
73 Bromoform	5.000	4.730	94.61	60-140
74 Cumene	5.000	5.360	107.20	60-140
76 1,1,2,2-Tetrachlor	5.000	5.786	115.71	70-130
80 4-Ethyltoluene	5.000	5.378	107.57	60-140
81 1,3,5-Trimethylben	5.000	5.045	100.90	70-130
162 Propylbenzene	5.000	3.942	78.83	60-140
82 1,2,4-Trimethylben	5.000	4.730	94.59	70-130
84 1,3-Dichlorobenzen	5.000	5.208	104.16	70-130
85 1,4-Dichlorobenzen	5.000	4.800	96.00	70-130
86 alpha-Chlorotoluen	5.000	5.741	114.81	70-130
88 1,2-Dichlorobenzen	5.000	4.937	98.75	70-130
91 1,2,4-Trichloroben	5.000	4.051	81.02	70-130
92 Hexachlorobutadien	5.000	4.770	95.40	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 43 1,2-Dichloroethane	5.000	4.634	92.68	70-130
$ 57 Toluene-d8	5.000	5.094	101.89	70-130
$ 75 Bromofluorobenzene	5.000	4.906	98.11	70-130

Project No. CECN 8 - 16916 - 224 | Page 1 of 1
Client ConEd | Date 05/21/04
Site River Place 1 | By GAM
Subject Sample calculations | App.

RETEC

AMB-01 0404477-01A Isopentane = 2.3 ppbv

$$\text{Conc. (ppbv)} = \frac{(\text{Compound Area Count}) \times (\text{IS conc.}) \times DF}{(\text{IS Area Count}) \times (\text{ICAL } \overline{RRF})}$$

$$= \frac{(212349)(5.0)(1.41)}{(326406)(2.00083)} = 2.2922 \text{ ppbv} \checkmark$$

IS = bromochloromethane

G. A. MaGone 05/21/04

Air Toxics Ltd.

AMBIENT AIR METHOD TO14/TO15 Low Level

Data file : /chem/msdw.i/w-28apr.b/w042811.d
Lab Smp Id: 0404477-01A Client Smp ID: AMB-01
Inj Date : 28-APR-2004 18:35
Operator : WW Inst ID: msdw.i
Smp Info : 1000ml Can#31426
Misc Info : 1.5"Hg-5psi Retec
Comment :
Method : /chem/msdw.i/w-28apr.b/t141421.m
Meth Date : 06-May-2004 19:58 nkhan Quant Type: ISTD
Cal Date : 21-APR-2004 17:47 Cal File: w042112.d
Als bottle: 1
Dil Factor: 1.41000
Integrator: HP RTE Compound Sublist: Retec4979.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 37 Bromochloromethane					CAS #: 74-97-5			
15.235	15.235 (1.000)	130	326406	5.00000		80.00- 120.00	100.00	(H)
15.235	15.235 (1.000)	128	261057			28.57- 128.57	79.98	
15.235	15.235 (1.000)	49	475340			99.01- 199.01	145.63	
* 48 1,4-Difluorobenzene					CAS #: 540-36-3			
16.670	16.670 (1.000)	114	1389147	5.00000		80.00- 120.00	100.00	9225
16.670	16.670 (0.000)	88	80632			0.00- 67.80	5.80	
* 66 Chlorobenzene-d5					CAS #: 3114-55-4			
21.003	21.003 (1.000)	117	1224566	5.00000		80.00- 120.00	100.00	
21.003	21.003 (1.000)	82	721799			8.37- 108.37	58.94	
$ 43 1,2-Dichloroethane-d4					CAS #: 17060-07-0			
16.118	16.118 (1.058)	65	596810	5.01455	5.014	80.00- 120.00	100.00	10000
16.118	16.118 (0.000)	67	97422			0.08- 100.08	16.32	
$ 57 Toluene-d8					CAS #: 2037-26-5			
18.795	18.795 (1.127)	98	1389798	5.02587	5.026	80.00- 120.00	100.00	9950
18.795	18.795 (0.000)	70	47191			0.00- 60.52	3.40	

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
70 m,p-Xylene					CAS #: 108-38-3			
21.306	21.306 (1.014)	106	144925	0.62563	0.8821	80.00- 120.00	100.00	
21.306	21.306 (1.014)	91	292366			147.87- 247.87	201.74	
71 o-Xylene					CAS #: 95-47-6			
21.941	21.941 (1.045)	106	46520	0.20994	0.2960	80.00- 120.00	100.00	8734
21.941	21.941 (0.000)	91	34808			159.78- 259.78	74.82	
82 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
24.011	24.011 (1.143)	105	127497	0.22113	0.3118	80.00- 120.00	100.00	8703
24.011	24.011 (0.000)	120	19728			0.00- 92.39	15.47	
26 2-Methylpentane					CAS #: 107-83-5			
12.447	12.447 (0.817)	71	53767	0.61207	0.8630	80.00- 120.00	100.00	7681(Q)
12.447	12.447 (0.000)	43	28040			233.95- 333.95	52.15	
12.447	12.447 (0.000)	42	9231			94.11- 194.11	17.17	
12 Isopentane					CAS #: 78-78-4			
9.218	9.191 (0.605)	57	212349	1.62574	2.292	80.00- 120.00	100.00	7509
9.218	9.191 (0.000)	43	57410			97.29- 197.29	27.04	
9.218	9.191 (0.000)	42	49152			77.71- 177.71	23.15	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.