

Indoor Air Monitoring Report

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Richmond Field Station, Richmond, California

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ACRONYMS AND ABBREVIATIONS

ARB	Air Resources Board
ATSDR	Agency for Toxic Substances and Disease Registry
BASE Study	Building Assessment and Evaluation Study
CDHS	California Department of Health Services
CDPH	California Department of Public Health
CVS	Cherokee Simeon Ventures
DCA	Dichloroethane
DCE	Dichloroethylene
DL	Detection Limit
EHIB	Environmental Health Investigations Branch
EPA	Federal Environmental Protection Agency
LOQ	Limits of Quantification
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
NIOSH	National Institute of Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PCE	Tetrachloroethylene
PEL	Permissible Exposure Limit
PHA	Public Health Assessment
ppm	Parts Per Million
RFS	Richmond Field Station
SIM	Selective ion monitoring
TCE	Trichloroethylene
Tetra Tech	Tetra Tech EM Inc.
UC Berkeley	University of California, Berkeley
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This indoor air monitoring report has been prepared by Tetra Tech EM Inc. (Tetra Tech) on behalf of The Regents of the University of California. The air monitoring effort was completed based on recommendations from the California Department of Public Health (CDPH) August 2007 Draft Public Health Assessment (PHA) for Evaluation of Exposure to Contaminants at the University of California, Berkeley (UC Berkeley), Richmond Field Station (RFS). (This Draft PHA was finalized in March 2008 by the Agency for Toxic Substances and Disease Registry with equivalent recommendations.) In the PHA, the CDPH commented on previous sampling events performed at RFS and recommended further evaluation of indoor air quality for formaldehyde and arsenic (CDPH 2007). Rather than limit the study to these compounds, UC Berkeley decided to perform a more comprehensive evaluation. Twelve sampling locations were selected and the samples were analyzed for the following constituents of concern, many of which are not historical chemicals of concern at RFS but may be present in soil and/or groundwater at nearby sites:

- Formaldehyde
- Trichloroethylene (TCE)
- Tetrachloroethylene (PCE)
- Dichloroethylene (DCE)
- Vinyl chloride
- Benzene
- Methylene chloride
- 1,2-Dichloroethane (1,2-DCA)
- Chloroform
- Arsenic

Air monitoring was performed between October 2007 and February 2008, and consisted of eight separate 24-hour events. The air monitoring was completed using stationary air collection equipment for indoor and outdoor locations. The scope of work for this project included comparison of results to indoor air quality studies performed by state and federal agencies at other sites in California and across the United States, to determine if they were values typical of indoor air. Studies used for these comparisons are listed in Section 5.0.

This report is presented in seven sections and includes appendices comprised of a photo log of the sampling locations, field data summary sheets, laboratory analytical results, and wind roses for the sampling events. Section 1 provides the introduction. Section 2 provides a site background and description of sampling locations. Section 3 provides a detailed description of sample collection, equipment, and methods. Section 4 presents the air monitoring data summary and deviations. Section 5 reviews the results and provides data interpretation. Section 6 provides a conclusion. Section 7 provides references.

2.0 SITE DESCRIPTION AND SAMPLING LOCATIONS

2.1 *Site Description*

The RFS is owned by The Regents of the University of California and is located at 1301 South 46th Street in Richmond, California, in western Contra Costa County. The RFS is situated south and west of Highway 580; approximately five miles northwest of UC Berkeley's central campus (see Figure 1).

The RFS property is 152 acres, consisting of approximately 100 acres of uplands, with the remainder of the property consisting of tidal marsh or bay lands (offshore areas). The climate is characterized as Mediterranean. The average annual precipitation in the area is 22 inches. The precipitation occurs mostly in the winter, with the most rain typically falling in January. Residences, public areas, and facilities exist within a 1-mile radius of RFS. The upland portion of the RFS property is adjacent to vulnerable or sensitive animal populations and habitats and natural resources, including a tidal salt marsh and coastal terrace prairie. Several industrial sites border the RFS property to the north, west, and east. Bio-Rad Laboratories is located to the west of the RFS. The adjacent property to the east of RFS is the location of former chemical production operations previously owned by several entities, including Stauffer Chemical and Zeneca, and is currently owned by Cherokee Simeon Ventures (CSV). The former Liquid Gold Corporation site is located east of the former Zeneca site. Hoffman Marsh and Point Isabel are also located slightly farther to the east, approximately 1.5 miles from RFS. The City of Richmond has a population of approximately 100,000 and surrounds the property to the north, west, and east.

2.2 *Sampling Locations*

The sampling locations at RFS were located in the uplands portion of the property, as shown on Figure 2. Some sample collection locations were selected based on the locations of previous sampling events, and others were selected as new locations to get a comprehensive representation of indoor and outdoor air on site. Each location is discussed below. Photographs were taken at each of the sampling locations, see Appendix A.

Building 155

Building 155 is occupied by the Technology Transfer department; part of the Institute for Transportation Studies that trains engineers and planners hired by Caltrans. The sample 155-01 was a new location, chosen because of reports of historic occupant complaints of odors and poor indoor air quality. The sample collection equipment was placed on top of a filing cabinet in the main room of the building, where copying, packing, and shipping activities occurred.

Building 163

Building 163 is occupied by the Ergonomics Program affiliated with the UC Center for Occupational and Environmental Health. Their research consists of testing subjects for

chronic musculoskeletal disorders primarily focusing on subjects during computer use. Most research in this area does not involve hazardous materials; however, formaldehyde-preserved specimens may be used for research on occasion. Samples were collected at three locations in Building 163. The location of 163-01 was chosen based on a previous sampling event. The sample collection equipment was placed on a small tray table in a hallway for offices, next to a door to the outside hallway. Across the hall is a mechanical room, which houses two gas furnaces. The location of 163-02, an office similar in size and configuration to those near it, was chosen as a space representative of all office space in the building. During the time of the sample collection, the office was unoccupied and used for storage and a place for guests to access the internet while waiting for experiments to finish. The outdoor location 163-03 was chosen as a replicate of previous sampling locations. This location was on the property boundary with the CSV site and monitored outdoor ambient air in the vicinity of Building 163.

Building 175

Building 175 was previously occupied by RFS administrative and facilities maintenance staff. These staff members were in the process of moving into Building 478 during the sample collection period. Two locations were sampled at Building 175; both were re-sample locations based on previous sampling activities. Equipment for location 175-01 was placed on a small tray table in the lobby of the administrative offices. There are double doors on either end of the lobby that lead outside, and on the other end, to an unused carpentry shop. The outdoor location, 175-02, was located on the roof of the building, and represented ambient air in a centrally located area of the RFS property.

Building 177

Building 177 is occupied by administrative activities for the Institute for Transportation Studies. Sample location 177-01 was chosen because of reports of historic occupant complaints of odors and poor indoor air quality. The location chosen for sample collection was a centrally located, unoccupied office in a hallway of occupied offices.

Building 478

Building 478 was historically used as the Forest Products Research Laboratory. Currently, the primary occupants are RFS administrative and facilities maintenance personnel. One of the former labs is still in use and old carpentry and machine shops are currently being used by RFS facilities staff. Three locations were sampled at Building 478. The location 478-01 was a representative common space located in a previously unoccupied room. This room was being renovated to become a staff break room during the air monitoring. The renovations included activities such as framing an interior wall, sheet rock installation, rough plumbing, electrical work, installing kitchen cabinets, counter top, and commercial vinyl installation. Sample location 478-02 was chosen as a re-sample location from previous sampling events. This location is the lobby area for the administrative offices in the building. Sample location 478-03, an office similar in configuration to others near it, was chosen to represent office space in the building. This office has been unoccupied for three years, and has some library materials stored in it.

Fence Line

The fence line location was chosen based on projected regional predominant wind directions for each sample collection event; however, actual wind directions at RFS varied (see Appendix B). For most events, the forecasted wind direction was primarily southerly (from the Bay) and the location south of Building 110 was used. For the 4th sampling event, the wind was forecasted to originate predominantly from the north/northeast, and a location to the east of Building 478 was selected. For the 8th sampling event, the wind was forecasted to originate from the north/northwest, and a location to the west of Building 280 was used.

Former California Department of Health Services Building, Downtown Berkeley

The California Department of Health Services (CDHS) building located in downtown Berkeley at the northwest corner of UC Berkeley's main campus on Berkeley Way was chosen as a comparative baseline for Bay Area urban ambient air. The building is currently unoccupied and awaiting demolition. For purposes of security, the sample collection equipment was placed inside an indoor window nook of a room on the north side of this building and samples collected outdoor through the adjacent open window.

3.0 SAMPLE EQUIPMENT AND METHODS

Tetra Tech conducted eight sample collection events from 12 locations between October 25, 2007 and February 5, 2008, following the sampling strategy developed in the 2007 Sampling and Analysis Plan (Tetra Tech 2007). Each of the 12 sampling locations was configured with the following air sampling equipment and sample media:

- One Airmetrics Inc. Mini-Vol air sampler configured with omni-directional inlet, particulate matter less than 10 microns (PM₁₀) impactor, and 47-millimeter Teflon filter media to collect dust and other particulate matter for metals analysis
- One selective ion monitoring (SIM)-certified Summa canister VOC sampler and SIM-certified 24-hour flow controller for VOC analysis
- One SKC Inc. low-volume pump with 2,4-dinitrophenylhydrazine (DNPH)-coated silica gel adsorbent (formaldehyde) cartridge for formaldehyde analysis

All sample collection equipment was operated according to Federal Environmental Protection Agency (EPA) guidance, National Institute of Occupational Safety and Health (NIOSH) standards, or Occupational Safety and Health Administration (OSHA) methods. All sampling devices were equipped with timers, flow controllers, and pressure gauges to document sample time, as well as flow and vacuum pressure during sample collection.

Each sample was collected, handled, stored, and analyzed using the following EPA Compendium Methods:

- *EPA Compendium Methods TO-11A: Determination of Formaldehyde in Ambient Air Using Adsorbent Cartridge Followed by High Performance Liquid Chromatography (Active Sampling Method)*
- *EPA Compendium Methods TO-15: Determination of Volatile Organic Compounds in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatograph and Mass Spectrometry*
- *EPA Compendium Methods IO-3.3: Determination of Metals in Ambient Particulate Matter Using X-Ray Fluorescence Spectroscopy*

Typically, indoor air samples are collected using NIOSH- or OSHA-approved sampling methods; however, the requirement to obtain lower detection limits recommended by CDPH necessitated using the methods listed above. The following NIOSH methods were cross-referenced to ensure sample collection methods met or exceeded the corresponding NIOSH sample requirements:

- *NIOSH Method 7900 – Arsenic and compounds, as arsenic*
- *NIOSH Method 2016 – Formaldehyde*

- *NIOSH Method 1501 – Aromatic Hydrocarbons*

At each air sampling location, equipment was secured either to existing furniture or on a portable tray table. Sampler inlets were positioned at breathing height, approximately five feet above the ground or floor surface. All equipment was started and stopped manually, and the start-stop times and timer readings were recorded on field data summary sheets (see Appendix C). Sample start times varied based on sample location. In general, sample events were started between 10 a.m. and 2 p.m. and ran continuously for a minimum of 24 hours. Samplers were stopped and samples retrieved after the 24-hour sample period. Sampling equipment was then returned to Building 102 as a temporary storage location, and samples were prepared for shipment to the laboratories. The Summa canisters were packed into boxes provided by Air Toxics. The arsenic and formaldehyde samples were packaged with bubble wrap and placed in coolers containing ice to keep the samples below 4 degrees Celsius.

Summa canisters and formaldehyde samples were shipped to Air Toxics Ltd. Arsenic samples were shipped to Desert Research Institute. Analytical results from the respective laboratories were sent to Tetra Tech electronically and in hard copy (see Appendix D).

For data quality purposes, a duplicate and field blank sample was collected for each of the eight sample events. For the duplicate sample, two samples were collected at location 163-02, using duplicate samplers (the Mini-Vol air samplers) or co-located sample media using one sample pump or orifice (the Summa canisters and SKC pump). One sample served as the primary sample, and one served as the duplicate. Field blank samples were collected at a rate of one per sample event and consist of transporting sampling media or apparatus to a designated location, opening the media, then immediately closing and removing. The blank sample was then removed, preserved, and shipped to respective laboratories to be analyzed with routine samples.

4.0 DATA SUMMARY AND DEVIATIONS

The air monitoring data is presented in Tables 1 and 2, following the report. For the scope of this report, data were compared to two indoor air quality studies performed by CDHS and one indoor air quality study performed by the Federal EPA.

All of the data collected during this air monitoring effort were comparable with the ranges found in comparable indoor air quality studies referenced above. A statistical summary of the data collected during the eight sampling events performed at RFS is presented in the table below.

Data Summary Table

Analyte	Percent Detect Indoor	Mean Indoor Value ^a (µg/m ³)	Percent Detect Outdoor	Mean Outdoor Value ^a (µg/m ³)
Benzene	100.00%	1.073	94.12%	0.914
Formaldehyde	100.00%	16.468	100.00%	1.116
Tetrachloroethylene	93.65%	0.202	88.24%	0.100
Trichloroethylene	88.89%	0.166	64.71%	0.062
Chloroform	74.60%	0.246	46.07%	0.123
Methylene Chloride	41.27%	0.942	17.65%	0.196
Vinyl Chloride	7.94%	0.024	0.00%	< DL
1,2-Dichloroethane	4.76%	0.069	0.00%	< DL
cis-1,2-Dichloroethylene	3.17%	0.077	0.00%	< DL
1,1-Dichloroethylene	0.00%	< DL	0.00%	< DL
trans-1,2-Dichloroethylene	0.00%	< DL	0.00%	< DL
Arsenic	0.00%	< DL	0.00%	< DL

Notes:

a: All values less than the detection limit (DL) were assigned ½ the median DL prior to computation.
µg/m³– micrograms per cubic meter.

A comprehensive data set was collected from the large number of sampling events and sampling locations. Eight sampling events were conducted at 12 locations and one duplicate location. Samples were submitted for analysis for 12 analytes for a possible 1,248 total results. Results from 56 analyses were not reported due equipment malfunctions. Most notably, many of the Summa canisters did not achieve the target difference in atmospheric pressure required to produce accurate readings during the 5th sampling event. Air Toxics, the analytical laboratory, indicated that high humidity as the result of rainy weather had likely clogged the intake valves during the 5th sampling event.

The sample collection set is 96 percent complete (1,192 out of 1,248 results were successfully reported) and considered usable for this assessment.

5.0 DATA EVALUATION

The data collected during the eight rounds of air monitoring were compared with the following three indoor air monitoring reports. These air reports established chemical concentration values commonly found in indoor air in California and across the United States.

Building Assessment Survey and Evaluation (BASE, EPA 1998)

This study was conducted by the EPA over a five-year period from 1994 to 1998, to characterize determinants of indoor air quality and occupant perceptions in representative public and commercial office buildings across the United States. The study collected data from 100 randomly selected public and commercial office buildings in 37 cities and 25 states (EPA 1998). This study tested for most of the analytes tested for at RFS.

Environmental Health Consultation: Review of Environmental and Clinical Laboratory Information, Saugus Unified School District (Saugus, CDHS, Kreutzer, R., 1999)

This study was published in 1999 by the Environmental Health Investigations Branch (EHIB) branch of the CDHS for the Saugus Unified School District. The study was performed because of complaints about indoor air quality in the schools. The testing targeted arsenic, benzene, carbon monoxide, formaldehyde, phenol, and 40 volatile organic compounds (VOCs) lumped into a 'Total VOC' category. The study concluded all chemicals were found to be within local background levels (CDHS 1999).

Long-term Building Air Measurements for Volatile Organic Compounds Including Aldehydes at a California Five-Building Sustainable Office Complex (CDHS 2006)

This study was a 2006 report by the CDHS, which tested indoor air in a five-building sustainable office complex. The study investigated indoor air quality pre- and post-occupancy, and compared their results to the BASE study for reference values (CDHS 2006). Concentrations of the analytes measured in the five building study were comparable to those reported in the BASE study with only a few analytes being higher (CDHS 2006).

Arsenic

Arsenic is a heavy metal not commonly found in indoor air. Because arsenic was detected during an initial 2005 sampling event, the PHA recommended further testing for the presence of arsenic in indoor air. During the eight sampling events, no arsenic was detected in the indoor or outdoor air at any of the sampling locations. The detection limit was 0.002 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). As a comparison, the Saugus study tested classrooms and reported all results to be non-detect, with detection limits between 0.05 and 0.1 $\mu\text{g}/\text{m}^3$ (CDHS 1999).

Benzene

Benzene is a common indoor and outdoor air contaminant due to its ubiquitous sources associated with petroleum combustion, particularly vehicle exhaust.

Benzene was detected in all indoor air samples, and the mean concentration of benzene for the eight sampling events was $1.073 \mu\text{g}/\text{m}^3$. The mean outdoor concentration measured at the RFS was $0.914 \mu\text{g}/\text{m}^3$. There was a positive correlation between the benzene concentrations in indoor and outdoor air. For example, during the 2nd sampling event, the average indoor concentration was $0.547 \mu\text{g}/\text{m}^3$ and the average outdoor concentration was $0.383 \mu\text{g}/\text{m}^3$. These values can be compared to the 5th sampling event, when the average indoor benzene concentration was measured to be $1.825 \mu\text{g}/\text{m}^3$ and the average outdoor concentration was $1.25 \mu\text{g}/\text{m}^3$. It should also be noted that results for the 3rd and 4th sampling events reported higher average outdoor concentrations than average indoor concentrations (the 3rd event's average indoor concentration was $1.289 \mu\text{g}/\text{m}^3$ and the average outdoor concentration was $1.467 \mu\text{g}/\text{m}^3$; and the 4th event's average indoor concentration was $1.044 \mu\text{g}/\text{m}^3$ and the average outdoor concentration was $1.2 \mu\text{g}/\text{m}^3$). Still, the concentrations seen at RFS are less than values seen in comparative studies. In the CDHS Saugus study, indoor air concentrations were seen in a range of $1.5 \mu\text{g}/\text{m}^3$ to $2.0 \mu\text{g}/\text{m}^3$ and outdoor air concentrations in a range of $1.5 \mu\text{g}/\text{m}^3$ to $1.8 \mu\text{g}/\text{m}^3$. The BASE study reported benzene in 100 percent of samples, with an average concentration of $4.20 \mu\text{g}/\text{m}^3$. The CDHS's Five-Building study reported benzene concentrations ranging between $0.8 \mu\text{g}/\text{m}^3$ and $5.6 \mu\text{g}/\text{m}^3$.

Chloroform

Chloroform was detected in 75 percent of the samples collected, and the mean indoor air concentration was $0.246 \mu\text{g}/\text{m}^3$. The sampling location in Building 177 had the highest detections of chloroform, with an average detected concentration of $0.515 \mu\text{g}/\text{m}^3$. These levels are comparable to those seen in the BASE study, where the average detected concentration was $0.59 \mu\text{g}/\text{m}^3$ (EPA 1998). Chloroform was only detected in one percent of samples in the CDHS's Five-Building study; however, the average detection limit was $3.0 \mu\text{g}/\text{m}^3$ (CDHS 2006), significantly higher than the average detected value found at RFS. The highest detected values at multiple sampling locations were recorded during the 3rd and 8th sampling events. During these events, the outdoor samples, which during other rounds were non-detects, detected chloroform in the ambient air, perhaps contributing to the higher indoor levels.

1,2-Dichloroethane

There were three detected results for 1,2-dichloroethane which occurred in the 8th sampling event. The detections were at locations 478-03, 163-01, and 163-02, with concentrations of $0.15 \mu\text{g}/\text{m}^3$, $0.17 \mu\text{g}/\text{m}^3$, and $0.14 \mu\text{g}/\text{m}^3$, respectively. These values were less than the BASE study's mean value, $1.10 \mu\text{g}/\text{m}^3$ (EPA 1998), and well less than the detection limit for the Five-Building Study, which was $2.0 \mu\text{g}/\text{m}^3$ (CDHS 2006).

1,1-Dichloroethylene

All sampling results for 1,1-DCE were less than the method detection limit. In the Five-Building study results, 1,1-DCE was detected in 61 percent of the samples analyzed and

concentrations ranged from 0.8 to 9.9 $\mu\text{g}/\text{m}^3$ (CDHS 2006). The BASE study also tested indoor air for 1,1-DCE. All results were non-detect, with a median limit of quantification (LOQ) of 2 $\mu\text{g}/\text{m}^3$ (EPA 1998). The median detection limit for 1,1-dichloroethylene for the eight sampling events at RFS was 0.065 $\mu\text{g}/\text{m}^3$, less than the concentrations found in either of the comparison studies.

cis-1,2-Dichloroethylene

There were two detected results for cis-1,2-DCE: concentration of 0.71 $\mu\text{g}/\text{m}^3$ reported in the sample collected at location 163-02 during the 1st sampling event and 0.2 $\mu\text{g}/\text{m}^3$ reported in the sample collected a measured at location 478-01 during the 6th sampling event. None of the studies being used for comparative data tested for this analyte.

trans-1,2-Dichloroethylene

All sampling results for trans-1,2-DCE were less than the method detection limits, which ranged from 0.10 $\mu\text{g}/\text{m}^3$ to 0.46 $\mu\text{g}/\text{m}^3$, with an average detection limit of 0.14 $\mu\text{g}/\text{m}^3$. None of the studies being used for comparative data tested for this analyte.

Formaldehyde

Formaldehyde is a common indoor air contaminant, with many possible sources including particle board, ceiling tiles, treated wood, upholstery, and carpet.

Formaldehyde was detected in all indoor and outdoor samples, with a mean indoor air concentration of 16.5 $\mu\text{g}/\text{m}^3$, and a mean outdoor concentration of 1.116 $\mu\text{g}/\text{m}^3$. The CDHS's Saugus study reported results in the range of 22 to 32 $\mu\text{g}/\text{m}^3$, and cited a 1991 California Air Resources Board (ARB) report which stated that indoor air concentrations of formaldehyde in California homes are often noted around 50 parts per million (ppm), or 61.4 $\mu\text{g}/\text{m}^3$ (ARB 1991). The BASE study reported an average value of 16 $\mu\text{g}/\text{m}^3$ and a maximum value of 51 $\mu\text{g}/\text{m}^3$, and the CDHS's 5 Building study reported a median concentration of 19 $\mu\text{g}/\text{m}^3$ and a maximum concentration of 81 $\mu\text{g}/\text{m}^3$.

The concentrations of formaldehyde detected in the samples collected at location 478-03 are noticeably higher than at other RFS locations. The average concentration of the formaldehyde samples collected at 478-03 was 37.6 $\mu\text{g}/\text{m}^3$, while the average for the remainder of the indoor locations (excluding 478-03) was 13.4 $\mu\text{g}/\text{m}^3$. This unoccupied office is constructed nearly entirely of wood (the walls, shelving, ceiling, and furniture) and is heated through a base heater, not central air. Three years ago, the carpet was replaced in this office. Because this office is unoccupied, the door and windows are predominantly closed and the room is not ventilated. Based on all these factors, this location may not accurately represent the conditions in nearby occupied offices where doors and windows are opened and any off gases from furniture and other sources have ventilated pathways and are not trapped. Although the concentrations at 478-03 are higher than the rest of the locations at RFS, all results are within levels seen in the three comparative indoor air quality studies.

Methylene Chloride

Methylene chloride was detected in 41 percent of the samples taken, and the mean indoor air concentration was 0.924 $\mu\text{g}/\text{m}^3$. The highest detected concentration of 4.0 $\mu\text{g}/\text{m}^3$ was

detected at location 478-02 during the 8th sampling event. During this event, results from other sampling locations were higher than average, and two of the three outdoor locations which previously had all concentrations less than detection limits, reported methylene chloride concentrations in the ambient air. The concentrations detected at RFS are consistent with the ranges presented in the three comparison studies. The CDHS Saugus Study reported detections in the range of 1.1 to 1.3 $\mu\text{g}/\text{m}^3$; the CDHS Five-Building study reported methylene chloride concentrations between 0.3 and 1.0 $\mu\text{g}/\text{m}^3$; and the BASE study had a 95th percentile concentration of 16 $\mu\text{g}/\text{m}^3$ (EPA 1998). (Note: the mean is not used here from the BASE study because it is skewed by one data point of 1,500 $\mu\text{g}/\text{m}^3$; the 95th percentile represents the value in the data set where 95% of the data is lower than the value and 5% of the data is higher.)

Tetrachloroethylene

PCE was detected in 94 percent of the samples collected and the mean indoor air concentration was 0.202 $\mu\text{g}/\text{m}^3$. The mean outdoor concentration was 0.1 $\mu\text{g}/\text{m}^3$. These values are significantly less than the values presented in reference indoor air quality studies. The CDHS's Saugus study reported indoor concentrations between 1.4 and 2.3 $\mu\text{g}/\text{m}^3$, and outdoor concentrations between 1.0 and 4.1 $\mu\text{g}/\text{m}^3$ (CDHS 1999). The BASE study had a 100 percent detection rate for PCE, and reported an average concentration of 3.8 $\mu\text{g}/\text{m}^3$ (EPA 1998). The EPA Five-Building study detected PCE concentrations range from 0.2 $\mu\text{g}/\text{m}^3$ to 16.2 $\mu\text{g}/\text{m}^3$ (CDHS 2006).

Trichloroethylene

TCE was detected in 89 percent of the samples collected and the mean indoor air concentration was 0.166 $\mu\text{g}/\text{m}^3$. The mean outdoor concentration for RFS was 0.062 $\mu\text{g}/\text{m}^3$. There is a positive correlation between the indoor and outdoor sample values. During the 2nd sampling event, almost all TCE concentrations reported in indoor and outdoor samples were less than the method detection limit and during the 7th sampling event, the outdoor average concentration was 0.031 $\mu\text{g}/\text{m}^3$ and the indoor concentration was 0.108 $\mu\text{g}/\text{m}^3$. The concentrations in the 2nd and 7th events can be compared to the concentrations of TCE detected in the 6th sampling event, when the outdoor average TCE concentration was 0.193 $\mu\text{g}/\text{m}^3$ and the indoor average concentration was 0.279 $\mu\text{g}/\text{m}^3$. The sampling location 478-01 had the highest detected TCE concentrations, with an average detected concentration of 0.781 $\mu\text{g}/\text{m}^3$. Although these results are elevated in comparison with other values found at RFS, the reported concentrations are less than or comparable to the results found in the BASE study, which presented an average concentration of 0.76 $\mu\text{g}/\text{m}^3$ (EPA 1998).

Vinyl Chloride

Vinyl chloride was non-detect in all locations with the exception of 175-01. There were five detections at this location ranging in concentrations from 0.052 $\mu\text{g}/\text{m}^3$ to 0.064 $\mu\text{g}/\text{m}^3$. These detections are significantly less than the values found in the BASE study, where the mean concentration was found to be 0.78 $\mu\text{g}/\text{m}^3$ (EPA 1994). Neither the EPA Five-Building study nor the CDHS's Saugus study tested for vinyl chloride.

6.0 CONCLUSIONS

The comprehensive monitoring efforts undertaken between October 2007 and February 2008 demonstrate that the indoor air at RFS is within levels typical of indoor air. All sampling results were comparable to the ranges found in indoor air quality studies from California and across the country.

7.0 REFERENCES

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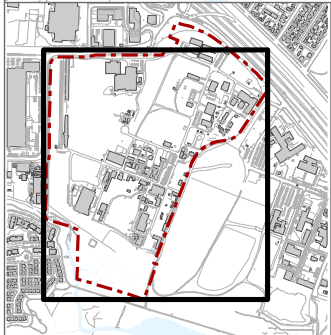
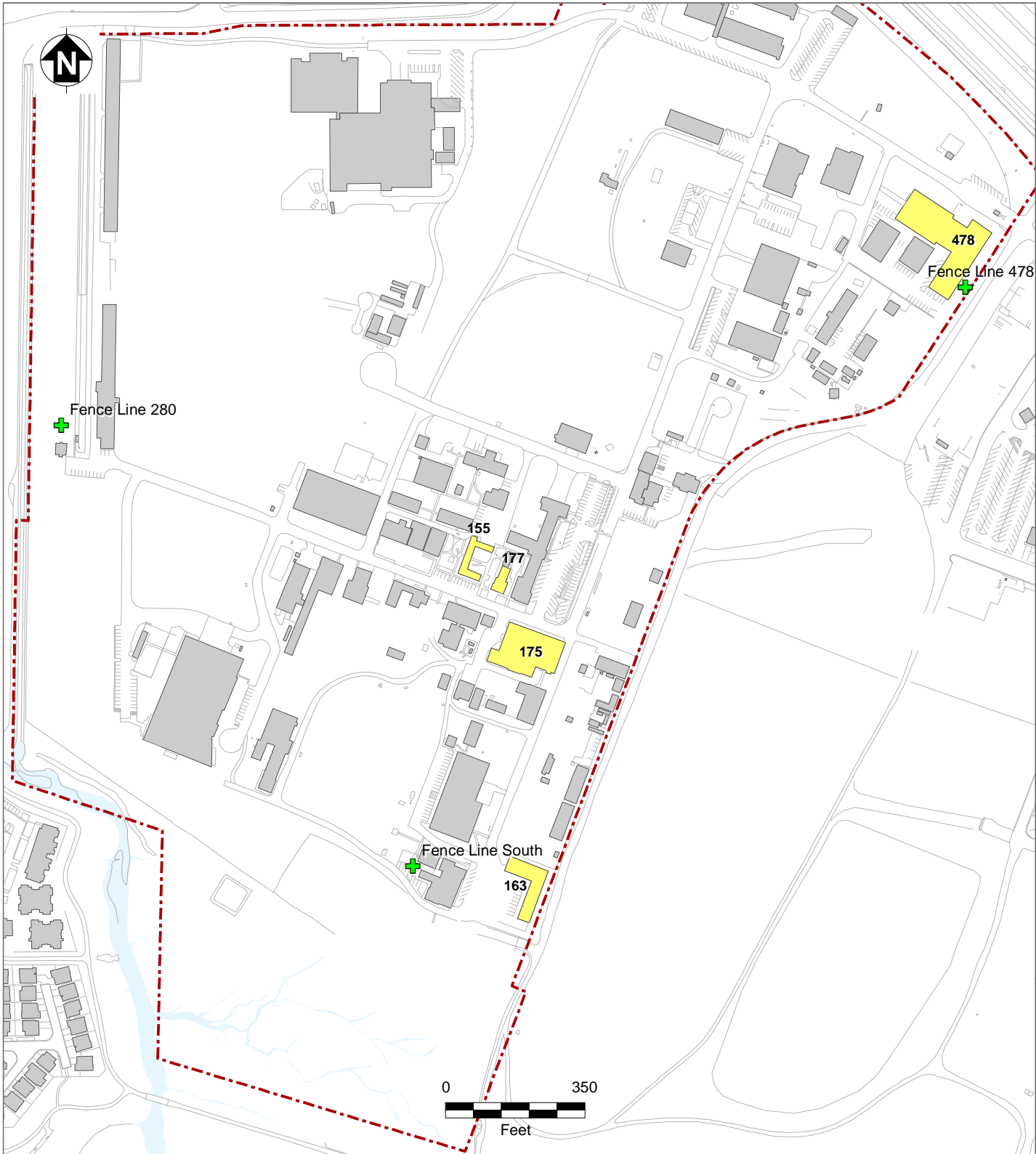
Tetra Tech EM Inc. (Tetra Tech). 2007. "Richmond Field Station Air Quality Sampling and Analysis Plan." December 12.

FIGURES








Tt TETRA TECH EM INC.
 Richmond Field Station
 University of California, Berkeley

FIGURE 1
SITE LOCATION MAP



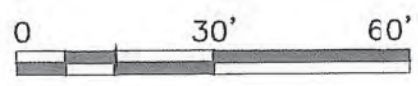
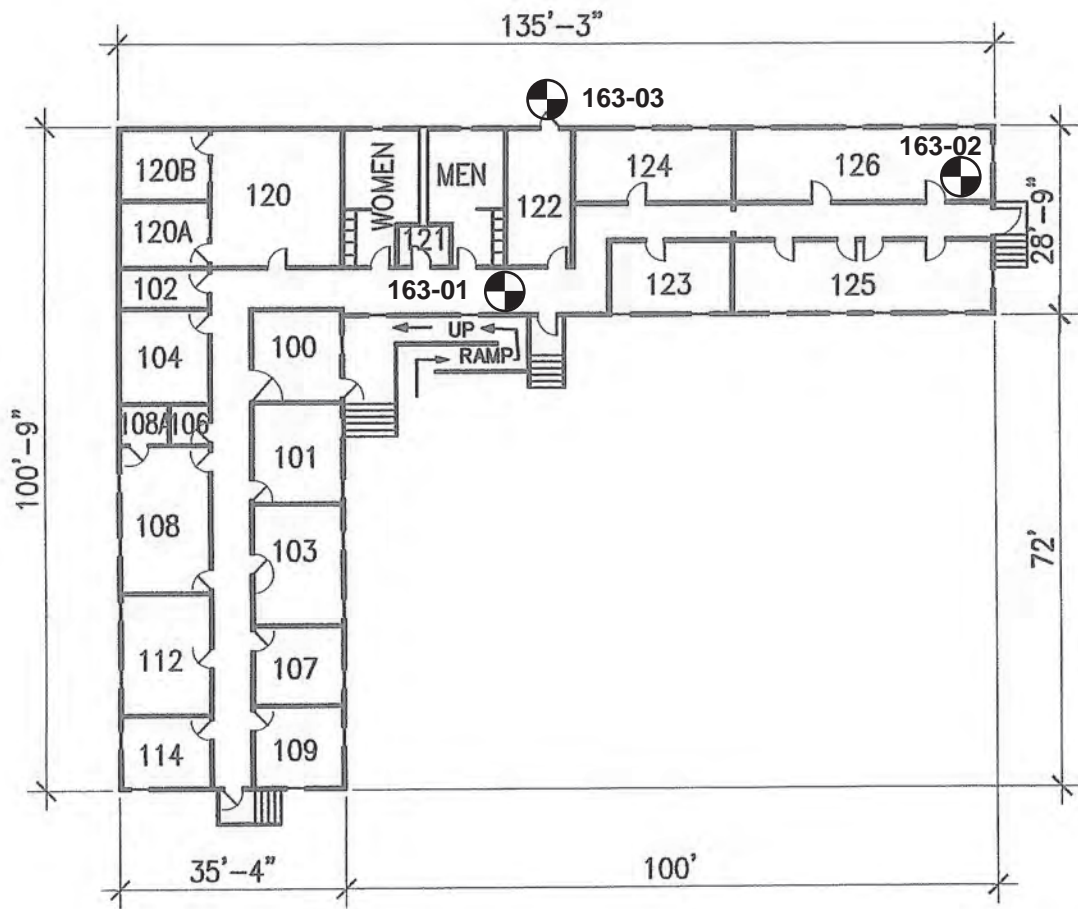
Legend


-  Fence Line Sampling Location
-  RFS Boundary
-  Buildings of Interest
-  Other Buildings
-  Basemap



**Richmond Field Station
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**FIGURE 2
SAMPLING LOCATIONS**



 Air sampling location

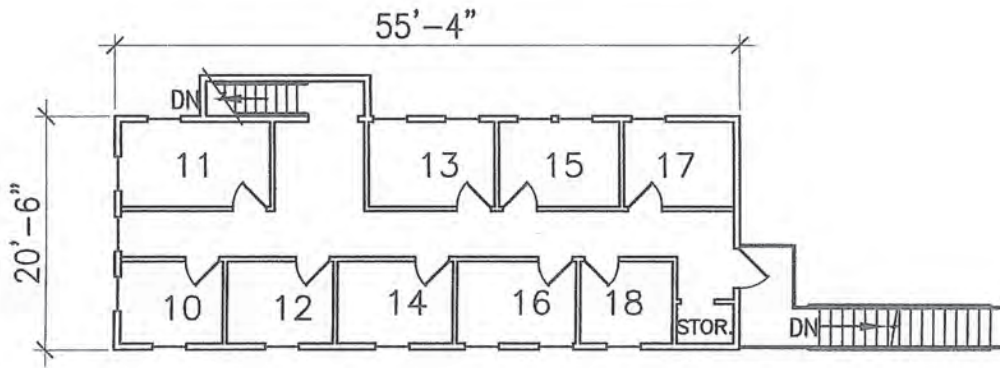


TETRA TECH EM INC.

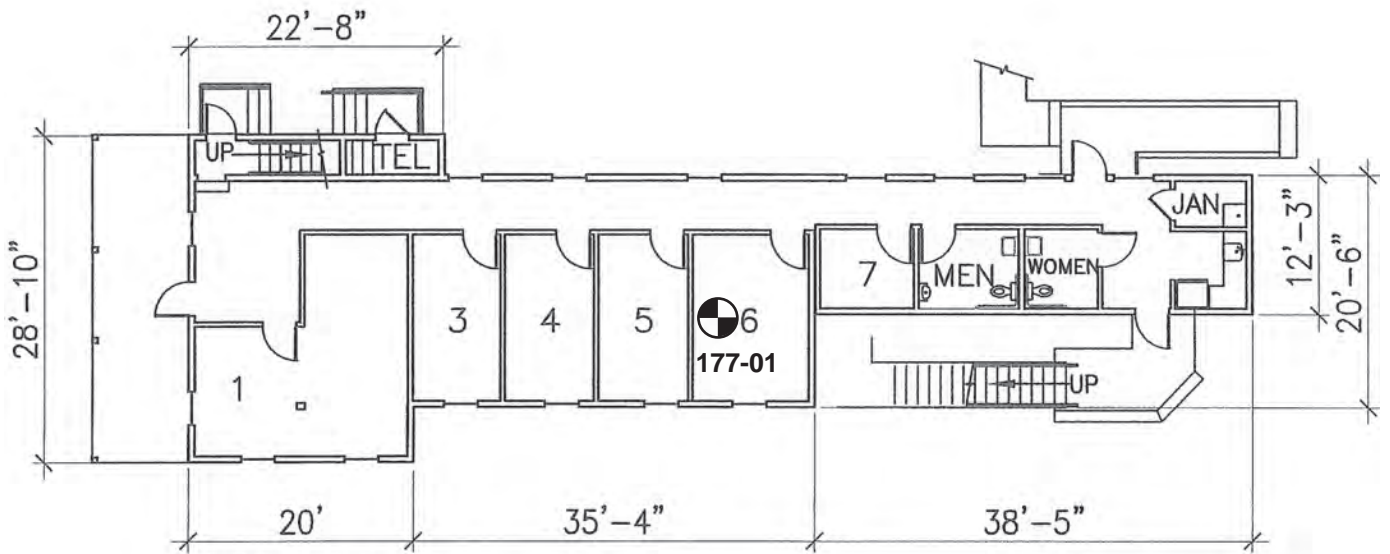
Richmond Field Station
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FIGURE 3
BUILDING 163

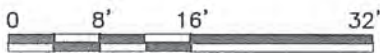
Source: UC Berkeley Engineering Office, Revised October 17, 2000




SECOND FLOOR



FIRST FLOOR



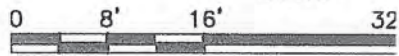
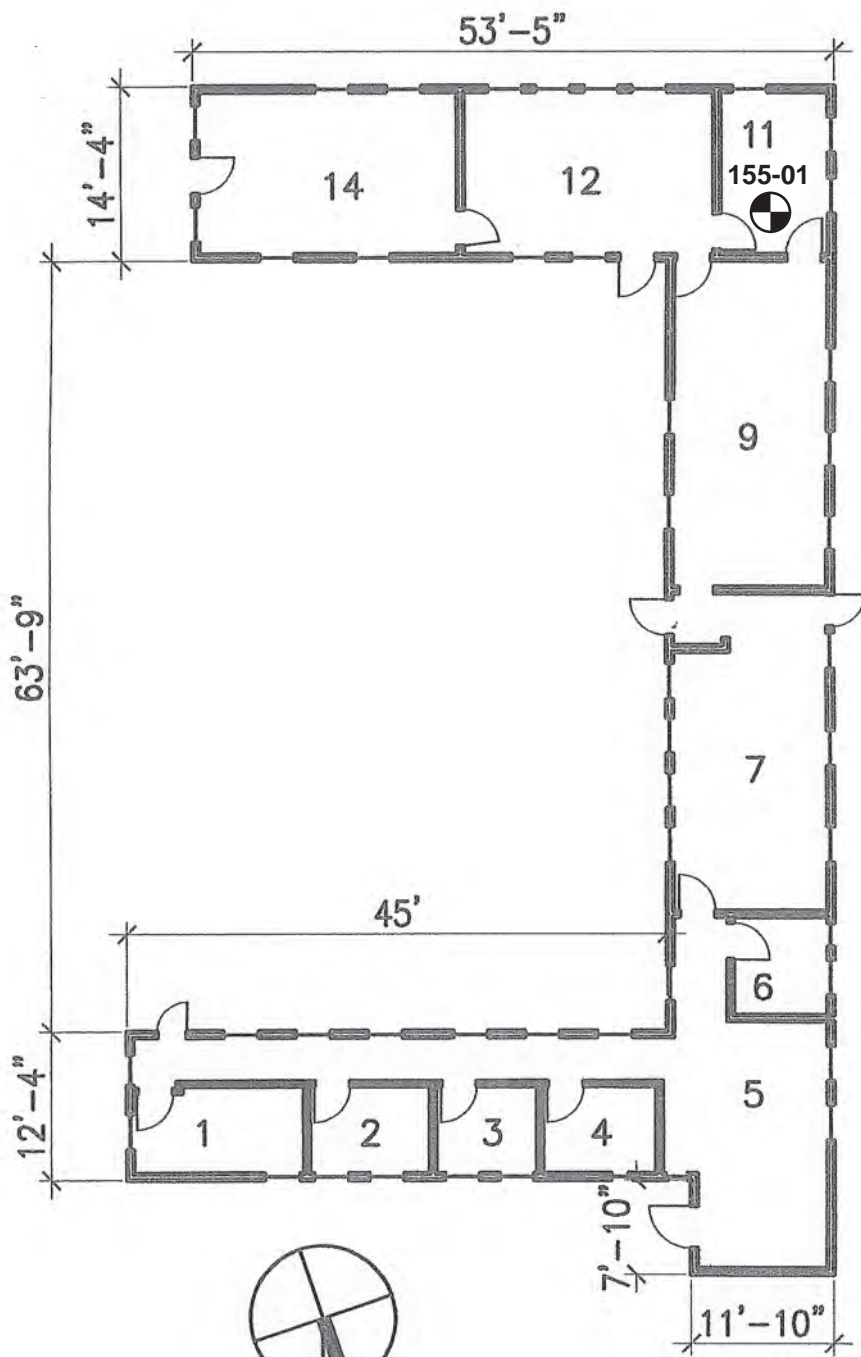
 Air sampling location



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FIGURE 5
BUILDING 177



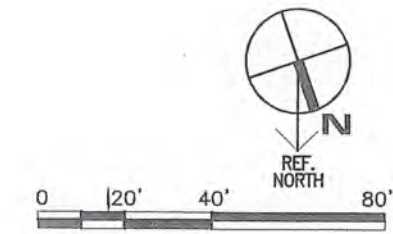
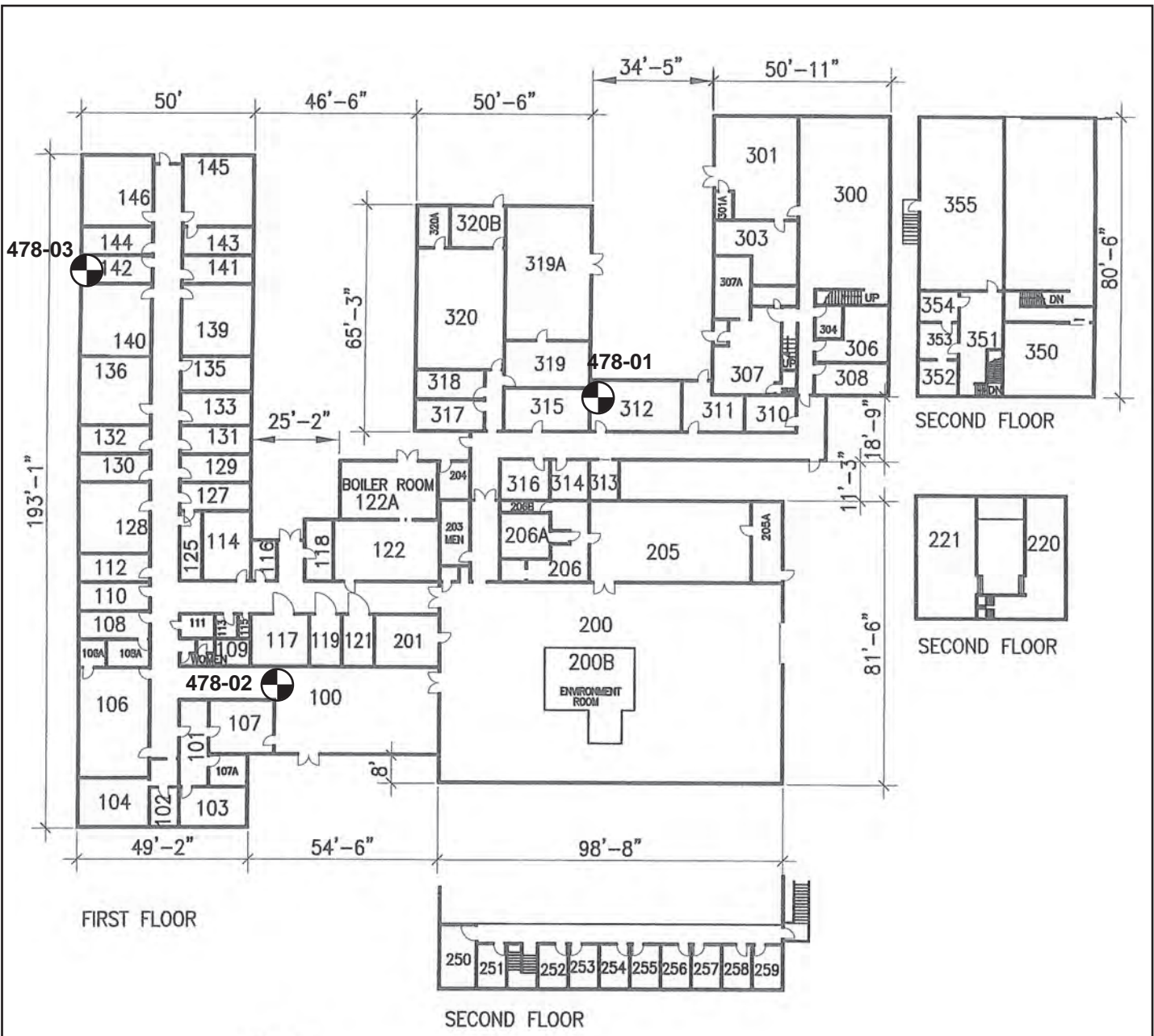
 Air sampling location




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Richmond Field Station
University of California, Berkeley

FIGURE 6
BUILDING 155



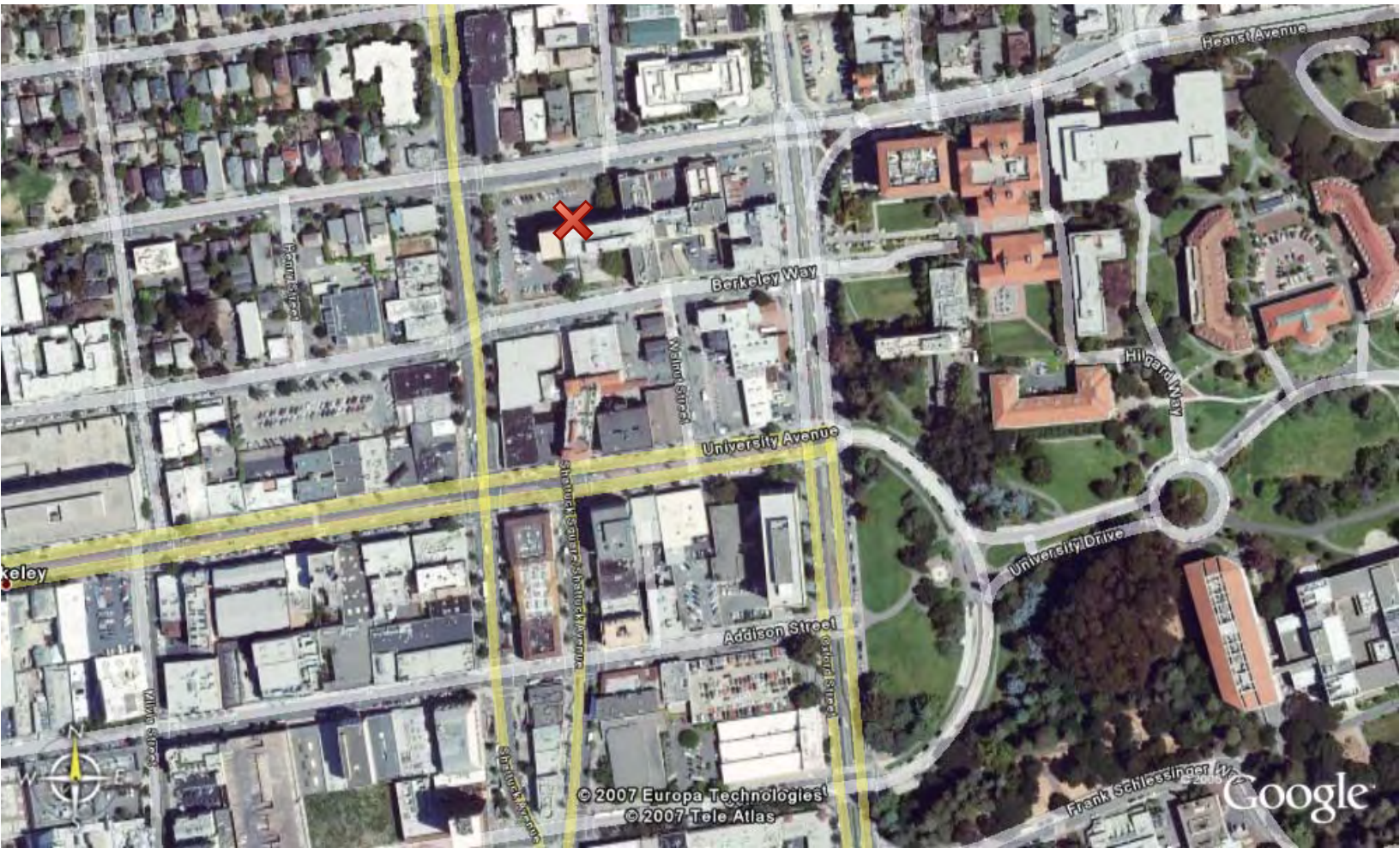
 Air sampling location



Richmond Field Station
University of California, Berkeley

FIGURE 7
BUILDING 478

Source: UC Berkeley Engineering Office, Revised March 2, 2000



TABLES

Table 1: Indoor Air Monitoring Data Results

Indoor Air Monitoring Report, University of California, Berkeley, Richmond Field Station, Richmond, California

Station ID	Event Number	Units	Vinyl Chloride	1,1-Dichloroethylene	Methylene Chloride	cis-1,2-Dichloroethylene	Chloroform	Benzene	1,2-Dichloroethane	Trichloroethylene	Tetrachloroethylene	trans-1,2-Dichloroethylene	Formaldehyde	Arsenic
RFS-478-01	1	µg/m3	< 0.046	< 0.071	< 1.2	< 0.14	0.47	0.55	< 0.14	0.40	0.072	< 0.14	13.0	< 0.002
	2	µg/m3	< 0.041	< 0.064	< 1.1	< 0.13	0.18	0.81	< 0.13	0.38	1.1	< 0.13	2.9	< 0.002
	3	µg/m3	< 0.043	< 0.067	< 1.2	< 0.13	0.45	2.2	< 0.14	1.1	0.1	< 0.13	16.0	< 0.002
	4	µg/m3	< 0.046	< 0.071	< 1.2	< 0.14	0.33	1.4	< 0.14	0.86	0.11	< 0.14	13.0	< 0.002
	5	µg/m3	< 0.048	< 0.074	< 1.3	< 0.15	0.3	1.6	< 0.15	0.94	0.19	< 0.15	20.0	< 0.002
	6	µg/m3	< 0.042	< 0.065	< 1.1	0.2	0.29	4.0	< 0.13	1.1	0.16	< 0.13	13.0	< 0.002
	7	µg/m3	< 0.034	< 0.053	< 0.93	< 0.11	0.21	0.82	< 0.11	0.48	0.36	< 0.11	11.0	< 0.002
	8	µg/m3	< 0.044	< 0.068	1.4	< 0.14	0.58	1.6	< 0.14	0.99	0.16	< 0.14	14.0	< 0.002
RFS-478-02	1	µg/m3	< 0.034	< 0.053	< 0.93	< 0.11	< 0.13	0.47	< 0.11	0.16	0.098	< 0.11	9.1	< 0.002
	2	µg/m3	< 0.033	< 0.051	2.8	< 0.10	< 0.12	0.44	< 0.10	< 0.021	0.24	< 0.10	7.0	< 0.002
	3	µg/m3	< 0.039	< 0.060	3.3	< 0.12	0.21	1.4	< 0.12	0.071	0.092	< 0.12	9.6	< 0.002
	4	µg/m3	< 0.039	< 0.060	2.7	< 0.12	0.17	1.2	< 0.12	0.046	0.11	< 0.12	8.6	< 0.002
	5	µg/m3	< 0.044	< 0.068	2.8	< 0.14	0.24	1.4	< 0.14	0.14	0.22	< 0.14	16.0	< 0.002
	6	µg/m3	< 0.041	< 0.064	2.8	< 0.13	0.21	1.4	< 0.13	0.32	1.2	< 0.13	12.0	< 0.002
	7	µg/m3	< 0.038	< 0.059	1.7	< 0.12	0.16	0.78	< 0.12	0.084	0.27	< 0.12	13.0	< 0.002
	8	µg/m3	< 0.040	< 0.061	4.0	< 0.12	0.27	1.7	< 0.12	0.09	0.45	< 0.12	14.0	< 0.002
RFS-478-03	1	µg/m3	< 0.043	< 0.067	< 1.2	< 0.13	< 0.16	0.42	< 0.14	0.035	0.074	< 0.13	33.0	< 0.002
	2	µg/m3	< 0.042	< 0.065	< 1.1	< 0.13	< 0.16	0.5	< 0.13	< 0.026	0.084	< 0.13	38.0	< 0.002
	3	µg/m3	< 0.040	< 0.061	1.5	< 0.12	0.16	1.3	< 0.12	0.052	0.088	< 0.12	41.0	< 0.002
	4	µg/m3	< 0.059	< 0.091	< 1.6	< 0.18	< 0.22	1.1	< 0.19	0.054	0.15	< 0.18	30.0	< 0.002
	5	µg/m3	-	-	-	-	-	-	-	-	-	-	43.0	< 0.002
	6	µg/m3	< 0.045	< 0.069	2.2	< 0.14	< 0.17	1.2	< 0.14	0.12	0.11	< 0.14	35.0	< 0.002
	7	µg/m3	< 0.044	< 0.068	< 1.2	< 0.14	< 0.17	0.65	< 0.14	0.045	0.092	< 0.14	39.0	< 0.002
	8	µg/m3	< 0.041	< 0.064	< 1.1	< 0.13	0.46	1.3	0.15	0.041	0.17	< 0.13	42.0	< 0.002
RFS-163-01	1	µg/m3	< 0.041	< 0.064	< 1.1	< 0.13	0.22	0.5	< 0.13	0.034	0.062	< 0.13	14	< 0.002
	2	µg/m3	< 0.04	< 0.061	2.5	< 0.12	0.29	0.48	< 0.12	< 0.025	< 0.032	< 0.12	21.0	< 0.002
	3	µg/m3	< 0.041	< 0.064	2.3	< 0.13	0.25	1.1	< 0.13	0.074	0.088	< 0.13	18.0	< 0.002
	4	µg/m3	< 0.045	< 0.069	1.6	< 0.14	0.2	0.86	< 0.14	0.029	0.078	< 0.14	12.0	< 0.002
	5	µg/m3	< 0.061	< 0.095	2.8	< 0.19	0.33	1.1	< 0.19	0.084	0.53	< 0.19	19.0	< 0.002
	6	µg/m3	< 0.048	< 0.074	2.2	< 0.15	0.2	1.2	< 0.15	0.13	0.17	< 0.15	16.0	< 0.003
	7	µg/m3	< 0.041	< 0.064	1.3	< 0.13	0.25	0.62	< 0.13	0.046	0.062	< 0.13	15.0	< 0.002
	8	µg/m3	< 0.049	< 0.076	3.3	< 0.15	0.41	1.2	0.17	0.058	0.13	< 0.15	16.0	< 0.002
RFS-163-02	1	µg/m2	< 0.046	< 0.071	< 1.2	0.71	< 0.17	0.41	< 0.14	0.22	0.2	< 0.14	-	< 0.002
	2	µg/m3	< 0.043	< 0.067	1.7	< 0.13	0.17	0.45	< 0.14	< 0.027	0.2	< 0.13	18.0	< 0.002
	3	µg/m3	< 0.042	< 0.065	1.9	< 0.13	0.21	1.0	< 0.13	0.056	0.099	< 0.13	14.0	< 0.002
	4	µg/m3	< 0.042	< 0.065	1.4	< 0.13	0.17	0.92	< 0.13	0.038	0.088	< 0.13	11.0	< 0.002
	5	µg/m3	< 0.044	< 0.068	2.3	< 0.14	0.25	1.0	< 0.14	0.074	0.18	< 0.14	16.0	-
	6	µg/m3	< 0.044	< 0.068	2.4	< 0.14	0.19	1.3	< 0.14	0.19	0.2	< 0.14	14.0	-
	7	µg/m3	< 0.040	< 0.063	1.4	< 0.12	0.16	0.67	< 0.13	0.041	0.091	< 0.12	14.0	< 0.002
	8	µg/m3	< 0.045	< 0.069	2.9	< 0.14	0.31	1.2	0.14	0.064	0.15	< 0.14	14.0	< 0.002
	1D	µg/m3	< 0.038	< 0.059	< 1.0	< 0.12	< 0.14	0.37	< 0.12	< 0.024	0.058	< 0.12	-	< 0.002
	2D	µg/m3	< 0.043	< 0.067	1.7	< 0.13	0.17	0.68	< 0.14	< 0.027	0.06	< 0.13	13.0	< 0.002

Table 1: Indoor Air Monitoring Data Results (Continued)

Indoor Air Monitoring Report, University of California, Berkeley, Richmond Field Station, Richmond, California

Station ID	Event Number	Units	Vinyl Chloride	1,1-Dichloroethylene	Methylene Chloride	cis-1,2-Dichloroethylene	Chloroform	Benzene	1,2-Dichloroethane	Trichloroethylene	Tetrachloroethylene	trans-1,2-Dichloroethylene	Formaldehyde	Arsenic
RFS-163-02	3D	µg/m3	< 0.041	< 0.064	1.9	< 0.13	0.21	1.0	< 0.13	0.051	0.09	< 0.13	13.0	< 0.002
	4D	µg/m3	< 0.044	< 0.068	1.4	< 0.14	0.16	0.88	< 0.14	0.033	0.08	< 0.14	10.0	< 0.002
	5D	µg/m3	< 0.043	< 0.067	2.4	< 0.13	0.24	5.6	< 0.14	0.13	0.18	< 0.13	14.0	< 0.002
	6D	µg/m3	< 0.042	< 0.065	2.3	< 0.13	0.18	1.2	< 0.13	0.13	0.14	< 0.13	16.0	< 0.002
	7D	µg/m3	< 0.042	< 0.065	1.4	< 0.13	< 0.16	0.68	< 0.13	0.042	0.071	< 0.13	10.0	< 0.002
	8D	µg/m3	-	-	-	-	-	-	-	-	-	-	-	14.0
RFS-163-03	1	µg/m3	< 0.047	< 0.072	< 1.3	< 0.14	< 0.18	0.38	< 0.15	0.032	0.068	< 0.14	0.34	< 0.002
	2	µg/m3	< 0.032	< 0.05	< 0.88	< 0.10	< 0.12	0.36	< 0.10	< 0.020	0.062	< 0.10	0.85	< 0.002
	3	µg/m3	< 0.037	< 0.058	< 1.0	< 0.12	0.15	1.3	< 0.12	0.15	0.11	< 0.12	2.4	< 0.002
	4	µg/m3	< 0.037	< 0.058	< 1.0	< 0.12	< 0.14	1.2	< 0.12	0.049	0.11	< 0.12	1.8	< 0.002
	5	µg/m3	-	-	-	-	-	-	-	-	-	-	-	< 0.002
	6	µg/m3	< 0.066	< 0.10	< 1.8	< 0.20	< 0.25	1.1	< 0.21	0.15	0.12	< 0.20	0.84	< 0.002
	7	µg/m3	< 0.043	< 0.067	< 1.2	< 0.13	< 0.16	0.6	< 0.14	0.041	0.077	< 0.13	0.48	< 0.002
	8	µg/m3	< 0.040	< 0.061	1.3	< 0.12	0.17	1.0	< 0.12	0.054	0.14	< 0.12	0.76	< 0.002
RFS-177-01	1	µg/m3	< 0.045	< 0.069	< 1.2	< 0.14	0.36	0.74	< 0.14	0.045	0.092	< 0.14	19	< 0.002
	2	µg/m3	< 0.033	< 0.052	< 0.90	< 0.10	0.64	0.44	< 0.10	< 0.021	< 0.026	< 0.10	17.0	< 0.002
	3	µg/m3	< 0.041	< 0.064	< 1.1	< 0.13	0.53	1.2	< 0.13	0.035	0.2	< 0.13	11.0	< 0.002
	4	µg/m3	< 0.042	< 0.065	< 1.1	< 0.13	0.63	0.94	< 0.13	0.11	0.27	< 0.13	15.0	< 0.002
	5	µg/m3	< 0.047	< 0.072	< 1.3	< 0.14	0.7	1.0	< 0.15	0.17	0.3	< 0.14	21.0	< 0.002
	6	µg/m3	< 0.039	< 0.060	< 1.0	< 0.12	0.27	1.1	< 0.12	0.25	0.27	< 0.12	19.0	< 0.002
	7	µg/m3	< 0.043	< 0.067	< 1.2	< 0.13	0.32	0.59	< 0.14	0.15	0.16	< 0.13	15.0	< 0.002
	8	µg/m3	< 0.042	< 0.065	< 1.1	< 0.13	0.67	1.0	< 0.13	0.19	0.19	< 0.13	17.0	< 0.002
RFS-UCB-01	1	µg/m3	< 0.040	< 0.061	< 1.1	< 0.12	0.16	0.85	< 0.12	0.045	0.11	< 0.12	1.1	< 0.002
	2	µg/m3	< 0.033	< 0.051	0.97	< 0.10	< 0.12	0.81	< 0.10	< 0.021	< 0.026	< 0.10	1.7	< 0.002
	3	µg/m3	-	-	-	-	-	-	-	-	-	-	1.1	< 0.002
	4	µg/m3	< 0.046	< 0.071	1.4	< 0.14	< 0.17	1.2	< 0.14	0.029	0.14	< 0.14	2.0	< 0.002
	5	µg/m3	-	-	-	-	-	-	-	-	-	-	1.7	< 0.002
	6	µg/m3	< 0.040	< 0.061	< 1.1	< 0.12	< 0.15	1.5	< 0.12	0.15	0.19	< 0.12	4.4	< 0.002
	7	µg/m3	< 0.041	< 0.064	< 1.1	< 0.13	< 0.16	0.78	< 0.13	0.028	0.068	< 0.13	0.77	< 0.002
	8	µg/m3	< 0.039	< 0.06	< 1.0	< 0.12	0.15	1.2	< 0.12	0.046	0.12	< 0.12	0.63	< 0.002
RFS-155-01	1	µg/m3	< 0.041	< 0.064	1.1	< 0.13	< 0.16	0.5	< 0.13	0.034	0.1	< 0.13	9.6	< 0.002
	2	µg/m3	< 0.044	< 0.068	< 1.2	< 0.14	< 0.17	0.47	< 0.14	< 0.028	< 0.035	< 0.14	14.0	< 0.002
	3	µg/m3	< 0.045	< 0.069	< 1.2	< 0.14	< 0.17	1.1	< 0.14	0.038	0.2	< 0.14	11.0	< 0.002
	4	µg/m3	< 0.045	< 0.069	< 1.2	< 0.14	< 0.17	1.1	< 0.14	< 0.028	0.16	< 0.14	8.8	< 0.002
	5	µg/m3	< 0.15	< 0.23	< 4.0	< 0.46	< 0.56	1.6	< 0.46	0.092	0.28	< 0.46	15.0	< 0.002
	6	µg/m3	< 0.048	< 0.074	< 1.3	< 0.15	< 0.18	2.5	< 0.15	0.14	0.26	< 0.15	16.0	< 0.002
	7	µg/m3	< 0.039	< 0.060	< 1.0	< 0.12	< 0.15	0.72	< 0.12	0.044	0.12	< 0.12	16.0	< 0.002
	8	µg/m3	< 0.040	< 0.061	1.0J	< 0.12	0.18	1.2	< 0.12	0.056	0.2	< 0.12	13.0	< 0.002
RFS-175-01	1	µg/m3	0.052	< 0.065	< 1.1	< 0.13	0.18	1.5	< 0.13	0.036	0.15	< 0.13	10.0	< 0.002
	2	µg/m3	0.053	< 0.067	< 1.2	< 0.13	0.35	0.65	< 0.14	0.036	0.15	< 0.13	15.0	< 0.002
	3	µg/m3	0.059	< 0.063	< 1.1	< 0.12	0.3	1.3	< 0.13	0.037	0.22	< 0.12	11.0	< 0.002

Table 1: Indoor Air Monitoring Data Results (Continued)

Indoor Air Monitoring Report, University of California, Berkeley, Richmond Field Station, Richmond, California

Station ID	Event Number	Units	Vinyl Chloride	1,1-Dichloroethylene	Methylene Chloride	cis-1,2-Dichloroethylene	Chloroform	Benzene	1,2-Dichloroethane	Trichloroethylene	Tetrachloroethylene	trans-1,2-Dichloroethylene	Formaldehyde	Arsenic
RFS-175-01	4	µg/m3	< 0.044	< 0.068	< 1.2	< 0.14	0.2	1.0	< 0.14	0.038	0.2	< 0.14	7.4	< 0.002
	5	µg/m3	< 0.076	< 0.12	< 2.1	< 0.24	0.31	1.3	< 0.24	0.074	0.3	< 0.24	11.0	< 0.002
	6	µg/m3	0.064	< 0.067	< 1.2	< 0.13	0.21	1.3	< 0.14	0.13	0.31	< 0.13	7.7	< 0.002
	7	µg/m3	< 0.039	< 0.060	< 1.0	< 0.12	< 0.15	0.68	< 0.12	0.04	0.16	< 0.12	6.4	< 0.002
	8	µg/m3	0.052	< 0.057	< 1.0	< 0.11	0.3	1.4	< 0.12	0.049	< 0.029	< 0.11	6.4	< 0.002
RFS-175-02	1	µg/m3	< 0.040	< 0.061	< 1.1	< 0.12	0.4	< 0.12	< 0.025	< 0.032	0.051	< 0.12	0.55	< 0.002
	2	µg/m3	< 0.040	< 0.061	< 1.1	< 0.12	< 0.15	0.41	< 0.12	< 0.025	< 0.032	< 0.12	1.6	< 0.002
	3	µg/m3	< 0.037	< 0.058	< 1.0	< 0.12	0.15	1.3	< 0.12	0.034	0.1	< 0.12	2.3	< 0.002
	4	µg/m3	< 0.043	< 0.067	< 1.2	< 0.13	< 0.16	1.2	< 0.14	0.046	0.1	< 0.13	1.9	< 0.002
	5	µg/m3	< 0.079	< 0.12	< 2.1	< 0.24	< 0.30	1.3	< 0.25	0.09	0.2	< 0.24	1.4	< 0.002
	6	µg/m3	< 0.066	< 0.10	< 1.8	< 0.20	< 0.25	1.1	< 0.21	0.17	0.14	< 0.20	0.94	< 0.002
	7	µg/m3	< 0.050	< 0.078	< 1.4	< 0.16	< 0.19	0.6	< 0.16	< 0.032	0.069	< 0.16	0.69	< 0.002
	8	µg/m3	< 0.037	< 0.057	1.0	< 0.11	0.16	1.0	< 0.12	0.05	0.13	< 0.11	0.77	< 0.002
RFS-FL	1	µg/m3	< 0.041	< 0.064	< 1.1	< 0.13	< 0.16	0.43	< 0.13	< 0.026	0.046	< 0.13	0.48	< 0.002
	2	µg/m3	< 0.048	< 0.074	< 1.3	< 0.15	< 0.18	0.38	< 0.15	< 0.030	< 0.038	< 0.15	0.71	-
	3	µg/m3	< 0.038	< 0.059	< 1.0	< 0.12	0.18	1.8	< 0.12	0.04	0.095	< 0.12	1.9	< 0.002
	4	µg/m3	< 0.035	< 0.054	< 0.94	< 0.11	0.14	1.2	< 0.11	0.031	0.088	< 0.11	1.8	< 0.002
	5	µg/m3	< 0.043	< 0.067	1.1 c	< 0.13	< 0.16	1.2	< 0.14	0.06	0.17	< 0.13	0.97	< 0.002
	6	µg/m3	< 0.089	< 0.14	< 2.4	< 0.28	< 0.34	1.5	< 0.28	0.26	0.15	< 0.28	0.92	< 0.002
	7	µg/m3	< 0.034	< 0.053	< 0.93	< 0.11	< 0.13	0.65	< 0.11	0.039	0.1	< 0.11	0.47	< 0.002
	8	µg/m3	< 0.040	< 0.063	< 1.1	< 0.12	0.29	0.96	< 0.13	0.046	0.15	< 0.12	0.79	< 0.002
RFS-TB	1	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	2	µg/m3	-	-	-	-	-	-	-	-	-	-	< 0.025	0.000
	3	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	4	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	5	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	6	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	7	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	8	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
Lab Blank	1	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	2	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	3	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	4	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	5	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	6	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	7	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000
	8	µg/m3	< 0.026	< 0.040	< 0.69	< 0.079	< 0.098	< 0.16	< 0.081	< 0.016	< 0.020	< 0.079	< 0.025	0.000

Table 1: Indoor Air Monitoring Data Results (Continued)

Indoor Air Monitoring Report, University of California, Berkeley, Richmond Field Station, Richmond, California

Note:

- : no value for this location because of equipment malfunction

c: estimated value

µg/m³: micrograms per cubic meter

Event 1 occurred on 26 Oct. 2007

Event 2 occurred on 7 Nov. 2007

Event 3 occurred on 29 Nov. 2007

Event 4 occurred on 12 Dec. 2007

Event 5 occurred on 19 Dec. 2007

Event 6 occurred on 10 Jan. 2008

Event 7 occurred on 24 Jan. 2008

Event 8 occurred on 5 Feb. 2008

Table 2: Indoor Air Monitoring Data Averages with Comparison Data

Indoor Air Monitoring Report, University of California, Berkeley, Richmond Field Station, Richmond, California

Units	Vinyl Chloride	1,1-Dichloroethylene	Methylene Chloride	cis-1,2-Dichloroethylene	Chloroform	Benzene	1,2-Dichloroethane	Trichloroethylene	Tetrachloroethylene	trans-1,2-Dichloroethylene	Formaldehyde	Arsenic	
CDHS Saugus study indoor range	µg/m3	1.1 - 1.3	nd	1.5 - 2.0	1.4 - 2.3	22 - 32	nd						
CDHS Saugus study outdoor range	µg/m3	1.1 - 1.2	nd	1.5 - 1.8	1 - 4.1	1.5 - 2	nd						
ARB 1991	µg/m3					61.40							
BASE Study Percent Detect		1%	0%	81%	29%	100%	5%	66%	100%	100%			
BASE Study 50th Percentile	µg/m3	< LOQ	2.90	0.35	3.60	< LOQ	0.29	1.50	15.00				
BASE Study 95th Percentile	µg/m3	< LOQ	16.00	1.30	9.10	< LOQ	2.60	18.00	32.00				
BASE Study Mean	µg/m3	0.78	21.00	0.59	4.20	1.10	0.76	3.80	16.00				
CDHS 5 Building Study Percent Detect		61%	3%	1%	21%	0%	0%	43%	100%				
CDHS 5 Building Study Results	µg/m3	N - 28 min 0.8 max 9.9	N - 285 min 0.3 max 1.0	N - 285 min 3.0 max 4.9 (ave DL < 3.0)	N - 285 min 0.8 max 5.6	N - 28 all < 2.0	N - 285 all < 1.0	N - 285 min 0.2 max 16.2	N - 265 median 19 stdev 12 min 0.4 max 81				
Target Detection Limits	µg/m3	0.0255	0.0396	0.694	0.0976	0.1596	0.0161	0.0203	0.03	1.70E-04			
Percent Detect Indoor		8.20%	0.00%	41.27%	3.17%	74.60%	100%	4.76%	88.89%	93.65%	0.00%	100%	0.00%
Detected Indoor Average		0.056	< DL	2.204	0.445	0.307	1.073	0.153	0.189	0.209	< DL	16.468	< DL
Percent Detect Outdoor		0.00%	0.00%	17.65%	0.00%	46.07%	94.12%	0.00%	64.71%	88.24%	0.00%	100%	0.00%
Detected Outdoor Average		< DL	< DL	1.1	< DL	0.205	0.953	< DL	0.079	0.108	< DL	1.116	< DL
Mean Indoor Value		0.024	< DL	0.942	0.077	0.246	1.073	0.069	0.166	0.202	< DL	16.468	< DL
Mean Outdoor Value		< DL	< DL	0.196	< DL	0.123	0.914	< DL	0.062	0.100	< DL	1.116	< DL

Notes:

ARB: Air Resources Board

BASE: Building Assessment Survey and Evaluation

CDHS: California Department of Health Services

DL: Detection Limit

LOQ: Limit of Quantitation

max: Maximum detected value

min: Minimum detected value

N: Number of samples taken

nd: Not detected

stdev: Standard deviation

µg/m3: micrograms per cubic meter

Appendix A

Photographs of Sampling Locations



Building 163



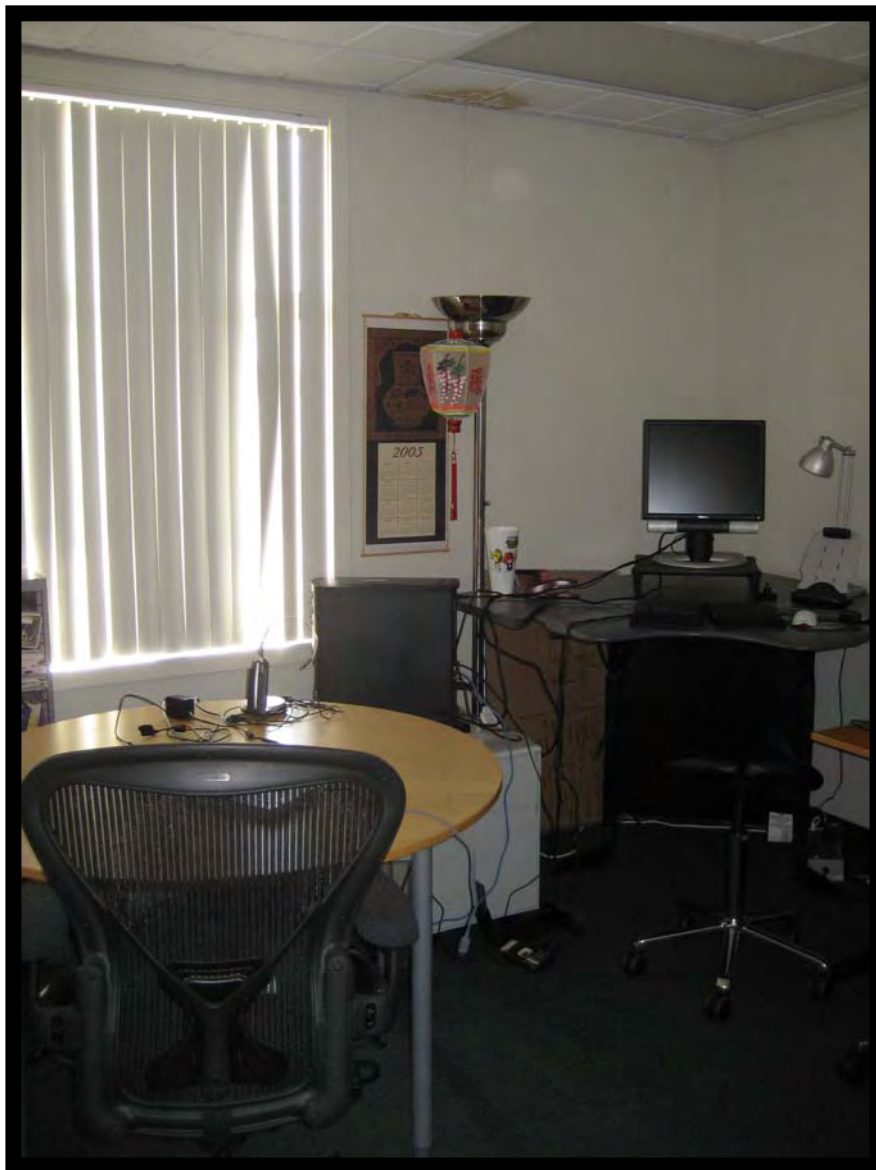
Sampling location 163-01.
Set up in hallway next to
door to the outside.



163-01, view of hallway



163-01, mechanical room,
located directly across hall
from sampling location



Sampling location 163-02,
unoccupied office. Sample
was taken on wood table.



163-02, view of office.



163-02, view of ceiling, vent directly above sample location.



Sampling location 163-03.
The sampling equipment
was placed on the stairs.



View from 163-03, facing northeast.



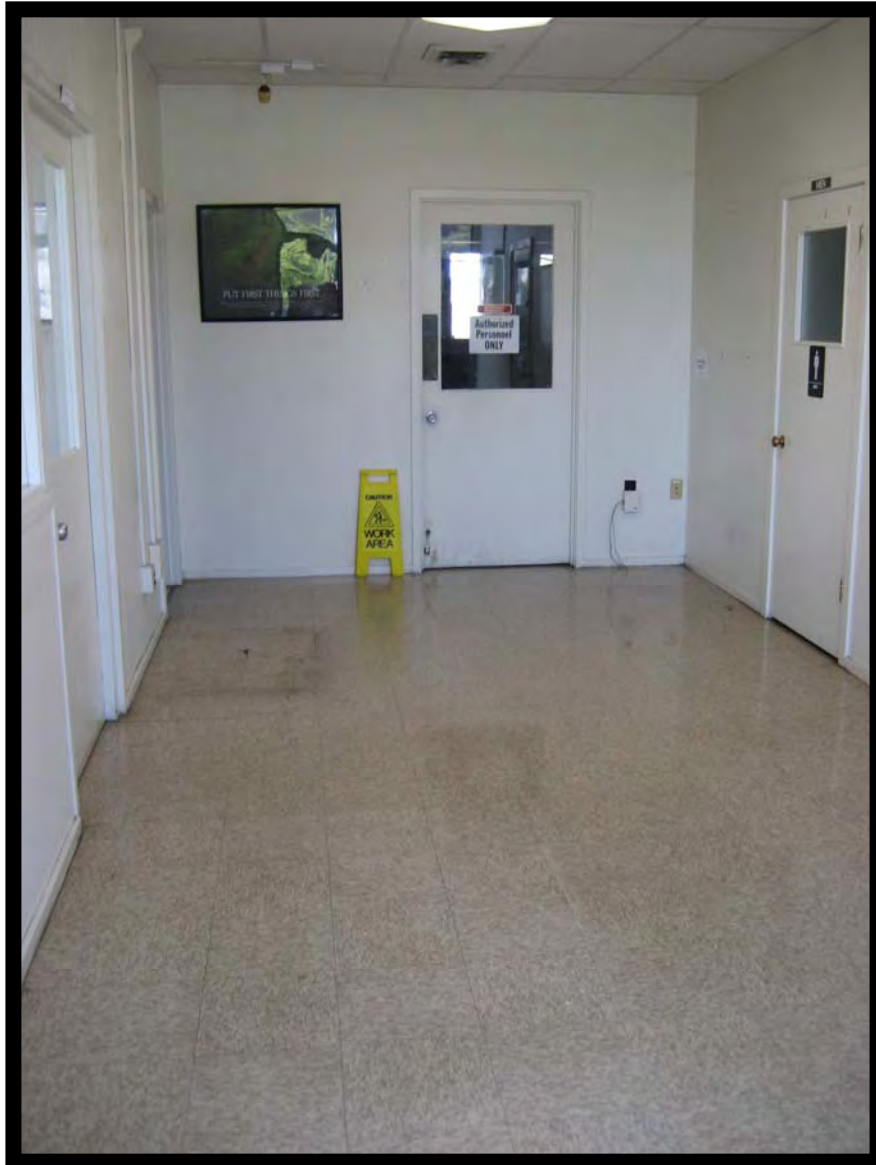
View from 163-03, facing southeast.



Building 175



Sample location 175-01. In lobby of administrative building.



175-01, view of lobby.



175-02, unused carpenters workshop behind double doors, seen in previous photo.



Sampling location 175-02. Sample was taken on upper part of the roof.



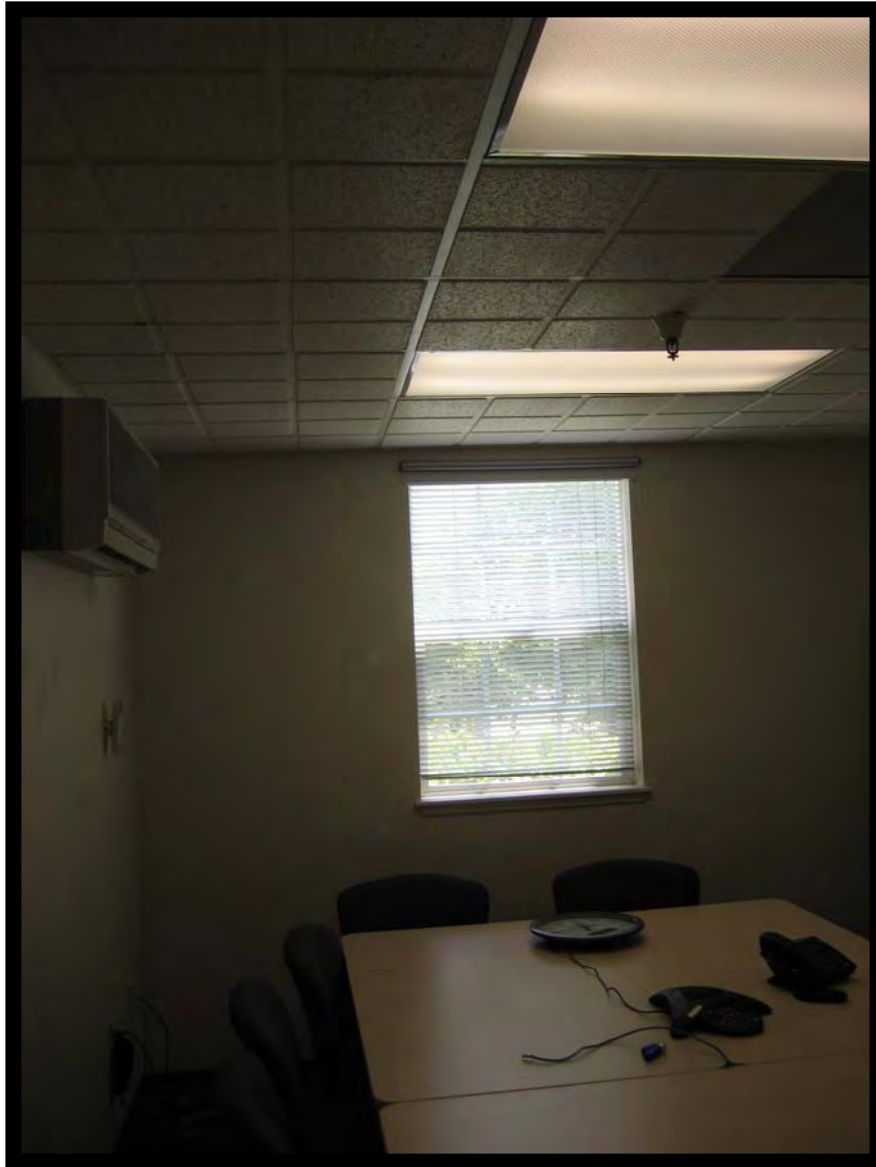
175-02, view facing south



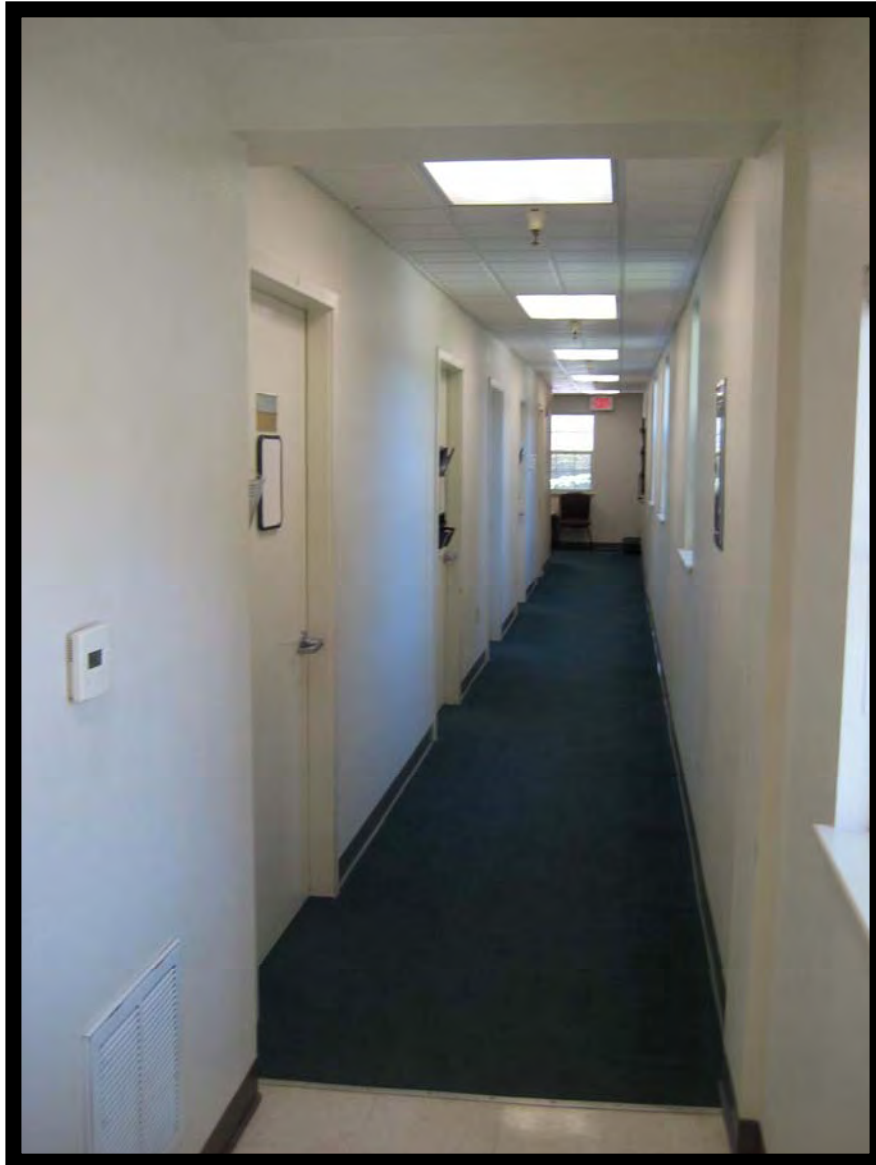
175-02, view facing east



Building 177



Sampling location 177-01,
unoccupied office.



177-01, view of hallway
outside office door.



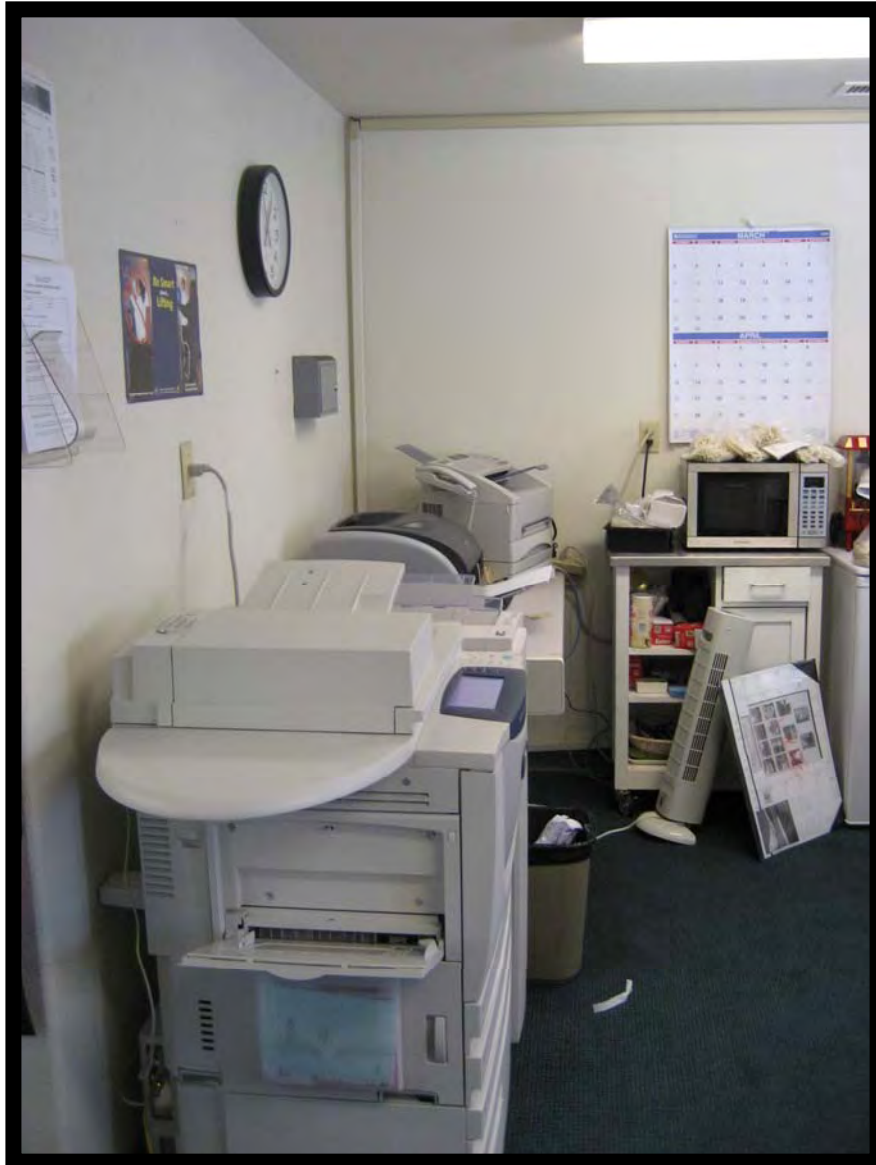
Building 155



Sampling location 155-01.
Sampling equipment sat on
top of metal filing cabinet.



155-01, hallway adjacent to sampling location.



155-01, office equipment in
sampling location



155-01, view from sampling location into room.



Building 478



Sampling location 478-01,
unoccupied office, used as
library.



478-01, sampling equipment sat on desk.



478-01, view of hallway
outside office. New floor
and ceiling tiles.



Sampling location 478-02. Equipment sat on table.



478-02, view from sampling location into lobby.



478-02, view from sampling location into adjacent hallway



478-02, view of adjacent
unused carpenters workshop



Sampling location 478-03,
kitchen and break room.



478-03, view from sampling location of opposite wall.



478-03, view from sampling location of adjacent wall.



478-03, view of hallway
outside of sampling location.



Sampling location FLS-01, view to the south.



Sampling location FLS-01, view to the west.

Appendix B

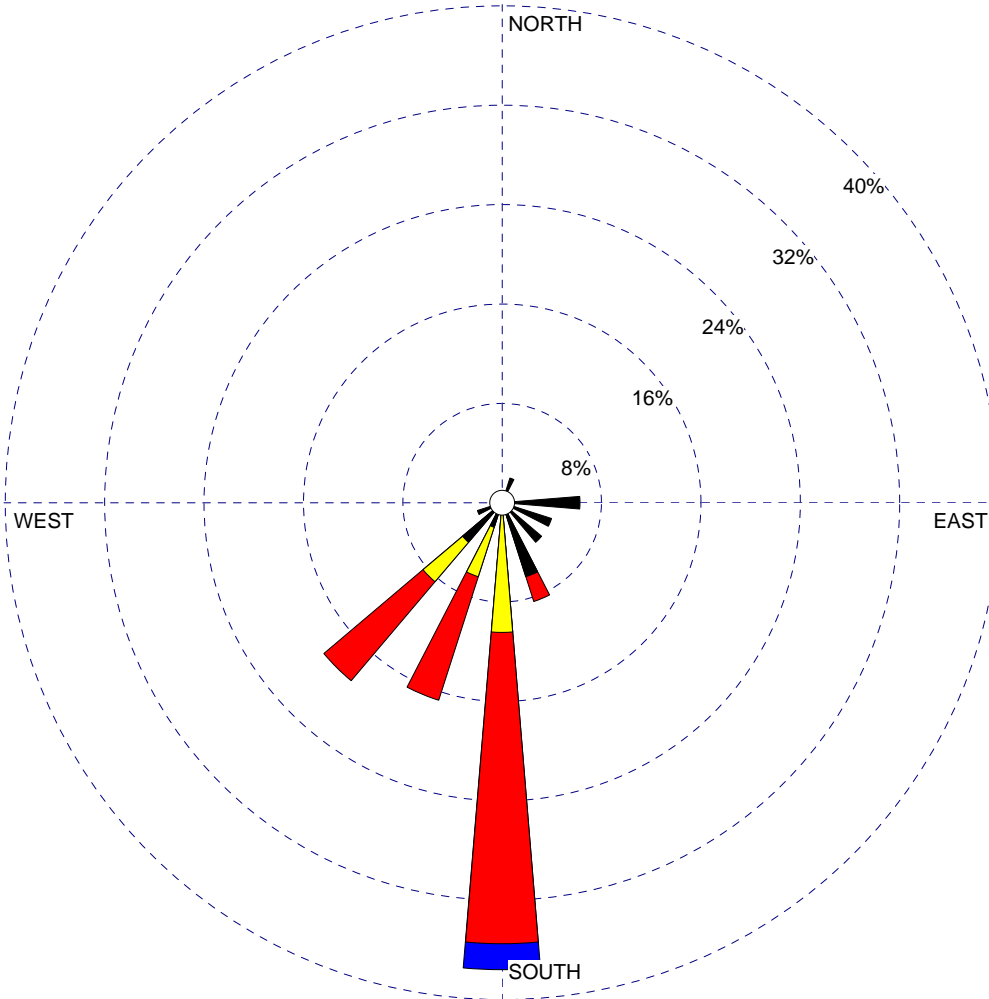
Wind Roses for Sampling Events

WIND ROSE PLOT:

Station #2950

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(Knots)

- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

Calms: 0.00%

COMMENTS:

DATA PERIOD:

**2007
Oct 25 - Oct 26
00:00 - 23:00**

COMPANY NAME:

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

48 hrs.

AVG. WIND SPEED:

6.06 Knots

DATE:

5/20/2008

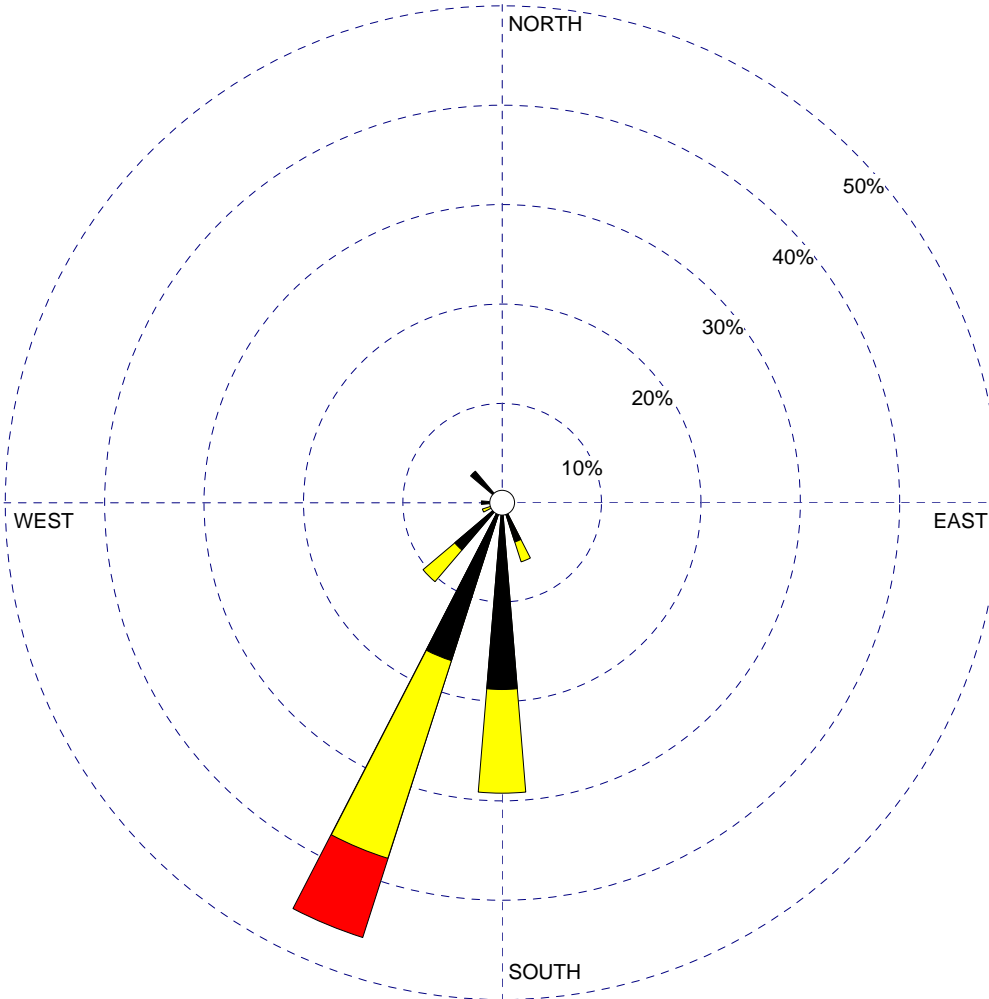
PROJECT NO.:

WIND ROSE PLOT:

Station #2950

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(Knots)

- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

Calms: 0.00%

COMMENTS:

DATA PERIOD:

**2007
Nov 6 - Nov 7
00:00 - 23:00**

COMPANY NAME:

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

48 hrs.

AVG. WIND SPEED:

4.35 Knots

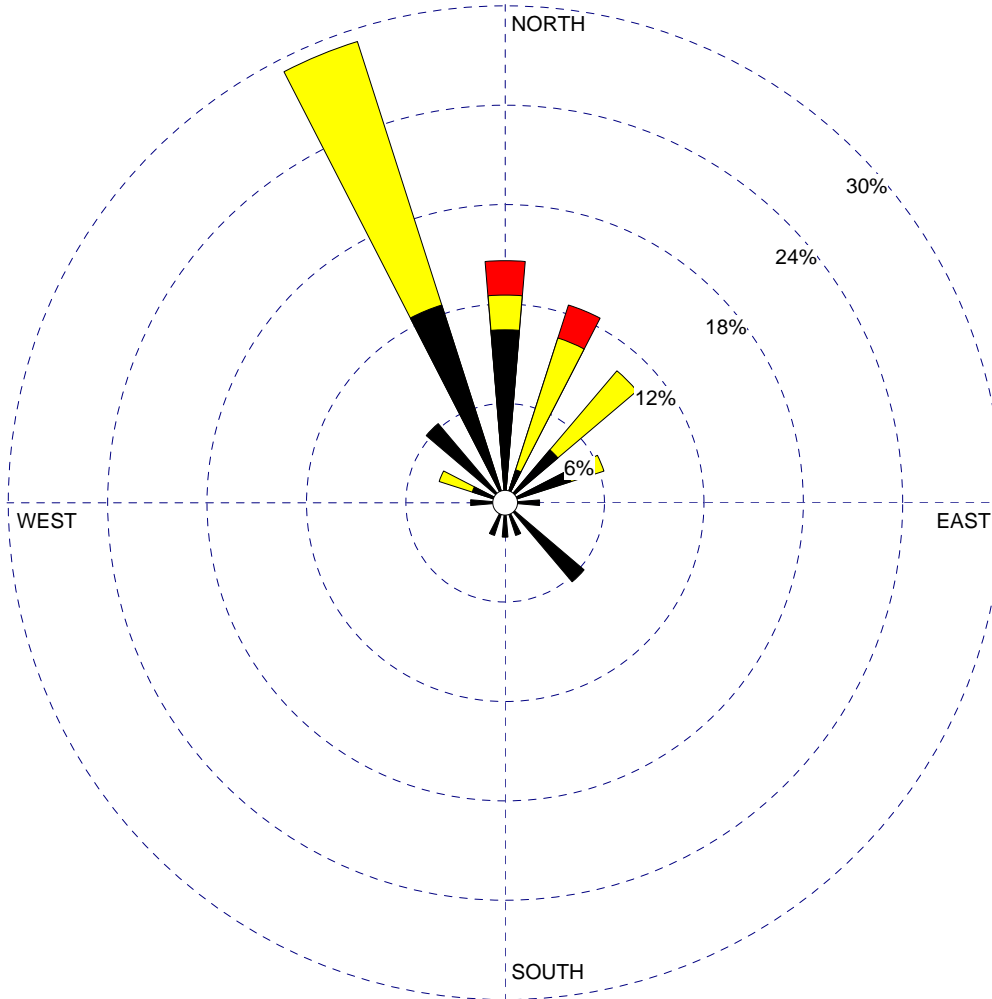
DATE:

5/20/2008

PROJECT NO.:

WIND ROSE PLOT:
Station #2950

DISPLAY:
Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)

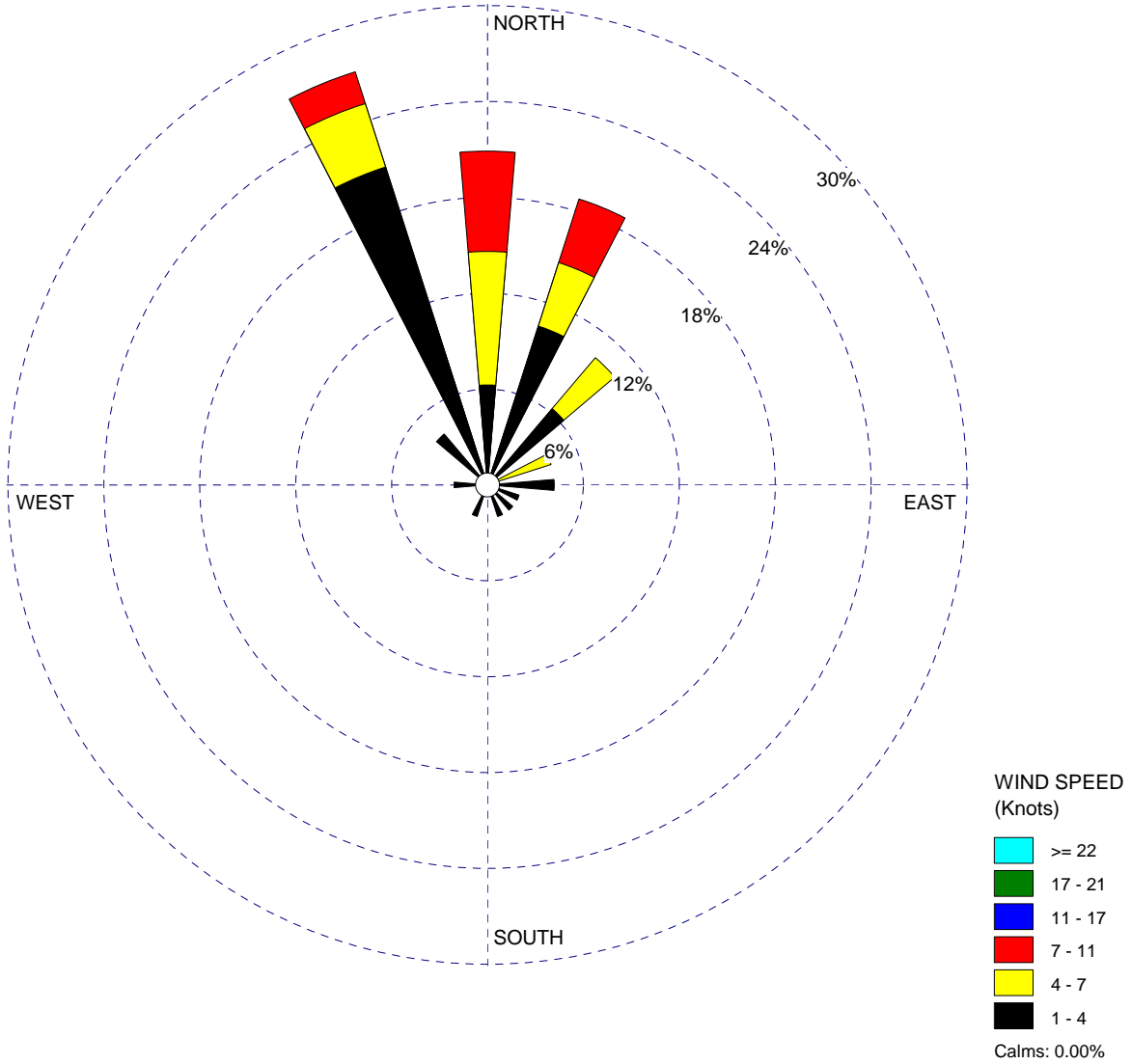
- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

Calms: 0.00%

COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	2007 Nov 28 - Nov 29 00:00 - 23:00	MODELER:	
	CALM WINDS:	TOTAL COUNT:	
	0.00%	48 hrs.	
AVG. WIND SPEED:	DATE:	PROJECT NO.:	
3.72 Knots	5/20/2008		

WIND ROSE PLOT:
Station #2950

DISPLAY:
Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2007
Dec 11 - Dec 12
00:00 - 23:00

COMPANY NAME:

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

48 hrs.

AVG. WIND SPEED:

4.31 Knots

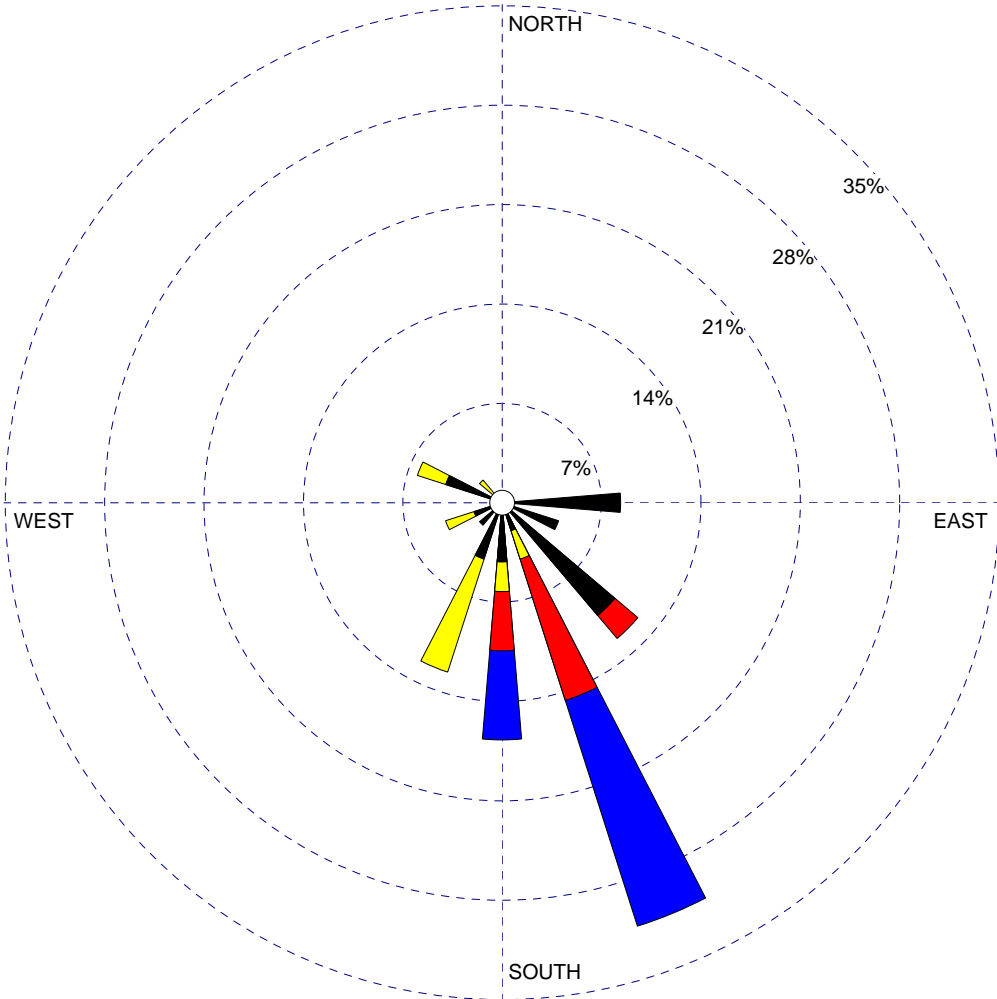
DATE:

5/20/2008

PROJECT NO.:

WIND ROSE PLOT:
Station #2950

DISPLAY:
Wind Speed
Direction (blowing from)



WIND SPEED
(Knots)

- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

Calms: 0.00%

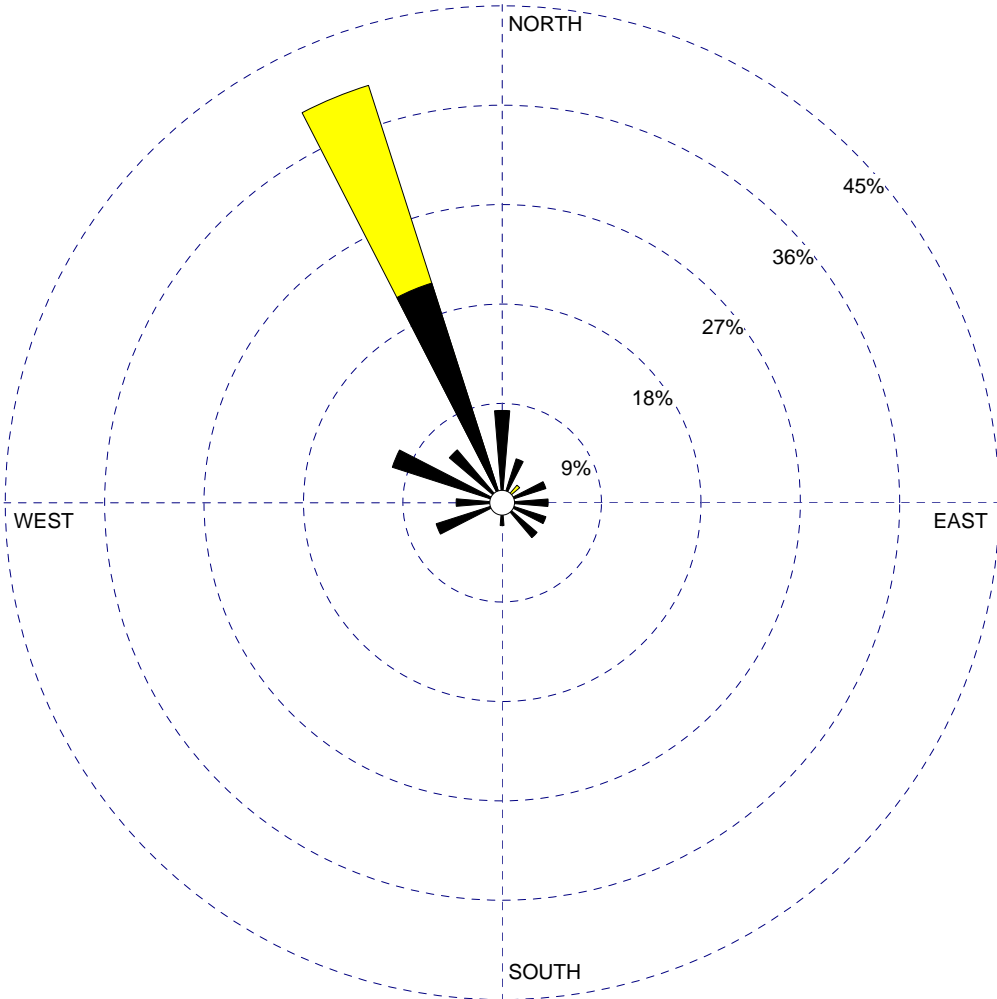
COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	2007 Dec 18 - Dec 19 00:00 - 23:00	MODELER:	
	CALM WINDS:	TOTAL COUNT:	
	0.00%	48 hrs.	
AVG. WIND SPEED:	DATE:	PROJECT NO.:	
7.06 Knots	5/20/2008		

WIND ROSE PLOT:

Station #2950

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(Knots)

- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

Calms: 0.00%

COMMENTS:

DATA PERIOD:

**2008
Jan 9 - Jan 10
00:00 - 23:00**

COMPANY NAME:

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

48 hrs.

AVG. WIND SPEED:

3.12 Knots

DATE:

5/20/2008

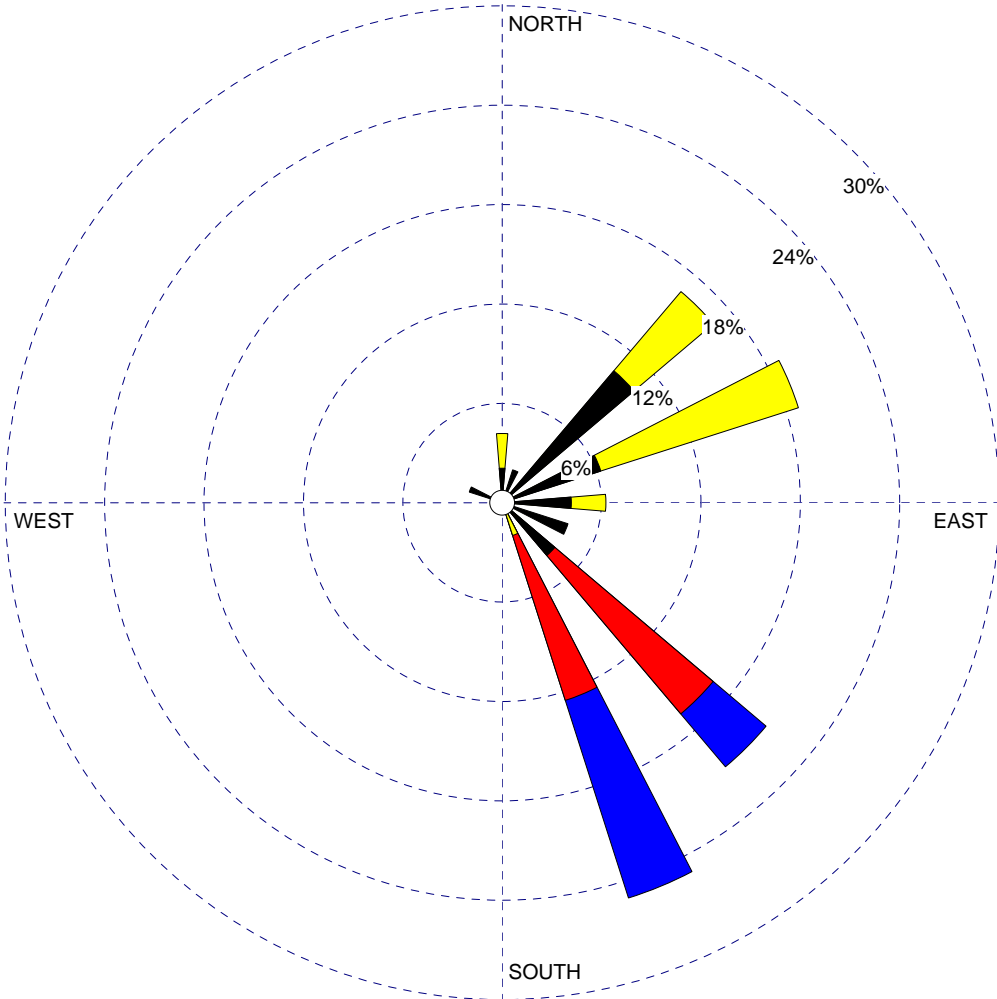
PROJECT NO.:

WIND ROSE PLOT:

Station #2950

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(Knots)

- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

Calms: 0.00%

COMMENTS:

DATA PERIOD:

**2008
Jan 23 - Jan 24
00:00 - 23:00**

COMPANY NAME:

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

48 hrs.

AVG. WIND SPEED:

6.52 Knots

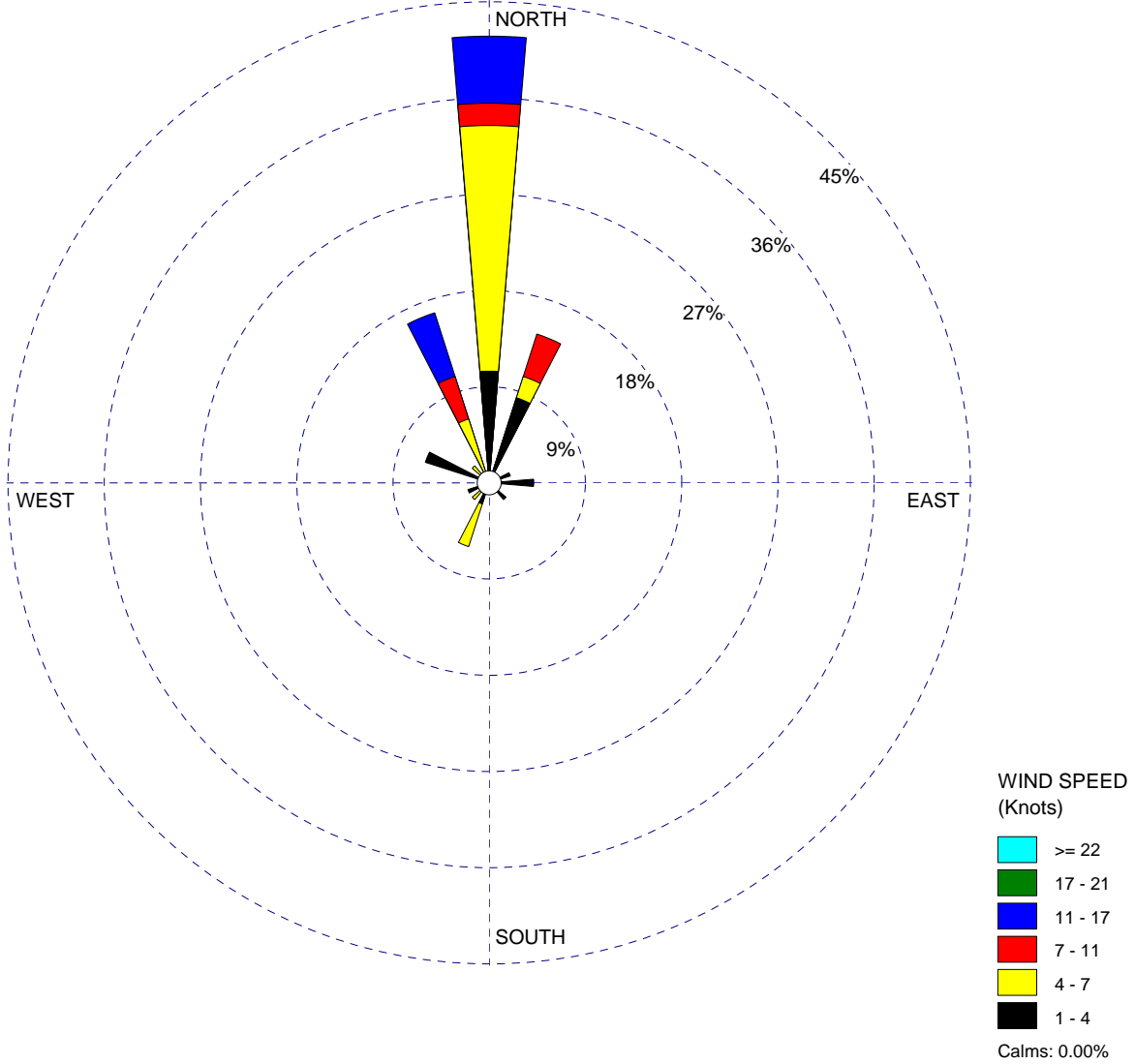
DATE:

5/20/2008

PROJECT NO.:

WIND ROSE PLOT:
Station #2950

DISPLAY:
Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

2008
Feb 4 - Feb 5
00:00 - 23:00

COMPANY NAME:

MODELER:

CALM WINDS:

0.00%

TOTAL COUNT:

48 hrs.

AVG. WIND SPEED:

5.62 Knots

DATE:

5/20/2008

PROJECT NO.:

Appendix C

Field Data Summary Sheets

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-01 (Hallway Near Ramp Exit)
Sample Start Time/Date: 13:06 10-25-07 Sample Stop Time/Date: 1308 10-26-07
Sample Collection Period: 1442 minutes Field Technician: D Herlocker

Air Metric PM₁₀ Sampler

Sample ID #: DHPT008 RFS-163-01-01
Filter ID #: DHPT008 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 4157.50 Ending Flow Rate (LPM): 5.0
Timer Ending Time: 4181.51 Ambient Baro. Press. (in. Hg): —
Average Daily Temp. (deg C): — Sampler Serial #:

Summa Canister (VOC) Sampler

Sample ID #: RFS-163-01-01
Canister ID #: 25317 Beginning Canister Pressure(in. Hg) 30.0
Average Daily Temp. (deg C): — Ending Canister Pressure(in. Hg) -5.5
Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RFS-163-01-01
Filter ID/Lot #: 3RR9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM) 1.2 Ending Timer Reading: 1442
Ending Flow Rate (LPM) 1.3 SKC Pump Serial #: 2812
Ambient Temp. (deg C): —

NOTES:

All Samples Normal - No equipment issues
OR Failures

SIGNATURE:

Doug Wal

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02 (Room 126)

Sample Start Time/Date: 04 1324-1317 Sample Stop Time/Date: 10-26-07 4308

04
1324

Sample Collection Period: 1447 ¹⁰⁻²⁵⁻⁰⁷ Field Technician:

Air Metric PM₁₀ Sampler

Sample ID #: DHPT001 RPS-163-02-01

Filter ID #: DHPT001 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4590.55 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4614.58 Ambient Baro. Press. (in. Hg):

Average Daily Temp. (deg C): Sampler Serial #:

Summa Canister (VOC) Sampler

Sample ID #: RPS-163-02-01

Canister ID #: 33(d61) Beginning Canister Pressure(in. Hg) 30.0

Average Daily Temp. (deg C): — Ending Canister Pressure(in. Hg) 7.5

Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RPS-163-02-01

Filter ID/Lot #: SPR 9170 Beginning Timer Reading: ϕ

Beginning Flow Rate (LPM) 2.1-2=1.05 Ending Timer Reading: Error

Ending Flow Rate (LPM) Error SKC Pump Serial #:

Ambient Temp. (deg C): —

NOTES:

SKC Pumps Not operating upon arrival on 10-26-07. All other samples Normal.

SIGNATURE:

Doug Hal 10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location:

163-02D (Room 126)

Sample Start Time/Date:

1317 10-25-07

Sample Stop Time/Date:

1324 10-26-07

Sample Collection Period:

1447 Minutes

Field Technician:

D. Herlocker

Air Metric PM₁₀ Sampler

Sample ID #:

DHPT004 163-02-01D

Filter ID #:

DHPT004

Beginning Flow Rate (LPM):

5.0

Timer Beginning Time:

8679.10

Ending Flow Rate (LPM):

5.0

Timer Ending Time:

8703.16

Ambient Baro. Press. (in. Hg):

Average Daily Temp. (deg C):

Sampler Serial #:

Summa Canister (VOC) Sampler

Sample ID #:

RFS-163-02-01D

Canister ID #:

34325

Beginning Canister Pressure (in. Hg):

32.0

Average Daily Temp. (deg C):

Ending Canister Pressure (in. Hg):

4.9

Ambient Baro. Press. (in. Hg):

Formaldehyde/SKC Sampler

Sample ID #:

RFS-163-02-01D

Filter ID/Lot #:

SPR9120

Beginning Timer Reading:

0

Beginning Flow Rate (LPM)

$2.1 \div 2 = 1.05$

Ending Timer Reading:

ERR02

Ending Flow Rate (LPM)

ERR02

SKC Pump Serial #:

Ambient Temp. (deg C):

NOTES:

SKC Pumps Not operating upon arrival on 10-26-07. All other samples normal.

SIGNATURE:

Doug White

10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03 (outside building) Eastside
Sample Start Time/Date: 13:52 10-26-07 Sample Stop Time/Date: 13:58 10-26-07
Sample Collection Period: 1446 Minutes Field Technician: D. Herlocker

Air Metric PM₁₀ Sampler

Sample ID #: RFS-163-03-0
Filter ID #: DHPT003 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 4635.15 Ending Flow Rate (LPM): 5.0
Timer Ending Time: 4659.29 Ambient Baro. Press. (in. Hg): —
Average Daily Temp. (deg C): — Sampler Serial #: 1277

Summa Canister (VOC) Sampler

Sample ID #: RFS-163-03-01
Canister ID #: 4379 Beginning Canister Pressure (in. Hg) 30.0
Average Daily Temp. (deg C): — Ending Canister Pressure (in. Hg) 29.5
Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RFS-163-03-01
Filter ID/Lot #: SPR9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM) 1.2 Ending Timer Reading: 1447
Ending Flow Rate (LPM) 1.4 SKC Pump Serial #: 07738
Ambient Temp. (deg C): —

NOTES:

All Samples Normal & no equipment failures.

SIGNATURE:

Douglas Hol 10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01 (Room 312)

Sample Start Time/Date: 1406 10-25-07 Sample Stop Time/Date: 14:16 10-26-07
Sample Collection Period: 1450 minutes Field Technician: D. Herlocker

Air Metric PM₁₀ Sampler

Sample ID #: RFS-478-01-01
Filter ID #: DAPT009 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 2231.60 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 2255.80 Ambient Baro. Press. (in. Hg): —
Average Daily Temp. (deg C): — Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Sample ID #: RFS-478-01-01
Canister ID #: 35993 Beginning Canister Pressure (in. Hg) (Approx): 5
Average Daily Temp. (deg C): — Ending Canister Pressure (in. Hg): 9.0
Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RFS-478-01-01
Filter ID/Lot #: SPR 9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 1.2 Ending Timer Reading: 1450
Ending Flow Rate (LPM): 1.4 SKC Pump Serial #: 10476
Ambient Temp. (deg C): —

NOTES:

All samples normal - no equipment failures

SIGNATURE: Douglas Herlocker 10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02 (Front Lobby)
Sample Start Time/Date: 14:10 10-25-07 Sample Stop Time/Date: 14:24 10-26-07
Sample Collection Period: 1454 minutes Field Technician: D. Harlocker

Air Metric PM₁₀ Sampler

Sample ID #: RFS-478-02-01
Filter ID #: DHPT006 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3398.74 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 3422.94 Ambient Baro. Press. (in. Hg): —
Average Daily Temp. (deg C): — Sampler Serial #: 1331

Summa Canister (VOC) Sampler

Sample ID #: RFS-478-02-01
Canister ID #: 34263 Beginning Canister Pressure (in. Hg) Approx 35
Average Daily Temp. (deg C): — Ending Canister Pressure (in. Hg) 8.2
Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RFS-478-02-01
Filter ID/Lot #: SPR 9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM) 1.2 Ending Timer Reading: 1451
Ending Flow Rate (LPM) 1.3 SKC Pump Serial #: 08377
Ambient Temp. (deg C): —

NOTES:

All Samples Normal - NO Equipment Failures or problems.

SIGNATURE:

Douglas Vert 10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03 (Room 142)
Sample Start Time/Date: 14:15 10-26-07 Sample Stop Time/Date: 14:29 10-26-07
Sample Collection Period: 1454 minutes Field Technician: D. Herlocker

Air Metric PM₁₀ Sampler

Sample ID #: RFS-478-03-01
Filter ID #: DHPT007 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3571.70 Ending Flow Rate (LPM): 4.5
Timer Ending Time: 03615.90 Ambient Baro. Press. (in. Hg): —
Average Daily Temp. (deg C): — Sampler Serial #: 1313

Summa Canister (VOC) Sampler

Sample ID #: RFS-478-03-01
Canister ID #: 13659 Beginning Canister Pressure (in. Hg) 30.0
Average Daily Temp. (deg C): — Ending Canister Pressure (in. Hg) 7.1
Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RFS-478-03-01
Filter ID/Lot #: SPR9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM) 1.2 Ending Timer Reading: 1449
Ending Flow Rate (LPM) 1.5 SKC Pump Serial #: 04590
Ambient Temp. (deg C):

NOTES:

All Samples Normal - NO Equipment Failures or problems.

SIGNATURE:

Douglas Neal 10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01 (Room #6)
Sample Start Time/Date: 14:33 10-25-07 Sample Stop Time/Date: 10-26-07 1437
Sample Collection Period: 14:44 Minutes Field Technician: D. Harlocker

Air Metric PM₁₀ Sampler

Sample ID #: _____
Filter ID #: DHPT013 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3187.81 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 3211.89 Ambient Baro. Press. (in. Hg): _____
Average Daily Temp. (deg C): _____ Sampler Serial #: 1333

Summa Canister (VOC) Sampler

Sample ID #: RFS-177-01-01
Canister ID #: 30933 Beginning Canister Pressure (in. Hg) 30.0
Average Daily Temp. (deg C): _____ Ending Canister Pressure (in. Hg) 8.8
Ambient Baro. Press. (in. Hg): _____

Formaldehyde/SKC Sampler

Sample ID #: RFS-177-01-01
Filter ID/Lot #: SPR 9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM) 1.2 Ending Timer Reading: 1444
Ending Flow Rate (LPM) 1.4 SKC Pump Serial #: 10479
Ambient Temp. (deg C): _____

NOTES:

All samples Normal - NO equipment failures or problems

SIGNATURE:

Douglas Welch

10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: UCB-01

Sample Start Time/Date: 10-25-07 15:18 Sample Stop Time/Date: 1521 10-26-07

Sample Collection Period: 1443 Minutes Field Technician: D. Harlocker

Air Metric PM₁₀ Sampler

Sample ID #: UCB-01-01

Filter ID #: DHPT014 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2937.93 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 2963.02 Ambient Baro. Press. (in. Hg): —

Average Daily Temp. (deg C): — Sampler Serial #: 1345

Summa Canister (VOC) Sampler

Sample ID #: UCB-01-01

Canister ID #: 9939 Beginning Canister Pressure(in. Hg) 28.0

Average Daily Temp. (deg C): — Ending Canister Pressure(in. Hg) 5.8

Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: UCB-01-01

Filter ID/Lot #: SPR 9170 Beginning Timer Reading: 0

Beginning Flow Rate (LPM) 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM) 1.4 SKC Pump Serial #: 00461

Ambient Temp. (deg C): —

NOTES:

All samples normal - However watch SKC timer for future samples as timer registered 1440 minutes, but time (cell phone) was 1443 minutes

SIGNATURE:

Douglas Aul

10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

155-01

SITE INFORMATION

Sample Location:

155-01 (Hallway on File Cabinet)

Sample Start Time/Date:

15:56 10-25-07

Sample Stop Time/Date:

16:26 10-26-07

Sample Collection Period:

1470 Minutes

Field Technician:

D. Aerlocker

Air Metric PM₁₀ Sampler

Sample ID #:

RPS-155-01-01

Filter ID #:

DHPT012

Beginning Flow Rate (LPM):

5.0

Timer Beginning Time:

2649.12

Ending Flow Rate (LPM):

5.0

Timer Ending Time:

2673.69

Ambient Baro. Press. (in. Hg):

—

Average Daily Temp. (deg C):

—

Sampler Serial #:

1332

Summa Canister (VOC) Sampler

Sample ID #:

RPS-155-01-01

Canister ID #:

34492

Beginning Canister Pressure (in. Hg):

30.0

Average Daily Temp. (deg C):

—

Ending Canister Pressure (in. Hg):

6.5

Ambient Baro. Press. (in. Hg):

—

Formaldehyde/SKC Sampler

Sample ID #:

RPS-155-01-01

Filter ID/Lot #:

SPR 9170

Beginning Timer Reading:

0

Beginning Flow Rate (LPM)

1.25

Ending Timer Reading:

1470

Ending Flow Rate (LPM)

1.05

SKC Pump Serial #:

07614

Ambient Temp. (deg C):

—

NOTES:

All samples normal - no equipment failures or problems

SIGNATURE:

Douglas Bel

10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-01 (Front Lobby)
Sample Start Time/Date: 16:12 10-25-07 Sample Stop Time/Date: 10-26-07 16:33
Sample Collection Period: 1461 Minutes Field Technician: D. Harlocker

Air Metric: PM₁₀ Sampler

Sample ID #: RFS-175-01-01
Filter ID #: DHPT015 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3861.92 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 3886.29 Ambient Baro. Press. (in. Hg): —
Average Daily Temp. (deg C): — Sampler Serial #: 1270

Summa Canister (VOC) Sampler

Sample ID #: RFS-175-01-01
Canister ID #: 3721 Beginning Canister Pressure (in. Hg) 30.0
Average Daily Temp. (deg C): — Ending Canister Pressure (in. Hg) 6.5"
Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RFS-175-01-01
Filter ID/Lot #: SPR9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM) 1.2 Ending Timer Reading: 1462
Ending Flow Rate (LPM) 1.4 SKC Pump Serial #: 644784 00199
Ambient Temp. (deg C): —

NOTES:

All samples normal - no equipment failures or issues

SIGNATURE:

Douglas Hal

10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-02 (Roof top)
Sample Start Time/Date: 10:22 10-25-07 Sample Stop Time/Date: 16:38 10-26-07
Sample Collection Period: 1456 Minutes Field Technician: D. Aerlocker

Air Metric PM₁₀ Sampler

Sample ID #: RPS-175-02-01
Filter ID #: DHPT007 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3694.84 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 3719.10 Ambient Baro. Press. (in. Hg): —
Average Daily Temp. (deg C): — Sampler Serial #: 1323

Summa Canister (VOC) Sampler

Sample ID #: RPS-175-02-01
Canister ID #: 35137 Beginning Canister Pressure(in. Hg) 30.0
Average Daily Temp. (deg C): — Ending Canister Pressure(in. Hg) 4.9
Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RPS-175-02-01
Filter ID/Lot #: SPR 9170 Beginning Timer Reading: 0
Beginning Flow Rate (LPM) 1.25 Ending Timer Reading: 1457
Ending Flow Rate (LPM) 1.5 SKC Pump Serial #: 2713
Ambient Temp. (deg C): —

NOTES:

All Samples Normal - No Equipment Failures or problems.

SIGNATURE:

Douglas Weil

10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: FLS-01 (outdoor along south fence)
 Sample Start Time/Date: 1650 10-25-07 Sample Stop Time/Date: 1652 10-26-07
 Sample Collection Period: 14:42 1442 minutes Field Technician: D. Herlocker

Air Metric PM₁₀ Sampler

Sample ID #: RFS-FLS-01-01
 Filter ID #: DHPT011 Beginning Flow Rate (LPM): 5.0
 Timer Beginning Time: 5693.56 Ending Flow Rate (LPM): 5.1
 Timer Ending Time: 5717.61 Ambient Baro. Press. (in. Hg): —
 Average Daily Temp. (deg C): — Sampler Serial #: 1340

Summa Canister (VOC) Sampler

Sample ID #: RFS-FLS-01-01
 Canister ID #: 1569 Beginning Canister Pressure (in. Hg) 29.5"
 Average Daily Temp. (deg C): — Ending Canister Pressure (in. Hg) 5.1"
 Ambient Baro. Press. (in. Hg): —

Formaldehyde/SKC Sampler

Sample ID #: RFS-FLS-01-01
 Filter ID/Lot #: SPR9170 Beginning Timer Reading: 0
 Beginning Flow Rate (LPM) 1.25 Ending Timer Reading: 1203 + 238 = 1441
 Ending Flow Rate (LPM) 1.4 SKC Pump Serial #: 02816
 Ambient Temp. (deg C): —

NOTES:

All samples normal - However when spot checking SKC pump, electrical cord disconnected. Reattached and restarted immediately. Timer includes both values added together.

SIGNATURE:

Douglas Voh 10-26-07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: UCB-01

Sample Start Date/Time: 11/6/07 1430 Sample Stop Date/Time: 11/7/07 14:33

Sample ID # (all media): PFS-UCB-01-02 Field Technician: JWS

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHT 024 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2963.02 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2987.21 Sampler Serial #: 1345

Summa Canister (VOC) Sampler

Canister ID #: 1578 Beginning Canister Pressure(in. Hg): 15 PSI

Flow Meter ID #: 1578 Ending Canister Pressure(in. Hg): 0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1444

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 00461

FIELD NOTES:

Ending pressure for canister = 0
Beginning pressure low

SIGNATURE:

Jim Woodley

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-Φ1
Sample Start Date/Time: 11/6/07 11:00 Sample Stop Date/Time: 11:05 11/7/07
Sample ID # (all media): RFS-163-Φ1-Φ2 Field Technician: [Signature]
Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPTΦ3Φ Beginning Flow Rate (LPM): 5.Φ
Timer Beginning Time: 4181.52 Ending Flow Rate (LPM): 4.3
Timer Ending Time: 4205.54 Sampler Serial #: 1322

Summa Canister (VOC) Sampler

23929 Canister ID #: 5544Φ08 Beginning Canister Pressure(in. Hg): 3Φ
Flow Meter ID #: 23929 Ending Canister Pressure(in. Hg): 7.Φ

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: 21014A Beginning Timer Reading: Φ
Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 144Φ
Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: Φ2812

FIELD NOTES:

SIGNATURE: [Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 11/6/07 11:26 Sample Stop Date/Time: 11/7/07 11:28

Sample ID # (all media): RFS-163-02-02 Field Technician: SWS

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT020 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 8703.16 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 8727.21 Sampler Serial #: 1315

Summa Canister (VOC) Sampler

Canister ID #: 33574 Beginning Canister Pressure(in. Hg): 28

Flow Meter ID #: 33574 Ending Canister Pressure(in. Hg): 8.5

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.5 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.5 SKC Pump Serial #: 02816

FIELD NOTES:

SIGNATURE:

Ma Wally

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02
Sample Start Date/Time: 11/6/07 11:26 Sample Stop Date/Time: 11/7/07 11:28
Sample ID # (all media): RFS-163-02D-02 Field Technician: [Signature]
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHT 027 Beginning Flow Rate (LPM): 4.9
Timer Beginning Time: 4614.58 Ending Flow Rate (LPM): 5.0
Timer Ending Time: 4638.81 Sampler Serial #: 1214

Summa Canister (VOC) Sampler

Canister ID #: 32129 Beginning Canister Pressure(in. Hg): 32
Flow Meter ID #: 32129 Ending Canister Pressure(in. Hg): 0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 2.5 Ending Timer Reading: 1440
Ending Flow Rate (LPM): 2.5 SKC Pump Serial #: 02816

FIELD NOTES:

Ending canister pressure = 0

SIGNATURE:

[Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03

Sample Start Date/Time: 11/6/07 11:21 Sample Stop Date/Time: 11/7/07 11:22

Sample ID # (all media): PFS-163-03-02 Field Technician: [Signature]

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHP 025 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4659.29 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4683.30 Sampler Serial #: 1277

Summa Canister (VOC) Sampler

Canister ID #: 33673 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 33673 Ending Canister Pressure(in. Hg): 0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.35 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 07738

FIELD NOTES:

Canister pressure 0 @ pick up

SIGNATURE:

[Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-01
Sample Start Date/Time: 11/6/07 12:35 Sample Stop Date/Time: 11/7/07 12:40
Sample ID # (all media): RFS-175-01-02 Field Technician: BW
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT023 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3886.29 Ending Flow Rate (LPM): 5.0
Timer Ending Time: 3910.33 Sampler Serial #: 027490 saw
1270

Summa Canister (VOC) Sampler

4879 Canister ID #: 94948 Beginning Canister Pressure(in. Hg): 23
Flow Meter ID #: 94948 Ending Canister Pressure(in. Hg): 12.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 1.25
Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1.41
Ending Flow Rate (LPM): 1.30 SKC Pump Serial #: 02749

FIELD NOTES:

USED TRIP BLANK CANISTER
- FIRST CANISTER, NO PRESSURE

SIGNATURE:

[Handwritten Signature]

USED
H. H. P.
C. W.

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-02
Sample Start Date/Time: 11/6/07 11:40 Sample Stop Date/Time: 11/7/07 11:44
Sample ID # (all media): RFS-175-02-02 Field Technician: [Signature]
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 018 Beginning Flow Rate (LPM): 5.1
Timer Beginning Time: 3719.10 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 3743.14 Sampler Serial #: 1323

Summa Canister (VOC) Sampler

Canister ID #: 33872 Beginning Canister Pressure(in. Hg): 35 PSI
Flow Meter ID #: 33872 Ending Canister Pressure(in. Hg): 7.2

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 07713
Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1410
Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 07712

FIELD NOTES:

SIGNATURE: [Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01
Sample Start Date/Time: 11/6/07 12:00 Sample Stop Date/Time: 11/7/07 12:01
Sample ID # (all media): RFS-177-01-02 Field Technician: [Signature]
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT005 Beginning Flow Rate (LPM): 5.1
Timer Beginning Time: 3211.89 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 3235.89 Sampler Serial #: 1333

Summa Canister (VOC) Sampler

Canister ID #: 33919 Beginning Canister Pressure(in. Hg): 32 PSI
Flow Meter ID #: 33919 Ending Canister Pressure(in. Hg): 0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SP9229 Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1240
Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 10479

FIELD NOTES:

SIGNATURE: [Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 155-01

Sample Start Date/Time: 11/6/07 12:05 Sample Stop Date/Time: 11/7/07 12:06

Sample ID # (all media): RFS-155-01-02 Field Technician: [Signature]

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHT026 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2673.69 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 5697.72 Sampler Serial #: 332

Summa Canister (VOC) Sampler

Canister ID #: 3744 Beginning Canister Pressure(in. Hg): 31

Flow Meter ID #: 3744 Ending Canister Pressure(in. Hg): 10

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 07614

FIELD NOTES:

SIGNATURE: [Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01

Sample Start Date/Time: 11/6/07 13:14 Sample Stop Date/Time: 11/7/07 13:14

Sample ID # (all media): RFS-478-01-02 Field Technician: SKW

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT019 Beginning Flow Rate (LPM): 5.1

Timer Beginning Time: 2255.80 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3279.80 Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Canister ID #: 1576 Beginning Canister Pressure(in. Hg): 29

Flow Meter ID #: 1576 Ending Canister Pressure(in. Hg): 0.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 10

Beginning Flow Rate (LPM): 1.2 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 102176

FIELD NOTES:

SIGNATURE: Ma Wobley

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02
 Sample Start Date/Time: 11/6/07 13:18 Sample Stop Date/Time: 11/7/07 13:21
 Sample ID # (all media): RFS-478-02-02 Field Technician: BLW
 Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 022 Beginning Flow Rate (LPM): 5.0
 Timer Beginning Time: 3422.94 Ending Flow Rate (LPM): 5.0
 Timer Ending Time: 3446.98 Sampler Serial #: 1331

Summa Canister (VOC) Sampler

34181 Canister ID #: 554408 Beginning Canister Pressure (in. Hg): 35 PSI
34181 Flow Meter ID #: 554408 Ending Canister Pressure (in. Hg): 5.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 0
 Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1441
 Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 08377

FIELD NOTES:

SIGNATURE:

[Handwritten Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03

Sample Start Date/Time: 11/6/07 13:17 Sample Stop Date/Time: 11/7/07 13:20

Sample ID # (all media): RFS-478-03-02 Field Technician: [Signature]

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT017 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3615.90 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3639.90 Sampler Serial #: 1313

Summa Canister (VOC) Sampler

Canister ID #: 34425 Beginning Canister Pressure(in. Hg): 32

Flow Meter ID #: 34425 Ending Canister Pressure(in. Hg): 8.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 04590

FIELD NOTES:

SIGNATURE: [Signature]

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: FLS-01
 Sample Start Date/Time: 11/6/07 12:12 Sample Stop Date/Time: 11/7/07 12:27
 Sample ID # (all media): RFS-FLS-01-02 Field Technician: SW
 Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT021 Beginning Flow Rate (LPM): 5.0
 Timer Beginning Time: 577.61 Ending Flow Rate (LPM): 5.0
 Timer Ending Time: 547.80 Sampler Serial #: _____

Summa Canister (VOC) Sampler

Canister ID #: 4242 Beginning Canister Pressure(in. Hg): 32.
 Flow Meter ID #: 4242 Ending Canister Pressure(in. Hg): 10

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0
 Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 155
 Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 07738

11/8/07
12:40

FIELD NOTES:

SIGNATURE:

Tom Wadley

Set up SKC on 11/7/07 12:30
 Jason to pick up 11/8/07

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-01

Sample Start Date/Time: 11/28/07 10:21 Sample Stop Date/Time: 11/29/07 10:23

Sample ID # (all media): RFS-163-01-03 Field Technician: ijt

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT033 Beginning Flow Rate (LPM): 4.5

Timer Beginning Time: 4205.54 Ending Flow Rate (LPM): 4.5

Timer Ending Time: 4229.55 Sampler Serial #: 1322

Summa Canister (VOC) Sampler

Canister ID #: 12014 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 12014 Ending Canister Pressure(in. Hg): 8.1 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 2812

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 11/28/07 10:30 Sample Stop Date/Time: 11/29/07 10:34

Sample ID # (all media): AFS-163-02-03 Field Technician: yf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHT 034 Beginning Flow Rate (LPM): 5.6

Timer Beginning Time: 4638.61 Ending Flow Rate (LPM): 4.9

Timer Ending Time: 4662.67 Sampler Serial #: 1214

Summa Canister (VOC) Sampler

Canister ID #: 12330 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 12330 Ending Canister Pressure(in. Hg): 8.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.5 Ending Timer Reading: 1441

Ending Flow Rate (LPM): 2.6 SKC Pump Serial #: 02816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 11/28/07 10:30 Sample Stop Date/Time: 11/29/07 10:34

Sample ID # (all media): RFS-163-02D-03 Field Technician: cijf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT035 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 8727.21 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 8751.28 Sampler Serial #: 1315

Summa Canister (VOC) Sampler

Canister ID #: 32126 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 32126 Ending Canister Pressure(in. Hg): 6.9 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.5 Ending Timer Reading: 1441

Ending Flow Rate (LPM): 2.6 SKC Pump Serial #: 02816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03

Sample Start Date/Time: 11/28/07 10:40 Sample Stop Date/Time: 11/29/07 10:43

Sample ID # (all media): RFS-163-03-03 Field Technician: gjf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT036 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4683.30 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4707.36 Sampler Serial #: 1277

Summa Canister (VOC) Sampler

Canister ID #: 03944 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 03946 Ending Canister Pressure(in. Hg): 2 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1442

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 7738

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01

Sample Start Date/Time: 11/28/07 12:10 Sample Stop Date/Time: 11/29/07 12:10

Sample ID # (all media): RPS-478-01-03 Field Technician: ejt

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air-Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 041 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2279.80 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 2303.79 Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Canister ID #: 914 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 914 Ending Canister Pressure(in. Hg): 0.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 10476

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02

Sample Start Date/Time: 11/28/07 12:01 Sample Stop Date/Time: 11/29/07 12:02

Sample ID # (all media): RFS-478-02-03 Field Technician: gjf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT042 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3446.99 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3470.99 Sampler Serial #: 1331

Summa Canister (VOC) Sampler

Canister ID #: 31432 Beginning Canister Pressure(in. Hg): 20 psi

Flow Meter ID #: 31432 Ending Canister Pressure(in. Hg): 5.8 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.5 SKC Pump Serial #: 08379

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03

Sample Start Date/Time: 11/28/07 12:16 Sample Stop Date/Time: 11/29/07 12:16

Sample ID # (all media): RFS-478-03-03 Field Technician: ejf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 043 Beginning Flow Rate (LPM): 4.5

Timer Beginning Time: 3639.91 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3663.90 Sampler Serial #: 1313

Summa Canister (VOC) Sampler

Canister ID #: 33861 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 33861 Ending Canister Pressure(in. Hg): 5.1 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 04590

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01

Sample Start Date/Time: 11/28/07 11:26 Sample Stop Date/Time: 11/29/07 11:26

Sample ID # (all media): RFS-177-01-03 Field Technician: gf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT037 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3910.33 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3934.32 Sampler Serial #: 1270

Summa Canister (VOC) Sampler

Canister ID #: 1592 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 1592 Ending Canister Pressure(in. Hg): 7.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 10479

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: UCB-01

Sample Start Date/Time: 11/19/07 1034 Sample Stop Date/Time: 11/20/07 1034

Sample ID # (all media): UCB-01-03 Field Technician: Esa Walker

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT032 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2987.21 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3011.19 Sampler Serial #: 1345

Summa Canister (VOC) Sampler

Canister ID #: 34719 Beginning Canister Pressure (in. Hg): 35 psi

Flow Meter ID #: 34719 Ending Canister Pressure (in. Hg): 4.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 00461

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 155-D

Sample Start Date/Time: 11/28/07 11:39

Sample Stop Date/Time: 11/29/07 11:33

Sample ID # (all media): RFS-155-01-03

Field Technician: cjt

Average Daily Temp. (deg C):

Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT040

Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2697.72

Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2721.72

Sampler Serial #: 1332

Summa Canister (VOC) Sampler

Canister ID #: 10978

Beginning Canister Pressure(in. Hg): 29 psi

Flow Meter ID #: 10978

Ending Canister Pressure(in. Hg): 8.25 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229

Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3

Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.2

SKC Pump Serial #: 07614

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-Q1
Sample Start Date/Time: 11/29/07 11:05 Sample Stop Date/Time: 11/29/07 11:05
Sample ID # (all media): RFS-175-Q1-Q3 Field Technician: cjf
Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT039 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3235.89 Ending Flow Rate (LPM): 5.1
Timer Ending Time: 3259.88 Sampler Serial #: 1333

Summa Canister (VOC) Sampler

Canister ID #: 4373 Beginning Canister Pressure(in. Hg): 30 psi
Flow Meter ID #: 4373 Ending Canister Pressure(in. Hg): 7 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPA9229 Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440
Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 00199

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: RFS-02

Sample Start Date/Time: 11/28/07 11:13 Sample Stop Date/Time: 11/29/07 11:13

Sample ID # (all media): RFS-175-02-03 Field Technician: sjt

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 038 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3743.14 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 3767.15 Sampler Serial #: 1323

Summa Canister (VOC) Sampler

Canister ID #: 23921 Beginning Canister Pressure(in. Hg): 27.5

Flow Meter ID #: 23921 Ending Canister Pressure(in. Hg): 2.5

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 07913

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: FLS-Q1

Sample Start Date/Time: 11/28/07 12:32 Sample Stop Date/Time: 11/29/07 12:32

Sample ID # (all media): RFS-FLS-01-03 Field Technician: cjt

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT044 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 05741.81 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 5769.81 Sampler Serial #: 1340

Summa Canister (VOC) Sampler

Canister ID #: 34238 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34238 Ending Canister Pressure(in. Hg): 4.25 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.2 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 02816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: TB-01
Sample Start Date/Time: 11/28/07 Sample Stop Date/Time: 11/29/07
Sample ID # (all media): TFS-TB-03 Field Technician: Shaw CF
Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: _____ Beginning Flow Rate (LPM): _____
Timer Beginning Time: _____ Ending Flow Rate (LPM): _____
Timer Ending Time: _____ Sampler Serial #: _____

Summa Canister (VOC) Sampler

Canister ID #: 34436 Beginning Canister Pressure(in. Hg): 31
Flow Meter ID #: 34436 Ending Canister Pressure(in. Hg): 31

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9229 Beginning Timer Reading: _____
Beginning Flow Rate (LPM): _____ Ending Timer Reading: _____
Ending Flow Rate (LPM): _____ SKC Pump Serial #: _____

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: UCB-01

Sample Start Date/Time: 12/11/07 09:31 Sample Stop Date/Time:

Sample ID # (all media): UCB-01-04 Field Technician: bow

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 045 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3011.19 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3035.03 Sampler Serial #: 1345

Summa Canister (VOC) Sampler

Canister ID #: 05358 Beginning Canister Pressure (in. Hg): 33

Flow Meter ID #: 05358 Ending Canister Pressure (in. Hg): 8.5

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.5 SKC Pump Serial #: 00461

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-01

Sample Start Date/Time: 12/11/09 10:20 Sample Stop Date/Time:

Sample ID # (all media): RFS-163-01-04 Field Technician: Zaw

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT046 Beginning Flow Rate (LPM): 4.3

Timer Beginning Time: 4229.56 Ending Flow Rate (LPM): 4.3

Timer Ending Time: 4253.57 Sampler Serial #: 1322

Summa Canister (VOC) Sampler

Canister ID #: 33571 Beginning Canister Pressure(in. Hg): 29

Flow Meter ID #: 33571 Ending Canister Pressure(in. Hg): 8.5

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 02812

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 12/11/07 10:41 Sample Stop Date/Time:

Sample ID # (all media): RFS-163-02-04 Field Technician: Saw

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air-Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHT 047 Beginning Flow Rate (LPM): 4.9

Timer Beginning Time: 4662.67 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4686.66 Sampler Serial #: 1214

Summa Canister (VOC) Sampler

Canister ID #: 23929 Beginning Canister Pressure(in. Hg): 29.5

Flow Meter ID #: 23929 Ending Canister Pressure(in. Hg): 6.5

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.6 Ending Timer Reading: 1240

Ending Flow Rate (LPM): 2.8 SKC Pump Serial #: 03816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 12/11/07 10:41 Sample Stop Date/Time:

Sample ID # (all media): RFS-163-02D-04 Field Technician: hms

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT048 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 8751.28 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 9140.28 Sampler Serial #: 1315

Summa Canister (VOC) Sampler

Canister ID #: 94603 Beginning Canister Pressure(in. Hg): 35

Flow Meter ID #: 94603 Ending Canister Pressure(in. Hg): 9.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.6 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.8 SKC Pump Serial #: 03816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03

Sample Start Date/Time: 12/11/07 10:47 Sample Stop Date/Time:

Sample ID # (all media): RFS-163-03-04 Field Technician: [Signature]

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHP1049 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4707.30 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4731.41 Sampler Serial #: 1277

Summa Canister (VOC) Sampler

Canister ID #: 33824 Beginning Canister Pressure(in. Hg): 3.0

Flow Meter ID #: 33824 Ending Canister Pressure(in. Hg): 3.25

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1442

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 07738

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-01
Sample Start Date/Time: 12/11/07 11:11 Sample Stop Date/Time:
Sample ID # (all media): RFS-175-01-04 Field Technician: [Signature]
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DAPT051 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3934.32 Ending Flow Rate (LPM): 5.0
Timer Ending Time: 3958.31 Sampler Serial #: 1270

Summa Canister (VOC) Sampler

Canister ID #: 12576 Beginning Canister Pressure(in. Hg): 3.0
Flow Meter ID #: 12674 Ending Canister Pressure(in. Hg): 8.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9393 Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440
Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 00199

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-02

Sample Start Date/Time: 12/11/07 11:19 Sample Stop Date/Time:

Sample ID # (all media): RFS-175-02-04 Field Technician: WJS

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT052 Beginning Flow Rate (LPM): 5.1

Timer Beginning Time: 3767.15 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3791.13 Sampler Serial #: 1323

Summa Canister (VOC) Sampler

Canister ID #: 30845 Beginning Canister Pressure(in. Hg): 38

Flow Meter ID #: 30845 Ending Canister Pressure(in. Hg): 7.1

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1240

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 07713

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01

Sample Start Date/Time: 12/11/07 11:31 Sample Stop Date/Time:

Sample ID # (all media): RFS-478-177-01-04 Field Technician: [Signature]

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DAPT 053 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3259 88 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 3283 84 Sampler Serial #: 1333

Summa Canister (VOC) Sampler

Canister ID #: 4222 Beginning Canister Pressure(in. Hg): 29.5

Flow Meter ID #: 4222 Ending Canister Pressure(in. Hg): 9.1

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 10479

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 155-01

Sample Start Date/Time: RES-155-01-01 Sample Stop Date/Time:

Sample ID # (all media): 12/11/07 11:37 Field Technician: JWS

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DAPT055 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2721.72 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2745.72 Sampler Serial #: 1332

Summa Canister (VOC) Sampler

Canister ID #: 12090 Beginning Canister Pressure(in. Hg): 31

Flow Meter ID #: 12090 Ending Canister Pressure(in. Hg): 7.8

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 140

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 00198

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01
Sample Start Date/Time: 2/11/07 12:08 Sample Stop Date/Time:
Sample ID # (all media): RFS-478-01-04 Field Technician: Jeno
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: WPT054 Beginning Flow Rate (LPM): 5.1
Timer Beginning Time: 2303.79 Ending Flow Rate (LPM): 5.0
Timer Ending Time: 2327.77 Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Canister ID #: 33913 Beginning Canister Pressure(in. Hg): 30
Flow Meter ID #: 33913 Ending Canister Pressure(in. Hg): 7.8

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1440
Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 10476

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02

Sample Start Date/Time: 12/11/07 12:14 Sample Stop Date/Time: 12/12/07 12:14

Sample ID # (all media): RFS-478-02-04 Field Technician: [Signature]

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT056 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3470.99 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3494.97 Sampler Serial #: 133C

Summa Canister (VOC) Sampler

Canister ID #: 33542 Beginning Canister Pressure(in. Hg): 29.5

Flow Meter ID #: 33542 Ending Canister Pressure(in. Hg): 3.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 0887

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03

Sample Start Date/Time: ~~12/11/07~~ 12/11/07 Sample Stop Date/Time: 12/12/07 12:22

Sample ID # (all media): RFS-478-03-04 2:10 Field Technician: ~~205~~

Average Daily Temp. (deg C): 03-04 Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT057 Beginning Flow Rate (LPM): 4.5

Timer Beginning Time: 3663.90 Ending Flow Rate (LPM): 4.5

Timer Ending Time: 3687.98 Sampler Serial #: 1313

Summa Canister (VOC) Sampler

Canister ID #: 25318 Beginning Canister Pressure(in. Hg): 31

Flow Meter ID #: 25318 Ending Canister Pressure(in. Hg): 14

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR9393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.4 Ending Timer Reading: 144

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: ~~1590~~

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-FL

Sample Start Date/Time: 12/11/07 12:24 Sample Stop Date/Time: 12/12/07 12:25

Sample ID # (all media): RFS-478-FL-04 Field Technician: [Signature]

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHP7029 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 5765.81 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 5789.84 Sampler Serial #: SN 1310

Summa Canister (VOC) Sampler

Canister ID #: 3332 Beginning Canister Pressure (in. Hg): 29

Flow Meter ID #: 3332 Ending Canister Pressure (in. Hg): 1.0

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: 5129393 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 141

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 07788

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: Field Blank

Sample Start Date/Time:

Sample Stop Date/Time: 12/12/07

Sample ID # (all media): RFS-Field Blank-04

Field Technician: [Signature]

Average Daily Temp. (deg C):

Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #:

DHPT029

Beginning Flow Rate (LPM):

Timer Beginning Time:

Ending Flow Rate (LPM):

Timer Ending Time:

Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: TRP Blank Beginning Canister Pressure (in. Hg):

Flow Meter ID #:

Ending Canister Pressure (in. Hg):

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #:

SPR 9373

Beginning Timer Reading:

Beginning Flow Rate (LPM):

Ending Timer Reading:

Ending Flow Rate (LPM):

SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-01
Sample Start Date/Time: 12/18/07 11:00 Sample Stop Date/Time: 12/19/07 11:02
Sample ID # (all media): RFS-163-01-05 Field Technician: JW.
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 059 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 4253.57 Ending Flow Rate (LPM): 4.5
Timer Ending Time: 4277.82 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 34445 Beginning Canister Pressure(in. Hg): 29.5 psi
Flow Meter ID #: 34445 Ending Canister Pressure(in. Hg): 9.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1952
Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 162-02

Sample Start Date/Time: 18 Dec . 11:09 Sample Stop Date/Time: 12/19/07 14:09

Sample ID # (all media): RFS-162-02-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHT 0606 Beginning Flow Rate (LPM):

Timer Beginning Time: 4686.66 Ending Flow Rate (LPM):

Timer Ending Time: Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 34024 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34024 Ending Canister Pressure(in. Hg): 8.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.5 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.5 SKC Pump Serial #: 2816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 162-02D

Sample Start Date/Time: 12/18/07 11:09 Sample Stop Date/Time: 12/19/07 11:09

Sample ID # (all media): RFS-162-02D-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 061 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 8775.29 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 8799.37 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 35269 Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 35269 Ending Canister Pressure(in. Hg): 5.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.5 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.5 SKC Pump Serial #: 2816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
 AIR QUALITY SAMPLE DOCUMENTATION SHEET
 RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03

Sample Start Date/Time: 12/18/07 11:18 Sample Stop Date/Time: 12/19/07 11:18

Sample ID # (all media): RFS-163-03-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 062 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4731.32 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4755.31 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 24478 Beginning Canister Pressure(in. Hg): 29.0 psi

Flow Meter ID #: 24478 Ending Canister Pressure(in. Hg): 29.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: ϕ

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: OFF

Ending Flow Rate (LPM): OFF SKC Pump Serial #: 07738

FIELD NOTES:

- Same pressure in Summa canister.
- SKC sampler was off on 12/19 pickup.

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-01

Sample Start Date/Time: 12/18/07 12:25 Sample Stop Date/Time: 12/19/07 12:36

Sample ID # (all media): RFS-175-01-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 063 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3958.32 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3982.44 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 34449 Beginning Canister Pressure(in. Hg): ?

Flow Meter ID #: 34449 Ending Canister Pressure(in. Hg): 19.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: ϕ

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1447

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

-no beginning summa canister pressure recorded.

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-02

Sample Start Date/Time: 12/18/07 12:31 Sample Stop Date/Time: 12/19/07 12:37

Sample ID # (all media): RFS-175-02-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 064 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3791.34 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3815.26 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 11885 Beginning Canister Pressure(in. Hg): 29.5 psi

Flow Meter ID #: 11885 Ending Canister Pressure(in. Hg): 18.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: 1 Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1446

Ending Flow Rate (LPM): SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01

Sample Start Date/Time: 12/18/07 12:40 Sample Stop Date/Time: 12/19/07 12:40

Sample ID # (all media): RFS-177-01-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT065 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3283.85 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3307.87 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 02327 Beginning Canister Pressure(in. Hg): 31 psi

Flow Meter ID #: 02327 Ending Canister Pressure(in. Hg): 9.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 155-01

Sample Start Date/Time: 12/18/07 12:49 Sample Stop Date/Time: 12/19/07 12:49

Sample ID # (all media): RFS-155-01-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 066 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2745.72 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2769.69 Sampler Serial #: 1332

Summa Canister (VOC) Sampler

Canister ID #: 34253 Beginning Canister Pressure(in. Hg): 29.5 psi

Flow Meter ID #: 31253 Ending Canister Pressure(in. Hg): 24.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01

Sample Start Date/Time: 12/18/07 13:46 Sample Stop Date/Time: 12/19/07 13:50

Sample ID # (all media): RFS-478-01-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 067 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2327.47 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2351.83 Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Canister ID #: 33669 Beginning Canister Pressure(in. Hg): 33 psi

Flow Meter ID #: 33669 Ending Canister Pressure(in. Hg): 10.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.2 Ending Timer Reading: 1444

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02

Sample Start Date/Time: 12/18/07 13:52 Sample Stop Date/Time: 12/19/07 13:56

Sample ID # (all media): RFS-478-02-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 068 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3494.97 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3519.12 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 34034 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34034 Ending Canister Pressure(in. Hg): 8.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1446

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03

Sample Start Date/Time: 12/18/07 13:58 Sample Stop Date/Time: 12/19/07 14:08

Sample ID # (all media): RFS-478-03-05 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT069 Beginning Flow Rate (LPM): 4.5

Timer Beginning Time: 3687.98 Ending Flow Rate (LPM): 4.5

Timer Ending Time: 3712.15 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 33877 Beginning Canister Pressure(in. Hg): 29.0 psi

Flow Meter ID #: 33877 Ending Canister Pressure(in. Hg): 29.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1449

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: FLS-01

Sample Start Date/Time: 12/18/07 14:15 Sample Stop Date/Time: 12/19/07 14:20

Sample ID # (all media): RFS-FLS-01-05 Field Technician: SW

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 670 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 5789.84 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 5813.93 Sampler Serial #: 1340

Summa Canister (VOC) Sampler

Canister ID #: 25243 Beginning Canister Pressure (in. Hg): 30.5 psi

Flow Meter ID #: 25243 Ending Canister Pressure (in. Hg): 8.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: _____ Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.2 Ending Timer Reading: 1444

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: _____

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
 AIR QUALITY SAMPLE DOCUMENTATION SHEET
 RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: UCB-01
 Sample Start Date/Time: 12/18/07 9:35 Sample Stop Date/Time: 12/19/07 9:35
 Sample ID # (all media): RFS-UCB-01-05 Field Technician: [Signature]
 Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT058 Beginning Flow Rate (LPM): 5.0
 Timer Beginning Time: 3035.03 Ending Flow Rate (LPM): 5.0
 Timer Ending Time: 3059.03 Sampler Serial #: _____

Summa Canister (VOC) Sampler

Canister ID #: 33963 Beginning Canister Pressure(in. Hg): 30.0 psi
 Flow Meter ID #: 33963 Ending Canister Pressure(in. Hg): 28.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: SPR 9393 Beginning Timer Reading: 0
 Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440
 Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 461

FIELD NOTES:

possible gauge problem with the Summa canister.

SIGNATURE: _____

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-01

Sample Start Date/Time: 1/9/08 11:23 Sample Stop Date/Time: 1/10/08 11:23

Sample ID # (all media): RFS-163-01-06 Field Technician: cjf

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 074 Beginning Flow Rate (LPM): 3.5

Timer Beginning Time: 4277.82 Ending Flow Rate (LPM): 3.75

Timer Ending Time: 4301.91 Sampler Serial #: 1322

Summa Canister (VOC) Sampler

Canister ID #: 12005 Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 12005 Ending Canister Pressure(in. Hg): 11 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: _____ Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1444

Ending Flow Rate (LPM): 1.6 SKC Pump Serial #: 644800

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 1/9/08 11:30 Sample Stop Date/Time: 1/10/08 11:30

Sample ID # (all media): RFS-163-02-06 Field Technician: gjf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: none Beginning Flow Rate (LPM): none

Timer Beginning Time: none Ending Flow Rate (LPM): none

Timer Ending Time: none Sampler Serial #: none

Summa Canister (VOC) Sampler

Canister ID #: 34231 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34231 Ending Canister Pressure(in. Hg): 8 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.75 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.70 SKC Pump Serial #: 644868

FIELD NOTES:

Air Metric sampler for RFS-163-02 is broken

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02D

Sample Start Date/Time: 1/9/08 11:30 Sample Stop Date/Time: 1/10/08 11:30

Sample ID # (all media): RFS-163-02D-06 Field Technician: eif

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 073 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 8799.32 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 8823.31 Sampler Serial #: 1315

Summa Canister (VOC) Sampler

Canister ID #: 35136 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 35136 Ending Canister Pressure(in. Hg): 7.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.75 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.70 SKC Pump Serial #: 644868

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03

Sample Start Date/Time: 1/9/08 11:39 Sample Stop Date/Time: 1/10/08 11:39

Sample ID # (all media): RFS-163-03-06 Field Technician: ejf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 072 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4755.32 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4779.32 Sampler Serial #: 1277

Summa Canister (VOC) Sampler

Canister ID #: 1588 Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 1588 Ending Canister Pressure(in. Hg): 17 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.7 SKC Pump Serial #: 799019

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-01
Sample Start Date/Time: 1/9/08 12:09 Sample Stop Date/Time: 1/10/08 12:09
Sample ID # (all media): RFS-175-01-06 Field Technician: ejf
Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 077 Beginning Flow Rate (LPM): 5.0
Timer Beginning Time: 3982.45 Ending Flow Rate (LPM): 5.0
Timer Ending Time: 4006.44 Sampler Serial #: 1270

Summa Canister (VOC) Sampler

Canister ID #: 12011 Beginning Canister Pressure(in. Hg): 0 psi
Flow Meter ID #: 12011 Ending Canister Pressure(in. Hg): 0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0
Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1440
Ending Flow Rate (LPM): 1.5 SKC Pump Serial #: 644781

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-02

Sample Start Date/Time: 1/9/08 12:17 Sample Stop Date/Time: 1/10/08 12:17

Sample ID # (all media): RFS-175-02-06 Field Technician: cjt

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 078 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3815.26 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 3839.26 Sampler Serial #: 1323

Summa Canister (VOC) Sampler

Canister ID #: 34747 Beginning Canister Pressure(in. Hg): 35 psi

Flow Meter ID #: 34747 Ending Canister Pressure(in. Hg): 19 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.4 SKC Pump Serial #: 799013

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01

Sample Start Date/Time: 1/9/08 12:25 Sample Stop Date/Time: 1/10/08 12:25

Sample ID # (all media): RFS-177-01-06 Field Technician: gjf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 075 Beginning Flow Rate (LPM): 5.1

Timer Beginning Time: 3307.87 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 3331.87 Sampler Serial #: 1333

Summa Canister (VOC) Sampler

Canister ID #: 4167 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 4167 Ending Canister Pressure(in. Hg): 8.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.4 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.5 SKC Pump Serial #: 799951

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 155-01

Sample Start Date/Time: 1/9/08 12:34 Sample Stop Date/Time: 1/10/08 12:34

Sample ID # (all media): RFS-155-01-06 Field Technician: cjf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHTPT 076 Beginning Flow Rate (LPM): 5.1

Timer Beginning Time: 2769.69 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 2793.66 Sampler Serial #: 1332

Summa Canister (VOC) Sampler

Canister ID #: 33322 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 33322 Ending Canister Pressure(in. Hg): 9.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.5 SKC Pump Serial #: 761757

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: VCB-01

Sample Start Date/Time: 1/9/08 10:31 Sample Stop Date/Time: 1/10/08 10:34

Sample ID # (all media): RFS-VCB-01-06 Field Technician: cjf

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 071 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3059.03 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3083.08 Sampler Serial #: 1375

Summa Canister (VOC) Sampler

Canister ID #: 34760 Beginning Canister Pressure(in. Hg): 31 psi

Flow Meter ID #: 34760 Ending Canister Pressure(in. Hg): 7 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: _____ Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1442

Ending Flow Rate (LPM): 1.5 SKC Pump Serial #: 799136

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
 AIR QUALITY SAMPLE DOCUMENTATION SHEET
 RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01

Sample Start Date/Time: 1/9/08 13:07 Sample Stop Date/Time: 1/10/08 13:09

Sample ID # (all media): RFS-478-01-06 Field Technician: cjf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 081 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2351.83 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 2375.87 Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Canister ID #: 3941 Beginning Canister Pressure(in. Hg): 31 psi

Flow Meter ID #: 3941 Ending Canister Pressure(in. Hg): 7 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1444

Ending Flow Rate (LPM): 1.6 SKC Pump Serial #: 761836

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02

Sample Start Date/Time: 1/9/08 13:33 Sample Stop Date/Time: 1/10/08 13:33

Sample ID # (all media): RFS-478-02-04 Field Technician: ejf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 080 Beginning Flow Rate (LPM): 5.1

Timer Beginning Time: 3519.12 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 3543.12 Sampler Serial #: 1331

Summa Canister (VOC) Sampler

Canister ID #: 12942 Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 12942 Ending Canister Pressure(in. Hg): 7 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.5 SKC Pump Serial #: 761246

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03

Sample Start Date/Time: 1/9/08 13:15 Sample Stop Date/Time: 1/10/08 13:17

Sample ID # (all media): RFS-478-03-01 Field Technician: ejf

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 079 Beginning Flow Rate (LPM): 4.5

Timer Beginning Time: 3712.15 Ending Flow Rate (LPM): 4.8

Timer Ending Time: 3736.15 Sampler Serial #: 1313

Summa Canister (VOC) Sampler

Canister ID #: 31194 Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 31194 Ending Canister Pressure(in. Hg): 9.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.5 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.4 SKC Pump Serial #: 6336X7

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: FLS-01

Sample Start Date/Time: 1/9/08 13:47 Sample Stop Date/Time: 1/10/08 13:49

Sample ID # (all media): RFS-FLS-01-06 Field Technician: cjt

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 063 Beginning Flow Rate (LPM): 5.1

Timer Beginning Time: 5813.93 Ending Flow Rate (LPM): 5.1

Timer Ending Time: 5837.96 Sampler Serial #: 1340

Summa Canister (VOC) Sampler

Canister ID #: 13671 Beginning Canister Pressure(in. Hg): 31 psi

Flow Meter ID #: 13671 Ending Canister Pressure(in. Hg): 23.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1442

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 799078

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: UCB-01

Sample Start Date/Time: 1/23/08 9:40

Sample Stop Date/Time: 1/24/08 9:40

Sample ID # (all media): RFS-UCB-01-07

Field Technician: SW

Average Daily Temp. (deg C):

Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 097

Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3083.08

Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3107.06

Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 10791

Beginning Canister Pressure(in. Hg): 40 psi

Flow Meter ID #: 10791

Ending Canister Pressure(in. Hg): 17 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #:

Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25

Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25

SKC Pump Serial #: 00461

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 1163-01

Sample Start Date/Time: 1/23/08 10:56 Sample Stop Date/Time: 1/24/08 10:56

Sample ID # (all media): RFS-1163-01-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 098 Beginning Flow Rate (LPM): 4.5

Timer Beginning Time: 4301.91 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4325.92 Sampler Serial #: 322

Summa Canister (VOC) Sampler

Canister ID #: 34245 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34245 Ending Canister Pressure(in. Hg): 6.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 02812

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 1/23/08 10:59 Sample Stop Date/Time: 1/24/08 10:59

Sample ID # (all media): RFS-163-02-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 099 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 8823.31 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 8847.35 Sampler Serial #: 1315

Summa Canister (VOC) Sampler

Canister ID #: 34201 Beginning Canister Pressure(in. Hg): 35 psi

Flow Meter ID #: 34201 Ending Canister Pressure(in. Hg): 7.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.7 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.7 SKC Pump Serial #: 2816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
 AIR QUALITY SAMPLE DOCUMENTATION SHEET
 RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02D

Sample Start Date/Time: 1/23/08 10:59 Sample Stop Date/Time: 1/24/08 10:59

Sample ID # (all media): RFS-163-02D-07 Field Technician: 1/24/08 10:59 SW

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: — Beginning Flow Rate (LPM): —

Timer Beginning Time: — Ending Flow Rate (LPM): —

Timer Ending Time: — Sampler Serial #: —

Summa Canister (VOC) Sampler

Canister ID #: 05364 Beginning Canister Pressure(in. Hg): 35 psi

Flow Meter ID #: 05364 Ending Canister Pressure(in. Hg): 7 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: _____ Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.7 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 2.7 SKC Pump Serial #: 2816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03

Sample Start Date/Time: 1/23/08 11:08 Sample Stop Date/Time: 1/24/08 11:08

Sample ID # (all media): RFS-163-03-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT101 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4779.32 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4803.34 Sampler Serial #: 1277

Summa Canister (VOC) Sampler

Canister ID #: 12670 Beginning Canister Pressure(in. Hg): 29.5 psi

Flow Meter ID #: 12670 Ending Canister Pressure(in. Hg): 7.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 7738

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-01

Sample Start Date/Time: 1/23/08 11:36 Sample Stop Date/Time: 1/24/08 11:36

Sample ID # (all media): RFS-175-01-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT102 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4006.44 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4030.39 Sampler Serial #: 1270

Summa Canister (VOC) Sampler

Canister ID #: 25305 Beginning Canister Pressure(in. Hg): 32.0 psi

Flow Meter ID #: 25305 Ending Canister Pressure(in. Hg): 6.0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 2749

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-02

Sample Start Date/Time: 1/23/08 11:45 Sample Stop Date/Time: 1/24/08 11:45

Sample ID # (all media): RFS-175-02-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 103 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3839.26 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3863.24 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 0933 Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 0933 Ending Canister Pressure(in. Hg): 10.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01

Sample Start Date/Time: 1/23/08 11:53 Sample Stop Date/Time: 1/24/08 11:53

Sample ID # (all media): RFS-177-01-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 104 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3331.87 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3355.87 Sampler Serial #: 1333

Summa Canister (VOC) Sampler

Canister ID #: 34372 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34372 Ending Canister Pressure(in. Hg): 7.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 10479

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 155-01

Sample Start Date/Time: 1/23/08 11:56 Sample Stop Date/Time: 1/24/08 11:58

Sample ID # (all media): RFS-155-01-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT105 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2793.66 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2817.66 Sampler Serial #: 1332

Summa Canister (VOC) Sampler

Canister ID #: 33655 Beginning Canister Pressure(in. Hg): 28 psi

Flow Meter ID #: 33655 Ending Canister Pressure(in. Hg): 2.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 7614

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01

Sample Start Date/Time: 1/23/06 12:45 Sample Stop Date/Time: 1/24/06 12:45

Sample ID # (all media): RFS-478-01-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 107 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2375.87 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2399.87 Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Canister ID #: 31133 Beginning Canister Pressure(in. Hg): 35 psi

Flow Meter ID #: 31133 Ending Canister Pressure(in. Hg): 12 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1442

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 10476

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02

Sample Start Date/Time: 1/23/08 12:35 Sample Stop Date/Time: 1/24/08 12:37

Sample ID # (all media): RFS-478-02-07 Field Technician: 8W

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DAPT 106 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3543.12 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3547.17 Sampler Serial #: 1331

Summa Canister (VOC) Sampler

Canister ID #: 25237 Beginning Canister Pressure(in. Hg): 29.5 psi

Flow Meter ID #: 25237 Ending Canister Pressure(in. Hg): 3 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1442

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 8377

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03

Sample Start Date/Time: 1/23/08 12:52 Sample Stop Date/Time: 1/24/08 12:52

Sample ID # (all media): RFS-478-03-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air-Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT108 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3736.15 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3760.17 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 21006 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 21006 Ending Canister Pressure(in. Hg): 8 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 4590

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: FLS-01

Sample Start Date/Time: 1/23/08 13:07 Sample Stop Date/Time: 1/24/08 13:10

Sample ID # (all media): RFS-FLS-01-07 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT109 Beginning Flow Rate (LPM):

Timer Beginning Time: 5837.96 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 5862.02 Sampler Serial #: 1349

Summa Canister (VOC) Sampler

Canister ID #: 36045 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 36045 Ending Canister Pressure(in. Hg): 0 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1444

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: UCB-01

Sample Start Date/Time: 2/5/08 9:51 Sample Stop Date/Time: 2/6/08 9:51

Sample ID # (all media): RFS-UCB-01-08 Field Technician: SW

Average Daily Temp. (deg C): _____ Ambient Baro. Press. (in. Hg): _____

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: BHPT 110 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3107.06 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3131.35 Sampler Serial #: 1345

Summa Canister (VOC) Sampler

Canister ID #: 9909 Beginning Canister Pressure(in. Hg): 29.5 psi

Flow Meter ID #: 9909 Ending Canister Pressure(in. Hg): 5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: _____ Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 8461

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-01

Sample Start Date/Time: 2/5/08 10:33 Sample Stop Date/Time: 2/6/08 10:33

Sample ID # (all media): RFS-163-01-08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 111 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4325.92 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4350.03 Sampler Serial #: 1322

Summa Canister (VOC) Sampler

Canister ID #: 34416 Beginning Canister Pressure(in. Hg): 34 psi

Flow Meter ID #: 34416 Ending Canister Pressure(in. Hg): 12 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1445

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 2812

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02

Sample Start Date/Time: 2/5/08 10:42

Sample Stop Date/Time: 2/6/08 10:41

Sample ID # (all media): RFS-163-02-08

Field Technician: SW

Average Daily Temp. (deg C):

Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT112

Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 8847.35

Ending Flow Rate (LPM): 5.0

Timer Ending Time: 8871.38

Sampler Serial #: 1315

Summa Canister (VOC) Sampler

Canister ID #: 9564

Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 9564

Ending Canister Pressure(in. Hg): 9 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #:

Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.5

Ending Timer Reading: 1439

Ending Flow Rate (LPM): 2.5

SKC Pump Serial #: 2816

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-02D

Sample Start Date/Time: 2/5/08 10:42 Sample Stop Date/Time: 2/6/08 10:41

Sample ID # (all media): RFS-162-02D-08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: — Beginning Flow Rate (LPM): —

Timer Beginning Time: — Ending Flow Rate (LPM): —

Timer Ending Time: — Sampler Serial #: —

Summa Canister (VOC) Sampler

Canister ID #: — Beginning Canister Pressure(in. Hg): —

Flow Meter ID #: — Ending Canister Pressure(in. Hg): —

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 2.5 Ending Timer Reading: 1439

Ending Flow Rate (LPM): 2.5 SKC Pump Serial #: 2816

FIELD NOTES:

• Summa canister was leaking, so turned off - no sample.

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 163-03

Sample Start Date/Time: 2/5/08 10:51 Sample Stop Date/Time: 2/6/08 10:51

Sample ID # (all media): RFS-163-03-08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 113 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4803.34 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4827.34 Sampler Serial #: 1277

Summa Canister (VOC) Sampler

Canister ID #: 34187 Beginning Canister Pressure(in. Hg): 28 psi

Flow Meter ID #: 34187 Ending Canister Pressure(in. Hg): 4 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 7738

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-01

Sample Start Date/Time: 2/9/08 11:16 Sample Stop Date/Time: 2/6/08 12:00

Sample ID # (all media): RFS-175-01-08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT114 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 4030.39 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 4055.15 Sampler Serial #: 1270

Summa Canister (VOC) Sampler

Canister ID #: 34434 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34434 Ending Canister Pressure(in. Hg): 5 psi

Formaldehyde/SKG Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1485

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 175-02

Sample Start Date/Time: 2/5/06 11:21 Sample Stop Date/Time: 2/6/06 12:03

Sample ID # (all media): Field Technician:

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 115 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3863.24 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3887.75 Sampler Serial #: 1323

Summa Canister (VOC) Sampler

Canister ID #: 35976 Beginning Canister Pressure(in. Hg): 35 psi

Flow Meter ID #: 35976 Ending Canister Pressure(in. Hg): 6 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1482

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #:

FIELD NOTES:

1st battery for Air Metric users not working. Went back for 2nd battery - began to work.

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 177-01

Sample Start Date/Time: 2/5/08 11:40 Sample Stop Date/Time: 2/6/08 11:45

Sample ID # (all media): RPS-177-01-08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 116 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3355.88 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3379.97 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 35996 Beginning Canister Pressure(in. Hg): 35 psi

Flow Meter ID #: 35994 Ending Canister Pressure(in. Hg): 10 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1445

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 10479

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 155-01

Sample Start Date/Time: 2/5/06 11:45 Sample Stop Date/Time: 2/6/06 11:47

Sample ID # (all media): RFS-155-01-08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHT 117 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2817.66 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2841.72 Sampler Serial #: 1332

Summa Canister (VOC) Sampler

Canister ID #: 34345 Beginning Canister Pressure(in. Hg): 32 psi

Flow Meter ID #: 34345 Ending Canister Pressure(in. Hg): 6 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1442

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 7614

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-01

Sample Start Date/Time: 2/5/08 12:29 Sample Stop Date/Time: 2/6/08 12:29

Sample ID # (all media): RFS - 478 - 01 - 08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT119 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 2399.87 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 2423.90 Sampler Serial #: 1278

Summa Canister (VOC) Sampler

Canister ID #: 34409 Beginning Canister Pressure(in. Hg): 30 psi

Flow Meter ID #: 34409 Ending Canister Pressure(in. Hg): 8 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 10476

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-02

Sample Start Date/Time: 2/5/08 12:22 Sample Stop Date/Time: 2/6/08 12:22

Sample ID # (all media): RFS-478-02-08 Field Technician: gwo

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 118 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 3567.17 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 3591.18 Sampler Serial #:

Summa Canister (VOC) Sampler

Canister ID #: 1566 Beginning Canister Pressure(in. Hg): 35 psi

Flow Meter ID #: 1966 Ending Canister Pressure(in. Hg): 6 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #: 8317

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET

RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 478-03

Sample Start Date/Time: 2/5/08 12:36 Sample Stop Date/Time: 2/6/08 12:36

Sample ID # (all media): RFS-478-03-08 Field Technician: SW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT120 Beginning Flow Rate (LPM): 4.5

Timer Beginning Time: 3760.16 Ending Flow Rate (LPM): 4.5

Timer Ending Time: 3784.68 Sampler Serial #: 1313

Summa Canister (VOC) Sampler

33785: Canister ID #: ~~45716~~ cf. Beginning Canister Pressure(in. Hg): 29 psi

33785: Flow Meter ID #: ~~45716~~ Ending Canister Pressure(in. Hg): 6.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.25 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.25 SKC Pump Serial #: 4596

FIELD NOTES:

SIGNATURE:

TETRA TECH EM INC.
AIR QUALITY SAMPLE DOCUMENTATION SHEET
RICHMOND FIELD STATION

SITE INFORMATION

Sample Location: 280-01

Sample Start Date/Time: 2/5/08 13:17 Sample Stop Date/Time: 2/6/08 13:17

Sample ID # (all media): RFS-280-01-08 Field Technician: GW

Average Daily Temp. (deg C): Ambient Baro. Press. (in. Hg):

Air-Metric PM₁₀ Sampler

PM₁₀ Filter ID #: DHPT 123 Beginning Flow Rate (LPM): 5.0

Timer Beginning Time: 5862.03 Ending Flow Rate (LPM): 5.0

Timer Ending Time: 5886.04 Sampler Serial #: 1340

Summa Canister (VOC) Sampler

Canister ID #: 5354 Beginning Canister Pressure(in. Hg): 30.5 psi

Flow Meter ID #: 5354 Ending Canister Pressure(in. Hg): 5.5 psi

Formaldehyde/SKC Sampler

Formaldehyde Lot ID #: Beginning Timer Reading: 0

Beginning Flow Rate (LPM): 1.3 Ending Timer Reading: 1440

Ending Flow Rate (LPM): 1.3 SKC Pump Serial #:

FIELD NOTES:

SIGNATURE:

Appendix D
Analytical Results



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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**(916) 985-1000 .FAX (916) 985-1020
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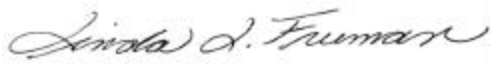
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0710708B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	51518.008.01 UCB-Air
DATE RECEIVED:	10/30/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	11/01/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
05A	RFS-478-01-01	Modified TO-15 SIM	7.5 "Hg
06A	RFS-478-02-01	Modified TO-15 SIM	0.0 "Hg
07A	RFS-478-03-01	Modified TO-15 SIM	6.0 "Hg
08A	Lab Blank	Modified TO-15 SIM	NA
09A	CCV	Modified TO-15 SIM	NA
10A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY:  DATE: 11/02/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0710708B



Three 6 Liter Summa Special (SIM Certified) samples were received on October 30, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

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

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-01-01

Lab ID#: 0710708B-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.036	0.097	0.17	0.47
Benzene	0.090	0.17	0.28	0.55
Trichloroethene	0.0054	0.075	0.029	0.40
Tetrachloroethene	0.0054	0.010	0.036	0.072

Client Sample ID: RFS-478-02-01

Lab ID#: 0710708B-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.067	0.15	0.21	0.47
Trichloroethene	0.0040	0.030	0.022	0.16
Tetrachloroethene	0.0040	0.014	0.027	0.098

Client Sample ID: RFS-478-03-01

Lab ID#: 0710708B-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.084	0.13	0.27	0.42
Trichloroethene	0.0050	0.0064	0.027	0.035
Tetrachloroethene	0.0050	0.011	0.034	0.074



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-01

Lab ID#: 0710708B-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a103106	Date of Collection: 10/26/07
Dil. Factor:	1.79	Date of Analysis: 10/31/07 03:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.071	Not Detected
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	0.097	0.17	0.47
Benzene	0.090	0.17	0.28	0.55
1,2-Dichloroethane	0.036	Not Detected	0.14	Not Detected
Trichloroethene	0.0054	0.075	0.029	0.40
Tetrachloroethene	0.0054	0.010	0.036	0.072
trans-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-01

Lab ID#: 0710708B-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a103107	Date of Collection: 10/26/07
Dil. Factor:	1.34	Date of Analysis: 10/31/07 04:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
Methylene Chloride	0.27	Not Detected	0.93	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
Chloroform	0.027	Not Detected	0.13	Not Detected
Benzene	0.067	0.15	0.21	0.47
1,2-Dichloroethane	0.027	Not Detected	0.11	Not Detected
Trichloroethene	0.0040	0.030	0.022	0.16
Tetrachloroethene	0.0040	0.014	0.027	0.098
trans-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-01

Lab ID#: 0710708B-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a103108	Date of Collection: 10/26/07
Dil. Factor:	1.68	Date of Analysis: 10/31/07 05:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
Benzene	0.084	0.13	0.27	0.42
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.0064	0.027	0.035
Tetrachloroethene	0.0050	0.011	0.034	0.074
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0710708B-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a103105	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/31/07 01:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0710708B-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a103102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/31/07 09:38 AM

Compound	%Recovery
Vinyl Chloride	104
1,1-Dichloroethene	98
Methylene Chloride	101
cis-1,2-Dichloroethene	101
Chloroform	94
Benzene	99
1,2-Dichloroethane	86
Trichloroethene	83
Tetrachloroethene	83
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0710708B-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a103103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/31/07 10:49 AM

Compound	%Recovery
Vinyl Chloride	96
1,1-Dichloroethene	105
Methylene Chloride	105
cis-1,2-Dichloroethene	100
Chloroform	94
Benzene	98
1,2-Dichloroethane	86
Trichloroethene	82
Tetrachloroethene	85
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0710708A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

PHONE: 208-343-4085

FAX:

DATE RECEIVED: 10/30/2007

DATE COMPLETED: 11/12/2007

BILL TO: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

P.O. # 1024638

PROJECT # 51518.008.01 UCB-Air

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	RFS-163-01-01	Modified TO-15 SIM	5.0 "Hg
01AA	RFS-163-01-01 Lab Duplicate	Modified TO-15 SIM	5.0 "Hg
02A	RFS-163-02-01	Modified TO-15 SIM	7.5 "Hg
03A	RFS-163-02-01D	Modified TO-15 SIM	3.0 "Hg
04A	RFS-163-03-01	Modified TO-15 SIM	8.0 "Hg
08A	RFS-177-01-01	Modified TO-15 SIM	7.0 "Hg
09A	RFS-UCB-01-01	Modified TO-15 SIM	4.0 "Hg
10A	RFS-155-01-01	Modified TO-15 SIM	5.0 "Hg
11A	RFS-175-01-01	Modified TO-15 SIM	5.5 "Hg
12A	RFS-175-02-01	Modified TO-15 SIM	4.0 "Hg
13A	RFS-FLS-01-01	Modified TO-15 SIM	5.0 "Hg
14A	RFS-TB-01	Modified TO-15 SIM	29.0 "Hg
15A	Lab Blank	Modified TO-15 SIM	NA
15B	Lab Blank	Modified TO-15 SIM	NA
16A	CCV	Modified TO-15 SIM	NA
16B	CCV	Modified TO-15 SIM	NA
17A	LCS	Modified TO-15 SIM	NA

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0710708A

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	51518.008.01 UCB-Air
DATE RECEIVED:	10/30/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	11/12/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
17B	LCS	Modified TO-15 SIM	NA

CERTIFIED BY:  DATE: 11/12/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards
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LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0710708A



Eleven 6 Liter Summa Special (SIM Certified) samples were received on October 30, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

The Chain of Custody (COC) information for sample RFS-UCB-01-01 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-01-01

Lab ID#: 0710708A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.032	0.045	0.16	0.22
Benzene	0.080	0.16	0.26	0.50
Trichloroethene	0.0048	0.0063	0.026	0.034
Tetrachloroethene	0.0048	0.0092	0.033	0.062

Client Sample ID: RFS-163-01-01 Lab Duplicate

Lab ID#: 0710708A-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.032	0.044	0.16	0.22
Benzene	0.080	0.14	0.26	0.44
Tetrachloroethene	0.0048	0.0086	0.033	0.058

Client Sample ID: RFS-163-02-01

Lab ID#: 0710708A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
cis-1,2-Dichloroethene	0.036	0.18	0.14	0.71
Benzene	0.090	0.13	0.28	0.41
Trichloroethene	0.0054	0.041	0.029	0.22
Tetrachloroethene	0.0054	0.029	0.036	0.20

Client Sample ID: RFS-163-02-01D

Lab ID#: 0710708A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.074	0.12	0.24	0.37
Tetrachloroethene	0.0045	0.0085	0.030	0.058

Client Sample ID: RFS-163-03-01

Lab ID#: 0710708A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.092	0.12	0.29	0.38



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-03-01

Lab ID#: 0710708A-04A

Trichloroethene	0.0055	0.0060	0.030	0.032
Tetrachloroethene	0.0055	0.010	0.037	0.068

Client Sample ID: RFS-177-01-01

Lab ID#: 0710708A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.035	0.073	0.17	0.36
Benzene	0.088	0.23	0.28	0.74
Trichloroethene	0.0052	0.0083	0.028	0.045
Tetrachloroethene	0.0052	0.014	0.036	0.092

Client Sample ID: RFS-UCB-01-01

Lab ID#: 0710708A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.031	0.033	0.15	0.16
Benzene	0.078	0.27	0.25	0.85
Trichloroethene	0.0046	0.0084	0.025	0.045
Tetrachloroethene	0.0046	0.016	0.032	0.11

Client Sample ID: RFS-155-01-01

Lab ID#: 0710708A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	0.33	1.1	1.1
Benzene	0.080	0.16	0.26	0.50
Trichloroethene	0.0048	0.0062	0.026	0.034
Tetrachloroethene	0.0048	0.015	0.033	0.10

Client Sample ID: RFS-175-01-01

Lab ID#: 0710708A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	0.020	0.042	0.052
Chloroform	0.033	0.036	0.16	0.18



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-175-01-01

Lab ID#: 0710708A-11A

Benzene	0.082	0.48	0.26	1.5
Trichloroethene	0.0049	0.0067	0.026	0.036
Tetrachloroethene	0.0049	0.022	0.033	0.15

Client Sample ID: RFS-175-02-01

Lab ID#: 0710708A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.078	0.12	0.25	0.40
Tetrachloroethene	0.0046	0.0075	0.032	0.051

Client Sample ID: RFS-FLS-01-01

Lab ID#: 0710708A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.080	0.14	0.26	0.43
Tetrachloroethene	0.0048	0.0068	0.033	0.046

Client Sample ID: RFS-TB-01

Lab ID#: 0710708A-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-01

Lab ID#: 0710708A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110206	Date of Collection: 10/26/07
Dil. Factor:	1.61	Date of Analysis: 11/2/07 02:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.045	0.16	0.22
Benzene	0.080	0.16	0.26	0.50
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.0063	0.026	0.034
Tetrachloroethene	0.0048	0.0092	0.033	0.062
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-01 Lab Duplicate

Lab ID#: 0710708A-01AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110207	Date of Collection:	10/26/07
Dil. Factor:	1.61	Date of Analysis:	11/2/07 03:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.044	0.16	0.22
Benzene	0.080	0.14	0.26	0.44
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	Not Detected	0.026	Not Detected
Tetrachloroethene	0.0048	0.0086	0.033	0.058
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-01

Lab ID#: 0710708A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110215	Date of Collection: 10/26/07
Dil. Factor:	1.79	Date of Analysis: 11/2/07 09:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.071	Not Detected
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.036	0.18	0.14	0.71
Chloroform	0.036	Not Detected	0.17	Not Detected
Benzene	0.090	0.13	0.28	0.41
1,2-Dichloroethane	0.036	Not Detected	0.14	Not Detected
Trichloroethene	0.0054	0.041	0.029	0.22
Tetrachloroethene	0.0054	0.029	0.036	0.20
trans-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-01D

Lab ID#: 0710708A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110217	Date of Collection: 10/26/07
Dil. Factor:	1.49	Date of Analysis: 11/2/07 10:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	Not Detected	0.14	Not Detected
Benzene	0.074	0.12	0.24	0.37
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0045	Not Detected	0.024	Not Detected
Tetrachloroethene	0.0045	0.0085	0.030	0.058
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-01

Lab ID#: 0710708A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110218	Date of Collection: 10/26/07
Dil. Factor:	1.83	Date of Analysis: 11/2/07 11:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.047	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.072	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.037	Not Detected	0.14	Not Detected
Chloroform	0.037	Not Detected	0.18	Not Detected
Benzene	0.092	0.12	0.29	0.38
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.0055	0.0060	0.030	0.032
Tetrachloroethene	0.0055	0.010	0.037	0.068
trans-1,2-Dichloroethene	0.037	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	88	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-01

Lab ID#: 0710708A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110506	Date of Collection: 10/26/07
Dil. Factor:	1.75	Date of Analysis: 11/5/07 01:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.073	0.17	0.36
Benzene	0.088	0.23	0.28	0.74
1,2-Dichloroethane	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.0052	0.0083	0.028	0.045
Tetrachloroethene	0.0052	0.014	0.036	0.092
trans-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	88	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-01

Lab ID#: 0710708A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110507	Date of Collection: 10/26/07
Dil. Factor:	1.55	Date of Analysis: 11/5/07 03:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.033	0.15	0.16
Benzene	0.078	0.27	0.25	0.85
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0084	0.025	0.045
Tetrachloroethene	0.0046	0.016	0.032	0.11
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	88	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-01

Lab ID#: 0710708A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110508	Date of Collection: 10/26/07
Dil. Factor:	1.61	Date of Analysis: 11/5/07 04:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	0.33	1.1	1.1
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	Not Detected	0.16	Not Detected
Benzene	0.080	0.16	0.26	0.50
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.0062	0.026	0.034
Tetrachloroethene	0.0048	0.015	0.033	0.10
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-01

Lab ID#: 0710708A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110509	Date of Collection: 10/26/07
Dil. Factor:	1.64	Date of Analysis: 11/5/07 05:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	0.020	0.042	0.052
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.036	0.16	0.18
Benzene	0.082	0.48	0.26	1.5
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.0067	0.026	0.036
Tetrachloroethene	0.0049	0.022	0.033	0.15
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-01

Lab ID#: 0710708A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110510	Date of Collection:	10/26/07
Dil. Factor:	1.55	Date of Analysis:	11/5/07 06:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	Not Detected	0.15	Not Detected
Benzene	0.078	0.12	0.25	0.40
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	Not Detected	0.025	Not Detected
Tetrachloroethene	0.0046	0.0075	0.032	0.051
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-01

Lab ID#: 0710708A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110511	Date of Collection: 10/26/07
Dil. Factor:	1.61	Date of Analysis: 11/5/07 07:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	Not Detected	0.16	Not Detected
Benzene	0.080	0.14	0.26	0.43
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	Not Detected	0.026	Not Detected
Tetrachloroethene	0.0048	0.0068	0.033	0.046
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-TB-01

Lab ID#: 0710708A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110512	Date of Collection: 10/26/07
Dil. Factor:	1.00	Date of Analysis: 11/5/07 08:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	85	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0710708A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110205	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/2/07 12:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0710708A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/5/07 12:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0710708A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/2/07 09:49 AM

Compound	%Recovery
Vinyl Chloride	112
1,1-Dichloroethene	100
Methylene Chloride	103
cis-1,2-Dichloroethene	104
Chloroform	95
Benzene	103
1,2-Dichloroethane	85
Trichloroethene	84
Tetrachloroethene	82
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	93	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0710708A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/5/07 08:51 AM

Compound	%Recovery
Vinyl Chloride	111
1,1-Dichloroethene	102
Methylene Chloride	105
cis-1,2-Dichloroethene	105
Chloroform	96
Benzene	103
1,2-Dichloroethane	87
Trichloroethene	86
Tetrachloroethene	86
trans-1,2-Dichloroethene	107

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0710708A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/2/07 10:36 AM

Compound	%Recovery
Vinyl Chloride	100
1,1-Dichloroethene	105
Methylene Chloride	106
cis-1,2-Dichloroethene	101
Chloroform	93
Benzene	99
1,2-Dichloroethane	84
Trichloroethene	82
Tetrachloroethene	84
trans-1,2-Dichloroethene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0710708A-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a110503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/5/07 09:45 AM

Compound	%Recovery
Vinyl Chloride	96
1,1-Dichloroethene	104
Methylene Chloride	105
cis-1,2-Dichloroethene	99
Chloroform	92
Benzene	97
1,2-Dichloroethane	83
Trichloroethene	81
Tetrachloroethene	83
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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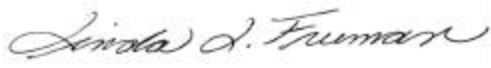
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0710670A

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	51518,008,01 UCB-RFS Air
DATE RECEIVED:	10/27/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	11/01/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
05A	RFS-478-01-01	Modified TO-11A
05AA	RFS-478-01-01 Lab Duplicate	Modified TO-11A
06A	RFS-478-02-01	Modified TO-11A
07A	RFS-478-03-01	Modified TO-11A
08A	Lab Blank	Modified TO-11A
09A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 11/01/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0710670A

Three TO-11 Cartridge samples were received on October 27, 2007. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-478-01-01

Lab ID#: 0710670A-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	25	13

Client Sample ID: RFS-478-01-01 Lab Duplicate

Lab ID#: 0710670A-05AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	25	13

Client Sample ID: RFS-478-02-01

Lab ID#: 0710670A-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	16	9.1

Client Sample ID: RFS-478-03-01

Lab ID#: 0710670A-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.050	65	33



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-01

Lab ID#: 0710670A-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031007	Date of Collection: 10/26/07
Dil. Factor:	1.00	Date of Analysis: 10/31/07 01:23 PM
		Date of Extraction: 10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	25	13

Air Sample Volume(L): 1880
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-01 Lab Duplicate

Lab ID#: 0710670A-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031010	Date of Collection:	10/26/07
Dil. Factor:	1.00	Date of Analysis:	10/31/07 02:25 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	25	13

Air Sample Volume(L): 1880
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-01

Lab ID#: 0710670A-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031008	Date of Collection: 10/26/07
Dil. Factor:	1.00	Date of Analysis: 10/31/07 01:44 PM
		Date of Extraction: 10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	16	9.1

Air Sample Volume(L): 1810
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-01

Lab ID#: 0710670A-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031032	Date of Collection:	10/26/07
Dil. Factor:	2.00	Date of Analysis:	10/31/07 10:05 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.050	65	33

Air Sample Volume(L): 1990
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0710670A-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/31/07 11:59 AM
		Date of Extraction: 10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0710670A-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/31/07 12:20 PM
		Date of Extraction: 10/31/07

Compound	%Recovery
Formaldehyde	101

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



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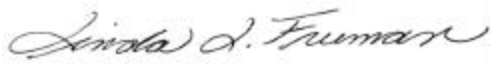
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WORK ORDER #: 0710670B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	51518,008,01 UCB-RFS Air
DATE RECEIVED:	10/27/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	11/02/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-163-01-01	Modified TO-11A
01AA	RFS-163-01-01 Lab Duplicate	Modified TO-11A
02A(cancelled)	RFS-163-02-01	Modified TO-11A
03A(cancelled)	RFS-163-02-01D	Modified TO-11A
04A	RFS-163-03-01	Modified TO-11A
08A	RFS-177-01-01	Modified TO-11A
09A	RFS-UCB-01-01	Modified TO-11A
10A	RFS-155-01-01	Modified TO-11A
11A	RFS-175-01-01	Modified TO-11A
12A	RFS-175-02-01	Modified TO-11A
13A	RFS-FLS-01-01	Modified TO-11A
14A	RFS-TB-01	Modified TO-11A
15A	Lab Blank	Modified TO-11A
16A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 11/02/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0710670B

Eleven TO-11 Cartridge samples were received on October 27, 2007. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

Samples RFS-163-02-01 and RFS-163-02-01D were cancelled per client's request.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-163-01-01

Lab ID#: 0710670B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Client Sample ID: RFS-163-01-01 Lab Duplicate

Lab ID#: 0710670B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Client Sample ID: RFS-163-03-01

Lab ID#: 0710670B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	0.65	0.34

Client Sample ID: RFS-177-01-01

Lab ID#: 0710670B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	36	19

Client Sample ID: RFS-UCB-01-01

Lab ID#: 0710670B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	2.2	1.1

Client Sample ID: RFS-155-01-01

Lab ID#: 0710670B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.024	20	9.6



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-175-01-01

Lab ID#: 0710670B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	19	10

Client Sample ID: RFS-175-02-01

Lab ID#: 0710670B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	1.1	0.55

Client Sample ID: RFS-FLS-01-01

Lab ID#: 0710670B-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	0.92	0.48

Client Sample ID: RFS-TB-01

Lab ID#: 0710670B-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-01

Lab ID#: 0710670B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031011	Date of Collection: 10/26/07
Dil. Factor:	1.00	Date of Analysis: 10/31/07 02:46 PM
		Date of Extraction: 10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-01 Lab Duplicate

Lab ID#: 0710670B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031012	Date of Collection: 10/26/07
Dil. Factor:	1.00	Date of Analysis: 10/31/07 03:07 PM
		Date of Extraction: 10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-01

Lab ID#: 0710670B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031018	Date of Collection:	10/26/07
Dil. Factor:	1.00	Date of Analysis:	10/31/07 05:13 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	0.65	0.34

Air Sample Volume(L): 1920
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-01

Lab ID#: 0710670B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031019	Date of Collection:	10/26/07
Dil. Factor:	1.00	Date of Analysis:	10/31/07 05:33 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	36	19

Air Sample Volume(L): 1880
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-01

Lab ID#: 0710670B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031020	Date of Collection:	10/26/07
Dil. Factor:	1.00	Date of Analysis:	10/31/07 05:54 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	2.2	1.1

Air Sample Volume(L): 1910
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-01

Lab ID#: 0710670B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031021	Date of Collection: 10/26/07
Dil. Factor:	1.00	Date of Analysis: 10/31/07 06:15 PM
		Date of Extraction: 10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.024	20	9.6

Air Sample Volume(L): 2060
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-01

Lab ID#: 0710670B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031022	Date of Collection:	10/26/07
Dil. Factor:	1.00	Date of Analysis:	10/31/07 06:36 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	19	10

Air Sample Volume(L): 1900
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-01

Lab ID#: 0710670B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031023	Date of Collection:	10/26/07
Dil. Factor:	1.00	Date of Analysis:	10/31/07 06:57 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	1.1	0.55

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-01

Lab ID#: 0710670B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031024	Date of Collection:	10/26/07
Dil. Factor:	1.00	Date of Analysis:	10/31/07 07:18 PM
		Date of Extraction:	10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	0.92	0.48

Air Sample Volume(L): 1910
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-TB-01

Lab ID#: 0710670B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031005	Date of Collection:	10/26/07	
Dil. Factor:	1.00	Date of Analysis:	10/31/07 12:41 PM	
		Date of Extraction:	10/31/07	

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0710670B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/31/07 11:59 AM
		Date of Extraction: 10/31/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0710670B-16A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1031004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/31/07 12:20 PM
		Date of Extraction: 10/31/07

Compound	%Recovery
Formaldehyde	101

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

**(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711150A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

PHONE: 208-343-4085

FAX:

DATE RECEIVED: 11/08/2007

DATE COMPLETED:

BILL TO: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

P.O. # 1024638

PROJECT # 51518.008.01 UCB-Air

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	RFS-163-01-02	Modified TO-15 SIM	4.0 "Hg
02A	RFS-163-02-02	Modified TO-15 SIM	6.0 "Hg
03A	RFS-163-02D-02	Modified TO-15 SIM	6.0 "Hg
04A	RFS-163-03-02	Modified TO-15 SIM	0.8 psi
05A	RFS-478-01-02	Modified TO-15 SIM	5.0 "Hg
06A	RFS-478-02-02	Modified TO-15 SIM	0.6 psi
06AA	RFS-478-02-02 Lab Duplicate	Modified TO-15 SIM	0.6 psi
07A	RFS-478-03-02	Modified TO-15 SIM	5.5 "Hg
08A	RFS-175-01-02	Modified TO-15 SIM	6.0 "Hg
09A	RFS-175-02-02	Modified TO-15 SIM	4.0 "Hg
10A	RFS-177-01-02	Modified TO-15 SIM	0.4 psi
11A	RFS-155-01-02	Modified TO-15 SIM	6.5 "Hg
12A	RFS-UCB-01-02	Modified TO-15 SIM	0.6 psi
13A	RFS-FLS-01-02	Modified TO-15 SIM	8.5 "Hg
14A	Lab Blank	Modified TO-15 SIM	NA
14B	Lab Blank	Modified TO-15 SIM	NA
15A	CCV	Modified TO-15 SIM	NA

Continued on next page




AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711150A

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	51518.008.01 UCB-Air
DATE RECEIVED:	11/08/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:			

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
15B	CCV	Modified TO-15 SIM	NA
16A	LCS	Modified TO-15 SIM	NA
16B	LCS	Modified TO-15 SIM	NA

CERTIFIED BY: 

DATE: 11/21/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0711150A



Thirteen 6 Liter Summa Special (SIM Certified) samples were received on November 08, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

The Chain of Custody (COC) information for sample RFS-163-02-02 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

The Chain of Custody (COC) information for sample RFS-163-02D-02 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-01-02

Lab ID#: 0711150A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	0.71	1.1	2.5
Chloroform	0.031	0.059	0.15	0.29
Benzene	0.078	0.15	0.25	0.48

Client Sample ID: RFS-163-02-02

Lab ID#: 0711150A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.48	1.2	1.7
Chloroform	0.034	0.034	0.16	0.17
Benzene	0.084	0.14	0.27	0.45
Tetrachloroethene	0.0050	0.030	0.034	0.20

Client Sample ID: RFS-163-02D-02

Lab ID#: 0711150A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.48	1.2	1.7
Chloroform	0.034	0.035	0.16	0.17
Benzene	0.084	0.21	0.27	0.68
Tetrachloroethene	0.0050	0.0089	0.034	0.060

Client Sample ID: RFS-163-03-02

Lab ID#: 0711150A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.064	0.11	0.20	0.36
Tetrachloroethene	0.0038	0.0091	0.026	0.062

Client Sample ID: RFS-478-01-02

Lab ID#: 0711150A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.032	0.037	0.16	0.18



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-01-02

Lab ID#: 0711150A-05A

Benzene	0.080	0.26	0.26	0.81
Trichloroethene	0.0048	0.071	0.026	0.38
Tetrachloroethene	0.0048	0.16	0.033	1.1

Client Sample ID: RFS-478-02-02

Lab ID#: 0711150A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.26	0.82	0.90	2.8
Benzene	0.064	0.14	0.21	0.44
Tetrachloroethene	0.0039	0.035	0.026	0.24

Client Sample ID: RFS-478-02-02 Lab Duplicate

Lab ID#: 0711150A-06AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.26	0.82	0.90	2.8
Benzene	0.064	0.13	0.21	0.42
Trichloroethene	0.0039	0.0060	0.021	0.032
Tetrachloroethene	0.0039	0.035	0.026	0.24

Client Sample ID: RFS-478-03-02

Lab ID#: 0711150A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.082	0.16	0.26	0.50
Tetrachloroethene	0.0049	0.012	0.033	0.084

Client Sample ID: RFS-175-01-02

Lab ID#: 0711150A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	0.021	0.043	0.053
Chloroform	0.034	0.072	0.16	0.35
Benzene	0.084	0.20	0.27	0.65
Trichloroethene	0.0050	0.0068	0.027	0.036



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-175-01-02

Lab ID#: 0711150A-08A

Tetrachloroethene	0.0050	0.023	0.034	0.15
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Client Sample ID: RFS-175-02-02

Lab ID#: 0711150A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.078	0.13	0.25	0.41

Client Sample ID: RFS-177-01-02

Lab ID#: 0711150A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.026	0.13	0.13	0.64
Benzene	0.065	0.14	0.21	0.44

Client Sample ID: RFS-155-01-02

Lab ID#: 0711150A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.086	0.15	0.27	0.47

Client Sample ID: RFS-UCB-01-02

Lab ID#: 0711150A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.26	0.28	0.90	0.97
Benzene	0.064	0.25	0.21	0.81

Client Sample ID: RFS-FLS-01-02

Lab ID#: 0711150A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.094	0.12	0.30	0.38



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-02

Lab ID#: 0711150A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111510	Date of Collection: 11/7/07
Dil. Factor:	1.55	Date of Analysis: 11/15/07 05:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Methylene Chloride	0.31	0.71	1.1	2.5
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.059	0.15	0.29
Benzene	0.078	0.15	0.25	0.48
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	Not Detected	0.025	Not Detected
Tetrachloroethene	0.0046	Not Detected	0.032	Not Detected
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-02

Lab ID#: 0711150A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111511	Date of Collection: 11/7/07
Dil. Factor:	1.68	Date of Analysis: 11/15/07 06:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	0.48	1.2	1.7
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.034	0.16	0.17
Benzene	0.084	0.14	0.27	0.45
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	Not Detected	0.027	Not Detected
Tetrachloroethene	0.0050	0.030	0.034	0.20
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-02

Lab ID#: 0711150A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111512	Date of Collection: 11/7/07
Dil. Factor:	1.68	Date of Analysis: 11/15/07 06:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	0.48	1.2	1.7
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.035	0.16	0.17
Benzene	0.084	0.21	0.27	0.68
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	Not Detected	0.027	Not Detected
Tetrachloroethene	0.0050	0.0089	0.034	0.060
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	93	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-02

Lab ID#: 0711150A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111513	Date of Collection: 11/7/07
Dil. Factor:	1.27	Date of Analysis: 11/15/07 07:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.032	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.050	Not Detected
Methylene Chloride	0.25	Not Detected	0.88	Not Detected
cis-1,2-Dichloroethene	0.025	Not Detected	0.10	Not Detected
Chloroform	0.025	Not Detected	0.12	Not Detected
Benzene	0.064	0.11	0.20	0.36
1,2-Dichloroethane	0.025	Not Detected	0.10	Not Detected
Trichloroethene	0.0038	Not Detected	0.020	Not Detected
Tetrachloroethene	0.0038	0.0091	0.026	0.062
trans-1,2-Dichloroethene	0.025	Not Detected	0.10	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-02

Lab ID#: 0711150A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111514	Date of Collection:	11/7/07
Dil. Factor:	1.61	Date of Analysis:	11/15/07 08:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.037	0.16	0.18
Benzene	0.080	0.26	0.26	0.81
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.071	0.026	0.38
Tetrachloroethene	0.0048	0.16	0.033	1.1
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-02

Lab ID#: 0711150A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111508	Date of Collection: 11/7/07
Dil. Factor:	1.29	Date of Analysis: 11/15/07 04:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.033	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.051	Not Detected
Methylene Chloride	0.26	0.82	0.90	2.8
cis-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected
Chloroform	0.026	Not Detected	0.12	Not Detected
Benzene	0.064	0.14	0.21	0.44
1,2-Dichloroethane	0.026	Not Detected	0.10	Not Detected
Trichloroethene	0.0039	Not Detected	0.021	Not Detected
Tetrachloroethene	0.0039	0.035	0.026	0.24
trans-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-02 Lab Duplicate

Lab ID#: 0711150A-06AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111509	Date of Collection:	11/7/07
Dil. Factor:	1.29	Date of Analysis:	11/15/07 05:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.033	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.051	Not Detected
Methylene Chloride	0.26	0.82	0.90	2.8
cis-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected
Chloroform	0.026	Not Detected	0.12	Not Detected
Benzene	0.064	0.13	0.21	0.42
1,2-Dichloroethane	0.026	Not Detected	0.10	Not Detected
Trichloroethene	0.0039	0.0060	0.021	0.032
Tetrachloroethene	0.0039	0.035	0.026	0.24
trans-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-02

Lab ID#: 0711150A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111515	Date of Collection: 11/7/07
Dil. Factor:	1.64	Date of Analysis: 11/15/07 09:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	Not Detected	0.16	Not Detected
Benzene	0.082	0.16	0.26	0.50
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	Not Detected	0.026	Not Detected
Tetrachloroethene	0.0049	0.012	0.033	0.084
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-02

Lab ID#: 0711150A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111518	Date of Collection: 11/7/07
Dil. Factor:	1.68	Date of Analysis: 11/16/07 07:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	0.021	0.043	0.053
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.072	0.16	0.35
Benzene	0.084	0.20	0.27	0.65
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.0068	0.027	0.036
Tetrachloroethene	0.0050	0.023	0.034	0.15
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-02

Lab ID#: 0711150A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111611	Date of Collection: 11/7/07
Dil. Factor:	1.55	Date of Analysis: 11/16/07 05:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	Not Detected	0.15	Not Detected
Benzene	0.078	0.13	0.25	0.41
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	Not Detected	0.025	Not Detected
Tetrachloroethene	0.0046	Not Detected	0.032	Not Detected
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-02

Lab ID#: 0711150A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111614	Date of Collection:	11/7/07
Dil. Factor:	1.30	Date of Analysis:	11/16/07 07:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.033	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.052	Not Detected
Methylene Chloride	0.26	Not Detected	0.90	Not Detected
cis-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected
Chloroform	0.026	0.13	0.13	0.64
Benzene	0.065	0.14	0.21	0.44
1,2-Dichloroethane	0.026	Not Detected	0.10	Not Detected
Trichloroethene	0.0039	Not Detected	0.021	Not Detected
Tetrachloroethene	0.0039	Not Detected	0.026	Not Detected
trans-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-02

Lab ID#: 0711150A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111613	Date of Collection: 11/7/07
Dil. Factor:	1.71	Date of Analysis: 11/16/07 06:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	Not Detected	0.17	Not Detected
Benzene	0.086	0.15	0.27	0.47
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	Not Detected	0.028	Not Detected
Tetrachloroethene	0.0051	Not Detected	0.035	Not Detected
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-02

Lab ID#: 0711150A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111615	Date of Collection: 11/7/07
Dil. Factor:	1.29	Date of Analysis: 11/16/07 07:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.033	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.051	Not Detected
Methylene Chloride	0.26	0.28	0.90	0.97
cis-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected
Chloroform	0.026	Not Detected	0.12	Not Detected
Benzene	0.064	0.25	0.21	0.81
1,2-Dichloroethane	0.026	Not Detected	0.10	Not Detected
Trichloroethene	0.0039	Not Detected	0.021	Not Detected
Tetrachloroethene	0.0039	Not Detected	0.026	Not Detected
trans-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-02

Lab ID#: 0711150A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111616	Date of Collection: 11/7/07
Dil. Factor:	1.87	Date of Analysis: 11/16/07 08:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.019	Not Detected	0.048	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.074	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected
Chloroform	0.037	Not Detected	0.18	Not Detected
Benzene	0.094	0.12	0.30	0.38
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.0056	Not Detected	0.030	Not Detected
Tetrachloroethene	0.0056	Not Detected	0.038	Not Detected
trans-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711150A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/07 02:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711150A-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111608a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/16/07 02:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0711150A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/07 10:35 AM

Compound	%Recovery
Vinyl Chloride	122
1,1-Dichloroethene	93
Methylene Chloride	99
cis-1,2-Dichloroethene	101
Chloroform	95
Benzene	100
1,2-Dichloroethane	83
Trichloroethene	76
Tetrachloroethene	78
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0711150A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/16/07 09:44 AM

Compound	%Recovery
Vinyl Chloride	114
1,1-Dichloroethene	92
Methylene Chloride	100
cis-1,2-Dichloroethene	97
Chloroform	93
Benzene	104
1,2-Dichloroethane	86
Trichloroethene	81
Tetrachloroethene	77
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	95	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711150A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/15/07 11:36 AM

Compound	%Recovery
Vinyl Chloride	118
1,1-Dichloroethene	109
Methylene Chloride	116
cis-1,2-Dichloroethene	108
Chloroform	102
Benzene	111
1,2-Dichloroethane	93
Trichloroethene	86
Tetrachloroethene	83
trans-1,2-Dichloroethene	109

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711150A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a111606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/16/07 12:59 PM

Compound	%Recovery
Vinyl Chloride	104
1,1-Dichloroethene	106
Methylene Chloride	112
cis-1,2-Dichloroethene	104
Chloroform	99
Benzene	105
1,2-Dichloroethane	89
Trichloroethene	82
Tetrachloroethene	80
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

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Hours 8:00 A.M to 6:00 P.M. Pacific**



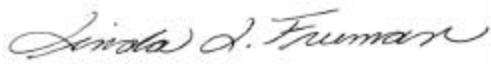
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711150B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	51518.008.01 UCB-Air
DATE RECEIVED:	11/08/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	11/27/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-163-01-02	Modified TO-11A
01AA	RFS-163-01-02 Lab Duplicate	Modified TO-11A
02A	RFS-163-02-02	Modified TO-11A
03A	RFS-163-02D-02	Modified TO-11A
04A	RFS-163-03-02	Modified TO-11A
05A	RFS-478-01-02	Modified TO-11A
06A	RFS-478-02-02	Modified TO-11A
07A	RFS-478-03-02	Modified TO-11A
08A	RFS-175-01-02	Modified TO-11A
09A	RFS-175-02-02	Modified TO-11A
10A	RFS-177-01-02	Modified TO-11A
11A	RFS-155-01-02	Modified TO-11A
12A	RFS-UCB-01-02	Modified TO-11A
13A	RFS-TB-02	Modified TO-11A
14A	Lab Blank	Modified TO-11A
15A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 11/27/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0711150B

Thirteen TO-11 Cartridge samples were received on November 08, 2007. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

The Chain of Custody (COC) information for sample RFS-TB-02 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-163-01-02

Lab ID#: 0711150B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	39	21

Client Sample ID: RFS-163-01-02 Lab Duplicate

Lab ID#: 0711150B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	39	21

Client Sample ID: RFS-163-02-02

Lab ID#: 0711150B-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	33	18

Client Sample ID: RFS-163-02D-02

Lab ID#: 0711150B-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	23	13

Client Sample ID: RFS-163-03-02

Lab ID#: 0711150B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	1.6	0.85

Client Sample ID: RFS-478-01-02

Lab ID#: 0711150B-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	5.1	2.9



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-478-02-02

Lab ID#: 0711150B-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	13	7.0

Client Sample ID: RFS-478-03-02

Lab ID#: 0711150B-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	69	38

Client Sample ID: RFS-175-01-02

Lab ID#: 0711150B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	27	15

Client Sample ID: RFS-175-02-02

Lab ID#: 0711150B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	3.0	1.6

Client Sample ID: RFS-177-01-02

Lab ID#: 0711150B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	32	17

Client Sample ID: RFS-155-01-02

Lab ID#: 0711150B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	26	14



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-UCB-01-02

Lab ID#: 0711150B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	3.2	1.7

Client Sample ID: RFS-TB-02

Lab ID#: 0711150B-13A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-02

Lab ID#: 0711150B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114009	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 12:08 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	39	21

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-02 Lab Duplicate

Lab ID#: 0711150B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114010	Date of Collection:	11/7/07	
Dil. Factor:	1.00	Date of Analysis:	11/14/07 12:29 PM	
		Date of Extraction:	11/14/07	

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	39	21

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-02

Lab ID#: 0711150B-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114011	Date of Collection: 11/7/07
Dil. Factor:	1.00	Date of Analysis: 11/14/07 12:50 PM
		Date of Extraction: 11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	33	18

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-02

Lab ID#: 0711150B-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114012	Date of Collection:	11/7/07	
Dil. Factor:	1.00	Date of Analysis:	11/14/07 01:11 PM	
		Date of Extraction:	11/14/07	

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	23	13

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-02

Lab ID#: 0711150B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114016	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 02:34 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	1.6	0.85

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-02

Lab ID#: 0711150B-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114017	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 02:55 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	5.1	2.9

Air Sample Volume(L): 1760
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-02

Lab ID#: 0711150B-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114018	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 03:16 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	13	7.0

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-02

Lab ID#: 0711150B-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114028	Date of Collection:	11/7/07
Dil. Factor:	2.00	Date of Analysis:	11/14/07 07:09 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	69	38

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-02

Lab ID#: 0711150B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114020	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 03:58 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	27	15

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-02

Lab ID#: 0711150B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114021	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 04:19 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	3.0	1.6

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-02

Lab ID#: 0711150B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114022	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 04:39 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	32	17

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-02

Lab ID#: 0711150B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114023	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 05:00 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	26	14

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-02

Lab ID#: 0711150B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114024	Date of Collection:	11/7/07
Dil. Factor:	1.00	Date of Analysis:	11/14/07 05:21 PM
		Date of Extraction:	11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	3.2	1.7

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-TB-02

Lab ID#: 0711150B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114008	Date of Collection:	11/7/07	
Dil. Factor:	1.00	Date of Analysis:	11/14/07 11:47 AM	
		Date of Extraction:	11/14/07	

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711150B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/14/07 10:23 AM
		Date of Extraction: 11/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711150B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1114005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/14/07 10:44 AM
		Date of Extraction: 11/14/07

Compound	%Recovery
Formaldehyde	103

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

**(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711596A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

BILL TO: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

PHONE: 208-343-4085

FAX:

DATE RECEIVED: 11/30/2007

DATE COMPLETED: 12/12/2007

P.O. # S518.008.01

PROJECT # S518.008.01 RFS Air

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A(cancelled)	RFS-UCB-001-003	Modified TO-15 SIM	0.6 psi
02A	RFS-163-01-03	Modified TO-15 SIM	5.0 "Hg
03A	RFS-163-02-03	Modified TO-15 SIM	5.5 "Hg
04A	RFS-163-02D-03	Modified TO-15 SIM	5.0 "Hg
05A	RFS-163-03-03	Modified TO-15 SIM	2.5 "Hg
06A	RFS-175-01-03	Modified TO-15 SIM	4.5 "Hg
07A	RFS-175-02-03	Modified TO-15 SIM	2.5 "Hg
08A	RFS-177-01-03	Modified TO-15 SIM	5.0 "Hg
09A	RFS-155-01-03	Modified TO-15 SIM	7.0 "Hg
10A	RFS-478-01-03	Modified TO-15 SIM	6.0 "Hg
11A	RFS-478-02-03	Modified TO-15 SIM	3.5 "Hg
12A	RFS-478-03-03	Modified TO-15 SIM	4.0 "Hg
12AA	RFS-478-03-03 Lab Duplicate	Modified TO-15 SIM	4.0 "Hg
13A	RFS-FLS-01-03	Modified TO-15 SIM	3.0 "Hg
13AA	RFS-FLS-01-03 Lab Duplicate	Modified TO-15 SIM	3.0 "Hg
14A	RFS-TB-01-03	Modified TO-15 SIM	29.0 "Hg
15A	Lab Blank	Modified TO-15 SIM	NA

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711596A

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	S518.008.01
FAX:		PROJECT #	S518.008.01 RFS Air
DATE RECEIVED:	11/30/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/12/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
16A	CCV	Modified TO-15 SIM	NA
17A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY: 

Laboratory Director

DATE: 12/12/07

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0711596A



Fourteen 6 Liter Summa Special (SIM Certified) samples were received on November 30, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

Sample RFS-UCB-001-003 arrived at above ambient pressure yet flow controllers were used for sample collection. Per client instructions, the analysis was cancelled.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.

- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

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

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-01-03

Lab ID#: 0711596A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	0.66	1.1	2.3
Chloroform	0.032	0.052	0.16	0.25
Benzene	0.080	0.33	0.26	1.1
Trichloroethene	0.0048	0.014	0.026	0.074
Tetrachloroethene	0.0048	0.013	0.033	0.088

Client Sample ID: RFS-163-02-03

Lab ID#: 0711596A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.33	0.55	1.1	1.9
Chloroform	0.033	0.043	0.16	0.21
Benzene	0.082	0.31	0.26	1.0
Trichloroethene	0.0049	0.010	0.026	0.056
Tetrachloroethene	0.0049	0.014	0.033	0.099

Client Sample ID: RFS-163-02D-03

Lab ID#: 0711596A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	0.55	1.1	1.9
Chloroform	0.032	0.044	0.16	0.21
Benzene	0.080	0.31	0.26	1.0
Trichloroethene	0.0048	0.0096	0.026	0.051
Tetrachloroethene	0.0048	0.013	0.033	0.090

Client Sample ID: RFS-163-03-03

Lab ID#: 0711596A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.029	0.032	0.14	0.15
Benzene	0.073	0.40	0.23	1.3
Trichloroethene	0.0044	0.028	0.024	0.15
Tetrachloroethene	0.0044	0.016	0.030	0.11



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-175-01-03

Lab ID#: 0711596A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	0.023	0.040	0.059
Chloroform	0.032	0.060	0.15	0.30
Benzene	0.079	0.40	0.25	1.3
Trichloroethene	0.0047	0.0070	0.025	0.037
Tetrachloroethene	0.0047	0.032	0.032	0.22

Client Sample ID: RFS-175-02-03

Lab ID#: 0711596A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.029	0.030	0.14	0.15
Benzene	0.073	0.40	0.23	1.3
Trichloroethene	0.0044	0.0063	0.024	0.034
Tetrachloroethene	0.0044	0.015	0.030	0.10

Client Sample ID: RFS-177-01-03

Lab ID#: 0711596A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.032	0.11	0.16	0.53
Benzene	0.080	0.37	0.26	1.2
Trichloroethene	0.0048	0.0065	0.026	0.035
Tetrachloroethene	0.0048	0.029	0.033	0.20

Client Sample ID: RFS-155-01-03

Lab ID#: 0711596A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.088	0.36	0.28	1.1
Trichloroethene	0.0052	0.0071	0.028	0.038
Tetrachloroethene	0.0052	0.029	0.036	0.20

Client Sample ID: RFS-478-01-03

Lab ID#: 0711596A-10A



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-01-03

Lab ID#: 0711596A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.034	0.092	0.16	0.45
Benzene	0.084	0.68	0.27	2.2
Trichloroethene	0.0050	0.21	0.027	1.1
Tetrachloroethene	0.0050	0.015	0.034	0.10

Client Sample ID: RFS-478-02-03

Lab ID#: 0711596A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.30	0.96	1.0	3.3
Chloroform	0.030	0.042	0.15	0.21
Benzene	0.076	0.44	0.24	1.4
Trichloroethene	0.0046	0.013	0.024	0.071
Tetrachloroethene	0.0046	0.014	0.031	0.092

Client Sample ID: RFS-478-03-03

Lab ID#: 0711596A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	0.42	1.1	1.5
Chloroform	0.031	0.032	0.15	0.16
Benzene	0.078	0.42	0.25	1.3
Trichloroethene	0.0046	0.0098	0.025	0.052
Tetrachloroethene	0.0046	0.013	0.032	0.088

Client Sample ID: RFS-478-03-03 Lab Duplicate

Lab ID#: 0711596A-12AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	0.42	1.1	1.4
Chloroform	0.031	0.030 J	0.15	0.15
Benzene	0.078	0.42	0.25	1.3
Trichloroethene	0.0046	0.0082	0.025	0.044
Tetrachloroethene	0.0046	0.013	0.032	0.089



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-FLS-01-03

Lab ID#: 0711596A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.030	0.037	0.14	0.18
Benzene	0.074	0.57	0.24	1.8
Trichloroethene	0.0045	0.0074	0.024	0.040
Tetrachloroethene	0.0045	0.014	0.030	0.095

Client Sample ID: RFS-FLS-01-03 Lab Duplicate

Lab ID#: 0711596A-13AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.030	0.037	0.14	0.18
Benzene	0.074	0.57	0.24	1.8
Trichloroethene	0.0045	0.0062	0.024	0.033
Tetrachloroethene	0.0045	0.014	0.030	0.099

Client Sample ID: RFS-TB-01-03

Lab ID#: 0711596A-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-03

Lab ID#: 0711596A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120507	Date of Collection:	11/29/07
Dil. Factor:	1.61	Date of Analysis:	12/5/07 12:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	0.66	1.1	2.3
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.052	0.16	0.25
Benzene	0.080	0.33	0.26	1.1
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.014	0.026	0.074
Tetrachloroethene	0.0048	0.013	0.033	0.088
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-03

Lab ID#: 0711596A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120508	Date of Collection:	11/29/07
Dil. Factor:	1.64	Date of Analysis:	12/5/07 01:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	0.55	1.1	1.9
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.043	0.16	0.21
Benzene	0.082	0.31	0.26	1.0
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.010	0.026	0.056
Tetrachloroethene	0.0049	0.014	0.033	0.099
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-03

Lab ID#: 0711596A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120509	Date of Collection: 11/29/07
Dil. Factor:	1.61	Date of Analysis: 12/5/07 02:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	0.55	1.1	1.9
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.044	0.16	0.21
Benzene	0.080	0.31	0.26	1.0
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.0096	0.026	0.051
Tetrachloroethene	0.0048	0.013	0.033	0.090
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-03

Lab ID#: 0711596A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120510	Date of Collection: 11/29/07
Dil. Factor:	1.46	Date of Analysis: 12/5/07 03:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.037	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.058	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected
Chloroform	0.029	0.032	0.14	0.15
Benzene	0.073	0.40	0.23	1.3
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.0044	0.028	0.024	0.15
Tetrachloroethene	0.0044	0.016	0.030	0.11
trans-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-03

Lab ID#: 0711596A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120511	Date of Collection: 11/29/07
Dil. Factor:	1.58	Date of Analysis: 12/5/07 03:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	0.023	0.040	0.059
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
Chloroform	0.032	0.060	0.15	0.30
Benzene	0.079	0.40	0.25	1.3
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0047	0.0070	0.025	0.037
Tetrachloroethene	0.0047	0.032	0.032	0.22
trans-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-03

Lab ID#: 0711596A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120512	Date of Collection: 11/29/07
Dil. Factor:	1.46	Date of Analysis: 12/5/07 04:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.037	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.058	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected
Chloroform	0.029	0.030	0.14	0.15
Benzene	0.073	0.40	0.23	1.3
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.0044	0.0063	0.024	0.034
Tetrachloroethene	0.0044	0.015	0.030	0.10
trans-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-03

Lab ID#: 0711596A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120513	Date of Collection:	11/29/07
Dil. Factor:	1.61	Date of Analysis:	12/5/07 05:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.11	0.16	0.53
Benzene	0.080	0.37	0.26	1.2
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.0065	0.026	0.035
Tetrachloroethene	0.0048	0.029	0.033	0.20
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-03

Lab ID#: 0711596A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120514	Date of Collection: 11/29/07
Dil. Factor:	1.75	Date of Analysis: 12/5/07 05:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	Not Detected	0.17	Not Detected
Benzene	0.088	0.36	0.28	1.1
1,2-Dichloroethane	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.0052	0.0071	0.028	0.038
Tetrachloroethene	0.0052	0.029	0.036	0.20
trans-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-03

Lab ID#: 0711596A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120515	Date of Collection:	11/29/07
Dil. Factor:	1.68	Date of Analysis:	12/5/07 08:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.092	0.16	0.45
Benzene	0.084	0.68	0.27	2.2
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.21	0.027	1.1
Tetrachloroethene	0.0050	0.015	0.034	0.10
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-03

Lab ID#: 0711596A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120516	Date of Collection:	11/29/07
Dil. Factor:	1.52	Date of Analysis:	12/5/07 10:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Methylene Chloride	0.30	0.96	1.0	3.3
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.042	0.15	0.21
Benzene	0.076	0.44	0.24	1.4
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.013	0.024	0.071
Tetrachloroethene	0.0046	0.014	0.031	0.092
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-03

Lab ID#: 0711596A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120517	Date of Collection: 11/29/07
Dil. Factor:	1.55	Date of Analysis: 12/5/07 11:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Methylene Chloride	0.31	0.42	1.1	1.5
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.032	0.15	0.16
Benzene	0.078	0.42	0.25	1.3
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0098	0.025	0.052
Tetrachloroethene	0.0046	0.013	0.032	0.088
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-03 Lab Duplicate

Lab ID#: 0711596A-12AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120521	Date of Collection:	11/29/07
Dil. Factor:	1.55	Date of Analysis:	12/6/07 02:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Methylene Chloride	0.31	0.42	1.1	1.4
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.030 J	0.15	0.15
Benzene	0.078	0.42	0.25	1.3
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0082	0.025	0.044
Tetrachloroethene	0.0046	0.013	0.032	0.089
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-03

Lab ID#: 0711596A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120518	Date of Collection: 11/29/07
Dil. Factor:	1.49	Date of Analysis: 12/6/07 12:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.037	0.14	0.18
Benzene	0.074	0.57	0.24	1.8
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0045	0.0074	0.024	0.040
Tetrachloroethene	0.0045	0.014	0.030	0.095
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-03 Lab Duplicate

Lab ID#: 0711596A-13AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120522	Date of Collection:	11/29/07
Dil. Factor:	1.49	Date of Analysis:	12/6/07 03:04 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.037	0.14	0.18
Benzene	0.074	0.57	0.24	1.8
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0045	0.0062	0.024	0.033
Tetrachloroethene	0.0045	0.014	0.030	0.099
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	90	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-TB-01-03

Lab ID#: 0711596A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120519	Date of Collection: 11/29/07
Dil. Factor:	1.00	Date of Analysis: 12/6/07 01:00 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	84	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711596A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/07 11:54 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0711596A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/07 08:34 AM

Compound	%Recovery
Vinyl Chloride	109
1,1-Dichloroethene	89
Methylene Chloride	98
cis-1,2-Dichloroethene	92
Chloroform	90
Benzene	104
1,2-Dichloroethane	85
Trichloroethene	82
Tetrachloroethene	78
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711596A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a120503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/07 09:14 AM

Compound	%Recovery
Vinyl Chloride	116
1,1-Dichloroethene	97
Methylene Chloride	104
cis-1,2-Dichloroethene	94
Chloroform	92
Benzene	102
1,2-Dichloroethane	86
Trichloroethene	81
Tetrachloroethene	79
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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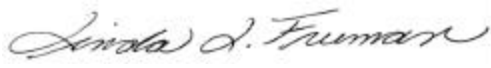
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711431

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	UCB-RFS Air S1518.008.01
DATE RECEIVED:	11/21/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/06/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-UCB-01-03	Modified TO-11A
01AA	RFS-UCB-01-03 Lab Duplicate	Modified TO-11A
02A	Lab Blank	Modified TO-11A
03A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 12/06/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards
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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0711431

One TO-11 Cartridge sample was received on November 21, 2007. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4 ± 2 °C. Coolant in the form of ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds

AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-UCB-01-03

Lab ID#: 0711431-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	2.0	1.1

Client Sample ID: RFS-UCB-01-03 Lab Duplicate

Lab ID#: 0711431-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	2.0	1.1



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-03

Lab ID#: 0711431-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1121014	Date of Collection: 11/20/07
Dil. Factor:	1.00	Date of Analysis: 11/21/07 02:45 PM
		Date of Extraction: 11/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	2.0	1.1

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-03 Lab Duplicate

Lab ID#: 0711431-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1121015	Date of Collection:	11/20/07
Dil. Factor:	1.00	Date of Analysis:	11/21/07 03:06 PM
		Date of Extraction:	11/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	2.0	1.1

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711431-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1121004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/21/07 11:16 AM
		Date of Extraction: 11/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711431-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1121005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/21/07 11:37 AM
		Date of Extraction: 11/21/07

Compound	%Recovery
Formaldehyde	101

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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Hours 8:00 A.M to 6:00 P.M. Pacific**



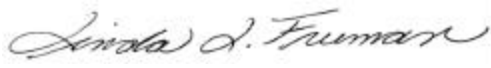
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0711596B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	S1518.008.01
FAX:		PROJECT #	S1518.008.01 RFS Air
DATE RECEIVED:	11/30/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/13/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-163-01-03	Modified TO-11A
01AA	RFS-163-01-03 Lab Duplicate	Modified TO-11A
02A	RFS-163-02-03	Modified TO-11A
03A	RFS-163-02D-03	Modified TO-11A
04A	RFS-163-03-03	Modified TO-11A
05A	RFS-175-01-03	Modified TO-11A
06A	RFS-175-02-03	Modified TO-11A
07A	RFS-177-01-03	Modified TO-11A
08A	RFS-155-01-03	Modified TO-11A
09A	RFS-478-01-03	Modified TO-11A
10A	RFS-478-02-03	Modified TO-11A
11A	RFS-478-03-03	Modified TO-11A
12A	RFS-FLS-01-03	Modified TO-11A
13A	RFS-TB-01-03	Modified TO-11A
14A	Lab Blank	Modified TO-11A
15A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 12/13/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0711596B

Thirteen TO-11 Cartridge samples were received on November 30, 2007. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

The Chain of Custody (COC) information for sample RFS-TB-01-03 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m³ was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-163-01-03

Lab ID#: 0711596B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	34	18

Client Sample ID: RFS-163-01-03 Lab Duplicate

Lab ID#: 0711596B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	34	18

Client Sample ID: RFS-163-02-03

Lab ID#: 0711596B-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	26	14

Client Sample ID: RFS-163-02D-03

Lab ID#: 0711596B-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	24	13

Client Sample ID: RFS-163-03-03

Lab ID#: 0711596B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	4.4	2.4

Client Sample ID: RFS-175-01-03

Lab ID#: 0711596B-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	19	11



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-175-02-03

Lab ID#: 0711596B-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	4.2	2.3

Client Sample ID: RFS-177-01-03

Lab ID#: 0711596B-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	20	11

Client Sample ID: RFS-155-01-03

Lab ID#: 0711596B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	19	11

Client Sample ID: RFS-478-01-03

Lab ID#: 0711596B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	30	16

Client Sample ID: RFS-478-02-03

Lab ID#: 0711596B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	19	9.6

Client Sample ID: RFS-478-03-03

Lab ID#: 0711596B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	74	41



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-FLS-01-03

Lab ID#: 0711596B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.3	1.9

Client Sample ID: RFS-TB-01-03

Lab ID#: 0711596B-13A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-03

Lab ID#: 0711596B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204005	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 11:28 AM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	34	18

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-03 Lab Duplicate

Lab ID#: 0711596B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204006	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 11:49 AM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	34	18

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-03

Lab ID#: 0711596B-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204007	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 12:10 PM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	26	14

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-03

Lab ID#: 0711596B-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204008	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 12:31 PM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	24	13

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-03

Lab ID#: 0711596B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204009	Date of Collection: 11/29/07
Dil. Factor:	1.00	Date of Analysis: 12/4/07 12:52 PM
		Date of Extraction: 12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	4.4	2.4

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-03

Lab ID#: 0711596B-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204010	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 01:13 PM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	19	11

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-03

Lab ID#: 0711596B-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204011	Date of Collection: 11/29/07
Dil. Factor:	1.00	Date of Analysis: 12/4/07 01:34 PM
		Date of Extraction: 12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	4.2	2.3

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-03

Lab ID#: 0711596B-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204012	Date of Collection: 11/29/07
Dil. Factor:	1.00	Date of Analysis: 12/4/07 01:55 PM
		Date of Extraction: 12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	20	11

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-03

Lab ID#: 0711596B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204013	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 02:16 PM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	19	11

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-03

Lab ID#: 0711596B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204014	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 02:36 PM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	30	16

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-03

Lab ID#: 0711596B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204017	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 03:39 PM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	19	9.6

Air Sample Volume(L): 1980
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-03

Lab ID#: 0711596B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204026	Date of Collection: 11/29/07
Dil. Factor:	2.00	Date of Analysis: 12/4/07 06:47 PM
		Date of Extraction: 12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	74	41

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-03

Lab ID#: 0711596B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204019	Date of Collection:	11/29/07
Dil. Factor:	1.00	Date of Analysis:	12/4/07 04:21 PM
		Date of Extraction:	12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.3	1.9

Air Sample Volume(L): 1760
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-TB-01-03

Lab ID#: 0711596B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204020	Date of Collection:	11/29/07	
Dil. Factor:	1.00	Date of Analysis:	12/4/07 04:42 PM	
		Date of Extraction:	12/4/07	

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0711596B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/4/07 10:15 AM
		Date of Extraction: 12/4/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0711596B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1204004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/4/07 11:07 AM
		Date of Extraction: 12/4/07

Compound	%Recovery
Formaldehyde	103

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0712242A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

BILL TO: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

PHONE: 208-343-4085

FAX:

DATE RECEIVED: 12/13/2007

DATE COMPLETED: 12/28/2007

P.O. # 1024638

PROJECT # S1518.008.01 RFS Air Man

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	RFS-UCB-01-04	Modified TO-15 SIM	7.5 "Hg	5 psi
02A	RFS-163-01-04	Modified TO-15 SIM	7.0 "Hg	5 psi
03A	RFS-163-02-04	Modified TO-15 SIM	5.5 "Hg	5 psi
04A	RFS-163-02D-04	Modified TO-15 SIM	6.5 "Hg	5 psi
05A	RFS-163-03-04	Modified TO-15 SIM	2.5 "Hg	5 psi
06A	RFS-175-01-04	Modified TO-15 SIM	6.5 "Hg	5 psi
07A	RFS-175-02-04	Modified TO-15 SIM	6.0 "Hg	5 psi
08A	RFS-177-01-04	Modified TO-15 SIM	5.5 "Hg	5 psi
09A	RFS-155-01-04	Modified TO-15 SIM	7.0 "Hg	5 psi
10A	RFS-478-01-04	Modified TO-15 SIM	7.5 "Hg	5 psi
11A	RFS-478-02-04	Modified TO-15 SIM	3.5 "Hg	5 psi
11AA	RFS-478-02-04 Lab Duplicate	Modified TO-15 SIM	3.5 "Hg	5 psi
12A	RFS-478-03-04	Modified TO-15 SIM	12.5 "Hg	5 psi
13A	RFS-478-FL-04	Modified TO-15 SIM	0.5 "Hg	5 psi
14A	RFS-Trip blank-04	Modified TO-15 SIM	29.5 "Hg	5 psi
15A	Lab Blank	Modified TO-15 SIM	NA	NA
15B	Lab Blank	Modified TO-15 SIM	NA	NA

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0712242A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

BILL TO: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702


PHONE: 208-343-4085 **P.O. #** 1024638

FAX: **PROJECT #** S1518.008.01 RFS Air Man

DATE RECEIVED: 12/13/2007 **CONTACT:** Kelly Buettner

DATE COMPLETED: 12/28/2007

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
16A	CCV	Modified TO-15 SIM	NA	NA
16B	CCV	Modified TO-15 SIM	NA	NA
17A	LCS	Modified TO-15 SIM	NA	NA
17B	LCS	Modified TO-15 SIM	NA	NA

CERTIFIED BY:  DATE: 12/28/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
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LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0712242A



Fourteen 6 Liter Summa Special (SIM Certified) samples were received on December 13, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

The Chain of Custody (COC) information for sample RFS-Trip blank-04 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

The Chain of Custody (COC) information for samples RFS-163-03-04 and RFS-175-01-04 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the samples.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-UCB-01-04

Lab ID#: 0712242A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.36	0.42	1.2	1.4
Benzene	0.090	0.38	0.28	1.2
Trichloroethene	0.0054	0.0054	0.029	0.029
Tetrachloroethene	0.0054	0.021	0.036	0.14

Client Sample ID: RFS-163-01-04

Lab ID#: 0712242A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.35	0.45	1.2	1.6
Chloroform	0.035	0.040	0.17	0.20
Benzene	0.088	0.27	0.28	0.86
Trichloroethene	0.0052	0.0054	0.028	0.029
Tetrachloroethene	0.0052	0.012	0.036	0.078

Client Sample ID: RFS-163-02-04

Lab ID#: 0712242A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.33	0.41	1.1	1.4
Chloroform	0.033	0.036	0.16	0.17
Benzene	0.082	0.29	0.26	0.92
Trichloroethene	0.0049	0.0070	0.026	0.038
Tetrachloroethene	0.0049	0.013	0.033	0.088

Client Sample ID: RFS-163-02D-04

Lab ID#: 0712242A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.42	1.2	1.4
Chloroform	0.034	0.034	0.17	0.16
Benzene	0.086	0.28	0.27	0.88
Trichloroethene	0.0051	0.0061	0.028	0.033
Tetrachloroethene	0.0051	0.012	0.035	0.080



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-03-04

Lab ID#: 0712242A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.073	0.39	0.23	1.2
Trichloroethene	0.0044	0.0091	0.024	0.049
Tetrachloroethene	0.0044	0.016	0.030	0.11

Client Sample ID: RFS-175-01-04

Lab ID#: 0712242A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.034	0.040	0.17	0.20
Benzene	0.086	0.32	0.27	1.0
Trichloroethene	0.0051	0.0072	0.028	0.038
Tetrachloroethene	0.0051	0.030	0.035	0.20

Client Sample ID: RFS-175-02-04

Lab ID#: 0712242A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.084	0.38	0.27	1.2
Trichloroethene	0.0050	0.0085	0.027	0.046
Tetrachloroethene	0.0050	0.015	0.034	0.10

Client Sample ID: RFS-177-01-04

Lab ID#: 0712242A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.033	0.13	0.16	0.63
Benzene	0.082	0.29	0.26	0.94
Trichloroethene	0.0049	0.021	0.026	0.11
Tetrachloroethene	0.0049	0.040	0.033	0.27

Client Sample ID: RFS-155-01-04

Lab ID#: 0712242A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
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AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-155-01-04

Lab ID#: 0712242A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.088	0.33	0.28	1.1
Tetrachloroethene	0.0052	0.024	0.036	0.16

Client Sample ID: RFS-478-01-04

Lab ID#: 0712242A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.036	0.068	0.17	0.33
Benzene	0.090	0.44	0.28	1.4
Trichloroethene	0.0054	0.16	0.029	0.86
Tetrachloroethene	0.0054	0.016	0.036	0.11

Client Sample ID: RFS-478-02-04

Lab ID#: 0712242A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.30	0.78	1.0	2.7
Chloroform	0.030	0.036	0.15	0.17
Benzene	0.076	0.36	0.24	1.2
Trichloroethene	0.0046	0.0086	0.024	0.046
Tetrachloroethene	0.0046	0.016	0.031	0.11

Client Sample ID: RFS-478-02-04 Lab Duplicate

Lab ID#: 0712242A-11AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.30	0.80	1.0	2.8
Chloroform	0.030	0.036	0.15	0.18
Benzene	0.076	0.37	0.24	1.2
Trichloroethene	0.0046	0.0087	0.024	0.047
Tetrachloroethene	0.0046	0.014	0.031	0.098

Client Sample ID: RFS-478-03-04

Lab ID#: 0712242A-12A



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-03-04

Lab ID#: 0712242A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.12	0.35	0.37	1.1
Trichloroethene	0.0069	0.010	0.037	0.054
Tetrachloroethene	0.0069	0.022	0.047	0.15

Client Sample ID: RFS-478-FL-04

Lab ID#: 0712242A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.027	0.028	0.13	0.14
Benzene	0.068	0.39	0.22	1.2
Trichloroethene	0.0041	0.0058	0.022	0.031
Tetrachloroethene	0.0041	0.013	0.028	0.088

Client Sample ID: RFS-Trip blank-04

Lab ID#: 0712242A-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-04

Lab ID#: 0712242A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121717	Date of Collection: 12/12/07
Dil. Factor:	1.79	Date of Analysis: 12/17/07 10:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.071	Not Detected
Methylene Chloride	0.36	0.42	1.2	1.4
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	Not Detected	0.17	Not Detected
Benzene	0.090	0.38	0.28	1.2
1,2-Dichloroethane	0.036	Not Detected	0.14	Not Detected
Trichloroethene	0.0054	0.0054	0.029	0.029
Tetrachloroethene	0.0054	0.021	0.036	0.14
trans-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-04

Lab ID#: 0712242A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121718	Date of Collection:	12/12/07
Dil. Factor:	1.75	Date of Analysis:	12/17/07 11:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
Methylene Chloride	0.35	0.45	1.2	1.6
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.040	0.17	0.20
Benzene	0.088	0.27	0.28	0.86
1,2-Dichloroethane	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.0052	0.0054	0.028	0.029
Tetrachloroethene	0.0052	0.012	0.036	0.078
trans-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-04

Lab ID#: 0712242A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121719	Date of Collection:	12/12/07
Dil. Factor:	1.64	Date of Analysis:	12/18/07 12:05 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	0.41	1.1	1.4
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.036	0.16	0.17
Benzene	0.082	0.29	0.26	0.92
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.0070	0.026	0.038
Tetrachloroethene	0.0049	0.013	0.033	0.088
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-04

Lab ID#: 0712242A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121721	Date of Collection: 12/12/07
Dil. Factor:	1.71	Date of Analysis: 12/18/07 01:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	0.42	1.2	1.4
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.034	0.17	0.16
Benzene	0.086	0.28	0.27	0.88
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.0061	0.028	0.033
Tetrachloroethene	0.0051	0.012	0.035	0.080
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-04

Lab ID#: 0712242A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121723	Date of Collection:	12/12/07
Dil. Factor:	1.46	Date of Analysis:	12/18/07 03:58 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.037	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.058	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected
Chloroform	0.029	Not Detected	0.14	Not Detected
Benzene	0.073	0.39	0.23	1.2
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.0044	0.0091	0.024	0.049
Tetrachloroethene	0.0044	0.016	0.030	0.11
trans-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-04

Lab ID#: 0712242A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121724	Date of Collection:	12/12/07
Dil. Factor:	1.71	Date of Analysis:	12/18/07 04:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.040	0.17	0.20
Benzene	0.086	0.32	0.27	1.0
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.0072	0.028	0.038
Tetrachloroethene	0.0051	0.030	0.035	0.20
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-04

Lab ID#: 0712242A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121807	Date of Collection:	12/12/07
Dil. Factor:	1.68	Date of Analysis:	12/18/07 05:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
Benzene	0.084	0.38	0.27	1.2
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.0085	0.027	0.046
Tetrachloroethene	0.0050	0.015	0.034	0.10
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-04

Lab ID#: 0712242A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121726	Date of Collection:	12/12/07
Dil. Factor:	1.64	Date of Analysis:	12/18/07 06:01 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.13	0.16	0.63
Benzene	0.082	0.29	0.26	0.94
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.021	0.026	0.11
Tetrachloroethene	0.0049	0.040	0.033	0.27
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-04

Lab ID#: 0712242A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121809	Date of Collection:	12/12/07
Dil. Factor:	1.75	Date of Analysis:	12/18/07 07:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	Not Detected	0.17	Not Detected
Benzene	0.088	0.33	0.28	1.1
1,2-Dichloroethane	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.0052	Not Detected	0.028	Not Detected
Tetrachloroethene	0.0052	0.024	0.036	0.16
trans-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-04

Lab ID#: 0712242A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121810	Date of Collection: 12/12/07
Dil. Factor:	1.79	Date of Analysis: 12/18/07 07:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.071	Not Detected
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	0.068	0.17	0.33
Benzene	0.090	0.44	0.28	1.4
1,2-Dichloroethane	0.036	Not Detected	0.14	Not Detected
Trichloroethene	0.0054	0.16	0.029	0.86
Tetrachloroethene	0.0054	0.016	0.036	0.11
trans-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-04

Lab ID#: 0712242A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121812	Date of Collection: 12/12/07
Dil. Factor:	1.52	Date of Analysis: 12/18/07 09:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Methylene Chloride	0.30	0.78	1.0	2.7
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.036	0.15	0.17
Benzene	0.076	0.36	0.24	1.2
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0086	0.024	0.046
Tetrachloroethene	0.0046	0.016	0.031	0.11
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-04 Lab Duplicate

Lab ID#: 0712242A-11AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121813	Date of Collection:	12/12/07
Dil. Factor:	1.52	Date of Analysis:	12/18/07 10:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Methylene Chloride	0.30	0.80	1.0	2.8
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.036	0.15	0.18
Benzene	0.076	0.37	0.24	1.2
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0087	0.024	0.047
Tetrachloroethene	0.0046	0.014	0.031	0.098
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-04

Lab ID#: 0712242A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121814	Date of Collection: 12/12/07
Dil. Factor:	2.30	Date of Analysis: 12/18/07 11:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.023	Not Detected	0.059	Not Detected
1,1-Dichloroethene	0.023	Not Detected	0.091	Not Detected
Methylene Chloride	0.46	Not Detected	1.6	Not Detected
cis-1,2-Dichloroethene	0.046	Not Detected	0.18	Not Detected
Chloroform	0.046	Not Detected	0.22	Not Detected
Benzene	0.12	0.35	0.37	1.1
1,2-Dichloroethane	0.046	Not Detected	0.19	Not Detected
Trichloroethene	0.0069	0.010	0.037	0.054
Tetrachloroethene	0.0069	0.022	0.047	0.15
trans-1,2-Dichloroethene	0.046	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-FL-04

Lab ID#: 0712242A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121815	Date of Collection: 12/12/07
Dil. Factor:	1.36	Date of Analysis: 12/19/07 12:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.014	Not Detected	0.035	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.054	Not Detected
Methylene Chloride	0.27	Not Detected	0.94	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
Chloroform	0.027	0.028	0.13	0.14
Benzene	0.068	0.39	0.22	1.2
1,2-Dichloroethane	0.027	Not Detected	0.11	Not Detected
Trichloroethene	0.0041	0.0058	0.022	0.031
Tetrachloroethene	0.0041	0.013	0.028	0.088
trans-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-Trip blank-04

Lab ID#: 0712242A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121816	Date of Collection: 12/12/07
Dil. Factor:	1.00	Date of Analysis: 12/19/07 01:14 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712242A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121709	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/07 02:41 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712242A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/18/07 04:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0712242A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/07 09:53 AM

Compound	%Recovery
Vinyl Chloride	100
1,1-Dichloroethene	98
Methylene Chloride	94
cis-1,2-Dichloroethene	112
Chloroform	98
Benzene	100
1,2-Dichloroethane	102
Trichloroethene	89
Tetrachloroethene	100
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0712242A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/18/07 01:36 PM

Compound	%Recovery
Vinyl Chloride	97
1,1-Dichloroethene	98
Methylene Chloride	93
cis-1,2-Dichloroethene	106
Chloroform	98
Benzene	98
1,2-Dichloroethane	100
Trichloroethene	87
Tetrachloroethene	98
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	107	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712242A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/17/07 09:16 AM

Compound	%Recovery
Vinyl Chloride	91
1,1-Dichloroethene	94
Methylene Chloride	90
cis-1,2-Dichloroethene	98
Chloroform	87
Benzene	88
1,2-Dichloroethane	91
Trichloroethene	78
Tetrachloroethene	88
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712242A-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a121803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/18/07 02:15 PM

Compound	%Recovery
Vinyl Chloride	91
1,1-Dichloroethene	96
Methylene Chloride	92
cis-1,2-Dichloroethene	100
Chloroform	91
Benzene	90
1,2-Dichloroethane	95
Trichloroethene	80
Tetrachloroethene	90
trans-1,2-Dichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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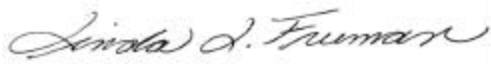
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0712242B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	S1518.008.01 RFS Air Man
DATE RECEIVED:	12/13/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/28/2007		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-UCB-01-04	Modified TO-11A
01AA	RFS-UCB-01-04 Lab Duplicate	Modified TO-11A
02A	RFS-163-01-04	Modified TO-11A
03A	RFS-163-02-04	Modified TO-11A
04A	RFS-163-02D-04	Modified TO-11A
05A	RFS-163-03-04	Modified TO-11A
06A	RFS-175-01-04	Modified TO-11A
07A	RFS-175-02-04	Modified TO-11A
08A	RFS-177-01-04	Modified TO-11A
09A	RFS-155-01-04	Modified TO-11A
10A	RFS-478-01-04	Modified TO-11A
11A	RFS-478-02-04	Modified TO-11A
12A	RFS-478-03-04	Modified TO-11A
13A	RFS-478-FL-04	Modified TO-11A
14A	RFS-Trip blank-04	Modified TO-11A
15A	Lab Blank	Modified TO-11A
16A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 12/27/07

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0712242B

Fourteen TO-11 Cartridge samples were received on December 13, 2007. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

The Chain of Custody (COC) information for sample RFS-Trip blank-04 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-UCB-01-04

Lab ID#: 0712242B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	4.0	2.0

Client Sample ID: RFS-UCB-01-04 Lab Duplicate

Lab ID#: 0712242B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	4.1	2.0

Client Sample ID: RFS-163-01-04

Lab ID#: 0712242B-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	23	12

Client Sample ID: RFS-163-02-04

Lab ID#: 0712242B-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	21	11

Client Sample ID: RFS-163-02D-04

Lab ID#: 0712242B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	20	10

Client Sample ID: RFS-163-03-04

Lab ID#: 0712242B-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	3.6	1.8



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-175-01-04

Lab ID#: 0712242B-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	13	7.4

Client Sample ID: RFS-175-02-04

Lab ID#: 0712242B-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	3.7	1.9

Client Sample ID: RFS-177-01-04

Lab ID#: 0712242B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	27	15

Client Sample ID: RFS-155-01-04

Lab ID#: 0712242B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	16	8.8

Client Sample ID: RFS-478-01-04

Lab ID#: 0712242B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	26	13

Client Sample ID: RFS-478-02-04

Lab ID#: 0712242B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	16	8.6



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-478-03-04

Lab ID#: 0712242B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.075	0.038	59	30

Client Sample ID: RFS-478-FL-04

Lab ID#: 0712242B-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.3	1.8

Client Sample ID: RFS-Trip blank-04

Lab ID#: 0712242B-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-04

Lab ID#: 0712242B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214014	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 02:26 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	4.0	2.0

Air Sample Volume(L): 1980
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-04 Lab Duplicate

Lab ID#: 0712242B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214015	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 02:47 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	4.1	2.0

Air Sample Volume(L): 1980
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-04

Lab ID#: 0712242B-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214016	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 03:08 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	23	12

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-04

Lab ID#: 0712242B-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214017	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 03:29 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	21	11

Air Sample Volume(L): 1940
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-04

Lab ID#: 0712242B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214018	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 03:50 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	20	10

Air Sample Volume(L): 1940
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-04

Lab ID#: 0712242B-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214019	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 04:11 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	3.6	1.8

Air Sample Volume(L): 2020
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-04

Lab ID#: 0712242B-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214020	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 04:32 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	13	7.4

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-04

Lab ID#: 0712242B-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214021	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 04:53 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	3.7	1.9

Air Sample Volume(L): 1980
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-04

Lab ID#: 0712242B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214022	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 05:14 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	27	15

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-04

Lab ID#: 0712242B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214023	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 05:34 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	16	8.8

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-04

Lab ID#: 0712242B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214026	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 06:37 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	26	13

Air Sample Volume(L): 2020
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-04

Lab ID#: 0712242B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214027	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 06:58 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	16	8.6

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-04

Lab ID#: 0712242B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214035	Date of Collection:	12/12/07
Dil. Factor:	1.50	Date of Analysis:	12/14/07 10:02 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.075	0.038	59	30

Air Sample Volume(L): 1950
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-FL-04

Lab ID#: 0712242B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214029	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 07:40 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.3	1.8

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-Trip blank-04

Lab ID#: 0712242B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214030	Date of Collection:	12/12/07
Dil. Factor:	1.00	Date of Analysis:	12/14/07 08:01 PM
		Date of Extraction:	12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712242B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/14/07 10:37 AM
		Date of Extraction: 12/14/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712242B-16A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1214005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/14/07 11:18 AM
		Date of Extraction: 12/14/07

Compound	%Recovery
Formaldehyde	102

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

**(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0712413A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

PHONE: 208-343-4085

FAX:

DATE RECEIVED: 12/20/2007

DATE COMPLETED: 01/07/2008

BILL TO: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

P.O. # 1024638

PROJECT # S1518.008.01 RFS AIR MONITORING

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A(on hold)	RFS-UCB-01-05	Modified TO-15 SIM	26.5 "Hg	5 psi
02A	RFS-163-01-05	Modified TO-15 SIM	7.5 "Hg	5 psi
03A	RFS-163-02-05	Modified TO-15 SIM	6.5 "Hg	5 psi
04A	RFS-163-02D-05	Modified TO-15 SIM	6.0 "Hg	5 psi
05A(on hold)	RFS-163-03-05	Modified TO-15 SIM	29.0 "Hg	5 psi
06A	RFS-175-01-05	Modified TO-15 SIM	16.5 "Hg	5 psi
07A	RFS-175-02-05	Modified TO-15 SIM	17.0 "Hg	5 psi
08A	RFS-177-01-05	Modified TO-15 SIM	8.0 "Hg	5 psi
09A	RFS-155-01-05	Modified TO-15 SIM	23.0 "Hg	5 psi
10A	RFS-478-01-05	Modified TO-15 SIM	8.5 "Hg	5 psi
11A	RFS-478-02-05	Modified TO-15 SIM	6.5 "Hg	5 psi
11AA	RFS-478-02-05 Lab Duplicate	Modified TO-15 SIM	6.5 "Hg	5 psi
12A(on hold)	RFS-478-03-05	Modified TO-15 SIM	29.5 "Hg	5 psi
13A	RFS-FLS-01-05	Modified TO-15 SIM	6.0 "Hg	5 psi
13AA	RFS-FLS-01-05 Lab Duplicate	Modified TO-15 SIM	6.0 "Hg	5 psi
14A	RFS-Trip Blank-05	Modified TO-15 SIM	29.5 "Hg	5 psi
15A	Lab Blank	Modified TO-15 SIM	NA	NA

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0712413A

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	S1518.008.01 RFS AIR MONITORING
DATE RECEIVED:	12/20/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	01/07/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
15B	Lab Blank	Modified TO-15 SIM	NA	NA
16A	CCV	Modified TO-15 SIM	NA	NA
16B	CCV	Modified TO-15 SIM	NA	NA
17A	LCS	Modified TO-15 SIM	NA	NA
17B	LCS	Modified TO-15 SIM	NA	NA

CERTIFIED BY: 

DATE: 01/07/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0712413A



Fourteen 6 Liter Summa Special (SIM Certified) samples were received on December 20, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

The Chain of Custody (COC) information for sample RFS-175-02-05 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Samples RFS-175-01-05, RFS-175-02-05 and RFS-155-01-05 were received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Sample RFS-UCB-01-05, RFS-163-03-05 and RFS-478-03-05 was received with significant vacuum remaining in the canister. The client was notified and requested the sample be placed on hold.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-01-05

Lab ID#: 0712413A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.48	0.80	1.7	2.8
Chloroform	0.048	0.067	0.23	0.33
Benzene	0.12	0.34	0.38	1.1
Trichloroethene	0.0072	0.016	0.039	0.084
Tetrachloroethene	0.0072	0.078	0.049	0.53

Client Sample ID: RFS-163-02-05

Lab ID#: 0712413A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.67	1.2	2.3
Chloroform	0.034	0.051	0.17	0.25
Benzene	0.086	0.32	0.27	1.0
Trichloroethene	0.0051	0.014	0.028	0.074
Tetrachloroethene	0.0051	0.026	0.035	0.18

Client Sample ID: RFS-163-02D-05

Lab ID#: 0712413A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.68	1.2	2.4
Chloroform	0.034	0.050	0.16	0.24
Benzene	0.084	1.8	0.27	5.6
Trichloroethene	0.0050	0.025	0.027	0.13
Tetrachloroethene	0.0050	0.027	0.034	0.18

Client Sample ID: RFS-175-01-05

Lab ID#: 0712413A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.060	0.064	0.29	0.31
Benzene	0.15	0.40	0.48	1.3
Trichloroethene	0.0089	0.014	0.048	0.074
Tetrachloroethene	0.0089	0.045	0.061	0.30



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-175-02-05

Lab ID#: 0712413A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.15	0.42	0.49	1.3
Trichloroethene	0.0093	0.017	0.050	0.090
Tetrachloroethene	0.0093	0.029	0.063	0.20

Client Sample ID: RFS-177-01-05

Lab ID#: 0712413A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.037	0.14	0.18	0.70
Benzene	0.092	0.31	0.29	1.0
Trichloroethene	0.0055	0.032	0.030	0.17
Tetrachloroethene	0.0055	0.045	0.037	0.30

Client Sample ID: RFS-155-01-05

Lab ID#: 0712413A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.29	0.49	0.92	1.6
Trichloroethene	0.017	0.017	0.092	0.092
Tetrachloroethene	0.017	0.041	0.12	0.28

Client Sample ID: RFS-478-01-05

Lab ID#: 0712413A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.037	0.061	0.18	0.30
Benzene	0.094	0.50	0.30	1.6
Trichloroethene	0.0056	0.18	0.030	0.94
Tetrachloroethene	0.0056	0.028	0.038	0.19

Client Sample ID: RFS-478-02-05

Lab ID#: 0712413A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
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AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-02-05

Lab ID#: 0712413A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.82	1.2	2.8
Chloroform	0.034	0.050	0.17	0.24
Benzene	0.086	0.44	0.27	1.4
Trichloroethene	0.0051	0.026	0.028	0.14
Tetrachloroethene	0.0051	0.032	0.035	0.22

Client Sample ID: RFS-478-02-05 Lab Duplicate

Lab ID#: 0712413A-11AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.95	1.2	3.3
Chloroform	0.034	0.060	0.17	0.29
Benzene	0.086	0.52	0.27	1.7
Trichloroethene	0.0051	0.030	0.028	0.16
Tetrachloroethene	0.0051	0.039	0.035	0.26

Client Sample ID: RFS-FLS-01-05

Lab ID#: 0712413A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.33 J	1.2	1.1 J
Benzene	0.084	0.38	0.27	1.2
Trichloroethene	0.0050	0.011	0.027	0.060
Tetrachloroethene	0.0050	0.025	0.034	0.17

Client Sample ID: RFS-FLS-01-05 Lab Duplicate

Lab ID#: 0712413A-13AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.084	0.36	0.27	1.2
Trichloroethene	0.0050	0.012	0.027	0.063
Tetrachloroethene	0.0050	0.025	0.034	0.17



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-Trip Blank-05

Lab ID#: 0712413A-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-05

Lab ID#: 0712413A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123024	Date of Collection:	12/19/07
Dil. Factor:	2.40	Date of Analysis:	12/31/07 06:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.024	Not Detected	0.061	Not Detected
1,1-Dichloroethene	0.024	Not Detected	0.095	Not Detected
Methylene Chloride	0.48	0.80	1.7	2.8
cis-1,2-Dichloroethene	0.048	Not Detected	0.19	Not Detected
Chloroform	0.048	0.067	0.23	0.33
Benzene	0.12	0.34	0.38	1.1
1,2-Dichloroethane	0.048	Not Detected	0.19	Not Detected
Trichloroethene	0.0072	0.016	0.039	0.084
Tetrachloroethene	0.0072	0.078	0.049	0.53
trans-1,2-Dichloroethene	0.048	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-05

Lab ID#: 0712413A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a122812	Date of Collection: 12/19/07
Dil. Factor:	1.71	Date of Analysis: 12/28/07 09:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	0.67	1.2	2.3
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.051	0.17	0.25
Benzene	0.086	0.32	0.27	1.0
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.014	0.028	0.074
Tetrachloroethene	0.0051	0.026	0.035	0.18
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-05

Lab ID#: 0712413A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a122814	Date of Collection: 12/19/07
Dil. Factor:	1.68	Date of Analysis: 12/29/07 09:40 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	0.68	1.2	2.4
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.050	0.16	0.24
Benzene	0.084	1.8	0.27	5.6
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.025	0.027	0.13
Tetrachloroethene	0.0050	0.027	0.034	0.18
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-05

Lab ID#: 0712413A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a122816	Date of Collection: 12/19/07
Dil. Factor:	2.98	Date of Analysis: 12/29/07 11:01 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.030	Not Detected	0.076	Not Detected
1,1-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Methylene Chloride	0.60	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.060	Not Detected	0.24	Not Detected
Chloroform	0.060	0.064	0.29	0.31
Benzene	0.15	0.40	0.48	1.3
1,2-Dichloroethane	0.060	Not Detected	0.24	Not Detected
Trichloroethene	0.0089	0.014	0.048	0.074
Tetrachloroethene	0.0089	0.045	0.061	0.30
trans-1,2-Dichloroethene	0.060	Not Detected	0.24	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-05

Lab ID#: 0712413A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123006	Date of Collection: 12/19/07
Dil. Factor:	3.09	Date of Analysis: 12/30/07 02:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.031	Not Detected	0.079	Not Detected
1,1-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Methylene Chloride	0.62	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.062	Not Detected	0.24	Not Detected
Chloroform	0.062	Not Detected	0.30	Not Detected
Benzene	0.15	0.42	0.49	1.3
1,2-Dichloroethane	0.062	Not Detected	0.25	Not Detected
Trichloroethene	0.0093	0.017	0.050	0.090
Tetrachloroethene	0.0093	0.029	0.063	0.20
trans-1,2-Dichloroethene	0.062	Not Detected	0.24	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-05

Lab ID#: 0712413A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123007	Date of Collection: 12/19/07
Dil. Factor:	1.83	Date of Analysis: 12/30/07 03:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.047	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.072	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.037	Not Detected	0.14	Not Detected
Chloroform	0.037	0.14	0.18	0.70
Benzene	0.092	0.31	0.29	1.0
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.0055	0.032	0.030	0.17
Tetrachloroethene	0.0055	0.045	0.037	0.30
trans-1,2-Dichloroethene	0.037	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-05

Lab ID#: 0712413A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123008	Date of Collection: 12/19/07
Dil. Factor:	5.74	Date of Analysis: 12/30/07 03:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.057	Not Detected	0.15	Not Detected
1,1-Dichloroethene	0.057	Not Detected	0.23	Not Detected
Methylene Chloride	1.1	Not Detected	4.0	Not Detected
cis-1,2-Dichloroethene	0.11	Not Detected	0.46	Not Detected
Chloroform	0.11	Not Detected	0.56	Not Detected
Benzene	0.29	0.49	0.92	1.6
1,2-Dichloroethane	0.11	Not Detected	0.46	Not Detected
Trichloroethene	0.017	0.017	0.092	0.092
Tetrachloroethene	0.017	0.041	0.12	0.28
trans-1,2-Dichloroethene	0.11	Not Detected	0.46	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-05

Lab ID#: 0712413A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123009	Date of Collection: 12/19/07
Dil. Factor:	1.87	Date of Analysis: 12/30/07 04:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.019	Not Detected	0.048	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.074	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected
Chloroform	0.037	0.061	0.18	0.30
Benzene	0.094	0.50	0.30	1.6
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.0056	0.18	0.030	0.94
Tetrachloroethene	0.0056	0.028	0.038	0.19
trans-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-05

Lab ID#: 0712413A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123010	Date of Collection: 12/19/07
Dil. Factor:	1.71	Date of Analysis: 12/30/07 05:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	0.82	1.2	2.8
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.050	0.17	0.24
Benzene	0.086	0.44	0.27	1.4
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.026	0.028	0.14
Tetrachloroethene	0.0051	0.032	0.035	0.22
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-05 Lab Duplicate

Lab ID#: 0712413A-11AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123011	Date of Collection: 12/19/07
Dil. Factor:	1.71	Date of Analysis: 12/30/07 06:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	0.95	1.2	3.3
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.060	0.17	0.29
Benzene	0.086	0.52	0.27	1.7
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.030	0.028	0.16
Tetrachloroethene	0.0051	0.039	0.035	0.26
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-05

Lab ID#: 0712413A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123013	Date of Collection:	12/19/07
Dil. Factor:	1.68	Date of Analysis:	12/30/07 07:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	0.33 J	1.2	1.1 J
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
Benzene	0.084	0.38	0.27	1.2
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.011	0.027	0.060
Tetrachloroethene	0.0050	0.025	0.034	0.17
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-05 Lab Duplicate

Lab ID#: 0712413A-13AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123014	Date of Collection: 12/19/07
Dil. Factor:	1.68	Date of Analysis: 12/30/07 08:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
Benzene	0.084	0.36	0.27	1.2
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.012	0.027	0.063
Tetrachloroethene	0.0050	0.025	0.034	0.17
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-Trip Blank-05

Lab ID#: 0712413A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123016	Date of Collection: 12/19/07
Dil. Factor:	1.00	Date of Analysis: 12/30/07 10:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712413A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a122806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/07 03:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712413A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/30/07 12:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0712413A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a122802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/07 11:33 AM

Compound	%Recovery
Vinyl Chloride	102
1,1-Dichloroethene	92
Methylene Chloride	91
cis-1,2-Dichloroethene	106
Chloroform	98
Benzene	101
1,2-Dichloroethane	104
Trichloroethene	89
Tetrachloroethene	100
trans-1,2-Dichloroethene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	106	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0712413A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/30/07 09:41 AM

Compound	%Recovery
Vinyl Chloride	88
1,1-Dichloroethene	92
Methylene Chloride	90
cis-1,2-Dichloroethene	105
Chloroform	96
Benzene	97
1,2-Dichloroethane	99
Trichloroethene	85
Tetrachloroethene	95
trans-1,2-Dichloroethene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712413A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a122803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/07 01:38 PM

Compound	%Recovery
Vinyl Chloride	99
1,1-Dichloroethene	101
Methylene Chloride	96
cis-1,2-Dichloroethene	106
Chloroform	98
Benzene	99
1,2-Dichloroethane	102
Trichloroethene	87
Tetrachloroethene	100
trans-1,2-Dichloroethene	101

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712413A-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a123003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/30/07 10:48 AM

Compound	%Recovery
Vinyl Chloride	104
1,1-Dichloroethene	103
Methylene Chloride	98
cis-1,2-Dichloroethene	109
Chloroform	101
Benzene	101
1,2-Dichloroethane	106
Trichloroethene	89
Tetrachloroethene	100
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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Hours 8:00 A.M to 6:00 P.M. Pacific**



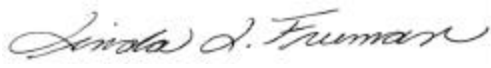
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0712413B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	S1518.008.01 RFS AIR MONITORING
DATE RECEIVED:	12/20/2007	CONTACT:	Kelly Buettner
DATE COMPLETED:	01/02/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-UCB-01-05	Modified TO-11A
01AA	RFS-UCB-01-05 Lab Duplicate	Modified TO-11A
02A	RFS-163-01-05	Modified TO-11A
03A	RFS-163-02-05	Modified TO-11A
04A	RFS-163-02D-05	Modified TO-11A
05A	RFS-175-01-05	Modified TO-11A
06A	RFS-175-02-05	Modified TO-11A
07A	RFS-177-01-05	Modified TO-11A
08A	RFS-155-01-05	Modified TO-11A
09A	RFS-478-01-05	Modified TO-11A
10A	RFS-478-02-05	Modified TO-11A
11A	RFS-478-03-05	Modified TO-11A
12A	RFS-FLS-01-05	Modified TO-11A
13A	RFS-Trip Blank-05	Modified TO-11A
14A	Lab Blank	Modified TO-11A
15A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 01/02/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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

LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0712413B

Thirteen TO-11 Cartridge samples were received on December 20, 2007. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4 ± 2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-UCB-01-05

Lab ID#: 0712413B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.1	1.7

Client Sample ID: RFS-UCB-01-05 Lab Duplicate

Lab ID#: 0712413B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.1	1.7

Client Sample ID: RFS-163-01-05

Lab ID#: 0712413B-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	34	19

Client Sample ID: RFS-163-02-05

Lab ID#: 0712413B-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	28	16

Client Sample ID: RFS-163-02D-05

Lab ID#: 0712413B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Client Sample ID: RFS-175-01-05

Lab ID#: 0712413B-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	19	11



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-175-02-05

Lab ID#: 0712413B-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	2.5	1.4

Client Sample ID: RFS-177-01-05

Lab ID#: 0712413B-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	37	21

Client Sample ID: RFS-155-01-05

Lab ID#: 0712413B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	28	15

Client Sample ID: RFS-478-01-05

Lab ID#: 0712413B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	35	20

Client Sample ID: RFS-478-02-05

Lab ID#: 0712413B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	30	16

Client Sample ID: RFS-478-03-05

Lab ID#: 0712413B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.055	78	43



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds

AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-FLS-01-05

Lab ID#: 0712413B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.7	0.97

Client Sample ID: RFS-Trip Blank-05

Lab ID#: 0712413B-13A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-05

Lab ID#: 0712413B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221011	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 12:28 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.1	1.7

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-05 Lab Duplicate

Lab ID#: 0712413B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221012	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 12:49 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	3.1	1.7

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-05

Lab ID#: 0712413B-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221019	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 03:15 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	34	19

Air Sample Volume(L): 1820
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-05

Lab ID#: 0712413B-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221020	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 03:36 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	28	16

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-05

Lab ID#: 0712413B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221021	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 03:57 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-05

Lab ID#: 0712413B-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221022	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 04:18 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	19	11

Air Sample Volume(L): 1810
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-05

Lab ID#: 0712413B-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221023	Date of Collection: 12/19/07
Dil. Factor:	1.00	Date of Analysis: 12/21/07 04:39 PM
		Date of Extraction: 12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	2.5	1.4

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-05

Lab ID#: 0712413B-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221024	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 05:00 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	37	21

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-05

Lab ID#: 0712413B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221025	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 05:20 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	28	15

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-05

Lab ID#: 0712413B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221026	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 05:41 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	35	20

Air Sample Volume(L): 1770
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-05

Lab ID#: 0712413B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221029	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 06:44 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	30	16

Air Sample Volume(L): 1810
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-05

Lab ID#: 0712413B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1228005	Date of Collection:	12/19/07
Dil. Factor:	2.00	Date of Analysis:	12/28/07 09:31 AM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.055	78	43

Air Sample Volume(L): 1810
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-05

Lab ID#: 0712413B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221031	Date of Collection:	12/19/07
Dil. Factor:	1.00	Date of Analysis:	12/21/07 07:26 PM
		Date of Extraction:	12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.7	0.97

Air Sample Volume(L): 1770
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-Trip Blank-05

Lab ID#: 0712413B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221032	Date of Collection:	12/19/07	
Dil. Factor:	1.00	Date of Analysis:	12/21/07 07:47 PM	
		Date of Extraction:	12/21/07	

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712413B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/21/07 09:16 AM
		Date of Extraction: 12/21/07

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712413B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f1221004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/21/07 09:37 AM
		Date of Extraction: 12/21/07

Compound	%Recovery
Formaldehyde	102

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0801142A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

PHONE: 208-343-4085

FAX:

DATE RECEIVED: 01/11/2008

DATE COMPLETED: 01/24/2008

BILL TO: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

P.O. # 1024638

PROJECT # S158.008.01 RFS Air Monitoring

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	RFS-UCB-01-06	Modified TO-15 SIM	4.0 "Hg	5 psi
02A	RFS-155-01-06	Modified TO-15 SIM	8.5 "Hg	5 psi
02AA	RFS-155-01-06 Lab Duplicate	Modified TO-15 SIM	8.5 "Hg	5 psi
03A	RFS-163-01-06	Modified TO-15 SIM	8.5 "Hg	5 psi
04A	RFS-163-02-06	Modified TO-15 SIM	6.5 "Hg	5 psi
05A	RFS-163-02D-06	Modified TO-15 SIM	5.5 "Hg	5 psi
06A	RFS-163-03-06	Modified TO-15 SIM	14.5 "Hg	5 psi
07A	RFS-175-01-06	Modified TO-15 SIM	6.0 "Hg	5 psi
08A	RFS-175-02-06	Modified TO-15 SIM	14.5 "Hg	5 psi
08AA	RFS-175-02-06 Lab Duplicate	Modified TO-15 SIM	14.5 "Hg	5 psi
09A	RFS-177-01-06	Modified TO-15 SIM	3.5 "Hg	5 psi
10A	RFS-478-02-06	Modified TO-15 SIM	5.0 "Hg	5 psi
11A	RFS-478-03-06	Modified TO-15 SIM	7.0 "Hg	5 psi
12A	RFS-FLS-01-06	Modified TO-15 SIM	18.5 "Hg	5 psi
13A	RFS-478-01-06	Modified TO-15 SIM	5.5 "Hg	5 psi
14A	Trip Blank	Modified TO-15 SIM	29.0 "Hg	5 psi
15A	Lab Blank	Modified TO-15 SIM	NA	NA

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0801142A

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	S158.008.01 RFS Air Monitoring
DATE RECEIVED:	01/11/2008	CONTACT:	Kelly Buettner
DATE COMPLETED:	01/24/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
15B	Lab Blank	Modified TO-15 SIM	NA	NA
15C	Lab Blank	Modified TO-15 SIM	NA	NA
16A	CCV	Modified TO-15 SIM	NA	NA
16B	CCV	Modified TO-15 SIM	NA	NA
16C	CCV	Modified TO-15 SIM	NA	NA
17A	LCS	Modified TO-15 SIM	NA	NA
17B	LCS	Modified TO-15 SIM	NA	NA
17C	LCS	Modified TO-15 SIM	NA	NA

CERTIFIED BY:  DATE: 01/24/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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**LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0801142A**



Fourteen 6 Liter Summa Special (SIM Certified) samples were received on January 11, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

The number of samples received did not match the information on the Chain of Custody (COC). Sample Trip Blank was added to the analytical request.

The Chain of Custody (COC) information for samples RFS-UCB-01-06, RFS-155-01-06, RFS-163-01-06, RFS-163-02-06, RFS-163-02D-06, RFS-163-03-06, RFS-175-01-06, RFS-175-02-06, RFS-177-01-06, RFS-478-02-06, RFS-478-03-06, RFS-FLS-01-06 and RFS-478-01-06 did not match the entries on the sample tags with regard to sample identification. Therefore the information on the COC was used to process and report the samples.

Sample RFS-FLS-01-06 was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-UCB-01-06

Lab ID#: 0801142A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.078	0.48	0.25	1.5
Trichloroethene	0.0046	0.028	0.025	0.15
Tetrachloroethene	0.0046	0.028	0.032	0.19

Client Sample ID: RFS-155-01-06

Lab ID#: 0801142A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.094	0.80	0.30	2.5
Trichloroethene	0.0056	0.026	0.030	0.14
Tetrachloroethene	0.0056	0.038	0.038	0.26

Client Sample ID: RFS-155-01-06 Lab Duplicate

Lab ID#: 0801142A-02AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.094	0.79	0.30	2.5
Trichloroethene	0.0056	0.026	0.030	0.14
Tetrachloroethene	0.0056	0.039	0.038	0.26

Client Sample ID: RFS-163-01-06

Lab ID#: 0801142A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.37	0.63	1.3	2.2
Chloroform	0.037	0.041	0.18	0.20
Benzene	0.094	0.39	0.30	1.2
Trichloroethene	0.0056	0.024	0.030	0.13
Tetrachloroethene	0.0056	0.025	0.038	0.17

Client Sample ID: RFS-163-02-06

Lab ID#: 0801142A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
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AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-02-06

Lab ID#: 0801142A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.69	1.2	2.4
Chloroform	0.034	0.040	0.17	0.19
Benzene	0.086	0.40	0.27	1.3
Trichloroethene	0.0051	0.035	0.028	0.19
Tetrachloroethene	0.0051	0.029	0.035	0.20

Client Sample ID: RFS-163-02D-06

Lab ID#: 0801142A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.33	0.67	1.1	2.3
Chloroform	0.033	0.037	0.16	0.18
Benzene	0.082	0.38	0.26	1.2
Trichloroethene	0.0049	0.024	0.026	0.13
Tetrachloroethene	0.0049	0.020	0.033	0.14

Client Sample ID: RFS-163-03-06

Lab ID#: 0801142A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.13	0.35	0.41	1.1
Trichloroethene	0.0078	0.028	0.042	0.15
Tetrachloroethene	0.0078	0.018	0.053	0.12

Client Sample ID: RFS-175-01-06

Lab ID#: 0801142A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	0.025	0.043	0.064
Chloroform	0.034	0.043	0.16	0.21
Benzene	0.084	0.41	0.27	1.3
Trichloroethene	0.0050	0.025	0.027	0.13
Tetrachloroethene	0.0050	0.046	0.034	0.31



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-175-02-06

Lab ID#: 0801142A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.13	0.35	0.41	1.1
Trichloroethene	0.0078	0.032	0.042	0.17
Tetrachloroethene	0.0078	0.020	0.053	0.14

Client Sample ID: RFS-175-02-06 Lab Duplicate

Lab ID#: 0801142A-08AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.13	0.34	0.41	1.1
Trichloroethene	0.0078	0.030	0.042	0.16
Tetrachloroethene	0.0078	0.019	0.053	0.13

Client Sample ID: RFS-177-01-06

Lab ID#: 0801142A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.030	0.056	0.15	0.27
Benzene	0.076	0.34	0.24	1.1
Trichloroethene	0.0046	0.046	0.024	0.25
Tetrachloroethene	0.0046	0.040	0.031	0.27

Client Sample ID: RFS-478-02-06

Lab ID#: 0801142A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	0.80	1.1	2.8
Chloroform	0.032	0.042	0.16	0.21
Benzene	0.080	0.43	0.26	1.4
Trichloroethene	0.0048	0.059	0.026	0.32
Tetrachloroethene	0.0048	0.17	0.033	1.2

Client Sample ID: RFS-478-03-06

Lab ID#: 0801142A-11A



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-03-06

Lab ID#: 0801142A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.35	0.63	1.2	2.2
Benzene	0.088	0.37	0.28	1.2
Trichloroethene	0.0052	0.023	0.028	0.12
Tetrachloroethene	0.0052	0.016	0.036	0.11

Client Sample ID: RFS-FLS-01-06

Lab ID#: 0801142A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.18	0.47	0.56	1.5
Trichloroethene	0.010	0.048	0.056	0.26
Tetrachloroethene	0.010	0.023	0.071	0.15

Client Sample ID: RFS-478-01-06

Lab ID#: 0801142A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
cis-1,2-Dichloroethene	0.033	0.050	0.13	0.20
Chloroform	0.033	0.060	0.16	0.29
Benzene	0.082	1.3	0.26	4.0
Trichloroethene	0.0049	0.21	0.026	1.1
Tetrachloroethene	0.0049	0.023	0.033	0.16

Client Sample ID: Trip Blank

Lab ID#: 0801142A-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-06

Lab ID#: 0801142A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011714	Date of Collection: 1/10/08
Dil. Factor:	1.55	Date of Analysis: 1/17/08 06:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	Not Detected	0.15	Not Detected
Benzene	0.078	0.48	0.25	1.5
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.028	0.025	0.15
Tetrachloroethene	0.0046	0.028	0.032	0.19
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-06

Lab ID#: 0801142A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011715	Date of Collection: 1/10/08
Dil. Factor:	1.87	Date of Analysis: 1/17/08 06:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.019	Not Detected	0.048	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.074	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected
Chloroform	0.037	Not Detected	0.18	Not Detected
Benzene	0.094	0.80	0.30	2.5
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.0056	0.026	0.030	0.14
Tetrachloroethene	0.0056	0.038	0.038	0.26
trans-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-06 Lab Duplicate

Lab ID#: 0801142A-02AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011716	Date of Collection: 1/10/08
Dil. Factor:	1.87	Date of Analysis: 1/17/08 08:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.019	Not Detected	0.048	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.074	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected
Chloroform	0.037	Not Detected	0.18	Not Detected
Benzene	0.094	0.79	0.30	2.5
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.0056	0.026	0.030	0.14
Tetrachloroethene	0.0056	0.039	0.038	0.26
trans-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-06

Lab ID#: 0801142A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011718	Date of Collection: 1/10/08
Dil. Factor:	1.87	Date of Analysis: 1/17/08 09:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.019	Not Detected	0.048	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.074	Not Detected
Methylene Chloride	0.37	0.63	1.3	2.2
cis-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected
Chloroform	0.037	0.041	0.18	0.20
Benzene	0.094	0.39	0.30	1.2
1,2-Dichloroethane	0.037	Not Detected	0.15	Not Detected
Trichloroethene	0.0056	0.024	0.030	0.13
Tetrachloroethene	0.0056	0.025	0.038	0.17
trans-1,2-Dichloroethene	0.037	Not Detected	0.15	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-06

Lab ID#: 0801142A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011719	Date of Collection: 1/10/08
Dil. Factor:	1.71	Date of Analysis: 1/18/08 07:55 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	0.69	1.2	2.4
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.040	0.17	0.19
Benzene	0.086	0.40	0.27	1.3
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.035	0.028	0.19
Tetrachloroethene	0.0051	0.029	0.035	0.20
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-06

Lab ID#: 0801142A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011720	Date of Collection: 1/10/08
Dil. Factor:	1.64	Date of Analysis: 1/18/08 08:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	0.67	1.1	2.3
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.037	0.16	0.18
Benzene	0.082	0.38	0.26	1.2
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.024	0.026	0.13
Tetrachloroethene	0.0049	0.020	0.033	0.14
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-06

Lab ID#: 0801142A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011812	Date of Collection: 1/10/08
Dil. Factor:	2.59	Date of Analysis: 1/18/08 05:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.026	Not Detected	0.066	Not Detected
1,1-Dichloroethene	0.026	Not Detected	0.10	Not Detected
Methylene Chloride	0.52	Not Detected	1.8	Not Detected
cis-1,2-Dichloroethene	0.052	Not Detected	0.20	Not Detected
Chloroform	0.052	Not Detected	0.25	Not Detected
Benzene	0.13	0.35	0.41	1.1
1,2-Dichloroethane	0.052	Not Detected	0.21	Not Detected
Trichloroethene	0.0078	0.028	0.042	0.15
Tetrachloroethene	0.0078	0.018	0.053	0.12
trans-1,2-Dichloroethene	0.052	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-06

Lab ID#: 0801142A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011813	Date of Collection: 1/10/08
Dil. Factor:	1.68	Date of Analysis: 1/18/08 06:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	0.025	0.043	0.064
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.043	0.16	0.21
Benzene	0.084	0.41	0.27	1.3
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.025	0.027	0.13
Tetrachloroethene	0.0050	0.046	0.034	0.31
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-06

Lab ID#: 0801142A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011814	Date of Collection: 1/10/08
Dil. Factor:	2.59	Date of Analysis: 1/18/08 06:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.026	Not Detected	0.066	Not Detected
1,1-Dichloroethene	0.026	Not Detected	0.10	Not Detected
Methylene Chloride	0.52	Not Detected	1.8	Not Detected
cis-1,2-Dichloroethene	0.052	Not Detected	0.20	Not Detected
Chloroform	0.052	Not Detected	0.25	Not Detected
Benzene	0.13	0.35	0.41	1.1
1,2-Dichloroethane	0.052	Not Detected	0.21	Not Detected
Trichloroethene	0.0078	0.032	0.042	0.17
Tetrachloroethene	0.0078	0.020	0.053	0.14
trans-1,2-Dichloroethene	0.052	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-06 Lab Duplicate

Lab ID#: 0801142A-08AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011815	Date of Collection: 1/10/08
Dil. Factor:	2.59	Date of Analysis: 1/18/08 07:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.026	Not Detected	0.066	Not Detected
1,1-Dichloroethene	0.026	Not Detected	0.10	Not Detected
Methylene Chloride	0.52	Not Detected	1.8	Not Detected
cis-1,2-Dichloroethene	0.052	Not Detected	0.20	Not Detected
Chloroform	0.052	Not Detected	0.25	Not Detected
Benzene	0.13	0.34	0.41	1.1
1,2-Dichloroethane	0.052	Not Detected	0.21	Not Detected
Trichloroethene	0.0078	0.030	0.042	0.16
Tetrachloroethene	0.0078	0.019	0.053	0.13
trans-1,2-Dichloroethene	0.052	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-06

Lab ID#: 0801142A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011816	Date of Collection: 1/10/08
Dil. Factor:	1.52	Date of Analysis: 1/18/08 08:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.056	0.15	0.27
Benzene	0.076	0.34	0.24	1.1
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.046	0.024	0.25
Tetrachloroethene	0.0046	0.040	0.031	0.27
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-06

Lab ID#: 0801142A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011817	Date of Collection: 1/10/08
Dil. Factor:	1.61	Date of Analysis: 1/18/08 09:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	0.80	1.1	2.8
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.042	0.16	0.21
Benzene	0.080	0.43	0.26	1.4
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.059	0.026	0.32
Tetrachloroethene	0.0048	0.17	0.033	1.2
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-06

Lab ID#: 0801142A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011819	Date of Collection: 1/10/08
Dil. Factor:	1.75	Date of Analysis: 1/18/08 10:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
Methylene Chloride	0.35	0.63	1.2	2.2
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	Not Detected	0.17	Not Detected
Benzene	0.088	0.37	0.28	1.2
1,2-Dichloroethane	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.0052	0.023	0.028	0.12
Tetrachloroethene	0.0052	0.016	0.036	0.11
trans-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-06

Lab ID#: 0801142A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012006	Date of Collection: 1/10/08
Dil. Factor:	3.50	Date of Analysis: 1/20/08 02:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.035	Not Detected	0.089	Not Detected
1,1-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Methylene Chloride	0.70	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.070	Not Detected	0.28	Not Detected
Chloroform	0.070	Not Detected	0.34	Not Detected
Benzene	0.18	0.47	0.56	1.5
1,2-Dichloroethane	0.070	Not Detected	0.28	Not Detected
Trichloroethene	0.010	0.048	0.056	0.26
Tetrachloroethene	0.010	0.023	0.071	0.15
trans-1,2-Dichloroethene	0.070	Not Detected	0.28	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-06

Lab ID#: 0801142A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012007	Date of Collection: 1/10/08
Dil. Factor:	1.64	Date of Analysis: 1/20/08 03:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.033	0.050	0.13	0.20
Chloroform	0.033	0.060	0.16	0.29
Benzene	0.082	1.3	0.26	4.0
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.21	0.026	1.1
Tetrachloroethene	0.0049	0.023	0.033	0.16
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Trip Blank

Lab ID#: 0801142A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012020	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/21/08 08:28 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0801142A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/17/08 01:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0801142A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/18/08 01:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0801142A-15C

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/20/08 01:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0801142A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/17/08 10:16 AM

Compound	%Recovery
Vinyl Chloride	90
1,1-Dichloroethene	92
Methylene Chloride	89
cis-1,2-Dichloroethene	100
Chloroform	91
Benzene	100
1,2-Dichloroethane	98
Trichloroethene	92
Tetrachloroethene	97
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	104	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0801142A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/18/08 09:48 AM

Compound	%Recovery
Vinyl Chloride	84
1,1-Dichloroethene	100
Methylene Chloride	92
cis-1,2-Dichloroethene	100
Chloroform	89
Benzene	94
1,2-Dichloroethane	93
Trichloroethene	85
Tetrachloroethene	92
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0801142A-16C

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/20/08 10:34 AM

Compound	%Recovery
Vinyl Chloride	82
1,1-Dichloroethene	93
Methylene Chloride	87
cis-1,2-Dichloroethene	94
Chloroform	85
Benzene	88
1,2-Dichloroethane	88
Trichloroethene	78
Tetrachloroethene	82
trans-1,2-Dichloroethene	89

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0801142A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/17/08 10:56 AM

Compound	%Recovery
Vinyl Chloride	90
1,1-Dichloroethene	106
Methylene Chloride	98
cis-1,2-Dichloroethene	105
Chloroform	95
Benzene	102
1,2-Dichloroethane	101
Trichloroethene	96
Tetrachloroethene	99
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0801142A-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a011803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/18/08 10:27 AM

Compound	%Recovery
Vinyl Chloride	103
1,1-Dichloroethene	114
Methylene Chloride	103
cis-1,2-Dichloroethene	113
Chloroform	100
Benzene	106
1,2-Dichloroethane	107
Trichloroethene	101
Tetrachloroethene	104
trans-1,2-Dichloroethene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	105	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0801142A-17C

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/20/08 11:26 AM

Compound	%Recovery
Vinyl Chloride	98
1,1-Dichloroethene	109
Methylene Chloride	99
cis-1,2-Dichloroethene	110
Chloroform	100
Benzene	101
1,2-Dichloroethane	105
Trichloroethene	93
Tetrachloroethene	97
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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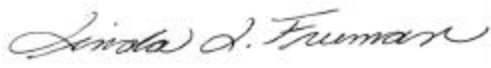
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0801142B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702
PHONE:	208-343-4085	P.O. #	1024638
FAX:		PROJECT #	S158.008.01 RFS Air Monitoring
DATE RECEIVED:	01/11/2008	CONTACT:	Kelly Buettner
DATE COMPLETED:	01/25/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-UCB-01-06	Modified TO-11A
01AA	RFS-UCB-01-06 Lab Duplicate	Modified TO-11A
02A	RFS-155-01-06	Modified TO-11A
03A	RFS-163-01-06	Modified TO-11A
04A	RFS-163-02-06	Modified TO-11A
05A	RFS-163-02D-06	Modified TO-11A
06A	RFS-163-03-06	Modified TO-11A
07A	RFS-175-01-06	Modified TO-11A
08A	RFS-175-02-06	Modified TO-11A
09A	RFS-177-01-06	Modified TO-11A
10A	RFS-478-01-06	Modified TO-11A
11A	RFS-478-02-06	Modified TO-11A
12A	RFS-478-03-06	Modified TO-11A
13A	RFS-FLS-01-06	Modified TO-11A
14A	Trip Blank	Modified TO-11A
15A	Lab Blank	Modified TO-11A
16A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 01/25/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards
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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0801142B

Fourteen TO-11 Cartridge samples were received on January 11, 2008. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

The number of samples received did not match the information on the Chain of Custody (COC). Sample Trip Blank was added to the analytical request.

The Chain of Custody (COC) information for samples RFS-UCB-01-06, RFS-155-01-06, RFS-163-01-06, RFS-163-02-06, RFS-163-02D-06, RFS-163-03-06, RFS-175-01-06, RFS-175-02-06, RFS-177-01-06, RFS-478-01-06, RFS-478-02-06, RFS-478-03-06 and RFS-FLS-01-06 did not match the entries on the sample tags with regard to sample identification. Therefore the information on the COC was used to process and report the samples.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.

M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-UCB-01-06

Lab ID#: 0801142B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	9.6	4.4

Client Sample ID: RFS-UCB-01-06 Lab Duplicate

Lab ID#: 0801142B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	9.2	4.3

Client Sample ID: RFS-155-01-06

Lab ID#: 0801142B-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	35	16

Client Sample ID: RFS-163-01-06

Lab ID#: 0801142B-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	36	16

Client Sample ID: RFS-163-02-06

Lab ID#: 0801142B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	28	14

Client Sample ID: RFS-163-02D-06

Lab ID#: 0801142B-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	31	16



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-163-03-06

Lab ID#: 0801142B-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	1.9	0.84

Client Sample ID: RFS-175-01-06

Lab ID#: 0801142B-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	17	7.7

Client Sample ID: RFS-175-02-06

Lab ID#: 0801142B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	2.1	0.94

Client Sample ID: RFS-177-01-06

Lab ID#: 0801142B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.024	40	19

Client Sample ID: RFS-478-01-06

Lab ID#: 0801142B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	29	13

Client Sample ID: RFS-478-02-06

Lab ID#: 0801142B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	23	12



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-478-03-06

Lab ID#: 0801142B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.045	78	35

Client Sample ID: RFS-FLS-01-06

Lab ID#: 0801142B-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.6	0.92

Client Sample ID: Trip Blank

Lab ID#: 0801142B-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-06

Lab ID#: 0801142B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114006	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 10:28 AM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	9.6	4.4

Air Sample Volume(L): 2160
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-06 Lab Duplicate

Lab ID#: 0801142B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114007	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 10:49 AM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	9.2	4.3

Air Sample Volume(L): 2160
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-06

Lab ID#: 0801142B-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114008	Date of Collection:	1/10/08
Dil. Factor:	1.00	Date of Analysis:	1/14/08 11:09 AM
		Date of Extraction:	1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	35	16

Air Sample Volume(L): 2160
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-06

Lab ID#: 0801142B-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114009	Date of Collection:	1/10/08
Dil. Factor:	1.00	Date of Analysis:	1/14/08 11:30 AM
		Date of Extraction:	1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	36	16

Air Sample Volume(L): 2240
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-06

Lab ID#: 0801142B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114010	Date of Collection:	1/10/08
Dil. Factor:	1.00	Date of Analysis:	1/14/08 11:51 AM
		Date of Extraction:	1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	28	14

Air Sample Volume(L): 1960
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-06

Lab ID#: 0801142B-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114011	Date of Collection:	1/10/08
Dil. Factor:	1.00	Date of Analysis:	1/14/08 12:12 PM
		Date of Extraction:	1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	31	16

Air Sample Volume(L): 1960
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-06

Lab ID#: 0801142B-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114012	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 12:33 PM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	1.9	0.84

Air Sample Volume(L): 2300
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-06

Lab ID#: 0801142B-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114013	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 12:54 PM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.023	17	7.7

Air Sample Volume(L): 2160
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-06

Lab ID#: 0801142B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114014	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 01:15 PM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	2.1	0.94

Air Sample Volume(L): 2230
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-06

Lab ID#: 0801142B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114017	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 02:17 PM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.024	40	19

Air Sample Volume(L): 2090
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-06

Lab ID#: 0801142B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114018	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 02:38 PM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.022	29	13

Air Sample Volume(L): 2240
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-06

Lab ID#: 0801142B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114019	Date of Collection: 1/10/08
Dil. Factor:	1.00	Date of Analysis: 1/14/08 02:59 PM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	23	12

Air Sample Volume(L): 2020
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-06

Lab ID#: 0801142B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114005	Date of Collection: 1/10/08
Dil. Factor:	2.00	Date of Analysis: 1/14/08 10:07 AM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.045	78	35

Air Sample Volume(L): 2230
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-06

Lab ID#: 0801142B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114020	Date of Collection:	1/10/08
Dil. Factor:	1.00	Date of Analysis:	1/14/08 03:20 PM
		Date of Extraction:	1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.6	0.92

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Trip Blank

Lab ID#: 0801142B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114021	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/14/08 03:41 PM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0801142B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/14/08 09:25 AM
		Date of Extraction: 1/11/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0801142B-16A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0114004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/14/08 09:46 AM
		Date of Extraction: 1/11/08

Compound	%Recovery
Formaldehyde	104

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

**(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0801429A

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Jason Brodersen Tetra Tech 135 Main Street Suite 1800 San Francisco, CA 94105
PHONE:	208-343-4085	P.O. #	1024639
FAX:		PROJECT #	S1518.008.01 RFS AIR MONITORING
DATE RECEIVED:	01/25/2008	CONTACT:	Kelly Buettner
DATE COMPLETED:	02/07/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	RFS-UCB-01-07	Modified TO-15 SIM	5.0 "Hg	5 psi
02A	RFS-163-01-07	Modified TO-15 SIM	5.0 "Hg	5 psi
03A	RFS-163-02-07	Modified TO-15 SIM	4.5 "Hg	5 psi
04A	RFS-163-02D-07	Modified TO-15 SIM	5.5 "Hg	5 psi
05A	RFS-163-03-07	Modified TO-15 SIM	6.0 "Hg	5 psi
06A	RFS-175-01-07	Modified TO-15 SIM	3.5 "Hg	5 psi
07A	RFS-175-02-07	Modified TO-15 SIM	9.5 "Hg	5 psi
08A	RFS-177-01-07	Modified TO-15 SIM	6.0 "Hg	5 psi
09A	RFS-155-01-07	Modified TO-15 SIM	3.5 "Hg	5 psi
10A	RFS-478-01-07	Modified TO-15 SIM	0.0 "Hg	5 psi
10AA	RFS-478-01-07 Lab Duplicate	Modified TO-15 SIM	0.0 "Hg	5 psi
11A	RFS-478-02-07	Modified TO-15 SIM	3.0 "Hg	5 psi
11AA	RFS-478-02-07 Lab Duplicate	Modified TO-15 SIM	3.0 "Hg	5 psi
12A	RFS-478-03-07	Modified TO-15 SIM	6.5 "Hg	5 psi
13A	RFS-FLS-01-07	Modified TO-15 SIM	0.0 "Hg	5 psi
13AA	RFS-FLS-01-07 Lab Duplicate	Modified TO-15 SIM	0.0 "Hg	5 psi
14A	TRIP BLANK	Modified TO-15 SIM	28.5 "Hg	5 psi

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0801429A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

BILL TO: Mr. Jason Brodersen
Tetra Tech
135 Main Street
Suite 1800
San Francisco, CA 94105

PHONE: 208-343-4085 **P.O. #** 1024639

FAX: **PROJECT #** S1518.008.01 RFS AIR MONITORING

DATE RECEIVED: 01/25/2008 **CONTACT:** Kelly Buettner

DATE COMPLETED: 02/07/2008

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
15A	Lab Blank	Modified TO-15 SIM	NA	NA
15B	Lab Blank	Modified TO-15 SIM	NA	NA
16A	CCV	Modified TO-15 SIM	NA	NA
16B	CCV	Modified TO-15 SIM	NA	NA
17A	LCS	Modified TO-15 SIM	NA	NA
17B	LCS	Modified TO-15 SIM	NA	NA

CERTIFIED BY:  DATE: 02/07/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0801429A



Fourteen 6 Liter Summa Special (SIM Certified) samples were received on January 25, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

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

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-UCB-01-07

Lab ID#: 0801429A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.080	0.24	0.26	0.76
Trichloroethene	0.0048	0.0053	0.026	0.028
Tetrachloroethene	0.0048	0.010	0.033	0.068

Client Sample ID: RFS-163-01-07

Lab ID#: 0801429A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	0.38	1.1	1.3
Chloroform	0.032	0.051	0.16	0.25
Benzene	0.080	0.20	0.26	0.62
Trichloroethene	0.0048	0.0086	0.026	0.046
Tetrachloroethene	0.0048	0.0091	0.033	0.062

Client Sample ID: RFS-163-02-07

Lab ID#: 0801429A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	0.40	1.1	1.4
Chloroform	0.032	0.032	0.15	0.16
Benzene	0.079	0.21	0.25	0.67
Trichloroethene	0.0047	0.0076	0.025	0.041
Tetrachloroethene	0.0047	0.013	0.032	0.091

Client Sample ID: RFS-163-02D-07

Lab ID#: 0801429A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.33	0.40	1.1	1.4
Benzene	0.082	0.21	0.26	0.68
Trichloroethene	0.0049	0.0079	0.026	0.042
Tetrachloroethene	0.0049	0.010	0.033	0.071



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-03-07

Lab ID#: 0801429A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.084	0.19	0.27	0.60
Trichloroethene	0.0050	0.0077	0.027	0.041
Tetrachloroethene	0.0050	0.011	0.034	0.077

Client Sample ID: RFS-175-01-07

Lab ID#: 0801429A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.076	0.21	0.24	0.68
Trichloroethene	0.0046	0.0074	0.024	0.040
Tetrachloroethene	0.0046	0.024	0.031	0.16

Client Sample ID: RFS-175-02-07

Lab ID#: 0801429A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.098	0.19	0.31	0.60
Tetrachloroethene	0.0059	0.010	0.040	0.069

Client Sample ID: RFS-177-01-07

Lab ID#: 0801429A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.034	0.065	0.16	0.32
Benzene	0.084	0.19	0.27	0.59
Trichloroethene	0.0050	0.028	0.027	0.15
Tetrachloroethene	0.0050	0.023	0.034	0.16

Client Sample ID: RFS-155-01-07

Lab ID#: 0801429A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.076	0.23	0.24	0.72
Trichloroethene	0.0046	0.0081	0.024	0.044



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-155-01-07

Lab ID#: 0801429A-09A

Tetrachloroethene	0.0046	0.018	0.031	0.12
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Client Sample ID: RFS-478-01-07

Lab ID#: 0801429A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.027	0.042	0.13	0.21
Benzene	0.067	0.26	0.21	0.82
Trichloroethene	0.0040	0.089	0.022	0.48
Tetrachloroethene	0.0040	0.054	0.027	0.36

Client Sample ID: RFS-478-01-07 Lab Duplicate

Lab ID#: 0801429A-10AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.027	0.042	0.13	0.20
Benzene	0.067	0.26	0.21	0.83
Trichloroethene	0.0040	0.087	0.022	0.46
Tetrachloroethene	0.0040	0.051	0.027	0.35

Client Sample ID: RFS-478-02-07

Lab ID#: 0801429A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.30	0.48	1.0	1.7
Chloroform	0.030	0.034	0.14	0.16
Benzene	0.074	0.24	0.24	0.78
Trichloroethene	0.0045	0.016	0.024	0.084
Tetrachloroethene	0.0045	0.040	0.030	0.27

Client Sample ID: RFS-478-02-07 Lab Duplicate

Lab ID#: 0801429A-11AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.30	0.50	1.0	1.7
Chloroform	0.030	0.034	0.14	0.16



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-02-07 Lab Duplicate

Lab ID#: 0801429A-11AA

Benzene	0.074	0.23	0.24	0.73
Trichloroethene	0.0045	0.016	0.024	0.086
Tetrachloroethene	0.0045	0.042	0.030	0.29

Client Sample ID: RFS-478-03-07

Lab ID#: 0801429A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.086	0.20	0.27	0.65
Trichloroethene	0.0051	0.0084	0.028	0.045
Tetrachloroethene	0.0051	0.014	0.035	0.092

Client Sample ID: RFS-FLS-01-07

Lab ID#: 0801429A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.067	0.20	0.21	0.65
Trichloroethene	0.0040	0.0073	0.022	0.039
Tetrachloroethene	0.0040	0.015	0.027	0.10

Client Sample ID: RFS-FLS-01-07 Lab Duplicate

Lab ID#: 0801429A-13AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.067	0.20	0.21	0.63
Trichloroethene	0.0040	0.0085	0.022	0.045
Tetrachloroethene	0.0040	0.014	0.027	0.096

Client Sample ID: TRIP BLANK

Lab ID#: 0801429A-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-07

Lab ID#: 0801429A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012817	Date of Collection: 1/24/08
Dil. Factor:	1.61	Date of Analysis: 1/28/08 10:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	Not Detected	0.16	Not Detected
Benzene	0.080	0.24	0.26	0.76
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.0053	0.026	0.028
Tetrachloroethene	0.0048	0.010	0.033	0.068
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-07

Lab ID#: 0801429A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012818	Date of Collection: 1/24/08
Dil. Factor:	1.61	Date of Analysis: 1/28/08 11:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Methylene Chloride	0.32	0.38	1.1	1.3
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.051	0.16	0.25
Benzene	0.080	0.20	0.26	0.62
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0048	0.0086	0.026	0.046
Tetrachloroethene	0.0048	0.0091	0.033	0.062
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-07

Lab ID#: 0801429A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012819	Date of Collection: 1/24/08
Dil. Factor:	1.58	Date of Analysis: 1/29/08 12:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
Methylene Chloride	0.32	0.40	1.1	1.4
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
Chloroform	0.032	0.032	0.15	0.16
Benzene	0.079	0.21	0.25	0.67
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0047	0.0076	0.025	0.041
Tetrachloroethene	0.0047	0.013	0.032	0.091
trans-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-07

Lab ID#: 0801429A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012820	Date of Collection: 1/24/08
Dil. Factor:	1.64	Date of Analysis: 1/29/08 01:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Methylene Chloride	0.33	0.40	1.1	1.4
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	Not Detected	0.16	Not Detected
Benzene	0.082	0.21	0.26	0.68
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.0079	0.026	0.042
Tetrachloroethene	0.0049	0.010	0.033	0.071
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-07

Lab ID#: 0801429A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012821	Date of Collection: 1/24/08
Dil. Factor:	1.68	Date of Analysis: 1/29/08 02:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
Benzene	0.084	0.19	0.27	0.60
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.0077	0.027	0.041
Tetrachloroethene	0.0050	0.011	0.034	0.077
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-07

Lab ID#: 0801429A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012822	Date of Collection: 1/24/08
Dil. Factor:	1.52	Date of Analysis: 1/29/08 03:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	Not Detected	0.15	Not Detected
Benzene	0.076	0.21	0.24	0.68
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0074	0.024	0.040
Tetrachloroethene	0.0046	0.024	0.031	0.16
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-07

Lab ID#: 0801429A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012823	Date of Collection: 1/24/08
Dil. Factor:	1.96	Date of Analysis: 1/29/08 04:33 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.020	Not Detected	0.050	Not Detected
1,1-Dichloroethene	0.020	Not Detected	0.078	Not Detected
Methylene Chloride	0.39	Not Detected	1.4	Not Detected
cis-1,2-Dichloroethene	0.039	Not Detected	0.16	Not Detected
Chloroform	0.039	Not Detected	0.19	Not Detected
Benzene	0.098	0.19	0.31	0.60
1,2-Dichloroethane	0.039	Not Detected	0.16	Not Detected
Trichloroethene	0.0059	Not Detected	0.032	Not Detected
Tetrachloroethene	0.0059	0.010	0.040	0.069
trans-1,2-Dichloroethene	0.039	Not Detected	0.16	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-07

Lab ID#: 0801429A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012824	Date of Collection: 1/24/08
Dil. Factor:	1.68	Date of Analysis: 1/29/08 05:40 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.065	0.16	0.32
Benzene	0.084	0.19	0.27	0.59
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0050	0.028	0.027	0.15
Tetrachloroethene	0.0050	0.023	0.034	0.16
trans-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-07

Lab ID#: 0801429A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012825	Date of Collection: 1/24/08
Dil. Factor:	1.52	Date of Analysis: 1/29/08 07:48 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	Not Detected	0.15	Not Detected
Benzene	0.076	0.23	0.24	0.72
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0081	0.024	0.044
Tetrachloroethene	0.0046	0.018	0.031	0.12
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-07

Lab ID#: 0801429A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012908	Date of Collection: 1/24/08
Dil. Factor:	1.34	Date of Analysis: 1/29/08 05:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
Methylene Chloride	0.27	Not Detected	0.93	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
Chloroform	0.027	0.042	0.13	0.21
Benzene	0.067	0.26	0.21	0.82
1,2-Dichloroethane	0.027	Not Detected	0.11	Not Detected
Trichloroethene	0.0040	0.089	0.022	0.48
Tetrachloroethene	0.0040	0.054	0.027	0.36
trans-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-07 Lab Duplicate

Lab ID#: 0801429A-10AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012909	Date of Collection: 1/24/08
Dil. Factor:	1.34	Date of Analysis: 1/29/08 06:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
Methylene Chloride	0.27	Not Detected	0.93	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
Chloroform	0.027	0.042	0.13	0.20
Benzene	0.067	0.26	0.21	0.83
1,2-Dichloroethane	0.027	Not Detected	0.11	Not Detected
Trichloroethene	0.0040	0.087	0.022	0.46
Tetrachloroethene	0.0040	0.051	0.027	0.35
trans-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-07

Lab ID#: 0801429A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012910	Date of Collection: 1/24/08
Dil. Factor:	1.49	Date of Analysis: 1/29/08 07:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
Methylene Chloride	0.30	0.48	1.0	1.7
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.034	0.14	0.16
Benzene	0.074	0.24	0.24	0.78
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0045	0.016	0.024	0.084
Tetrachloroethene	0.0045	0.040	0.030	0.27
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-07 Lab Duplicate

Lab ID#: 0801429A-11AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012916	Date of Collection: 1/24/08
Dil. Factor:	1.49	Date of Analysis: 1/30/08 12:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
Methylene Chloride	0.30	0.50	1.0	1.7
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.034	0.14	0.16
Benzene	0.074	0.23	0.24	0.73
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0045	0.016	0.024	0.086
Tetrachloroethene	0.0045	0.042	0.030	0.29
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-07

Lab ID#: 0801429A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012917	Date of Collection: 1/24/08
Dil. Factor:	1.71	Date of Analysis: 1/30/08 01:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	Not Detected	0.17	Not Detected
Benzene	0.086	0.20	0.27	0.65
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.0084	0.028	0.045
Tetrachloroethene	0.0051	0.014	0.035	0.092
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-07

Lab ID#: 0801429A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012918	Date of Collection: 1/24/08
Dil. Factor:	1.34	Date of Analysis: 1/30/08 03:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
Methylene Chloride	0.27	Not Detected	0.93	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
Chloroform	0.027	Not Detected	0.13	Not Detected
Benzene	0.067	0.20	0.21	0.65
1,2-Dichloroethane	0.027	Not Detected	0.11	Not Detected
Trichloroethene	0.0040	0.0073	0.022	0.039
Tetrachloroethene	0.0040	0.015	0.027	0.10
trans-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-07 Lab Duplicate

Lab ID#: 0801429A-13AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012919	Date of Collection: 1/24/08
Dil. Factor:	1.34	Date of Analysis: 1/30/08 04:18 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
Methylene Chloride	0.27	Not Detected	0.93	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
Chloroform	0.027	Not Detected	0.13	Not Detected
Benzene	0.067	0.20	0.21	0.63
1,2-Dichloroethane	0.027	Not Detected	0.11	Not Detected
Trichloroethene	0.0040	0.0085	0.022	0.045
Tetrachloroethene	0.0040	0.014	0.027	0.096
trans-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: TRIP BLANK

Lab ID#: 0801429A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012920	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/30/08 04:57 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0801429A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/28/08 12:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0801429A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/29/08 02:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0801429A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/28/08 09:36 AM

Compound	%Recovery
Vinyl Chloride	121
1,1-Dichloroethene	97
Methylene Chloride	94
cis-1,2-Dichloroethene	121
Chloroform	95
Benzene	106
1,2-Dichloroethane	101
Trichloroethene	94
Tetrachloroethene	118
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0801429A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/29/08 11:24 AM

Compound	%Recovery
Vinyl Chloride	103
1,1-Dichloroethene	100
Methylene Chloride	98
cis-1,2-Dichloroethene	125
Chloroform	97
Benzene	109
1,2-Dichloroethane	102
Trichloroethene	96
Tetrachloroethene	122
trans-1,2-Dichloroethene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0801429A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/28/08 10:19 AM

Compound	%Recovery
Vinyl Chloride	99
1,1-Dichloroethene	103
Methylene Chloride	93
cis-1,2-Dichloroethene	104
Chloroform	94
Benzene	97
1,2-Dichloroethane	103
Trichloroethene	90
Tetrachloroethene	97
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0801429A-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	a012903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/29/08 12:03 PM

Compound	%Recovery
Vinyl Chloride	94
1,1-Dichloroethene	99
Methylene Chloride	92
cis-1,2-Dichloroethene	100
Chloroform	92
Benzene	96
1,2-Dichloroethane	101
Trichloroethene	89
Tetrachloroethene	95
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	105	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0801429B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Jason Brodersen Tetra Tech 135 Main Street Suite 1800 San Francisco, CA 94105
PHONE:	208-343-4085	P.O. #	1024639
FAX:		PROJECT #	S1518.008.01 RFS AIR MONITORING
DATE RECEIVED:	01/25/2008	CONTACT:	Kelly Buettner
DATE COMPLETED:	02/05/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-UCB-01-07	Modified TO-11A
01AA	RFS-UCB-01-07 Lab Duplicate	Modified TO-11A
02A	RFS-163-01-07	Modified TO-11A
03A	RFS-163-02-07	Modified TO-11A
04A	RFS-163-02D-07	Modified TO-11A
05A	RFS-163-03-07	Modified TO-11A
06A	RFS-175-01-07	Modified TO-11A
07A	RFS-175-02-07	Modified TO-11A
08A	RFS-177-01-07	Modified TO-11A
09A	RFS-155-01-07	Modified TO-11A
10A	RFS-478-01-07	Modified TO-11A
11A	RFS-478-02-07	Modified TO-11A
12A	RFS-478-03-07	Modified TO-11A
13A	RFS-FLS-01-07	Modified TO-11A
14A	TRIP BLANK	Modified TO-11A
15A	Lab Blank	Modified TO-11A
16A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 02/01/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0801429B

Fourteen TO-11 Cartridge samples were received on January 25, 2008. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-UCB-01-07

Lab ID#: 0801429B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.4	0.77

Client Sample ID: RFS-UCB-01-07 Lab Duplicate

Lab ID#: 0801429B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.5	0.83

Client Sample ID: RFS-163-01-07

Lab ID#: 0801429B-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	26	15

Client Sample ID: RFS-163-02-07

Lab ID#: 0801429B-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	26	14

Client Sample ID: RFS-163-02D-07

Lab ID#: 0801429B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	20	10

Client Sample ID: RFS-163-03-07

Lab ID#: 0801429B-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	0.90	0.48



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-175-01-07

Lab ID#: 0801429B-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	12	6.4

Client Sample ID: RFS-175-02-07

Lab ID#: 0801429B-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.2	0.69

Client Sample ID: RFS-177-01-07

Lab ID#: 0801429B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	27	15

Client Sample ID: RFS-155-01-07

Lab ID#: 0801429B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	29	16

Client Sample ID: RFS-478-01-07

Lab ID#: 0801429B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	20	11

Client Sample ID: RFS-478-02-07

Lab ID#: 0801429B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	23	13



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-478-03-07

Lab ID#: 0801429B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	70	39

Client Sample ID: RFS-FLS-01-07

Lab ID#: 0801429B-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	0.86	0.47

Client Sample ID: TRIP BLANK

Lab ID#: 0801429B-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-07

Lab ID#: 0801429B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125015	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 02:31 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.4	0.77

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-07 Lab Duplicate

Lab ID#: 0801429B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125016	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 02:52 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.5	0.83

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-07

Lab ID#: 0801429B-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125017	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 03:13 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	26	15

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-07

Lab ID#: 0801429B-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125018	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 03:33 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	26	14

Air Sample Volume(L): 1940
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-07

Lab ID#: 0801429B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125019	Date of Collection:	1/24/08	
Dil. Factor:	1.00	Date of Analysis:	1/25/08 03:54 PM	
		Date of Extraction:	1/25/08	

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.026	20	10

Air Sample Volume(L): 1940
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-07

Lab ID#: 0801429B-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125020	Date of Collection:	1/24/08
Dil. Factor:	1.00	Date of Analysis:	1/25/08 04:15 PM
		Date of Extraction:	1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	0.90	0.48

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-07

Lab ID#: 0801429B-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125021	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 04:36 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	12	6.4

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-07

Lab ID#: 0801429B-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125022	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 04:57 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.2	0.69

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-07

Lab ID#: 0801429B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125023	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 05:18 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	27	15

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-07

Lab ID#: 0801429B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125026	Date of Collection:	1/24/08
Dil. Factor:	1.00	Date of Analysis:	1/25/08 06:21 PM
		Date of Extraction:	1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	29	16

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-07

Lab ID#: 0801429B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125027	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 06:41 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	20	11

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-07

Lab ID#: 0801429B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125028	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 07:02 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	23	13

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-07

Lab ID#: 0801429B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125014	Date of Collection: 1/24/08
Dil. Factor:	2.00	Date of Analysis: 1/25/08 02:10 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	70	39

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-FLS-01-07

Lab ID#: 0801429B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125029	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 07:23 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	0.86	0.47

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: TRIP BLANK

Lab ID#: 0801429B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125030	Date of Collection: 1/24/08
Dil. Factor:	1.00	Date of Analysis: 1/25/08 07:44 PM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0801429B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/25/08 10:07 AM
		Date of Extraction: 1/25/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0801429B-16A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0125004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/25/08 10:28 AM
		Date of Extraction: 1/25/08

Compound	%Recovery
Formaldehyde	101

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0802124A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

BILL TO: Mr. Jason Brodersen
Tetra Tech
135 Main Street
Suite 1800
San Francisco, CA 94105

PHONE: 208-389-1030

P.O. # 1024639

FAX:

PROJECT # 51518.008.01 RFS Air Mon

DATE RECEIVED: 02/07/2008

CONTACT: Kelly Buettner

DATE COMPLETED: 02/21/2008

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	RFS-UCB-01-08	Modified TO-15 SIM	3.5 "Hg	5 psi
01B	RFS-UCB-01-08	Modified TO-15 SIM	3.5 "Hg	5 psi
02A	RFS-163-01-08	Modified TO-15 SIM	9.0 "Hg	5 psi
02B	RFS-163-01-08	Modified TO-15 SIM	9.0 "Hg	5 psi
03A	RFS-163-02-08	Modified TO-15 SIM	7.0 "Hg	5 psi
03AA	RFS-163-02-08 Lab Duplicate	Modified TO-15 SIM	7.0 "Hg	5 psi
03B	RFS-163-02-08	Modified TO-15 SIM	7.0 "Hg	5 psi
03BB	RFS-163-02-08 Lab Duplicate	Modified TO-15 SIM	7.0 "Hg	5 psi
04A	RFS-163-03-08	Modified TO-15 SIM	4.0 "Hg	5 psi
04B	RFS-163-03-08	Modified TO-15 SIM	4.0 "Hg	5 psi
05A	RFS-175-01-08	Modified TO-15 SIM	2.0 "Hg	5 psi
05B	RFS-175-01-08	Modified TO-15 SIM	2.0 "Hg	5 psi
06A	RFS-175-02-08	Modified TO-15 SIM	2.0 "Hg	5 psi
06B	RFS-175-02-08	Modified TO-15 SIM	2.0 "Hg	5 psi
07A	RFS-177-01-08	Modified TO-15 SIM	5.5 "Hg	5 psi
07B	RFS-177-01-08	Modified TO-15 SIM	5.5 "Hg	5 psi
08A	RFS-155-01-08	Modified TO-15 SIM	4.0 "Hg	5 psi

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0802124A

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

BILL TO: Mr. Jason Brodersen
Tetra Tech
135 Main Street
Suite 1800
San Francisco, CA 94105

PHONE: 208-389-1030 **P.O. #** 1024639

FAX:

DATE RECEIVED: 02/07/2008 **PROJECT #** 51518.008.01 RFS Air Mon

DATE COMPLETED: 02/21/2008 **CONTACT:** Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
08B	RFS-155-01-08	Modified TO-15 SIM	4.0 "Hg	5 psi
09A	RFS-478-01-08	Modified TO-15 SIM	6.5 "Hg	5 psi
09B	RFS-478-01-08	Modified TO-15 SIM	6.5 "Hg	5 psi
10A	RFS-478-02-08	Modified TO-15 SIM	4.0 "Hg	5 psi
10B	RFS-478-02-08	Modified TO-15 SIM	4.0 "Hg	5 psi
11A	RFS-478-03-08	Modified TO-15 SIM	5.0 "Hg	5 psi
11B	RFS-478-03-08	Modified TO-15 SIM	5.0 "Hg	5 psi
12A	RFS-280-01-08	Modified TO-15 SIM	4.5 "Hg	5 psi
12B	RFS-280-01-08	Modified TO-15 SIM	4.5 "Hg	5 psi
13A	RFS-Trip Blank	Modified TO-15 SIM	29.5 "Hg	5 psi
13B	RFS-Trip Blank	Modified TO-15 SIM	29.5 "Hg	5 psi
14A	Lab Blank	Modified TO-15 SIM	NA	NA
14B	Lab Blank	Modified TO-15 SIM	NA	NA
15A	CCV	Modified TO-15 SIM	NA	NA
15B	CCV	Modified TO-15 SIM	NA	NA
16A	LCS	Modified TO-15 SIM	NA	NA
16B	LCS	Modified TO-15 SIM	NA	NA

CERTIFIED BY: 

DATE: 02/21/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08

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

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

LABORATORY NARRATIVE
Modified TO-15 SIM
Tetra Tech
Workorder# 0802124A



Thirteen 6 Liter Summa Special (SIM Certified) samples were received on February 07, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition 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.

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

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

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

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

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

Definition of Data Qualifying Flags

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

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

performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-UCB-01-08

Lab ID#: 0802124A-01A

No Detections Were Found.

Client Sample ID: RFS-UCB-01-08

Lab ID#: 0802124A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.030	0.030	0.15	0.15
Benzene	0.076	0.37	0.24	1.2
Trichloroethene	0.0046	0.0085	0.024	0.046
Tetrachloroethene	0.0046	0.017	0.031	0.12

Client Sample ID: RFS-163-01-08

Lab ID#: 0802124A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.38	0.95	1.3	3.3

Client Sample ID: RFS-163-01-08

Lab ID#: 0802124A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.038	0.084	0.19	0.41
Benzene	0.096	0.38	0.30	1.2
1,2-Dichloroethane	0.038	0.042	0.15	0.17
Trichloroethene	0.0057	0.011	0.031	0.058
Tetrachloroethene	0.0057	0.020	0.039	0.13

Client Sample ID: RFS-163-02-08

Lab ID#: 0802124A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.35	0.83	1.2	2.9

Client Sample ID: RFS-163-02-08 Lab Duplicate

Lab ID#: 0802124A-03AA



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-02-08 Lab Duplicate

Lab ID#: 0802124A-03AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.35	0.88	1.2	3.0

Client Sample ID: RFS-163-02-08

Lab ID#: 0802124A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.035	0.063	0.17	0.31
Benzene	0.088	0.39	0.28	1.2
1,2-Dichloroethane	0.035	0.035	0.14	0.14
Trichloroethene	0.0052	0.012	0.028	0.064
Tetrachloroethene	0.0052	0.022	0.036	0.15

Client Sample ID: RFS-163-02-08 Lab Duplicate

Lab ID#: 0802124A-03BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.035	0.064	0.17	0.31
Benzene	0.088	0.38	0.28	1.2
1,2-Dichloroethane	0.035	0.036	0.14	0.15
Trichloroethene	0.0052	0.010	0.028	0.054
Tetrachloroethene	0.0052	0.025	0.036	0.17

Client Sample ID: RFS-163-03-08

Lab ID#: 0802124A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	0.38	1.1	1.3

Client Sample ID: RFS-163-03-08

Lab ID#: 0802124A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.031	0.034	0.15	0.17
Benzene	0.078	0.31	0.25	1.0



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-163-03-08

Lab ID#: 0802124A-04B

Trichloroethene	0.0046	0.010	0.025	0.054
Tetrachloroethene	0.0046	0.021	0.032	0.14

Client Sample ID: RFS-175-01-08

Lab ID#: 0802124A-05A

No Detections Were Found.

Client Sample ID: RFS-175-01-08

Lab ID#: 0802124A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.014	0.020	0.037	0.052
Chloroform	0.029	0.060	0.14	0.30
Benzene	0.072	0.44	0.23	1.4
Trichloroethene	0.0043	0.0092	0.023	0.049

Client Sample ID: RFS-175-02-08

Lab ID#: 0802124A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.29	0.29	1.0	1.0

Client Sample ID: RFS-175-02-08

Lab ID#: 0802124A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.029	0.034	0.14	0.16
Benzene	0.072	0.31	0.23	1.0
Trichloroethene	0.0043	0.0093	0.023	0.050
Tetrachloroethene	0.0043	0.020	0.029	0.13

Client Sample ID: RFS-177-01-08

Lab ID#: 0802124A-07A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-177-01-08

Lab ID#: 0802124A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.033	0.14	0.16	0.67
Benzene	0.082	0.32	0.26	1.0
Trichloroethene	0.0049	0.036	0.026	0.19
Tetrachloroethene	0.0049	0.028	0.033	0.19

Client Sample ID: RFS-155-01-08

Lab ID#: 0802124A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	0.30 J	1.1	1.0 J

Client Sample ID: RFS-155-01-08

Lab ID#: 0802124A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.031	0.037	0.15	0.18
Benzene	0.078	0.38	0.25	1.2
Trichloroethene	0.0046	0.010	0.025	0.056
Tetrachloroethene	0.0046	0.030	0.032	0.20

Client Sample ID: RFS-478-01-08

Lab ID#: 0802124A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.41	1.2	1.4

Client Sample ID: RFS-478-01-08

Lab ID#: 0802124A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.034	0.12	0.17	0.58
Benzene	0.086	0.50	0.27	1.6
Trichloroethene	0.0051	0.18	0.028	0.99
Tetrachloroethene	0.0051	0.024	0.035	0.16



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-478-02-08

Lab ID#: 0802124A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	1.2	1.1	4.0

Client Sample ID: RFS-478-02-08

Lab ID#: 0802124A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.031	0.056	0.15	0.27
Benzene	0.078	0.53	0.25	1.7
Trichloroethene	0.0046	0.017	0.025	0.090
Tetrachloroethene	0.0046	0.066	0.032	0.45

Client Sample ID: RFS-478-03-08

Lab ID#: 0802124A-11A

No Detections Were Found.

Client Sample ID: RFS-478-03-08

Lab ID#: 0802124A-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.032	0.095	0.16	0.46
Benzene	0.080	0.41	0.26	1.3
1,2-Dichloroethane	0.032	0.037	0.13	0.15
Trichloroethene	0.0048	0.0076	0.026	0.041
Tetrachloroethene	0.0048	0.025	0.033	0.17

Client Sample ID: RFS-280-01-08

Lab ID#: 0802124A-12A

No Detections Were Found.

Client Sample ID: RFS-280-01-08

Lab ID#: 0802124A-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
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AN ENVIRONMENTAL ANALYTICAL LABORATORY

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

Client Sample ID: RFS-280-01-08

Lab ID#: 0802124A-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloroform	0.032	0.058	0.15	0.29
Benzene	0.079	0.30	0.25	0.96
Trichloroethene	0.0047	0.0085	0.025	0.046
Tetrachloroethene	0.0047	0.022	0.032	0.15

Client Sample ID: RFS-Trip Blank

Lab ID#: 0802124A-13A

No Detections Were Found.

Client Sample ID: RFS-Trip Blank

Lab ID#: 0802124A-13B

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-08

Lab ID#: 0802124A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021910	Date of Collection:	2/6/08
Dil. Factor:	1.52	Date of Analysis:	2/19/08 02:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.30	Not Detected	1.0	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-08

Lab ID#: 0802124A-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021910sim	Date of Collection: 2/6/08
Dil. Factor:	1.52	Date of Analysis: 2/19/08 02:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Chloroform	0.030	0.030	0.15	0.15
Benzene	0.076	0.37	0.24	1.2
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.0085	0.024	0.046
Tetrachloroethene	0.0046	0.017	0.031	0.12
trans-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-08

Lab ID#: 0802124A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021911	Date of Collection:	2/6/08
Dil. Factor:	1.91	Date of Analysis:	2/19/08 03:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.38	0.95	1.3	3.3

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-08

Lab ID#: 0802124A-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021911sim	Date of Collection: 2/6/08
Dil. Factor:	1.91	Date of Analysis: 2/19/08 03:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.019	Not Detected	0.049	Not Detected
1,1-Dichloroethene	0.019	Not Detected	0.076	Not Detected
cis-1,2-Dichloroethene	0.038	Not Detected	0.15	Not Detected
Chloroform	0.038	0.084	0.19	0.41
Benzene	0.096	0.38	0.30	1.2
1,2-Dichloroethane	0.038	0.042	0.15	0.17
Trichloroethene	0.0057	0.011	0.031	0.058
Tetrachloroethene	0.0057	0.020	0.039	0.13
trans-1,2-Dichloroethene	0.038	Not Detected	0.15	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-08

Lab ID#: 0802124A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021912	Date of Collection: 2/6/08
Dil. Factor:	1.75	Date of Analysis: 2/19/08 04:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.35	0.83	1.2	2.9

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	101	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-08 Lab Duplicate

Lab ID#: 0802124A-03AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021913	Date of Collection:	2/6/08
Dil. Factor:	1.75	Date of Analysis:	2/19/08 05:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.35	0.88	1.2	3.0

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-08

Lab ID#: 0802124A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021912sim	Date of Collection: 2/6/08
Dil. Factor:	1.75	Date of Analysis: 2/19/08 04:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.063	0.17	0.31
Benzene	0.088	0.39	0.28	1.2
1,2-Dichloroethane	0.035	0.035	0.14	0.14
Trichloroethene	0.0052	0.012	0.028	0.064
Tetrachloroethene	0.0052	0.022	0.036	0.15
trans-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-08 Lab Duplicate

Lab ID#: 0802124A-03BB

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021913sim	Date of Collection: 2/6/08
Dil. Factor:	1.75	Date of Analysis: 2/19/08 05:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.064	0.17	0.31
Benzene	0.088	0.38	0.28	1.2
1,2-Dichloroethane	0.035	0.036	0.14	0.15
Trichloroethene	0.0052	0.010	0.028	0.054
Tetrachloroethene	0.0052	0.025	0.036	0.17
trans-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-08

Lab ID#: 0802124A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021914	Date of Collection:	2/6/08
Dil. Factor:	1.55	Date of Analysis:	2/19/08 06:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	0.38	1.1	1.3

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	108	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-08

Lab ID#: 0802124A-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021914sim	Date of Collection: 2/6/08
Dil. Factor:	1.55	Date of Analysis: 2/19/08 06:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.034	0.15	0.17
Benzene	0.078	0.31	0.25	1.0
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.010	0.025	0.054
Tetrachloroethene	0.0046	0.021	0.032	0.14
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-08

Lab ID#: 0802124A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021915	Date of Collection:	2/6/08
Dil. Factor:	1.44	Date of Analysis:	2/19/08 07:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.29	Not Detected	1.0	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	122	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-08

Lab ID#: 0802124A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021915sim	Date of Collection: 2/6/08
Dil. Factor:	1.44	Date of Analysis: 2/19/08 07:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.014	0.020	0.037	0.052
1,1-Dichloroethene	0.014	Not Detected	0.057	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected
Chloroform	0.029	0.060	0.14	0.30
Benzene	0.072	0.44	0.23	1.4
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.0043	0.0092	0.023	0.049
Tetrachloroethene	0.0043	Not Detected	0.029	Not Detected
trans-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	114	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-08

Lab ID#: 0802124A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021916	Date of Collection:	2/6/08
Dil. Factor:	1.44	Date of Analysis:	2/19/08 07:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.29	0.29	1.0	1.0

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	101	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-08

Lab ID#: 0802124A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021916sim	Date of Collection: 2/6/08
Dil. Factor:	1.44	Date of Analysis: 2/19/08 07:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.014	Not Detected	0.037	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.057	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected
Chloroform	0.029	0.034	0.14	0.16
Benzene	0.072	0.31	0.23	1.0
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.0043	0.0093	0.023	0.050
Tetrachloroethene	0.0043	0.020	0.029	0.13
trans-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-08

Lab ID#: 0802124A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021919	Date of Collection:	2/6/08
Dil. Factor:	1.64	Date of Analysis:	2/19/08 10:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.33	Not Detected	1.1	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	107	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-08

Lab ID#: 0802124A-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021919sim	Date of Collection: 2/6/08
Dil. Factor:	1.64	Date of Analysis: 2/19/08 10:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.14	0.16	0.67
Benzene	0.082	0.32	0.26	1.0
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.0049	0.036	0.026	0.19
Tetrachloroethene	0.0049	0.028	0.033	0.19
trans-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-08

Lab ID#: 0802124A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021920	Date of Collection: 2/6/08
Dil. Factor:	1.55	Date of Analysis: 2/19/08 11:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	0.30 J	1.1	1.0 J

J = Estimated value.

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-08

Lab ID#: 0802124A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021920sim	Date of Collection: 2/6/08
Dil. Factor:	1.55	Date of Analysis: 2/19/08 11:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.037	0.15	0.18
Benzene	0.078	0.38	0.25	1.2
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.010	0.025	0.056
Tetrachloroethene	0.0046	0.030	0.032	0.20
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-08

Lab ID#: 0802124A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021921	Date of Collection:	2/6/08
Dil. Factor:	1.71	Date of Analysis:	2/20/08 12:15 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.34	0.41	1.2	1.4

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-08

Lab ID#: 0802124A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021921sim	Date of Collection: 2/6/08
Dil. Factor:	1.71	Date of Analysis: 2/20/08 12:15 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
Chloroform	0.034	0.12	0.17	0.58
Benzene	0.086	0.50	0.27	1.6
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.0051	0.18	0.028	0.99
Tetrachloroethene	0.0051	0.024	0.035	0.16
trans-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-08

Lab ID#: 0802124A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021922	Date of Collection:	2/6/08
Dil. Factor:	1.55	Date of Analysis:	2/20/08 01:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.31	1.2	1.1	4.0

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	107	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-08

Lab ID#: 0802124A-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021922sim	Date of Collection: 2/6/08
Dil. Factor:	1.55	Date of Analysis: 2/20/08 01:07 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.056	0.15	0.27
Benzene	0.078	0.53	0.25	1.7
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.0046	0.017	0.025	0.090
Tetrachloroethene	0.0046	0.066	0.032	0.45
trans-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-08

Lab ID#: 0802124A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021923	Date of Collection:	2/6/08
Dil. Factor:	1.61	Date of Analysis:	2/20/08 02:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	Not Detected	1.1	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-08

Lab ID#: 0802124A-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021923sim	Date of Collection: 2/6/08
Dil. Factor:	1.61	Date of Analysis: 2/20/08 02:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.095	0.16	0.46
Benzene	0.080	0.41	0.26	1.3
1,2-Dichloroethane	0.032	0.037	0.13	0.15
Trichloroethene	0.0048	0.0076	0.026	0.041
Tetrachloroethene	0.0048	0.025	0.033	0.17
trans-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-280-01-08

Lab ID#: 0802124A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021924	Date of Collection:	2/6/08
Dil. Factor:	1.58	Date of Analysis:	2/20/08 02:59 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.32	Not Detected	1.1	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-280-01-08

Lab ID#: 0802124A-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021924sim	Date of Collection: 2/6/08
Dil. Factor:	1.58	Date of Analysis: 2/20/08 02:59 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
Chloroform	0.032	0.058	0.15	0.29
Benzene	0.079	0.30	0.25	0.96
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.0047	0.0085	0.025	0.046
Tetrachloroethene	0.0047	0.022	0.032	0.15
trans-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-Trip Blank

Lab ID#: 0802124A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021925	Date of Collection:	2/6/08
Dil. Factor:	1.00	Date of Analysis:	2/20/08 03:47 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.20	Not Detected	0.69	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-Trip Blank

Lab ID#: 0802124A-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021925sim	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/20/08 03:47 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: 6 Liter Summa Special (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	89	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0802124A-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021907	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/19/08 12:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methylene Chloride	0.20	Not Detected	0.69	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0802124A-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021907sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/08 12:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.0030	Not Detected	0.020	Not Detected
trans-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0802124A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/08 09:21 AM

Compound	%Recovery
Methylene Chloride	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	109	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0802124A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021904sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/08 09:21 AM

Compound	%Recovery
Vinyl Chloride	110
1,1-Dichloroethene	107
cis-1,2-Dichloroethene	113
Chloroform	99
Benzene	109
1,2-Dichloroethane	114
Trichloroethene	112
Tetrachloroethene	114
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	102	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0802124A-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	z021905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/08 10:07 AM

Compound	%Recovery
Methylene Chloride	122

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	110	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0802124A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	z021905sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/08 10:07 AM

Compound	%Recovery
Vinyl Chloride	108
1,1-Dichloroethene	120
cis-1,2-Dichloroethene	113
Chloroform	104
Benzene	114
1,2-Dichloroethane	122
Trichloroethene	115
Tetrachloroethene	121
trans-1,2-Dichloroethene	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	103	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

**(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0802124B

Work Order Summary

CLIENT: Mr. Doug Herlocker
Tetra Tech
106 N. 6th. St.
Suite 202
Boise, ID 83702

PHONE: 208-389-1030

FAX:

DATE RECEIVED: 02/07/2008

DATE COMPLETED: 02/21/2008

BILL TO: Mr. Jason Brodersen
Tetra Tech
135 Main Street
Suite 1800
San Francisco, CA 94105

P.O. # 1024639

PROJECT # 51518.008.01 RFS Air Mon

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	RFS-UCB-01-08	Modified TO-11A
01AA	RFS-UCB-01-08 Lab Duplicate	Modified TO-11A
02A	RFS-163-01-08	Modified TO-11A
02AA	RFS-163-01-08 Lab Duplicate	Modified TO-11A
03A	RFS-163-02-08	Modified TO-11A
04A	RFS-163-02D-08	Modified TO-11A
05A	RFS-163-03-08	Modified TO-11A
06A	RFS-175-01-08	Modified TO-11A
07A	RFS-175-02-08	Modified TO-11A
08A	RFS-177-01-08	Modified TO-11A
09A	RFS-155-01-08	Modified TO-11A
10A	RFS-478-01-08	Modified TO-11A
11A	RFS-478-02-08	Modified TO-11A
12A	RFS-478-03-08	Modified TO-11A
13A	RFS-280-01-08	Modified TO-11A
14A	RFS-Trip Blank	Modified TO-11A
15A	Lab Blank	Modified TO-11A

Continued on next page



AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0802124B

Work Order Summary

CLIENT:	Mr. Doug Herlocker Tetra Tech 106 N. 6th. St. Suite 202 Boise, ID 83702	BILL TO:	Mr. Jason Brodersen Tetra Tech 135 Main Street Suite 1800 San Francisco, CA 94105
PHONE:	208-389-1030	P.O. #	1024639
FAX:		PROJECT #	51518.008.01 RFS Air Mon
DATE RECEIVED:	02/07/2008	CONTACT:	Kelly Buettner
DATE COMPLETED:	02/21/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
16A	LCS	Modified TO-11A

CERTIFIED BY:  DATE: 02/21/08

Laboratory Director

Certification numbers: 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: 07/01/07, Expiration date: 06/30/08
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards
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 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
Tetra Tech
Workorder# 0802124B

Fourteen TO-11 Cartridge samples were received on February 07, 2008. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 2.0 m3 was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- 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 detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-UCB-01-08

Lab ID#: 0802124B-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.1	0.63

Client Sample ID: RFS-UCB-01-08 Lab Duplicate

Lab ID#: 0802124B-01AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.3	0.72

Client Sample ID: RFS-163-01-08

Lab ID#: 0802124B-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	30	16

Client Sample ID: RFS-163-01-08 Lab Duplicate

Lab ID#: 0802124B-02AA

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	30	16

Client Sample ID: RFS-163-02-08

Lab ID#: 0802124B-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Client Sample ID: RFS-163-02D-08

Lab ID#: 0802124B-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-163-03-08

Lab ID#: 0802124B-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.4	0.76

Client Sample ID: RFS-175-01-08

Lab ID#: 0802124B-06A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	12	6.4

Client Sample ID: RFS-175-02-08

Lab ID#: 0802124B-07A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	1.4	0.77

Client Sample ID: RFS-177-01-08

Lab ID#: 0802124B-08A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	30	17

Client Sample ID: RFS-155-01-08

Lab ID#: 0802124B-09A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	25	13

Client Sample ID: RFS-478-01-08

Lab ID#: 0802124B-10A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	26	14



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds AMBIENT AIR: EPA METHOD TO-11A HPLC

Client Sample ID: RFS-478-02-08

Lab ID#: 0802124B-11A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	26	14

Client Sample ID: RFS-478-03-08

Lab ID#: 0802124B-12A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	76	42

Client Sample ID: RFS-280-01-08

Lab ID#: 0802124B-13A

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	1.5	0.79

Client Sample ID: RFS-Trip Blank

Lab ID#: 0802124B-14A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-08

Lab ID#: 0802124B-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208006	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 10:13 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.1	0.63

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-UCB-01-08 Lab Duplicate

Lab ID#: 0802124B-01AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208007	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 10:34 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.3	0.72

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-08

Lab ID#: 0802124B-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208008	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 10:55 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	30	16

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-01-08 Lab Duplicate

Lab ID#: 0802124B-02AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208009	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 11:16 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	30	16

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02-08

Lab ID#: 0802124B-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208010	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 11:36 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-02D-08

Lab ID#: 0802124B-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208011	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 11:57 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	25	14

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-163-03-08

Lab ID#: 0802124B-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208014	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 01:00 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	1.4	0.76

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-01-08

Lab ID#: 0802124B-06A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208015	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 01:21 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	12	6.4

Air Sample Volume(L): 1860
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-175-02-08

Lab ID#: 0802124B-07A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208016	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 01:42 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	1.4	0.77

Air Sample Volume(L): 1850
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-177-01-08

Lab ID#: 0802124B-08A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208017	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 02:03 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.028	30	17

Air Sample Volume(L): 1810
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-155-01-08

Lab ID#: 0802124B-09A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208018	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 02:24 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	25	13

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-01-08

Lab ID#: 0802124B-10A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208019	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 02:44 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	26	14

Air Sample Volume(L): 1840
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-02-08

Lab ID#: 0802124B-11A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208020	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 03:05 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	26	14

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-478-03-08

Lab ID#: 0802124B-12A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208005	Date of Collection: 2/6/08
Dil. Factor:	2.00	Date of Analysis: 2/8/08 09:52 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.10	0.056	76	42

Air Sample Volume(L): 1800
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-280-01-08

Lab ID#: 0802124B-13A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208021	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 03:26 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.027	1.5	0.79

Air Sample Volume(L): 1870
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: RFS-Trip Blank

Lab ID#: 0802124B-14A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208022	Date of Collection: 2/6/08
Dil. Factor:	1.00	Date of Analysis: 2/8/08 03:47 PM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000
Container Type: TO-11 Cartridge



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0802124B-15A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/08 09:10 AM
		Date of Extraction: 2/8/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Formaldehyde	0.050	0.025	Not Detected	Not Detected

Air Sample Volume(L): 2000

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0802124B-16A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0208004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/08 09:31 AM
		Date of Extraction: 2/8/08

Compound	%Recovery
Formaldehyde	103

Air Sample Volume(L): 2000
Container Type: NA - Not Applicable

Douglas Herlocker, QEP
TetraTech
106 N. 6th Street Suite 200
Boise, ID 83702

February 5, 2008

Mr. Herlocker,

Below is the summary report for the second batch of Teflon filters. I have included a discussion of the filter handling and analysis methods, followed by the results for this batch.

TEFLON FILTER HANDLING AND FILTER PACK PREPARATION

Filter packs are assembled and disassembled in accordance with DRI SOP 2-112.2, Filter Pack Assembly.

All samples received at DRI for analysis are logged on the day that they are received following the procedure described in the DRI Shipping and Receiving SOP, 2-113.2.

Any unusual deposits or filter conditions should be noted on the sample list. These conditions include, but are not limited to:

- scratches or smudges
- holes
- wet spots
- foreign particles (e.g., insects, metal shavings, hair, etc.)

Damage to the filters after receipt at DRI must be noted as such. The conditions of the samples must be documented so that an accurate assessment of analytical quality can be made.

FILTER ANALYSIS

Gravimetric Analysis

Gravimetric analysis is performed in accordance with DRI SOP 2-114.2, as summarized below:

Unexposed and exposed Teflon-membrane filters are equilibrated at a temperature of 21.5 ± 1.5 °C and a relative humidity of $35 \pm 5\%$ for a minimum of 24 hours prior to weighing. Weighing is performed on a Mettler MT-5 electro microbalance with ± 0.001 mg sensitivity. The charge on each filter is neutralized by exposure to a polonium source for 30 seconds before the filter is placed on the balance pan. The balance is calibrated with a 200 mg Class S weight and the tare is set prior to weighing each batch of filters. After every 10 filters are weighed, the calibration and tare are re-checked. If the results of

these performance tests deviate from specifications by more than ± 5 mg, the balance is re-calibrated.

All initial filter weights are checked by an independent technician. Samples are re-weighed if these check-weights do not agree with the original weights within ± 0.010 mg. At least 30% of the exposed filter weights are checked by an independent technician. Samples are re-weighed if these check-weights do not agree with the original weights within ± 0.015 mg. Pre- and post-weights, check weights, and re-weights (if required) are recorded on data sheets and are directly entered into a data base via an RS232 connection. All weights are entered by filter number into the DRI aerosol data base.

Elements by XRF

Elemental analysis by energy dispersive x-ray fluorescence is performed in accordance with DRI SOP 2-209.2 as summarized below:

After gravimetric analysis, samples collected on the Teflon-membrane filters were analyzed by energy dispersive X-ray fluorescence (ED-XRF, PanAlytical Epsilon 5) for the following 51 elements: sodium (Na), magnesium (Mg), aluminum (Al), silicon (Si), phosphorus (P), sulfur (S), chlorine (Cl), potassium (K), calcium (Ca), scandium (Sc), titanium (Ti), vanadium (V), chromium (Cr), manganese (Mn), iron (Fe), cobalt (Co), nickel (Ni), copper (Cu), zinc (Zn), gallium (Ga), arsenic (As), selenium (Se), bromine (Br), rubidium (Rb), strontium (Sr), yttrium (Y), zirconium (Zr), niobium (Nb), molybdenum (Mo), palladium (Pd), silver (Ag), cadmium (Cd), indium (In), tin (Sn), antimony (Sb), cesium (Cs), barium (Ba), lanthanum (La), Cerium (Ce), samarium (Sm), europium (Eu), terbium (Tb), hafnium (Hf), tantalum (Ta), wolfram (W), iridium (Ir), gold (Au), mercury (Hg), thallium (Tl), lead (Pb), and uranium (U).

Calibration is performed using thin film standards from Micromatter Inc. A multielement thin film standard is analyzed periodically to monitor for calibration drift.

BATCH 02 SPECIFIC RESULTS

Batch 02 consists of three shipments of exposed filters that were received from the field on 11/30/2007, 12/13/2007 and 12/20/2007. The batch total is 41 filters. Examination of the field data sheets indicated that the sampling went well, with no problems reported. The PM10 mass and arsenic concentration data in micrograms per filter are shown below. Arsenic was not detected on any of the filters from this batch.

TID	PM10 Mass	Arsenic Concentration
DHPT028	-14.000	0.0000
DHPT029	66.000	0.0000
DHPT031	2.000	0.0000
DHPT032	67.000	0.0000
DHPT033	31.000	0.0000
DHPT034	24.000	0.0000
DHPT035	21.000	0.0000

DHPT036	118.000	0.0000
DHPT037	46.000	0.0000
DHPT038	135.000	0.0000
DHPT039	66.000	0.0000
DHPT040	69.000	0.0000
DHPT041	101.000	0.0000
DHPT042	79.000	0.0000
DHPT043	41.000	0.0000
DHPT044	165.000	0.0000
DHPT045	50.000	0.0000
DHPT046	12.000	0.0000
DHPT047	2.000	0.0000
DHPT048	-1.000	0.0000
DHPT049	65.000	0.0000
DHPT051	40.000	0.0000
DHPT052	69.000	0.0000
DHPT053	17.000	0.0000
DHPT054	49.000	0.0000
DHPT055	10.000	0.0000
DHPT056	33.000	0.0000
DHPT057	41.000	0.0000
DHPT058	116.000	0.0000
DHPT059	34.000	0.0000
DHPT060	-10.000	0.0000
DHPT061	15.000	0.0000
DHPT062	124.000	0.0000
DHPT063	57.000	0.0000
DHPT064	133.000	0.0000
DHPT065	37.000	0.0000
DHPT066	63.000	0.0000
DHPT067	74.000	0.0000
DHPT068	82.000	0.0000
DHPT069	68.000	0.0000
DHPT070	144.000	0.0000

Please let me know if I may be of further assistance.

Regards,



Steven D. Kohl
Associate Research Scientist
Desert Research Institute



Douglas Herlocker, QEP
TetraTech
106 N. 6th Street Suite 200
Boise, ID 83702

March 21, 2008

Mr. Herlocker,

Below is the summary report for the second batch of Teflon filters. I have included a discussion of the filter handling and analysis methods, followed by the results for this batch.

TEFLON FILTER HANDLING AND FILTER PACK PREPARATION

Filter packs are assembled and disassembled in accordance with DRI SOP 2-112.2, Filter Pack Assembly.

All samples received at DRI for analysis are logged on the day that they are received following the procedure described in the DRI Shipping and Receiving SOP, 2-113.2.

Any unusual deposits or filter conditions should be noted on the sample list. These conditions include, but are not limited to:

- scratches or smudges
- holes
- wet spots
- foreign particles (e.g., insects, metal shavings, hair, etc.)

Damage to the filters after receipt at DRI must be noted as such. The conditions of the samples must be documented so that an accurate assessment of analytical quality can be made.

FILTER ANALYSIS

Gravimetric Analysis

Gravimetric analysis is performed in accordance with DRI SOP 2-114.2, as summarized below:

Unexposed and exposed Teflon-membrane filters are equilibrated at a temperature of 21.5 ± 1.5 °C and a relative humidity of $35 \pm 5\%$ for a minimum of 24 hours prior to weighing. Weighing is performed on a Mettler MT-5 electro microbalance with ± 0.001 mg sensitivity. The charge on each filter is neutralized by exposure to a polonium source for 30 seconds before the filter is placed on the balance pan. The balance is calibrated with a 200 mg Class S weight and the tare is set prior to weighing each batch of filters. After every 10 filters are weighed, the calibration and tare are re-checked. If the results of these performance tests deviate from specifications by more than ± 5 mg, the balance is re-calibrated.

All initial filter weights are checked by an independent technician. Samples are re-weighed if these check-weights do not agree with the original weights within ± 0.010 mg. At least 30%

of the exposed filter weights are checked by an independent technician. Samples are re-weighed if these check-weights do not agree with the original weights within ± 0.015 mg. Pre- and post-weights, check weights, and re-weights (if required) are recorded on data sheets and are directly entered into a data base via an RS232 connection. All weights are entered by filter number into the DRI aerosol data base.

Elements by XRF

Elemental analysis by energy dispersive x-ray fluorescence is performed in accordance with DRI SOP 2-209.2 as summarized below:

After gravimetric analysis, samples collected on the Teflon-membrane filters were analyzed by energy dispersive X-ray fluorescence (ED-XRF, PanAlytical Epsilon 5) for the following 51 elements: sodium (Na), magnesium (Mg), aluminum (Al), silicon (Si), phosphorus (P), sulfur (S), chlorine (Cl), potassium (K), calcium (Ca), scandium (Sc) titanium (Ti), vanadium (V), chromium (Cr), manganese (Mn), iron (Fe), cobalt (Co), nickel (Ni), copper (Cu), zinc (Zn), gallium (Ga), arsenic (As), selenium (Se), bromine (Br), rubidium (Rb), strontium (Sr), yttrium (Y), zirconium (Zr), niobium (Nb), molybdenum (Mo), palladium (Pd), silver (Ag), cadmium (Cd), indium (In), tin (Sn), antimony (Sb), cesium (Cs), barium (Ba), lanthanum (La), Cerium (Ce), samarium (Sm), europium (Eu), terbium (Tb), hafnium (Hf), tantalum (Ta), wolfram (W), iridium (Ir), gold (Au), mercury (Hg), thallium (Tl), lead (Pb), and uranium (U).

Calibration is performed using thin film standards from Micromatter Inc. A multielement thin film standard is analyzed periodically to monitor for calibration drift.

BATCH 03 SPECIFIC RESULTS

Batch 03 consists of three shipments of exposed filters that were received from the field on 1/11/2008, 1/25/2008 and 2/7/2008. The batch total is 44 filters. Examination of the field data sheets indicated that the sampling went well, with no problems reported. The PM10 mass and arsenic concentration data in micrograms per filter are shown below. Arsenic was not detected above the uncertainty on any of the filters from this batch.

TID	PM10 Mass	Arsenic Concentration
DHPT071	93.000	0.0000
DHPT072	173.000	0.0000
DHPT073	41.000	0.0000
DHPT074	17.000	0.0000
DHPT075	59.000	0.0000
DHPT076	69.000	0.0000
DHPT077	81.000	0.0000
DHPT078	180.000	0.0000
DHPT079	79.000	0.0000
DHPT080	115.000	0.0000
DHPT081	89.000	0.0000
DHPT082	-4.000	0.0000
DHPT083	164.000	0.0000
DHPT084	-14.000	0.0000

DHPT085	-11.000	0.0000
DHPT086	-9.000	0.0000
DHPT087	-8.000	0.0000
DHPT088	-3.000	0.0000
DHPT089	-15.000	0.0000
DHPT090	-15.000	0.0000
DHPT097	11.000	0.0000
DHPT098	11.000	0.0000
DHPT099	4.000	0.0000
DHPT101	28.000	0.0000
DHPT102	18.000	0.0000
DHPT103	23.000	0.0000
DHPT104	12.000	0.0000
DHPT105	12.000	0.0000
DHPT106	69.000	0.0000
DHPT107	3.000	0.0000
DHPT108	22.000	0.0000
DHPT109	30.000	0.0000
DHPT110	81.000	0.0000
DHPT111	23.000	0.0000
DHPT112	10.000	0.0000
DHPT113	88.000	0.0000
DHPT114	32.000	0.0000
DHPT115	93.000	0.0012
DHPT116	21.000	0.0000
DHPT117	44.000	0.0000
DHPT118	55.000	0.0000
DHPT119	33.000	0.0000
DHPT120	12.000	0.0000
DHPT123	17.000	0.0000

Please let me know if I may be of further assistance.

Regards,

Steven D. Kohl
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