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The Benham Companies, LLC
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Letter of Transmittal

Date Sent: May 27, 2010

From: The Benham Companies, LLC, an SAIC Company
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

To: Christopher Mauer – Ecology
Gerry Pigotti – Gibraltar USA
Paul McTaggard – Darco Inc.
Burt Hyde – Sound Environmental Strategies

Re: Transmittal of August 2009 Vapor Sampling Event Summary Report
Former Texaco Service Station / Chevron Site No. 211577
631 Queen Anne Avenue North
Seattle, Washington

Transmitted Via:

- ☒ U.S. Mail
- ☐ FedEx
- ☐ Electronic Mail

Attached please find one copy of the August 2009 Vapor Sampling Event Summary Report for the Former Texaco Service Station / Chevron Site No. 211577, dated May 27, 2010.

May 27, 2010

Ms. Olivia Skance
Chevron Environmental Management Company
6111 Bollinger Canyon Road, Room 3636
San Ramon, California 94583-5186

Subject: **August 2009 Vapor Sampling Event Summary Report**
Former Texaco Service Station / Chevron Site No. 211577
631 Queen Anne Avenue North
Seattle, Washington

Dear Ms. Skance:

The Benham Companies, LLC, an SAIC company (SAIC-Benham), prepared this report to provide the results of a vapor sampling event conducted on August 19-20, 2009, at the Del Roy Apartments (Del Roy) and Monterey Apartments (Monterey) in Seattle, Washington (Figure 1). This vapor sampling event was performed to further evaluate the potential for vapor intrusion impact to indoor air at the Del Roy and Monterey buildings. The vapor sample collection procedures and sample locations utilized during this sampling event are consistent with those employed during the January 2009 sampling event conducted by SAIC[1]. Where applicable, variations in procedures followed or equipment utilized have been documented in this report.

Results of the August 2009 vapor sampling event are generally consistent with the results of the January 2009 sampling event. Together, these data sets continue to indicate that hydrocarbon mass remaining in soil and groundwater at this site does not result in the presence of petroleum-range volatile organic compounds (VOCs) in near-surface soil gas at concentrations with the potential to unacceptably contaminate indoor air. Although benzene has been detected in indoor and ambient air samples at concentrations in excess of current Model Toxics Control Act (MTCA) Method B cleanup levels, the detected concentrations are within the range of those that are commonly considered "background

1. SAIC, 2009. *January 2009 Vapor Sampling Event Summary Report, Former Texaco Service Station/Chevron 211577, 631 Queen Anne Avenue North, Seattle, Washington.* April.

levels" resulting from normal human activity in an urban environment, and are not likely attributable to vapor intrusion from the subsurface.

The work tasks associated with this vapor sampling event were performed by SAIC on behalf of Chevron Environmental Management Company.

VAPOR SAMPLING OVERVIEW

Vapor samples were collected from seven sampling locations. Sub-slab soil vapor samples were collected from two locations in the Del Roy building and from two locations in the Monterey building. One indoor ambient air sample was collected from each building and one outdoor ambient air sample was collected from the alley area between the two buildings. Approximate locations of all sample collection points are shown on Figure 2 and Figure 3.

Vapor samples were collected in 6-liter Summa canisters, which were submitted to Air Toxics Ltd. (Air Toxics) for analysis by methods Modified TO-15 and Modified American Society for Testing and Materials (ASTM) D-1946. Additional details regarding sample collection, analysis, and results are provided in the following sections.

Installation of the sub-slab vapor sample points utilized during this sampling event is documented in SAIC's January 2009 vapor sampling event report.[1]

SAMPLE IDENTIFICATION AND DESCRIPTIONS

This section presents the sample identifier and location description for each sample collected. Sampling locations are also shown on Figures 2 and 3.

DEL ROY BUILDING

- **DRVP-1-081909**. Sub-slab soil vapor sample collected at vapor point DRVP-1, which is located in a basement storage room adjacent to the building's laundry facility.
- **DRVP-2-081909**. Sub-slab soil vapor sample collected at vapor point DRVP-2, which is located in the building's electrical meter room on the basement level.
- **Del Roy Indoor Air-081909**. Indoor air sample collected in the hallway area of the building's basement level.

MONTEREY BUILDING

- **MVP-1-081909**. Sub-slab soil vapor sample collected at vapor point MVP-1, which is located in a storage closet at the western end of the building's basement hallway.

- **MVP-1D-081909**. Sub-slab soil vapor quality assurance duplicate sample collected at vapor point MVP-1.

- **MVPT-1-081909**. Sub-slab soil vapor sample collected from temporary vapor point MVPT-1, which was located in the storage closet at the eastern end of the building's basement hallway.

- **Monterey Indoor Air – 081909**. Indoor air sample collected in the hallway area of the building's basement level.

OUTDOOR AMBIENT AIR

- **Ambient Air – 081909**. Outdoor ambient air sample collected from the Del Roy building's courtyard area, which is immediately adjacent to the alley between the Del Roy and Monterey buildings.

SUMMARY OF VAPOR SAMPLING FIELD ACTIVITIES

Field activities related to this vapor sampling event were performed on Wednesday, August 19, and Thursday, August 20, 2009. Vapor sample collection was completed on the first day of the field event and depth-to-water measurements were made at selected monitoring wells on the second day of the field event.

WEATHER AND ENVIRONMENTAL OBSERVATIONS

On the morning of Wednesday, August 19, 2009, the SAIC sampling crew noted that weather conditions were sunny with clear skies and a very light breeze. Construction activities were observed along the western edge of 1st Avenue West, across from the Monterey building. The construction activities included jackhammer removal of the asphalt road cover. The sampling crew noticed that some airborne dust was generated by the jackhammer activities, but that the dust generally appeared to be carried to the north and west away from the Del Roy and Monterey buildings. A trailer containing a load of asphalt for repair of the roadway was staged on the eastern side of 1st Avenue West, adjacent to the Del Roy building.

Meteorological data available through the National Oceanic and Atmospheric Administration (NOAA) for the Seattle area indicate that on this day barometric pressure dropped steadily throughout the day from approximately 1,012 millibars at 00:00 hours to approximately 1,006 millibars at 18:00 hours, followed by an increasing trend that continued through the following day. Air temperatures ranged from approximately 63 to 74 degrees Fahrenheit throughout the day, and the wind speeds ranged from approximately 2 to 12 knots during the late morning hours when the outdoor ambient air sample was collected. Weather data plots obtained from NOAA are included as Attachment A of this report.

PRE-SAMPLING SITE INSPECTION

Prior to sample collection at each location, SAIC personnel performed a visual inspection of the area to document site conditions. Field-screening measurements of VOC concentrations in ambient air at each location were also made using a photo-ionization detector (PID) calibrated to a 100 parts per million (ppm) isobutylene calibration standard. Photographs referenced throughout this and the following sections of this report are included as Attachment B.

Del Roy Storage Room

This room, which is the location for sub-slab vapor point DRVP-1, appeared to be used for storage of building maintenance materials and other miscellaneous items including several laundry machines, tools, sporting goods, and boxes with unknown contents. Typical maintenance- and construction-related materials in the storage room included spray lubricants, paints, propane canisters, adhesive remover, drain cleaner, foam sealant, ABS pipe cement, thread-sealant paste, construction adhesive, and remnant pieces of carpet and carpet foam (photographs 1 to 5 of Attachment B).

PID field-screening results indicated a VOC concentration of 0.0 ppm measured in background ambient air in this storage room.

Del Roy Meter Room

This room is the location of sub-slab vapor point DRVP-2, and is used to house the electrical meters for the building's apartment units. This room also appears to be used for storage of other miscellaneous items. On the day of sample collection, this room was found to contain approximately 12 one-gallon paint cans, a roll of fiberglass insulation, and a personal computer unit (photographs 6 and 7 of Attachment B).

PID field-screening results indicated a VOC concentration of 0.0 ppm measured in background ambient air in the meter room.

Del Roy Basement Hallway

This hallway provides access to the three basement apartment units, and to the laundry facilities and meter room in the Del Roy building, as well as several other storage areas that were not accessed by SAIC personnel. The hallway is fitted with wall-to-wall carpeting. On the day of sample collection, no other items or materials were observed in the hallway area (photograph 8 of Attachment B).

PID field-screening results indicated a VOC concentration of 0.0 ppm measured in background ambient air in the Del Roy basement hallway.

Monterey West Closet

This closet is the location of sub-slab vapor point MVP-1. On the day of sample collection, this room was found to contain a futon mattress and frame, table, carpet remnant, glazing compound, spare door, and several drop cloths (photograph 9 of Attachment B).

PID field-screening results indicated a VOC concentration of 0.0 ppm measured in background ambient air in the Monterey west closet.

Monterey East Closet

This closet was the location of temporary sub-slab vapor point MVPT-1. On the day of sample collection, this room was found to contain a folding chair and a portable light fixture (photograph 10 of Attachment B).

PID field-screening results indicated a VOC concentration of 0.0 ppm measured in background ambient air in the Monterey east closet.

Monterey Basement Hallway

This hallway provides access to the three basement apartment units and to the laundry facilities in the Monterey building. The hallway is fitted with wall-to-wall carpeting. On the day of sample collection, no other items or materials were observed in the hallway area (photograph 11 of Attachment B).

PID field-screening results indicated a VOC concentration of 0.0 ppm measured in background ambient air at this location.

Del Roy Courtyard Area

This area was the location for collection of the outdoor ambient air sample (Ambient Air – 081909). This area is immediately adjacent to the alley between the Del Roy and Monterey buildings. The trash dumpsters and recyclables containers for both buildings are located in close proximity (west) to this area. Dual-phase extraction well DPE-9 is also located near this area (photograph 12 of Attachment B).

PID field-screening results indicated a VOC concentration of 0.0 ppm measured in background ambient air at this location.

SUB-SLAB VAPOR SAMPLE COLLECTION

Sub-slab vapor samples were collected in 6-liter Summa canisters, which were provided by Air Toxics. Each container was 100-percent certified as clean by the laboratory; to ensure the project's data-quality objectives would be met.

Prior to sample collection, the initial vacuum of each canister was measured using a master vacuum gauge provided by Air Toxics. This check was done to verify that each canister could provide the required vacuum to draw a sufficient volume of sample and also to verify that the canister had not leaked or been inadvertently opened prior to the sampling event. An initial vacuum level of approximately 29 inches of mercury vacuum was verified in each canister used, and the initial vacuum was recorded on the canister tag and also in the project log book. One canister, which had been slated for collection of a second quality-assurance duplicate sample, was received with an initial vacuum of only 13.5 inches of mercury vacuum. Because this sample canister could not be used for sample collection, a field modification was made to the sampling plan so that only one duplicate sample was collected.

For sub-slab vapor sample canisters, a second leak test was performed following set up of the soil-gas sampling manifold used to connect the primary sample canister to the duplicate sample canister and/or purge canister. With the inlet to the sample train securely capped, the purge canister was opened momentarily to apply vacuum to the sampling manifold. Vacuum readings from the two vacuum gauges on the sampling manifold were recorded and then checked against gauge readings taken at least 5 minutes later. If present, a leak in the manifold fittings would result in a drop in vacuum indicated by the gauges. No leaks were identified by this test.

Figure 4 shows the typical construction of the sub-slab vapor points utilized during this sampling event and Figure 5 shows a basic illustration of the sub-slab sampling equipment configuration used for collection of a single Summa canister sample (duplicate samples require an additional 6-liter Summa canister). As shown on the figure, two 6-liter Summa canisters are connected via a laboratory certified stainless steel sampling manifold. A connection from the sampling manifold to the sub-slab vapor probe is made with Teflon® tubing. All connections in the sampling train were made with Swagelok® compression-style fittings.

As an additional quality assurance step, helium was used as a leak detection tracer gas to verify the integrity of all sampling train connections. To accomplish this, a 2.5-quart plastic shroud was placed over the sub-slab vapor point and the Summa canister sampling train was enclosed in a sealed clear plastic bag. The vapor point shroud was partially sealed to the slab surface with modeling clay. A pressurized helium canister was then used to introduce laboratory-grade helium into the shroud and sealed bag, thereby creating a helium-rich environment surrounding all sampling train connections. Photographs 13 and 14 of Attachment B provide visual examples of the leak-detection equipment configuration.

Once the sampling train was set up, the sampling equipment was purged for approximately 10 minutes with the purge canister. On completion of the purge cycle, the purge canister was turned off and the sampling canister was opened to begin sample collection. Sample collection start time and initial canister vacuum and vapor-point vacuum readings were recorded. Each sampling canister was fitted with a critical-orifice flow controller to control the flow rate into the canister. Each flow controller was rated for a flow rate of

approximately 83.3 milliliters per minute (ml/min), which equates to an approximate sample time of 60 minutes to fill one 6-liter canister (target fill volume for a 6-liter canister is 5,000 ml). Collection of the duplicate sample at the MVP-1 sampling location required approximately 120 minutes to complete, as both 6-liter canisters were filled simultaneously.

During sample collection, helium gas was added to the shroud and bag at approximately 10- to 15-minute intervals. Sample collection was stopped when the vacuum gauge on the canister indicated that approximately 3 inches of mercury vacuum remained in the sampling canister. Sample completion times were recorded, and final canister vacuums were checked and recorded.

Sample point MVPT-1 was a temporary sample point that was installed immediately prior to sample collection and was grouted shut at the conclusion of the day's sampling activities. This temporary sampling point was used due to failed attempts in December 2008 to install a permanent vapor point at this location because of the limited thickness and integrity of the concrete slab. For sample collection purposes, the temporary vapor point consisted of Teflon® tubing inserted in a 3/8-inch-diameter hole that was advanced approximately ½ inch below the slab base. A surface seal around the tubing was created using modeling clay.

AMBIENT AIR SAMPLE COLLECTION

Ambient air samples were collected in 6-liter Summa canisters provided by Air Toxics and certified as pre-cleaned. Prior to sample collection, the initial vacuum of each chamber was measured as described in the section for sub-slab vapor sample collection. Additional leak testing and detection procedures, as used for collection of sub-slab vapor samples, were not necessary for collection of ambient air samples.

Each Summa canister for ambient air sample collection was fitted with a critical-orifice flow controller to limit flow into the canister to a rate of approximately 167 ml/min. This flow rate equates to a sample time of approximately 30 minutes for a 6 liter canister. The canister was also fitted with a "sampling cane," which served to elevate the sample collection point to a level approximating the breathing zone for an adult human (photographs 8, 11, and 12 of Attachment B).

To begin sample collection, the on/off flow control valve on the Summa canister was opened, and the sample start time and initial canister vacuum were recorded. During collection of each ambient air sample, SAIC personnel maintained continuous visual observation of the sample collection location to document events that may have impacted sample results. The presence of SAIC personnel in the immediate vicinity of the canisters during sampling was minimized to the extent possible. The on/off flow control valve was closed and the sample was deemed complete when the vacuum gauge on the flow-control orifice indicated a canister vacuum on the order of 3 inches of mercury vacuum. Final canister vacuums were verified with the master vacuum gauge, and recorded on the canister tag and in the project log book.

GROUNDWATER SURFACE ELEVATION MEASUREMENTS

On Thursday, August 20, 2009, SAIC personnel returned to the Del Roy and Monterey properties measure the depth to groundwater in selected monitoring wells to determine the approximate thickness of unsaturated soils beneath the basement slab of each building. Depth-to-groundwater data collected for both the January 2009 and August 2009 vapor sampling events are provided in Table 1. The depth-to-groundwater data indicate that the groundwater elevation level rose approximately 0.3 to 0.6 foot between the January 2009 and August 2009 sampling events.

Depth-to-groundwater measurements at the Del Roy building at monitoring wells MW-4, MW-14, MW-25, and DPE-8 indicate that the groundwater surface was located approximately 12 to 14 feet below ground surface (bgs) in the western vicinity of the building. Based on visual observations of the basement entry stairs and window configuration of the basement apartments, it is estimated that the basement slab is located at approximately 5 to 6 feet bgs in this area. Therefore, the unsaturated soil thickness beneath the Del Roy basement during the August sampling event is estimated to have been approximately 7 to 8 feet below the floor surface.

Depth-to-groundwater measurements at the Monterey building at monitoring wells MW-4, MW-18, VP-2, and VP-4 also suggest that the groundwater surface was located at approximately 12 to 14 feet bgs; however, the basement slab of the Monterey building is estimated to be somewhat deeper at approximately 5 feet below grade on the western side and approximately 10 feet below grade on the eastern side. Therefore, the unsaturated soil thickness beneath the Monterey basement during the August sampling event is estimated to have been approximately 4 to 7 feet below the floor surface.

LABORATORY ANALYSIS AND RESULTS

Samples were submitted to Air Toxics for analysis by the following methods:

- Modified United States Environmental Protection Agency (USEPA) Method TO-15 using gas chromatography/mass spectrometry in the full-scan and selective ion-monitoring acquisition modes; and

- Modified ASTM D-1946 for fixed gases in air using gas chromatography/thermal conductivity detector.

Laboratory results are summarized in Table 2 and are briefly discussed in the following paragraphs. Laboratory analytical reports are provided as Attachment C.

(Note: Although laboratory results indicate that chloroform and low levels of other VOCs were detected in nearly all of the samples collected, the following discussion of laboratory results is limited to benzene, toluene, ethylbenzene, m,p-xylenes, and o-xylene (BTEX compounds), as they are most representative of the petroleum-range chemicals of concern for this site. A summary of laboratory results for all VOCs detected is provided in Table 2.)

DEL ROY BUILDING LABORATORY RESULTS

In sub-slab vapor sample DRVP-1-081909, BTEX compounds were not detected above the respective laboratory reporting limit (LRL). The oxygen concentration in this sample was 22 percent and the carbon dioxide concentration was 0.30 percent. Helium, which was used as a leak-detection tracer gas, was not detected above the LRL.

In sub-slab vapor sample DRVP- 2-081909, benzene was detected at a concentration of 0.33 micrograms per cubic meter ($\mu g/m^3$). Toluene, ethylbenzene, m,p- xylenes, and o-xylenes were also detected in this sample. The oxygen concentration in this sample was 18 percent and the carbon dioxide concentration was 2.7 percent. Helium was not detected above the LRL for this sample.

In the indoor ambient air sample (Del Roy Indoor Air-081909), benzene was detected at a concentration of 0.61 $\mu g/m^3$, which exceeds the MTCA Method B Cleanup Level (CUL) of 0.321$\mu g/m^3$ for residential ambient air. Toluene, ethylbenzene, and xylenes were detected at concentrations below the respective Method B CULs for residential ambient air. The oxygen concentration in this sample was 22 percent and the carbon dioxide concentration was 0.046 percent.

MONTEREY BUILDING LABORATORY RESULTS

In sub-slab vapor sample MVP-1-081909, benzene and toluene were detected at concentrations of 0.31 $\mu g/m^3$ and 0.13 $\mu g/m^3$, respectively. Ethylbenzene or xylenes were not detected above the LRLs. The oxygen concentration in this sample was 22 percent and the carbon dioxide concentration was 0.053 percent. Helium was not detected above the LRL for this sample.

In the quality-assurance duplicate sample collected at MVP-1 (MVP-1D-081909), benzene was not detected above the LRL; however, toluene, ethylbenzene, and m,p-xylenes were detected at low concentrations. The oxygen concentration in this sample was 21 percent and the carbon dioxide concentration was 0.046 percent. Helium was not detected above the LRL for this sample.

In sub-slab vapor sample MVPT-1-081909, benzene was detected at a concentration of 0.40 $\mu g/m^3$ and toluene was detected at a concentration of 0.54 $\mu g/m^3$. Ethylbenzene and xylenes were not detected in this sample. The oxygen concentration in this sample was 21 percent and the carbon dioxide concentration was 0.87 percent. Helium was not detected above the LRL for this sample.

In the indoor ambient air sample (Monterey Indoor Air-081909), benzene was detected at a concentration of 0.65 $\mu g/m^3$, which exceeds the MTCA Method B CUL for residential ambient air. Toluene, ethylbenzene, and xylenes were detected at low concentrations below the respective Method B CULs for residential ambient air. The oxygen concentration in this sample was 22 percent and the carbon dioxide concentration was 0.059 percent.

OUTDOOR AMBIENT AIR LABORATORY RESULTS

In the outdoor ambient air sample (Ambient Air-081909), benzene was detected at a concentration of 0.46 $\mu g/m^3$, which exceeds the MTCA Method B CUL for residential ambient air. Toluene, ethylbenzene, and xylenes were also detected at low concentrations below the respective Method B CULs for residential ambient air. The oxygen concentration in this sample was 22 percent and the carbon dioxide concentration was 0.039 percent.

DATA EVALUATION AND CONCLUSIONS

Results of this vapor sampling event are generally consistent with the results of the January 2009 vapor sampling event performed at the Del Roy and Monterey properties. Benzene at concentrations in excess of MTCA Method B cleanup levels for residential air were again detected in indoor air samples collected in the basement areas of both the Del Roy and Monterey apartment buildings, and in the ambient outdoor air sample collected in the vicinity of the buildings.

Benzene was also detected at three of the four sub-slab vapor sampling points (DRVP-2, MVP-1, and MVPT-1) at concentrations ranging from 0.31 to 0.40 $\mu g/m^3$. In each case where benzene was detected in a sub-slab soil vapor sample, the concentration detected was less than that detected in the associated indoor and ambient air samples, which contained concentrations ranging from 0.46 to 0.65 $\mu g/m^3$.

As a component of the evaluation of vapor intrusion risks, it is common industry practice to use an attenuation factor to estimate the concentration of a contaminant in indoor air that would result from a known concentration of that same contaminant in groundwater or soil vapor. For example, current soil-vapor intrusion draft guidance developed by the Washington State Department of Ecology (Ecology) uses a vapor attenuation factor (VAF) of 0.1 to calculate the Tier 1 screening level for soil-gas contaminant concentrations that would result in indoor air concentrations meeting MTCA Method B cleanup levels for residential indoor air[2]. For benzene, which has a Method B cleanup level of 0.32 $\mu g/m^3$ for residential indoor air, the resulting Tier 1 screening level for sub-slab soil vapor is 3.2 $\mu g/m^3$. Per the Ecology draft guidance, Tier I screening evaluates whether subsurface contamination has the potential to unacceptably contaminate indoor air. Therefore, according to the current draft of the Ecology document, the concentrations of benzene detected in samples of sub-slab vapor from sampling points DRVP-2, MVP-1, and MVPT-1, which ranged in concentrations from 0.31 to 0.40 $\mu g/m^3$, are nearly an order of magnitude lower than those predicted to result in unacceptable indoor air concentrations.

Other possible sources of benzene and related VOCs in indoor air include off-gassing of building materials such as carpets, adhesives, paints, upholstery fabrics, composite wood products, and vinyl floors. Home- and personal-care products such as air fresheners,

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2. Washington State Department of Ecology, 2009. *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action – Review Draft.* October.

cleaning and disinfecting chemicals, and cosmetics may also serve as sources of VOCs in indoor air. Cigarette smoke has been identified as a primary source of benzene in indoor air, and automobile emissions are a significant source of benzene in outdoor air, especially in urban areas.

Because VOC sources are numerous and widespread, it is not uncommon to detect benzene concentrations in indoor and outdoor air that are in excess of regulatory action levels. Data published by USEPA and others suggest that benzene concentrations on the order of 1 – 5 $\mu g/m^3$ are typical for both indoor and outdoor air for urban areas in the U.S. Data presented in USEPA's latest findings on national air quality (through 2006) indicate that the average benzene concentration in ambient air from 107 monitoring sites across the country ranged from approximately 1.5 to 1.7 $\mu g/m^3$ between the years 2000 to 2005[3]. The New York State Department of Health states that based on their own studies and review of studies in New York[4], as well as from homes and office buildings across the U.S., the typical level of benzene in indoor air of homes and offices is approximately 5 $\mu g/m^3$. As previously discussed in SAIC's January 2009 vapor sampling report[1], the Puget Sound Clean Air Agency's 2007 air quality data summary[5] indicates that the concentration of benzene detected in ambient air at a test site in Seattle's Beacon Hill neighborhood ranged from approximately 0.2 to 0.5 ppb (approximately 0.6 to 1.6 $\mu g/m^3$) between the years 2000 and 2007.

Results of the August 2009 vapor sampling event are generally consistent with the results of the January 2009 sampling event. Together, these data sets continue to indicate that although petroleum-range hydrocarbons continue to be detected above MTCA cleanup standards in groundwater samples from the Del Roy and Monterey properties, hydrocarbon mass remaining in soil and groundwater at this site does not result in the presence of petroleum-range VOCs in near-surface soil gas at concentrations with the potential to unacceptably contaminate indoor air. Although benzene has been detected in indoor and ambient air samples at concentrations in excess of current MTCA Method B CULs, the detected concentrations are within the range of those that are commonly considered "background levels" resulting from normal human activity in an urban environment, and are not likely attributable to vapor intrusion from the subsurface.

3. USEPA, 2008. *Latest Findings on National Air Quality – Status and Trends Through 2006*, EPA-454/R-07-007. January.
4. New York State Department of Health, 2009. *Tenant Notification Fact Sheet for Benzene.* February.
5. Puget Sound Clean Air Agency, 2008. *2007 Air Quality Data Summary.* October.

Should you have any questions regarding this report, please contact me at 425-482-3321 or via email at catterallp@saic.com.

Sincerely,

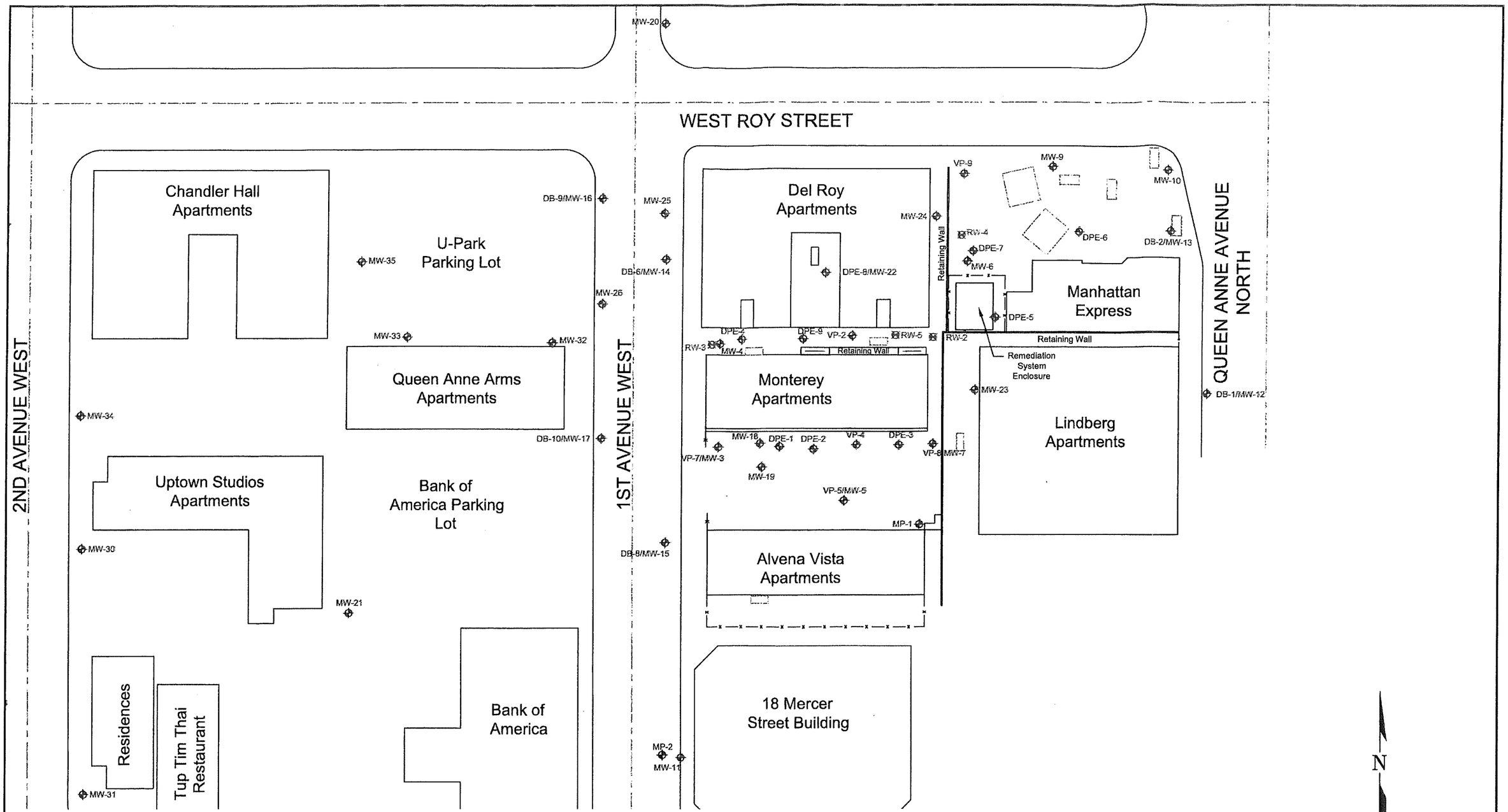
The Benham Companies, LLC, an SAIC Company

Peter H. Catterall
Senior Project Manager

cc: Mr. Christopher Mauer – Ecology
Mr. Gerry Pigotti – Gibraltar USA
Mr. Paul McTaggard – Darco Inc.
Mr. Burt Hyde – Sound Environmental Strategies

Enclosures:
Figure 1. Site Map
Figure 2. Del Roy Apartments Basement Floor Vapor Sample Locations – 08/19/09
Figure 3. Monterey Apartments Vapor Sample Locations – 08/19/09
Figure 4. Typical Sub-Slab Vapor Point Sampling Installation
Figure 5. Typical Sub-Slab Vapor Point Sampling Set-Up
Table 1. Depth to Water Measurements at Selected Monitoring Wells
Table 2. Vapor Sampling Chemical Analytical Results
Attachment A. NOAA Weather Data Plots
Attachment B. Photographs
Attachment C. Laboratory Data

Figures



LEGEND:

- MW-26 EXISTING 1" or 2" WELL LOCATION
- DPE-1 EXISTING 4" DIA. WELL LOCATION
- RW-2 EXISTING 6" or 8" DIA. RECOVERY WELL LOCATION
- —— x —— FENCE
- ---------- STREET CENTER LINE

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FORMER TEXACO SERVICE STATION
CHEVRON No. 211577
631 QUEEN ANNE AVENUE NORTH
SEATTLE, WASHINGTON

FIGURE 1
SITE MAP

FILE NAME: 211577_BaseMap_2008.dwg

DATE: 10/16/2009

WEST ROY STREET

1ST AVENUE WEST

Storage

Meter Room

DRVP-2

Apartment Unit

Apartment Unit

Apartment Unit

Boiler Room

Laundry Room

DRVP-1

Storage

UP

Elevator

Crawl Space

UP

Crawl Space Area
(No Apartments or Other Building Facilities)

Outdoor Courtyard

Del Roy Apartments
25 West Roy Street

Retaining Wall

N

0 15' 30'

LEGEND:

DRVP-1 EXISTING $\frac{1}{4}$" DIAMETER SUB-SLAB VAPOR POINTS

APPROXIMATE STATION LOCATION FOR COLLECTION OF AMBIENT AIR SAMPLE

FENCE

NOTE: BUILDING LAYOUT SHOWN IS BASED ON ELECTRICAL PLANS (CIRCA 1981) PROVIDED TO SAIC BY DARCO, INC. AND BY APPROXIMATE MEASUREMENTS MADE BY SAIC PERSONNEL ON 1/15/2008. LAYOUT IS ASSUMED TO BE APPROXIMATE AND IS SHOWN FOR ILLUSTRATION PURPOSES ONLY.

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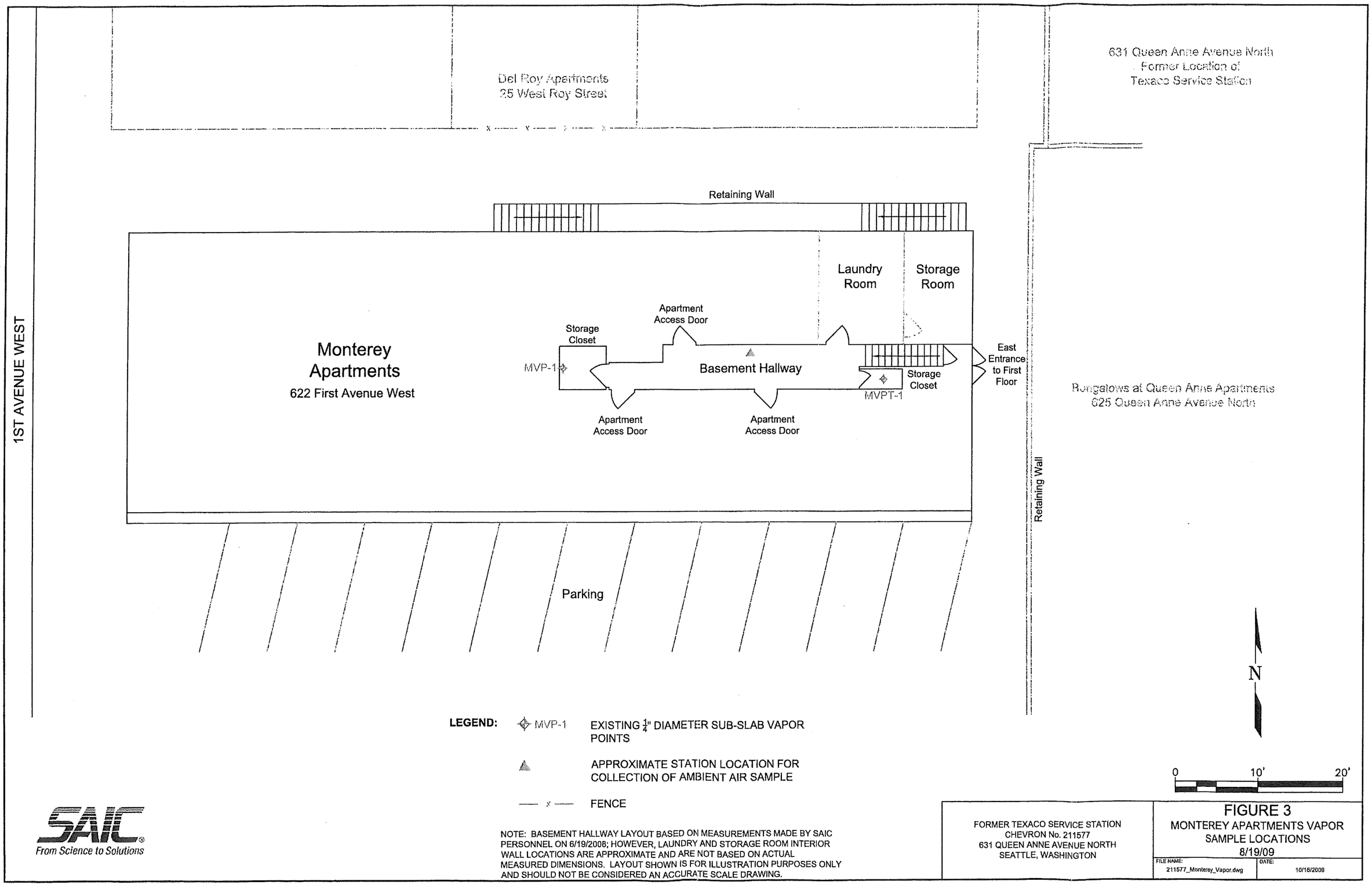
FORMER TEXACO SERVICE STATION
CHEVRON SITE No. 211577
631 QUEEN ANNE AVENUE NORTH
SEATTLE, WASHINGTON

FIGURE 2
DEL ROY APARTMENTS BASEMENT FLOOR VAPOR SAMPLE LOCATIONS
08/19/09

FILE NAME:	DATE:
Del Roy Basement Map.dwg	09/24/2009



LEGEND:

- MVP-1 — EXISTING ¼" DIAMETER SUB-SLAB VAPOR POINTS
- APPROXIMATE STATION LOCATION FOR COLLECTION OF AMBIENT AIR SAMPLE
- —— x —— FENCE

NOTE: BASEMENT HALLWAY LAYOUT BASED ON MEASUREMENTS MADE BY SAIC PERSONNEL ON 6/19/2008; HOWEVER, LAUNDRY AND STORAGE ROOM INTERIOR WALL LOCATIONS ARE APPROXIMATE AND ARE NOT BASED ON ACTUAL MEASURED DIMENSIONS. LAYOUT SHOWN IS FOR ILLUSTRATION PURPOSES ONLY AND SHOULD NOT BE CONSIDERED AN ACCURATE SCALE DRAWING.

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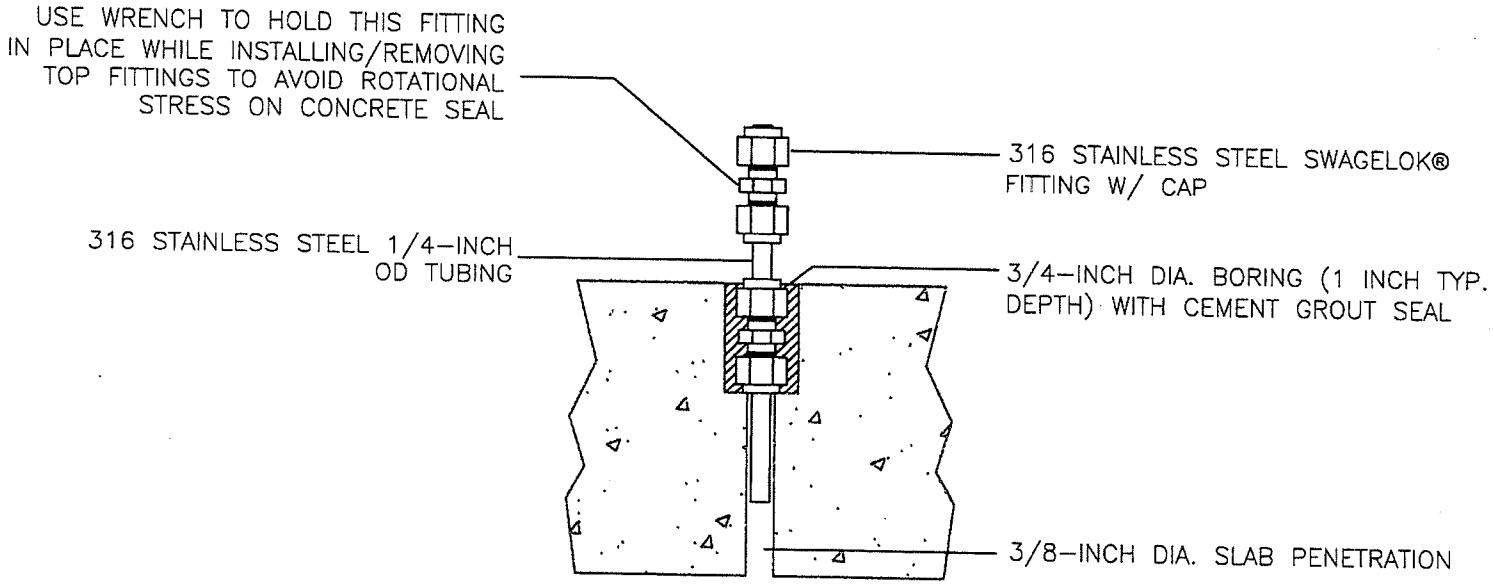
631 QUEEN ANNE AVENUE NORTH
SEATTLE, WASHINGTON

FIGURE 3
MONTEREY APARTMENTS VAPOR SAMPLE LOCATIONS
8/19/09

FILE NAME:	DATE:
211577_Monterey_Vapor.dwg	10/16/2009



NOT TO SCALE

NOTE:
WHERE NECESSARY, PROTECT ABOVE-GRADE PORTION OF VAPOR PROBE FROM DAMAGE WITH SUITABLE ENCLOSURE OR COVER

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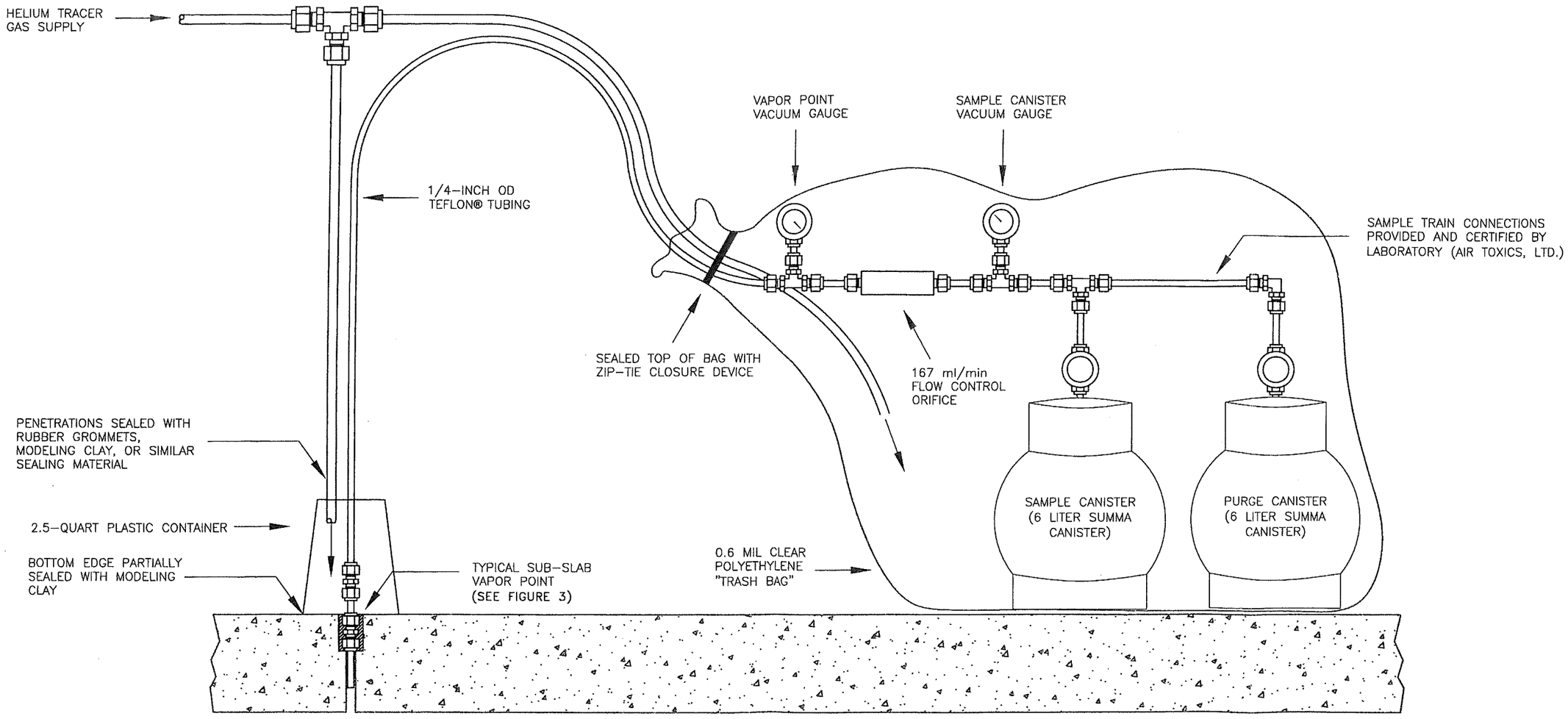
FORMER TEXACO SERVICE STATION
CHEVRON No. 211577
631 QUEEN ANNE AVENUE NORTH
SEATTLE, WASHINGTON

FIGURE 4
TYPICAL SUB-SLAB VAPOR POINT SAMPLING INSTALLATION

FILE NAME:	DATE:
211577_Vapor Point	03/11/2009



NOT TO SCALE

SAIC
From Science to Solutions

FORMER TEXACO SERVICE STATION
CHEVRON No. 211577
631 QUEEN ANNE AVENUE NORTH
SEATTLE, WASHINGTON

FIGURE 5
TYPICAL SUB-SLAB VAPOR POINT SAMPLING SET-UP

FILE NAME: 211577_Vapor Point
DATE: 03/11/2009

Tables

TABLE 1
PTH-TO-WATER MEASUREMENTS AT SELECTED MONITORING WEL
FORMER TEXACO SERVICE STATION/CHEVRON SITE NO. 211577
631 Queen Anne Avenue North
Seattle, Washington

Monitoring Well ID	DTW 1/30/2009 (feet btc)	DTW 8/20/2009 (feet btc)	GW El. Delta (feet)
MW-4	12.79	12.29	0.50
MW-14	12.65	12.01	0.64
MW-15	NM	9.97	NA
MW-16	13.10	12.42	0.68
MW-17	NM	10.23	NA
MW-18	12.38	11.96	0.42
MW-19	NM	11.67	NA
MW-25	13.06	12.39	0.67
MW-26	11.83	11.22	0.61
MW-32	NM	11.99	NA
VP-2	14.25	14.27	-0.02
VP-4	13.43	13.11	0.32
VP-5/MW-5	13.12	12.74	0.38
VP-7/MW-3	11.45	10.99	0.46
VP-8/MW-7	12.87	12.86	0.01
DPE-8	14.40	13.71	0.69

Abbreviations:
DTW = Depth to water
GW El. Delta = Change in groundwater elevation (positive numbers indicate a rise in the groundwater elevation)
btc = Below top of well casing
NA = Not applicable
NM = Not measured

TABLE 2
VAPOR SAMPLING CHEMICAL ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION / CHEVRON SITE NO. 211577
631 Queen Anne Avenue North
Seattle, Washington

Sample Location	Sample ID	Date Sampled	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	m,p-Xylenes (µg/m³)	o-Xylene (µg/m³)	Freon 11 (µg/m³)	Freon 12 (µg/m³)	Acetone (µg/m³)	Hexane (µg/m³)	2-Butanone (MEK) (µg/m³)	Chloroform (µg/m³)	Tetrachloro-ethene (µg/m³)	Carbon Disulfide (µg/m³)	Ethanol (µg/m³)	1,1,1-Trichloro-ethane (µg/m³)	2-Propanol (µg/m³)	Methylene Chloride (µg/m³)
Del Roy Aparments																			
DRVP-1	DRVP-1	01/28/09	<0.22	<0.10	<0.12	<0.24	<0.12	1.5	2.6	2.9	<0.49	1.2	<0.68	<0.94	4.8	<1.3	<0.76	<1.7	<0.96
	DRVP-1D	01/28/09	<0.22	0.12	<0.12	<0.24	<0.12	1.4	2.5	<1.6	<0.49	0.58	<0.68	<0.94	<2.2	<1.3	<0.76	<1.7	<0.96
	DRVP-1-081909	08/19/09	<0.24	<0.11	<0.13	<0.26	<0.13	1.3	2.2	3.4	<0.54	1.0	<0.74	2.5	<2.4	<1.4	1.8	<1.9	<1.0
DRVP-2	DRVP-2	01/28/09	<0.23	0.64	<0.12	<0.25	<0.12	3.1	2.6	2.4	0.65	0.79	**4.4**	2.4	<2.2	<1.4	<0.78	<1.8	<1.0
	DRVP-2-Lab Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DRVP-2-081909	8/19/2009	**0.33**	1.1	0.29	0.61	0.27	0.89	<0.70	5.9	<0.50	5.1	**6.4**	2.6	10	9.8	<0.77	2.8	<0.98
Del Roy Indoor Air	Del Roy Indoor Air-012809	01/28/09	**1.4**	4.9	0.71	2.4	0.83	1.6	3.0	14	1.9	2.4	<0.71	<0.99	<2.3	100	2.4	8.6	1.2
	Del Roy Indoor Air-081909	08/19/09	**0.61**	12	1.0	3.4	1.4	1.1	2.2	16	0.82	4.4	**2.1**	<1.0	<2.3	130E	1.2	8.0	2.7
Monterey Apartments																			
MVP-1	MVP-1	01/28/09	<0.23	0.13	<0.13	<0.25	<0.13	1.4	2.6	7.3	<0.51	3.7	<0.71	1.0	<2.3	2.4	<0.80	<1.8	<1.0
	MVP-1-081909	08/19/09	0.31	0.65	<0.13	<0.25	<0.13	1.3	1.7	2.5	<0.51	0.76	<0.71	1.4	2.9	<1.4	<0.80	<1.8	<1.0
	MVP-ID-081909	08/19/09	<0.24	0.37	0.13J[3]	0.263[3]	<0.13	1.2	1.7	7.8	<0.52	3.6	<0.73	1.4	8.8	8.4	<0.81	3.4	<1.0
MVPT-1	MVPT-1	01/28/09	<0.23	0.82	<0.12	<0.25	<0.12	1.4	1.8	8.4	<0.51	1.4	**12**	10	<2.2	<1.4	0.89	<1.8	<1.0
	MVPT-1D	01/28/09	<0.23	0.77	<0.12	<0.25	<0.12	1.2	1.6	1.8	<0.51	0.67	**12**	9.9	<2.2	<1.4	<0.78	<1.8	<1.0
	MVPT-1 Lab Duplicate	NA	<0.23	0.76	<0.12	<0.25	<0.12	1.3	1.7	6.9	<0.51	1.2	**12**	9.3	<2.2	1.5	0.88	<1.8	<1.0
	MVPT-1-081909	08/19/09	**0.40**	0.54	<0.13	<0.25	<0.13	1.2	1.7	2.3	<0.51	0.57	**11**	11	<2.3	<1.4	<0.80	<1.8	<1.0
Monterey Indoor Air	Monterey Indoor Air-012809	01/28/09	**1.1**	2.3	0.43	1.3	0.48	1.3	2.3	8.1	0.58	0.58	<0.73	<1.0	<2.3	26	<0.81	2.3	<1.0
	Monterey Indoor Air-081909	08/19/09	**0.65**	2.5	0.49	1.4	0.52	0.82J[3]	1.5	12	<0.51	1.8	<0.71	<0.99	<2.3	32	<0.80	8.7	1.5
Ambient Air																			
Ambient Air	Ambient Air-012809	01/28/09	**1.0**	2.1	0.37	1.2	0.44	1.4	2.4	5.2	0.57	<0.42	<0.69	<0.96	<2.2	6.2	<0.77	<1.7	<0.98
	Ambient Air-081909	08/19/09	**0.46**	2.9	0.21	0.64	0.25	1.1	2.0	13	<0.52	1.1	<0.73	<1.0	<2.3	3.7	<0.81	<1.8	<1.0
	Ambient Air-081909 Lab Duplicate	08/19/09	**0.48**	3.0	0.23	0.73	0.28	0.95	2.1	12	<0.52	1.0	<0.73	<1.0	<2.3	10	<0.81	<1.8	1.0[3]
Lab Blank																			
Lab Blank	Lab Blank	02/04/09	<0.16	<0.075	<0.087	<0.17	<0.087	<0.56	<0.49	<1.2	<0.35	<0.29	<0.49	<0.68	<1.6	<0.94	<0.54	<1.2	<0.69
	Lab Blank	08/19/09	<0.16	<0.075	<0.087	<0.17	<0.087	<0.56	<0.49	<1.2	<0.35	<0.29	<0.49	<0.68	<1.6	<0.94	<0.54	<1.2	<0.69
MTCA Method B Ambient Air Cleanup Levels* (Residential)			0.321	183	4,570	320	320	320	80	---	91.4	457	0.109	17.2[2]	320	---	4,800	---	5.32

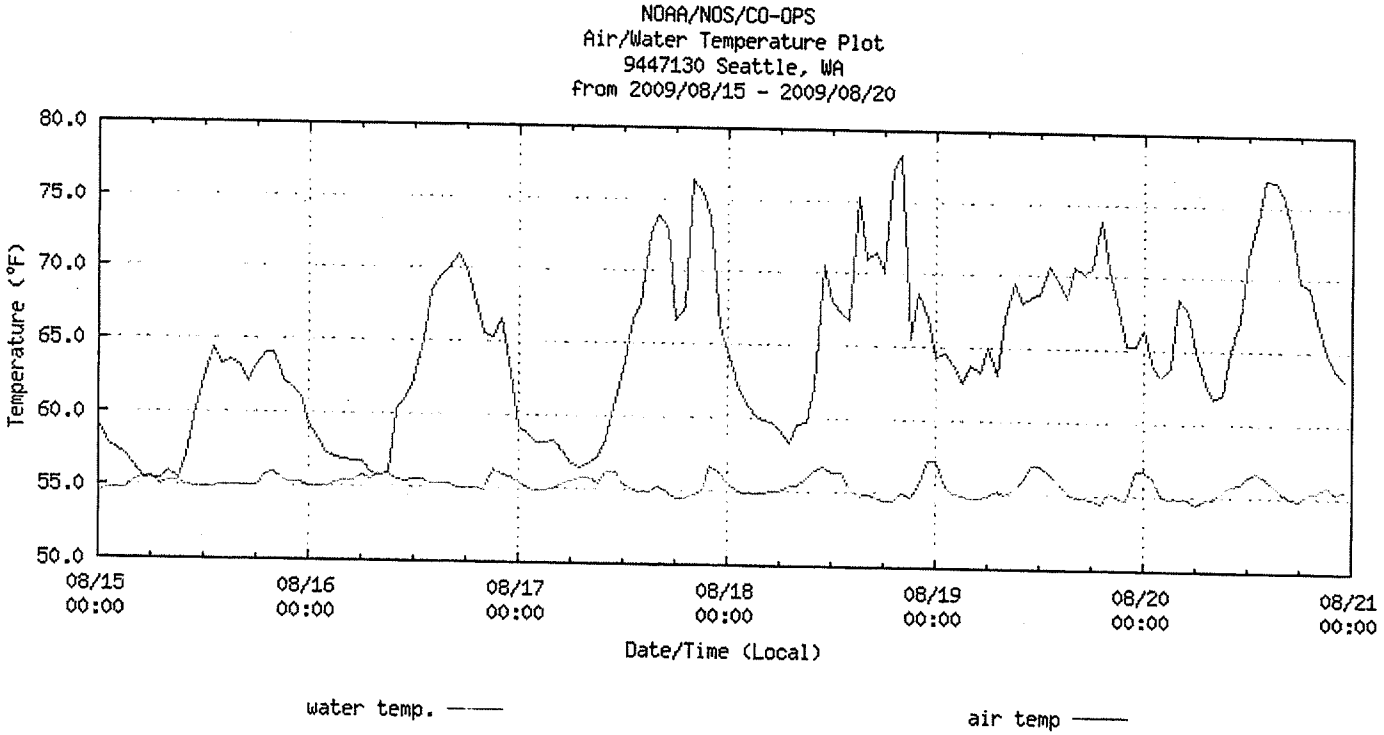
TABLE 2
VAPOR SAMPLING CHEMICAL ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION / CHEVRON SITE NO. 211577
631 Queen Anne Avenue North
Seattle, Washington

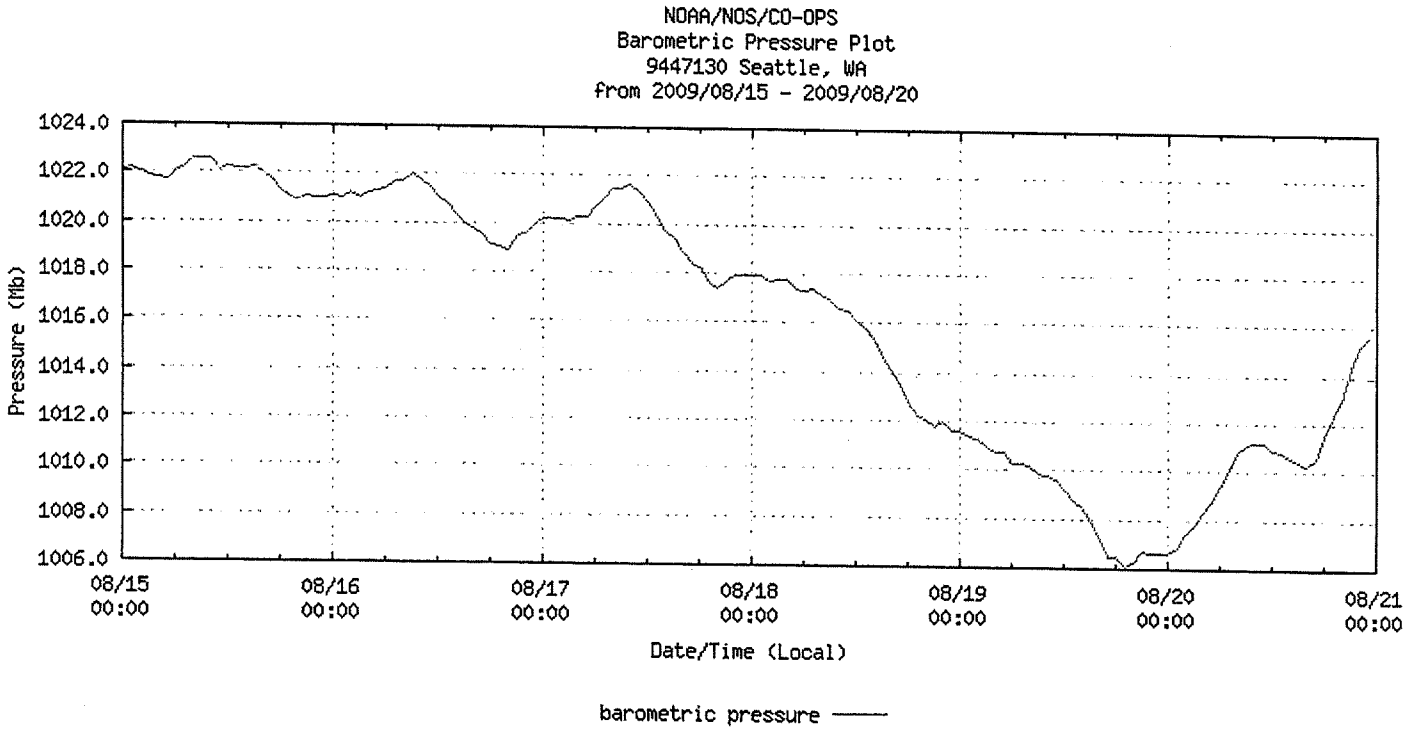
Sample Location	Sample ID	Date Sampled	Heptane (µg/m³)	Chloro-methane (µg/m³)	4-Ethyl-toluene (µg/m³)	Helium[1] (%)	Oxygen (%)	Carbon Dioxide (%)	Cyclo-hexane (µg/m³)	Styrene (µg/m³)	Bromo-dichloro-methane (µg/m³)	Trichloro-thene (µg/m³)	1,4-Dioxane (µg/m³)	1,3,5-Trimethyl-benzene (µg/m³)	1,2,4-Trimethyl-benzene (µg/m³)	Propyl-benzene (µg/m³)	4-Methyl-2-pentatone (µg/m³)	1,2-Dichloro-ethane (µg/m³)
Del Roy Aparments																		
DRVP-1	DRVP-1	01/28/09	<0.57	<0.29	<0.68	<0.070	22	0.16	<0.48	<0.59	<0.93	<0.75	<0.50	<0.68	<0.68	<0.68	<0.57	<0.56
	DRVP-1D	01/28/09	<0.57	<0.29	<0.68	<0.070	22	0.16	<0.48	<0.59	<0.93	<0.75	<0.50	<0.68	<0.68	<0.68	<0.57	<0.56
	DRVP-1-081909	08/19/09	<0.62	<0.31	<0.75	<0.076	22	0.30	<0.52	<0.65	<1.0	1.6	1.4	<0.75	<0.75	<0.75	<0.62	<0.62
DRVP-2	DRVP-2	01/28/09	<0.59	<0.30	<0.71	<0.072	21	1.7	<0.50	<0.61	<0.96	<0.77	<0.52	<0.71	<0.71	<0.71	<0.59	<0.58
	DRVP-2-Lab Duplicate	NA	NA	NA	NA	<0.072	21	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DRVP-2-081909	8/19/09	<0.58	<0.29	<0.69	<0.070	18	2.7	<0.48	<0.60	0.94[3]	<0.76	<0.51	<0.69	<0.69	<0.69	2.2	<0.57
Del Roy Indoor Air	Del Roy Indoor Air-012809	01/28/09	0.95	1.1	<0.72	NA	22	0.051	<0.50	<0.62	<0.98	<0.78	<0.53	<0.72	<0.72	<0.72	<0.60	<0.59
	Del Roy Indoor Air-081909	08/19/09	1.6	1.1	3.0	<0.074	22	0.046	<0.51	<0.63	<1.0	<0.80	<0.54	1.3	**4.3**	0.92	<0.61	<0.60
Monterey Apartments																		
MVP-1	MVP-1	01/28/09	<0.60	<0.30	<0.72	<0.073	21	0.024	<0.50	<0.62	<0.98	<0.78	<0.53	<0.72	<0.72	<0.72	<0.60	<0.59
	MVP-1-081909	08/19/09	<0.60	<0.30	<0.72	<0.073	22	0.053	<0.50	<0.62	<0.98	<0.78	<0.53	<0.72	<0.72	<0.72	<0.60	<0.59
	MVP-ID-081909	08/19/09	<0.61	<0.31	<0.73	<0.074	21	0.046	<0.51	<0.63	<1.0	<0.80	<0.54	<0.73	<0.73	<0.73	0.89	<0.60
MVPT-1	MVPT-1	01/28/09	<0.59	<0.30	<0.71	0.72	22	0.97	<0.50	<0.61	<0.96	<0.77	<0.52	<0.71	<0.71	<0.71	<0.59	<0.58
	MVPT-1D	01/28/09	<0.59	<0.30	<0.71	0.73	22	0.97	<0.50	<0.61	<0.96	<0.77	<0.52	<0.71	<0.71	<0.71	<0.59	<0.58
	MVPT-1 Lab Duplicate	NA	<0.59	<0.30	<0.71	NA	NA	NA	<0.50	<0.61	<0.96	<0.77	<0.52	<0.71	<0.71	<0.71	<0.59	<0.58
	MVPT-1-081909	08/19/09	<0.60	<0.30	<0.72	<0.073	21	0.87	<0.50	<0.62	<0.98	<0.78	<0.53	<0.72	<0.72	<0.72	<0.60	<0.59
Monterey Indoor Air	Monterey Indoor Air-012809	01/28/09	<0.61	1.0	0.87	NA	22	0.052	<0.51	<0.63	<1.0	<0.80	<0.54	<0.73	<0.73	<0.73	<0.61	<0.60
	Monterey Indoor Air-081909	08/19/09	1.9	0.86	<0.72	<0.073	22	0.059	0.97	1.1	<0.98	<0.78	<0.53	<0.72	<0.72	<0.72	<0.60	**5.9**
Ambient Air																		
Ambient Air	Ambient Air-012809	01/28/09	<0.58	0.94	<0.69	NA	22	0.040	<0.48	<0.60	<0.94	<0.76	<0.51	<0.69	<0.69	<0.69	<0.58	<0.57
	Ambient Air-081909	08/19/09	0.75	1.0	<0.73	<0.074	22	0.039	<0.51	<0.63	<1.0	<0.80	<0.54	<0.73	<0.73	<0.73	<0.61	<0.60
	Ambient Air-081909 Lab Duplicate	08/19/09	0.74	0.92	<0.73	<0.074	22	0.039	<0.51	<0.63	<1.0	<0.80	<0.54	<0.73	<0.73	<0.73	<0.61	<0.60
Lab Blank																		
Lab Blank	Lab Blank	02/04/09	<0.41	<0.21	<0.49	<0.050	<0.10	<0.010	<0.34	<0.42	<0.67	<0.54	<0.36	<0.49	<0.49	<0.49	<0.41	<0.40
	Lab Blank	08/19/09	<0.41	<0.21	<0.49	<0.050	<0.10	<0.010	<0.34	<0.42	<0.67	<0.54	<0.36	<0.49	<0.49	<0.49	<0.41	<0.40
MTCA Method B Ambient Air Cleanup Levels* (Residential)			---	1.39	---	NA	NA	NA	---	4.4	---	---	---	2.7	2.7	---	---	0.096

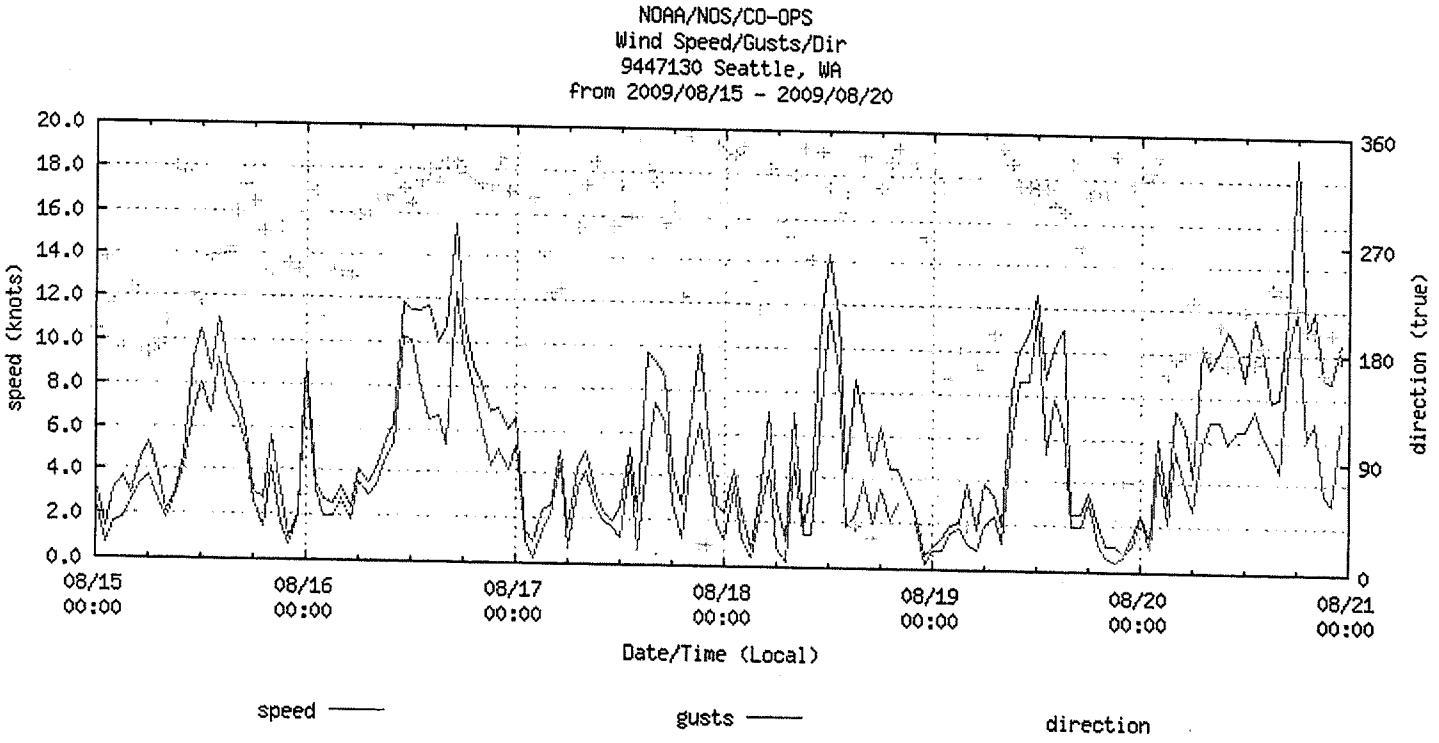
Abbreviations:
ASTM = American Society for Testing and Materials
CUL = Cleanup level
EPA = United States Environmental Protection Agency
GC/MS = Gas chromatography/mass spectrometry
MTCA = Model Toxics Control Act
NA = Not Applicable or Not Analyzed
SIM = Selective ion monitoring
µg/m³ = Micrograms per cubic meter
< = Concentration not detected at or above laboratory reporting limit
--- = CUL not established

Notes:
Container Type: 6 Liter Summa Canister (SIM Certified).
Helium, oxygen, and carbon dioxide analyzed by Modified ASTM D-1946. All other compounds analyzed by Modified EPA Method TO-15 GC/MS SIM/Full Scan.
Results in bold indicate concentrations in excess of the MTCA Method B Cleanup level.
* MTCA Method B cleanup levels do not apply to soil vapor (only ambient air) and are provided here solely for screening purposes.
1. Helium was used as a leak detection compound.
2. CUL derived using equation 750-2 from WAC 173-340-750(3).
3. Concentration detected at the laboratory reporting limit.

Attachment A:
NOAA Weather Data Plots

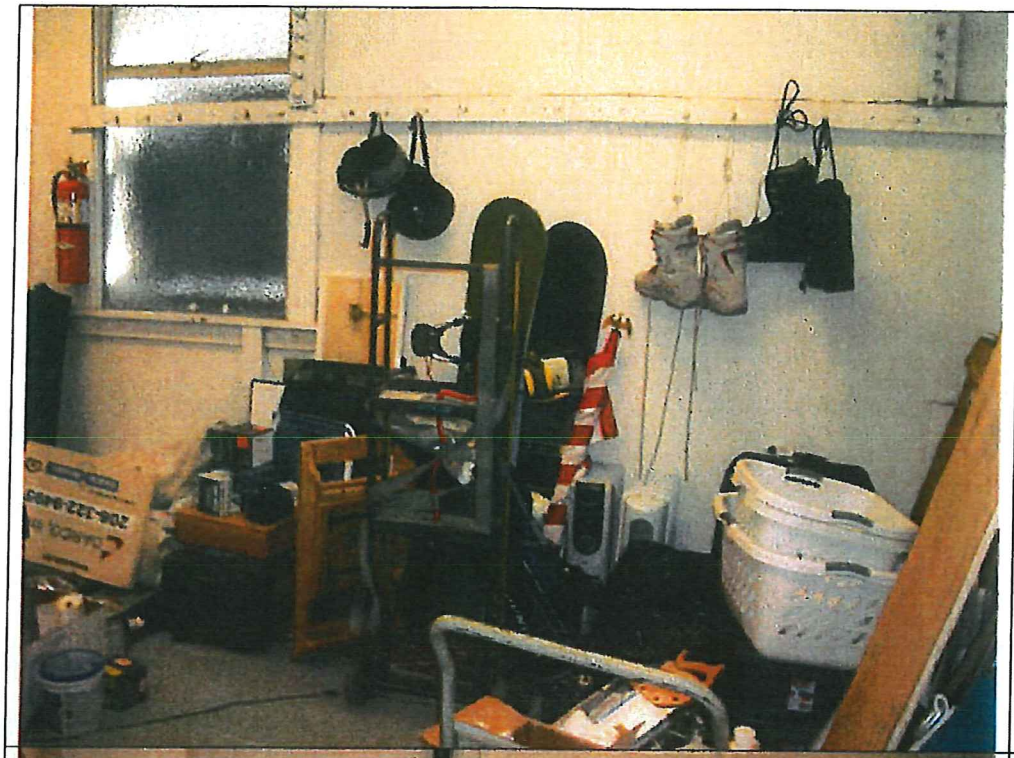

NOAA/NOS/CO-OPS
Air/Water Temperature Plot
9447130 Seattle, WA
from 2009/08/15 - 2009/08/20
80.0
75.0
70.0
65.0
60.0
55.0
50.0
Temperature (°F)
08/15 00:00
08/16 00:00
08/17 00:00
08/18 00:00
08/19 00:00
08/20 00:00
08/21 00:00
Date/Time (Local)
water temp.
air temp


NOAA/NOS/CO-OPS
Barometric Pressure Plot
9447130 Seattle, WA
from 2009/08/15 - 2009/08/20
1024.0
1022.0
1020.0
1018.0
1016.0
1014.0
1012.0
1010.0
1008.0
1006.0
Pressure (Mb)
08/15 00:00
08/16 00:00
08/17 00:00
08/18 00:00
08/19 00:00
08/20 00:00
08/21 00:00
Date/Time (Local)
barometric pressure


NOAA/NOS/CO-OPS
Wind Speed/Gusts/Dir
9447130 Seattle, WA
from 2009/08/15 - 2009/08/20
speed (knots)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
direction (true)
360
270
180
90
0
08/15 00:00
08/16 00:00
08/17 00:00
08/18 00:00
08/19 00:00
08/20 00:00
08/21 00:00
Date/Time (Local)
speed
gusts
direction

Attachment B:
Photographs

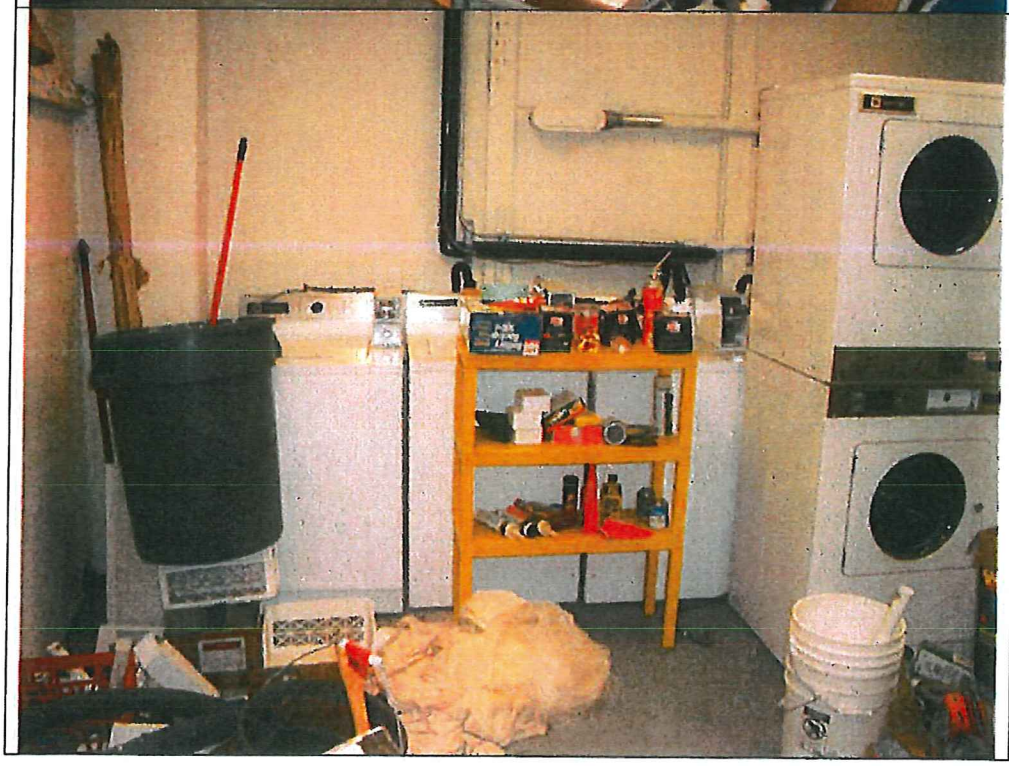
ATTACHMENT B:
PHOTOGRAPHS



Photograph 1
Del Roy Apartments

View looking south in basement storage room where sub-slab vapor sample point DRVP-1 is located.

Photo taken on 8/19/09.



Photograph 2
Del Roy Apartments

View looking east in the basement storage room.

Photo taken on 8/19/09.

Photograph 3
Del Roy Apartments

Close-up view of typical materials stored in basement storage room.

Photo taken on 8/19/09.

Photograph 4
Del Roy Apartments

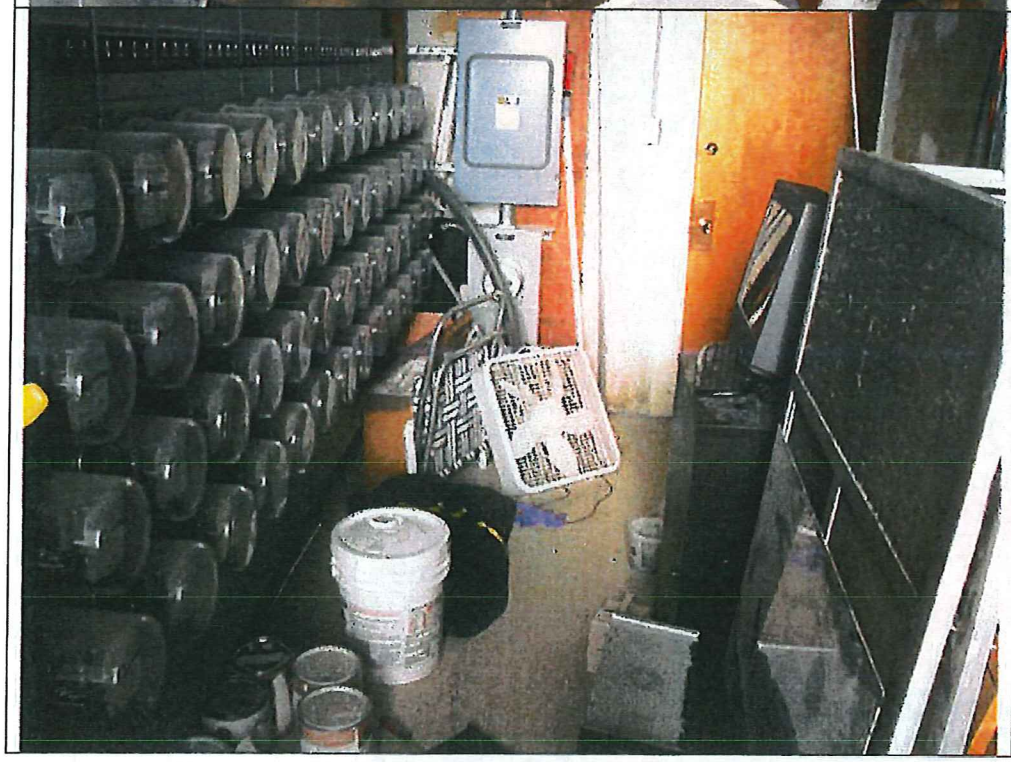
Close-up view of typical materials stored in basement storage room.

Photo taken on 8/19/09.

Photograph 5
Del Roy Apartments

Close-up view of typical materials stored in basement storage room.

Photo taken on 8/19/09.



Photograph 6
Del Roy Apartments

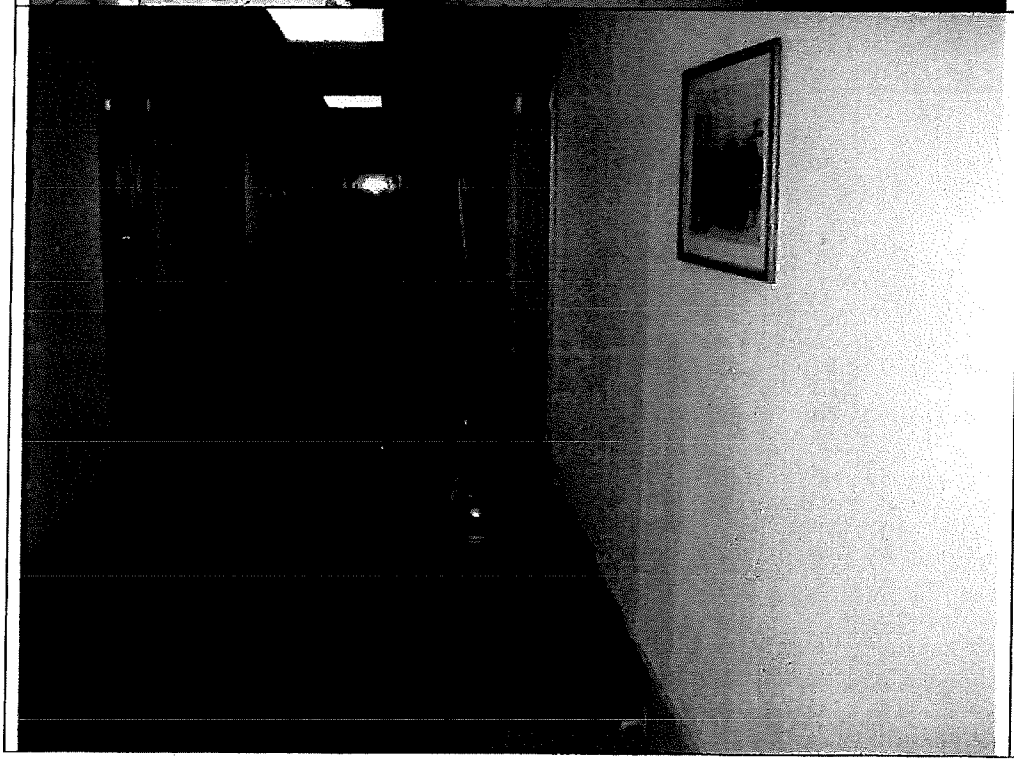
View looking east in meter room, location of sub-slab vapor sample point DRVP-2.

Photo taken on 8/19/09.

Photograph 7
Del Roy Apartments

View of typical materials stored in basement meter room.

Photo taken on 8/19/09.



Photograph 8
Del Roy Apartments

View looking north in the basement hallway.

This photograph shows the sampling equipment configuration and location for collection of the Del Roy indoor air sample (Del Roy Indoor Air – 081909)

Photo taken on 8/19/09.

Photograph 9
Monterey Apartments

View looking west into the storage closet at west end of basement hallway, location of sub-slab vapor sample point MVP-1.

This photograph shows the materials stored and state of the closet contents prior to beginning sampling activities at MVP-1.

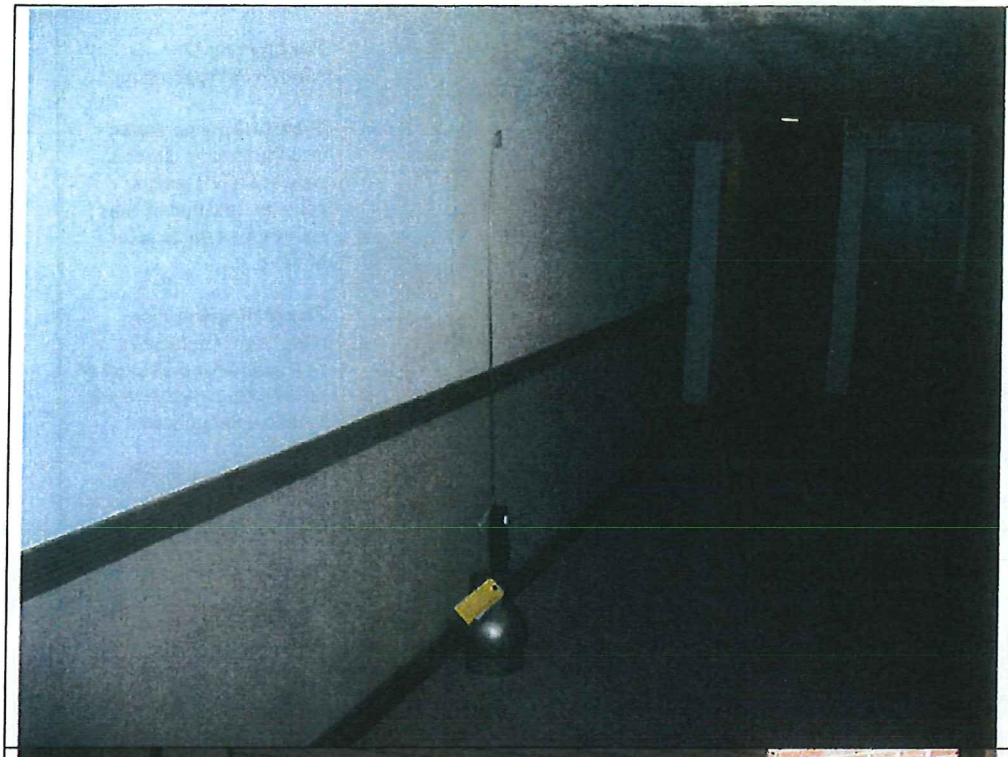
Photo taken on 8/19/09.

Photograph 10
Monterey Apartments

View looking east into the storage closet at east end of basement hallway during set up of sampling equipment.

At the time this photo was taken, the temporary sub-slab vapor sample point MVPT-1 had been installed and the tracer gas shroud had been set in place in preparation for sample collection.

Photo taken on 8/19/09.



Photograph 11
Monterey Apartments

View looking east towards the stairs in the basement hallway.

This photograph shows the sampling equipment configuration and location for collection of the Monterey indoor air sample (Monterey Indoor Air – 081909).

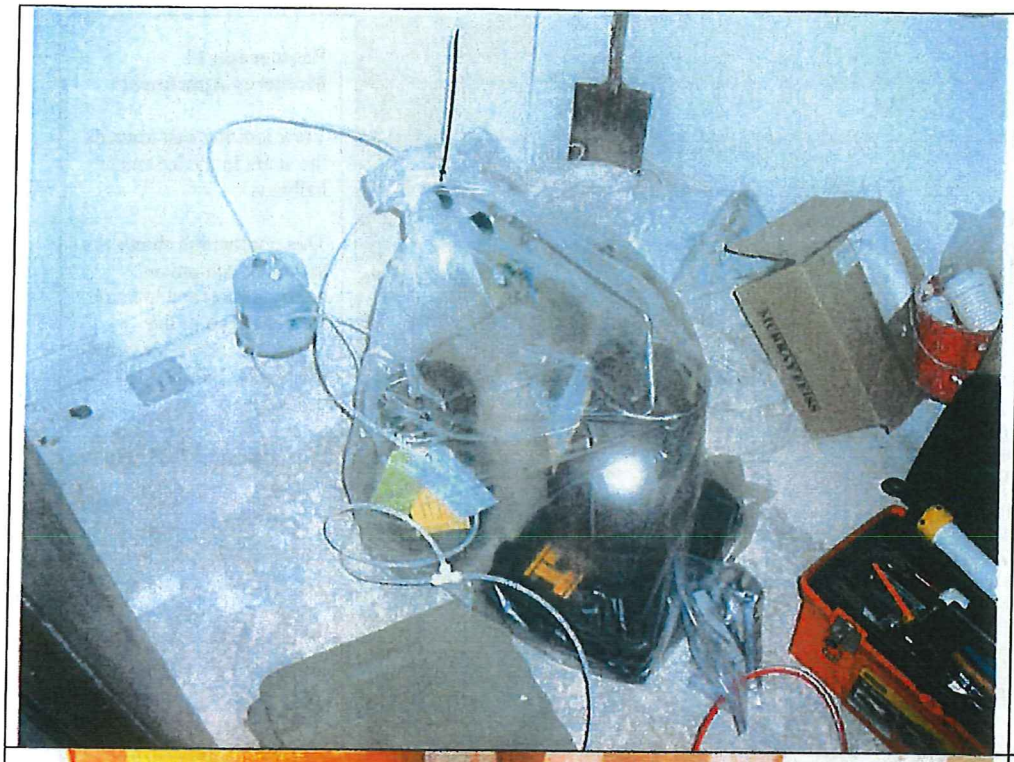
Photo taken on 8/19/09.

Photograph 12
Outdoor Ambient Air Sample

View looking southwest out of the courtyard area of the Del Roy Apartments.

This photograph shows the equipment configuration and sampling location for collection of the ambient air sample (Ambient air – 081909). Summa canister with flow controller and sampling cane were set just inside the courtyard fence, adjacent to the alley between the Del Roy and Monterey buildings.

Photo taken on 8/19/09.



Photograph 13
Monterey Apartments

View looking northwest into the storage closet at west end of basement hallway, location of sub-slab vapor sample point MVP-1.

This photograph shows sampling equipment as configured for collection of the MVP-1 sub-slab vapor sample and duplicate.

Photo taken on 8/19/09.

Photograph 14
Del Roy Apartments

View looking southeast towards the entry door of the meter room.

This photograph shows sampling equipment as configured for collection of the DRVP-2 sub-slab vapor sample.

Photo taken on 8/19/09.

Attachment C:
Laboratory Data

Air Toxics LTD.
Laboratory Services Since 1989

9/1/2009
Mr. Peter Catterall
SAIC
18912 Northcreek Parkway
Suite 101
Bothell WA 98011

Project Name:
Project #:
Workorder #: 0908471A

Dear Mr. Peter Catterall

The following report includes the data for the above referenced project for sample(s) received on 8/21/2009 at Air Toxics Ltd.

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

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

Regards,

Kelly Buettner
Project Manager

WORK ORDER #: 0908471A

Work Order Summary

CLIENT:	Mr. Peter Catterall SAIC 18912 Northcreek Parkway Suite 101 Bothell, WA 98011	**BILL TO:**	Mr. Peter Catterall SAIC 18912 Northcreek Parkway Suite 101 Bothell, WA 98011
PHONE:	425.482.3321	**P.O. #**	4400161437
FAX:	425-485-5566	**PROJECT #**	
DATE RECEIVED:	08/21/2009	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/01/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	Ambient Air-081909	Modified TO-15	3.0 "Hg	5 psi
01AA	Ambient Air-081909 Lab Duplicate	Modified TO-15	3.0 "Hg	5 psi
01B	Ambient Air-081909	Modified TO-15	3.0 "Hg	5 psi
01BB	Ambient Air-081909 Lab Duplicate	Modified TO-15	3.0 "Hg	5 psi
02A	Monterey Indoor Air- 081909	Modified TO-15	2.5 "Hg	5 psi
02B	Monterey Indoor Air- 081909	Modified TO-15	2.5 "Hg	5 psi
03A	Del Roy Indoor Air-081909	Modified TO-15	3.0 "Hg	5 psi
03B	Del Roy Indoor Air-081909	Modified TO-15	3.0 "Hg	5 psi
04A	MVP-1-081909	Modified TO-15	2.5 "Hg	5 psi
04B	MVP-1-081909	Modified TO-15	2.5 "Hg	5 psi
05A	MVP-1D-081909	Modified TO-15	3.0 "Hg	5 psi
05B	MVP-1D-081909	Modified TO-15	3.0 "Hg	5 psi
06A	MVPT-1-081909	Modified TO-15	2.5 "Hg	5 psi
06B	MVPT-1-081909	Modified TO-15	2.5 "Hg	5 psi
07A	DRVP-1-081909	Modified TO-15	3.5 "Hg	5 psi
07B	DRVP-1-081909	Modified TO-15	3.5 "Hg	5 psi
08A	DRVP-2-081909	Modified TO-15	1.5 "Hg	5 psi

Continued on next page

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0908471A

Work Order Summary

CLIENT:	Mr. Peter Catterall SAIC 18912 Northcreek Parkway Suite 101 Bothell, WA 98011	**BILL TO:**	Mr. Peter Catterall SAIC 18912 Northcreek Parkway Suite 101 Bothell, WA 98011
PHONE:	425.482.3321	**P.O. #**	4400161437
FAX:	425-485-5566	**PROJECT #**	
DATE RECEIVED:	08/21/2009	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/01/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
08B	DRVP-2-081909	Modified TO-15	1.5 "Hg	5 psi
09A	Lab Blank	Modified TO-15	NA	NA
09B	Lab Blank	Modified TO-15	NA	NA
10A	CCV	Modified TO-15	NA	NA
10B	CCV	Modified TO-15	NA	NA
11A	LCS	Modified TO-15	NA	NA
11B	LCS	Modified TO-15	NA	NA

CERTIFIED BY: _____ DATE: 09/01/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
SAIC
Workorder# 0908471A

Eight 6 Liter Summa Canister (SIM Certified) samples were received on August 21, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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

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

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: 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

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

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: Ambient Air-081909

Lab ID#: 0908471A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.40	0.74	2.0
Chloromethane	0.15	0.48	0.31	1.0
Freon 11	0.15	0.19	0.84	1.1
Ethanol	0.74	2.0	1.4	3.7
Acetone	0.74	5.4	1.8	13
2-Butanone (Methyl Ethyl Ketone)	0.15	0.36	0.44	1.1
Heptane	0.15	0.18	0.61	0.75

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471A-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.43	0.74	2.1
Chloromethane	0.15	0.45	0.31	0.92
Freon 11	0.15	0.17	0.84	0.95
Ethanol	0.74	5.3	1.4	10
Acetone	0.74	5.0	1.8	12
Methylene Chloride	0.30	0.30	1.0	1.0
2-Butanone (Methyl Ethyl Ketone)	0.15	0.34	0.44	1.0
Heptane	0.15	0.18	0.61	0.74

Client Sample ID: Ambient Air-081909

Lab ID#: 0908471A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.074	0.14	0.24	0.46
Toluene	0.030	0.76	0.11	2.9
Ethyl Benzene	0.030	0.048	0.13	0.21
m,p-Xylene	0.060	0.15	0.26	0.64
o-Xylene	0.030	0.057	0.13	0.25

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471A-01BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471A-01BB

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.074	0.15	0.24	0.48
Toluene	0.030	0.80	0.11	3.0
Ethyl Benzene	0.030	0.053	0.13	0.23
m,p-Xylene	0.060	0.17	0.26	0.73
o-Xylene	0.030	0.064	0.13	0.28

Client Sample ID: Monterey Indoor Air- 081909

Lab ID#: 0908471A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	0.15	1.5	0.59	5.9
Freon 12	0.15	0.31	0.72	1.5
Chloromethane	0.15	0.42	0.30	0.86
Freon 11	0.15	0.14 J	0.82	0.82 J
Ethanol	0.73	17	1.4	32
Acetone	0.73	5.0	1.7	12
2-Propanol	0.73	3.6	1.8	8.7
Methylene Chloride	0.29	0.42	1.0	1.5
2-Butanone (Methyl Ethyl Ketone)	0.15	0.62	0.43	1.8
Cyclohexane	0.15	0.28	0.50	0.97
Heptane	0.15	0.46	0.60	1.9
Styrene	0.15	0.25	0.62	1.1

Client Sample ID: Monterey Indoor Air- 081909

Lab ID#: 0908471A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.073	0.20	0.23	0.65
Toluene	0.029	0.67	0.11	2.5
Ethyl Benzene	0.029	0.11	0.13	0.49
m,p-Xylene	0.058	0.33	0.25	1.4
o-Xylene	0.029	0.12	0.13	0.52

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471A-03A

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.15	0.23	0.81	1.2
Freon 12	0.15	0.44	0.74	2.2
Chloromethane	0.15	0.54	0.31	1.1
Freon 11	0.15	0.20	0.84	1.1
Ethanol	0.74	67 E	1.4	130 E
Acetone	0.74	6.7	1.8	16
2-Propanol	0.74	3.2	1.8	8.0
Methylene Chloride	0.30	0.78	1.0	2.7
Hexane	0.15	0.23	0.52	0.82
2-Butanone (Methyl Ethyl Ketone)	0.15	1.5	0.44	4.4
Chloroform	0.15	0.43	0.73	2.1
Heptane	0.15	0.39	0.61	1.6
Propylbenzene	0.15	0.19	0.73	0.92
4-Ethyltoluene	0.15	0.61	0.73	3.0
1,3,5-Trimethylbenzene	0.15	0.26	0.73	1.3
1,2,4-Trimethylbenzene	0.15	0.87	0.73	4.3

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.074	0.19	0.24	0.61
Toluene	0.030	3.2	0.11	12
Ethyl Benzene	0.030	0.23	0.13	1.0
m,p-Xylene	0.060	0.77	0.26	3.4
o-Xylene	0.030	0.33	0.13	1.4

Client Sample ID: MVP-1-081909

Lab ID#: 0908471A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.15	0.20	0.99	1.4
Freon 12	0.15	0.35	0.72	1.7
Freon 11	0.15	0.23	0.82	1.3
Acetone	0.73	1.0	1.7	2.5

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

Client Sample ID: MVP-1-081909

Lab ID#: 0908471A-04A

Carbon Disulfide	0.73	0.93	2.3	2.9
2-Butanone (Methyl Ethyl Ketone)	0.15	0.26	0.43	0.76

Client Sample ID: MVP-1-081909

Lab ID#: 0908471A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.073	0.096	0.23	0.31
Toluene	0.029	0.17	0.11	0.65

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.15	0.21	1.0	1.4
Freon 12	0.15	0.34	0.74	1.7
Freon 11	0.15	0.20	0.84	1.2
Ethanol	0.74	4.5	1.4	8.4
Acetone	0.74	3.3	1.8	7.8
2-Propanol	0.74	1.4	1.8	3.4
Carbon Disulfide	0.74	2.8	2.3	8.8
2-Butanone (Methyl Ethyl Ketone)	0.15	1.2	0.44	3.6
4-Methyl-2-pentanone	0.15	0.22	0.61	0.89

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.030	0.099	0.11	0.37
Ethyl Benzene	0.030	0.029 J	0.13	0.13 J
m,p-Xylene	0.060	0.060	0.26	0.26

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.15	1.6	0.99	11
Freon 12	0.15	0.34	0.72	1.7
Freon 11	0.15	0.21	0.82	1.2
Acetone	0.73	0.96	1.7	2.3
2-Butanone (Methyl Ethyl Ketone)	0.15	0.19	0.43	0.57
Chloroform	0.15	2.2	0.71	11

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.073	0.12	0.23	0.40
Toluene	0.029	0.14	0.11	0.54

Client Sample ID: DRVP-1-081909

Lab ID#: 0908471A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.15	0.33	0.83	1.8
Trichloroethene	0.15	0.31	0.82	1.6
Tetrachloroethene	0.15	0.37	1.0	2.5
Freon 12	0.15	0.44	0.75	2.2
Freon 11	0.15	0.23	0.85	1.3
Acetone	0.76	1.4	1.8	3.4
2-Butanone (Methyl Ethyl Ketone)	0.15	0.34	0.45	1.0
1,4-Dioxane	0.15	0.40	0.55	1.4

Client Sample ID: DRVP-1-081909

Lab ID#: 0908471A-07B

No Detections Were Found.

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471A-08A

Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.14	0.39	0.96	2.6
Freon 11	0.14	0.16	0.79	0.89
Ethanol	0.70	5.2	1.3	9.8
Acetone	0.70	2.5	1.7	5.9
2-Propanol	0.70	1.2	1.7	2.8
Carbon Disulfide	0.70	3.4	2.2	10
2-Butanone (Methyl Ethyl Ketone)	0.14	1.7	0.42	5.1
Chloroform	0.14	1.3	0.69	6.4
Bromodichloromethane	0.14	0.14	0.94	0.94
4-Methyl-2-pentanone	0.14	0.53	0.58	2.2

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.070	0.10	0.22	0.33
Toluene	0.028	0.28	0.11	1.1
Ethyl Benzene	0.028	0.067	0.12	0.29
m,p-Xylene	0.056	0.14	0.24	0.61
o-Xylene	0.028	0.062	0.12	0.27

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909

Lab ID#: 0908471A-01A

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

File Name:	**s082611**	**Date of Collection: 8/19/09 10:35:00 AM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/26/09 01:00 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.81	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
Freon 12	0.15	0.40	0.74	2.0
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.48	0.31	1.0
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.15	Not Detected	0.58	Not Detected
Chloroethane	0.15	Not Detected	0.39	Not Detected
Freon 11	0.15	0.19	0.84	1.1
Ethanol	0.74	2.0	1.4	3.7
Freon 113	0.15	Not Detected	1.1	Not Detected
Acetone	0.74	5.4	1.8	13
2-Propanol	0.74	Not Detected	1.8	Not Detected
Carbon Disulfide	0.74	Not Detected	2.3	Not Detected
3-Chloropropene	0.74	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Hexane	0.15	Not Detected	0.52	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	0.36	0.44	1.1
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
Cyclohexane	0.15	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Heptane	0.15	0.18	0.61	0.75
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909

Lab ID#: 0908471A-01A

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

File Name:	**s082611**	**Date of Collection:**	**8/19/09 10:35:00 AM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**8/26/09 01:00 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
Propylbenzene	0.15	Not Detected	0.73	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.73	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	115	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471A-01AA

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

File Name:	**s082608**	**Date of Collection: 8/19/09 10:35:00 AM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/26/09 10:20 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.81	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
Freon 12	0.15	0.43	0.74	2.1
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.45	0.31	0.92
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.15	Not Detected	0.58	Not Detected
Chloroethane	0.15	Not Detected	0.39	Not Detected
Freon 11	0.15	0.17	0.84	0.95
Ethanol	0.74	5.3	1.4	10
Freon 113	0.15	Not Detected	1.1	Not Detected
Acetone	0.74	5.0	1.8	12
2-Propanol	0.74	Not Detected	1.8	Not Detected
Carbon Disulfide	0.74	Not Detected	2.3	Not Detected
3-Chloropropene	0.74	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	0.30	1.0	1.0
Hexane	0.15	Not Detected	0.52	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	0.34	0.44	1.0
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
Cyclohexane	0.15	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Heptane	0.15	0.18	0.61	0.74
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471A-01AA

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

File Name:	**s082608**	**Date of Collection:**	**8/19/09 10:35:00 AM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**8/26/09 10:20 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
Propylbenzene	0.15	Not Detected	0.73	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.73	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	112	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909

Lab ID#: 0908471A-01B

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

File Name:	**s082611sim**	**Date of Collection: 8/19/09 10:35:00 AM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/26/09 01:00 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.074	0.14	0.24	0.46
Toluene	0.030	0.76	0.11	2.9
Ethyl Benzene	0.030	0.048	0.13	0.21
m,p-Xylene	0.060	0.15	0.26	0.64
o-Xylene	0.030	0.057	0.13	0.25

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471A-01BB

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

File Name:	**s082608sim**	**Date of Collection:**	**8/19/09 10:35:00 AM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**8/26/09 10:20 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.074	0.15	0.24	0.48
Toluene	0.030	0.80	0.11	3.0
Ethyl Benzene	0.030	0.053	0.13	0.23
m,p-Xylene	0.060	0.17	0.26	0.73
o-Xylene	0.030	0.064	0.13	0.28

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Monterey Indoor Air- 081909

Lab ID#: 0908471A-02A

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

File Name:	**s082612**	**Date of Collection: 8/19/09 11:05:00 AM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/26/09 01:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
1,2-Dichloroethane	0.15	1.5	0.59	5.9
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	Not Detected	0.99	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
Freon 12	0.15	0.31	0.72	1.5
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.42	0.30	0.86
1,3-Butadiene	0.15	Not Detected	0.32	Not Detected
Bromomethane	0.15	Not Detected	0.57	Not Detected
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	0.14 J	0.82	0.82 J
Ethanol	0.73	17	1.4	32
Freon 113	0.15	Not Detected	1.1	Not Detected
Acetone	0.73	5.0	1.7	12
2-Propanol	0.73	3.6	1.8	8.7
Carbon Disulfide	0.73	Not Detected	2.3	Not Detected
3-Chloropropene	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	0.42	1.0	1.5
Hexane	0.15	Not Detected	0.51	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	0.62	0.43	1.8
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
Cyclohexane	0.15	0.28	0.50	0.97
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
2,2,4-Trimethylpentane	0.73	Not Detected	3.4	Not Detected
Heptane	0.15	0.46	0.60	1.9
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Monterey Indoor Air- 081909

Lab ID#: 0908471A-02A

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

File Name:	**s082612**	**Date of Collection:**	**8/19/09 11:05:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**8/26/09 01:35 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Styrene	0.15	0.25	0.62	1.1
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
Propylbenzene	0.15	Not Detected	0.72	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.72	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	119	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Monterey Indoor Air- 081909

Lab ID#: 0908471A-02B

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

File Name:	**s082612sim**	**Date of Collection: 8/19/09 11:05:00 AM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/26/09 01:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.073	0.20	0.23	0.65
Toluene	0.029	0.67	0.11	2.5
Ethyl Benzene	0.029	0.11	0.13	0.49
m,p-Xylene	0.058	0.33	0.25	1.4
o-Xylene	0.029	0.12	0.13	0.52

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	80	70-130
4-Bromofluorobenzene	117	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471A-03A

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

File Name:	**s082613**	**Date of Collection:**	**8/19/09 12:01:00 PM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**8/26/09 02:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1,1-Trichloroethane	0.15	0.23	0.81	1.2
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
Freon 12	0.15	0.44	0.74	2.2
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.54	0.31	1.1
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.15	Not Detected	0.58	Not Detected
Chloroethane	0.15	Not Detected	0.39	Not Detected
Freon 11	0.15	0.20	0.84	1.1
Ethanol	0.74	67 E	1.4	130 E
Freon 113	0.15	Not Detected	1.1	Not Detected
Acetone	0.74	6.7	1.8	16
2-Propanol	0.74	3.2	1.8	8.0
Carbon Disulfide	0.74	Not Detected	2.3	Not Detected
3-Chloropropene	0.74	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	0.78	1.0	2.7
Hexane	0.15	0.23	0.52	0.82
2-Butanone (Methyl Ethyl Ketone)	0.15	1.5	0.44	4.4
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	0.43	0.73	2.1
Cyclohexane	0.15	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Heptane	0.15	0.39	0.61	1.6
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471A-03A

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

File Name:	**s082613**	**Date of Collection: 8/19/09 12:01:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/26/09 02:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
Propylbenzene	0.15	0.19	0.73	0.92
4-Ethyltoluene	0.15	0.61	0.73	3.0
1,3,5-Trimethylbenzene	0.15	0.26	0.73	1.3
1,2,4-Trimethylbenzene	0.15	0.87	0.73	4.3
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	119	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471A-03B

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

File Name:	**s082613sim**	**Date of Collection:**	**8/19/09 12:01:00 PM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**8/26/09 02:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.074	0.19	0.24	0.61
Toluene	0.030	3.2	0.11	12
Ethyl Benzene	0.030	0.23	0.13	1.0
m,p-Xylene	0.060	0.77	0.26	3.4
o-Xylene	0.030	0.33	0.13	1.4

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	118	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1-081909

Lab ID#: 0908471A-04A

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

File Name:	**s082614**	**Date of Collection: 8/19/09 4:05:00 PM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/26/09 03:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	0.20	0.99	1.4
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
Freon 12	0.15	0.35	0.72	1.7
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	Not Detected	0.30	Not Detected
1,3-Butadiene	0.15	Not Detected	0.32	Not Detected
Bromomethane	0.15	Not Detected	0.57	Not Detected
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	0.23	0.82	1.3
Ethanol	0.73	Not Detected	1.4	Not Detected
Freon 113	0.15	Not Detected	1.1	Not Detected
Acetone	0.73	1.0	1.7	2.5
2-Propanol	0.73	Not Detected	1.8	Not Detected
Carbon Disulfide	0.73	0.93	2.3	2.9
3-Chloropropene	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Hexane	0.15	Not Detected	0.51	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	0.26	0.43	0.76
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
Cyclohexane	0.15	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
2,2,4-Trimethylpentane	0.73	Not Detected	3.4	Not Detected
Heptane	0.15	Not Detected	0.60	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1-081909

Lab ID#: 0908471A-04A

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

File Name:	**s082614**	**Date of Collection: 8/19/09 4:05:00 PM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/26/09 03:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Styrene	0.15	Not Detected	0.62	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
Propylbenzene	0.15	Not Detected	0.72	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.72	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	122	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1-081909

Lab ID#: 0908471A-04B

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

File Name:	**s082614sim**	**Date of Collection: 8/19/09 4:05:00 PM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/26/09 03:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.073	0.096	0.23	0.31
Toluene	0.029	0.17	0.11	0.65
Ethyl Benzene	0.029	Not Detected	0.13	Not Detected
m,p-Xylene	0.058	Not Detected	0.25	Not Detected
o-Xylene	0.029	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	79	70-130
4-Bromofluorobenzene	120	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471A-05A

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

File Name:	**s082615**	**Date of Collection: 8/19/09 4:05:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/26/09 04:00 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.81	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	0.21	1.0	1.4
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
Freon 12	0.15	0.34	0.74	1.7
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	Not Detected	0.31	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.15	Not Detected	0.58	Not Detected
Chloroethane	0.15	Not Detected	0.39	Not Detected
Freon 11	0.15	0.20	0.84	1.2
Ethanol	0.74	4.5	1.4	8.4
Freon 113	0.15	Not Detected	1.1	Not Detected
Acetone	0.74	3.3	1.8	7.8
2-Propanol	0.74	1.4	1.8	3.4
Carbon Disulfide	0.74	2.8	2.3	8.8
3-Chloropropene	0.74	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Hexane	0.15	Not Detected	0.52	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	1.2	0.44	3.6
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
Cyclohexane	0.15	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Heptane	0.15	Not Detected	0.61	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	0.22	0.61	0.89

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471A-05A

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

File Name:	**s082615**	**Date of Collection: 8/19/09 4:05:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/26/09 04:00 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
Propylbenzene	0.15	Not Detected	0.73	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.73	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	116	70-130
4-Bromofluorobenzene	120	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471A-05B

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

File Name:	**s082615sim**	**Date of Collection: 8/19/09 4:05:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/26/09 04:00 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.074	Not Detected	0.24	Not Detected
Toluene	0.030	0.099	0.11	0.37
Ethyl Benzene	0.030	0.029 J	0.13	0.13 J
m,p-Xylene	0.060	0.060	0.26	0.26
o-Xylene	0.030	Not Detected	0.13	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	119	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471A-06A

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

File Name:	**s082616**	**Date of Collection: 8/19/09 4:45:00 PM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/26/09 05:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	1.6	0.99	11
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
Freon 12	0.15	0.34	0.72	1.7
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	Not Detected	0.30	Not Detected
1,3-Butadiene	0.15	Not Detected	0.32	Not Detected
Bromomethane	0.15	Not Detected	0.57	Not Detected
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	0.21	0.82	1.2
Ethanol	0.73	Not Detected	1.4	Not Detected
Freon 113	0.15	Not Detected	1.1	Not Detected
Acetone	0.73	0.96	1.7	2.3
2-Propanol	0.73	Not Detected	1.8	Not Detected
Carbon Disulfide	0.73	Not Detected	2.3	Not Detected
3-Chloropropene	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Hexane	0.15	Not Detected	0.51	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	0.19	0.43	0.57
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	2.2	0.71	11
Cyclohexane	0.15	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
2,2,4-Trimethylpentane	0.73	Not Detected	3.4	Not Detected
Heptane	0.15	Not Detected	0.60	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471A-06A

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

File Name:	**s082616**	**Date of Collection: 8/19/09 4:45:00 PM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/26/09 05:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Styrene	0.15	Not Detected	0.62	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
Propylbenzene	0.15	Not Detected	0.72	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.72	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	121	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471A-06B

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

File Name:	s082616sim	Date of Collection:	8/19/09 4:45:00 PM
Dil. Factor:	1.46	Date of Analysis:	8/26/09 05:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.073	0.12	0.23	0.40
Toluene	0.029	0.14	0.11	0.54
Ethyl Benzene	0.029	Not Detected	0.13	Not Detected
m,p-Xylene	0.058	Not Detected	0.25	Not Detected
o-Xylene	0.029	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	120	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-1-081909

Lab ID#: 0908471A-07A

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

File Name:	**s082617**	**Date of Collection: 8/19/09 7:04:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/26/09 05:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
1,1,1-Trichloroethane	0.15	0.33	0.83	1.8
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	0.31	0.82	1.6
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	0.37	1.0	2.5
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
Freon 12	0.15	0.44	0.75	2.2
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.15	Not Detected	0.31	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.15	Not Detected	0.59	Not Detected
Chloroethane	0.15	Not Detected	0.40	Not Detected
Freon 11	0.15	0.23	0.85	1.3
Ethanol	0.76	Not Detected	1.4	Not Detected
Freon 113	0.15	Not Detected	1.2	Not Detected
Acetone	0.76	1.4	1.8	3.4
2-Propanol	0.76	Not Detected	1.9	Not Detected
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Hexane	0.15	Not Detected	0.54	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	0.34	0.45	1.0
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Heptane	0.15	Not Detected	0.62	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	0.40	0.55	1.4
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.62	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-1-081909

Lab ID#: 0908471A-07A

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

File Name:	**s082617**	**Date of Collection: 8/19/09 7:04:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/26/09 05:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.75	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	116	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-1-081909

Lab ID#: 0908471A-07B

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

File Name:	**s082617sim**	**Date of Collection:**	**8/19/09 7:04:00 PM**
Dil. Factor:	**1.52**	**Date of Analysis:**	**8/26/09 05:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.076	Not Detected	0.24	Not Detected
Toluene	0.030	Not Detected	0.11	Not Detected
Ethyl Benzene	0.030	Not Detected	0.13	Not Detected
m,p-Xylene	0.061	Not Detected	0.26	Not Detected
o-Xylene	0.030	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	117	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471A-08A

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

File Name:	**s082621**	**Date of Collection: 8/19/09 7:56:00 PM**	
Dil. Factor:	**1.41**	**Date of Analysis: 8/26/09 09:49 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.77	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
Trichloroethene	0.14	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	0.39	0.96	2.6
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
Freon 12	0.14	Not Detected	0.70	Not Detected
Freon 114	0.14	Not Detected	0.98	Not Detected
Chloromethane	0.14	Not Detected	0.29	Not Detected
1,3-Butadiene	0.14	Not Detected	0.31	Not Detected
Bromomethane	0.14	Not Detected	0.55	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	0.16	0.79	0.89
Ethanol	0.70	5.2	1.3	9.8
Freon 113	0.14	Not Detected	1.1	Not Detected
Acetone	0.70	2.5	1.7	5.9
2-Propanol	0.70	1.2	1.7	2.8
Carbon Disulfide	0.70	3.4	2.2	10
3-Chloropropene	0.70	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	Not Detected	0.98	Not Detected
Hexane	0.14	Not Detected	0.50	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	1.7	0.42	5.1
Tetrahydrofuran	0.70	Not Detected	2.1	Not Detected
Chloroform	0.14	1.3	0.69	6.4
Cyclohexane	0.14	Not Detected	0.48	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.89	Not Detected
2,2,4-Trimethylpentane	0.70	Not Detected	3.3	Not Detected
Heptane	0.14	Not Detected	0.58	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
1,4-Dioxane	0.14	Not Detected	0.51	Not Detected
Bromodichloromethane	0.14	0.14	0.94	0.94
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	0.53	0.58	2.2

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471A-08A

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

File Name:	**s082621**	**Date of Collection: 8/19/09 7:56:00 PM**	
Dil. Factor:	**1.41**	**Date of Analysis: 8/26/09 09:49 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
2-Hexanone	0.70	Not Detected	2.9	Not Detected
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Styrene	0.14	Not Detected	0.60	Not Detected
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.69	Not Detected
Propylbenzene	0.14	Not Detected	0.69	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.69	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.73	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected
Hexachlorobutadiene	0.70	Not Detected	7.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	117	70-130
4-Bromofluorobenzene	120	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471A-08B

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

File Name:	**s082621sim**	**Date of Collection: 8/19/09 7:56:00 PM**	
Dil. Factor:	**1.41**	**Date of Analysis: 8/26/09 09:49 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.070	0.10	0.22	0.33
Toluene	0.028	0.28	0.11	1.1
Ethyl Benzene	0.028	0.067	0.12	0.29
m,p-Xylene	0.056	0.14	0.24	0.61
o-Xylene	0.028	0.062	0.12	0.27

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	120	70-130

Air TOXICS LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0908471A-09A

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

File Name:	**s082607**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 09:27 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.10	Not Detected	0.29	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0908471A-09A

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

File Name:	**s082607**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 09:27 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	114	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0908471A-09B

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

File Name:	**s082607sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 09:27 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.050	Not Detected	0.16	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	114	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0908471A-10A

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

File Name:	**s082604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 07:31 AM**	

Compound	%Recovery
Vinyl Chloride	93
1,1-Dichloroethene	92
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	105
1,2-Dichloroethane	106
Trichloroethene	90
1,1,2-Trichloroethane	96
Tetrachloroethene	111
1,1,2,2-Tetrachloroethane	85
trans-1,2-Dichloroethene	94
Methyl tert-butyl ether	93
Freon 12	111
Freon 114	106
Chloromethane	93
1,3-Butadiene	75
Bromomethane	100
Chloroethane	97
Freon 11	103
Ethanol	107
Freon 113	105
Acetone	88
2-Propanol	89
Carbon Disulfide	95
3-Chloropropene	91
Methylene Chloride	92
Hexane	84
2-Butanone (Methyl Ethyl Ketone)	90
Tetrahydrofuran	95
Chloroform	102
Cyclohexane	97
Carbon Tetrachloride	110
2,2,4-Trimethylpentane	93
Heptane	95
1,2-Dichloropropane	87
1,4-Dioxane	81
Bromodichloromethane	91
cis-1,3-Dichloropropene	90
4-Methyl-2-pentanone	102

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0908471A-10A

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

File Name:	**s082604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 07:31 AM**	

Compound	%Recovery
trans-1,3-Dichloropropene	110
2-Hexanone	95
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	100
Chlorobenzene	100
Styrene	102
Bromoform	117
Cumene	106
Propylbenzene	94
4-Ethyltoluene	106
1,3,5-Trimethylbenzene	95
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	111
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	111	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0908471A-10B

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

File Name:	**s082604sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 07:31 AM**	

Compound	%Recovery
Benzene	98
Toluene	102
Ethyl Benzene	100
m,p-Xylene	100
o-Xylene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0908471A-11A

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

File Name:	**s082603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 06:41 AM**	

Compound	%Recovery
Vinyl Chloride	96
1,1-Dichloroethene	103
1,1-Dichloroethane	90
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	107
1,2-Dichloroethane	109
Trichloroethene	94
1,1,2-Trichloroethane	110
Tetrachloroethene	131 Q
1,1,2,2-Tetrachloroethane	116
trans-1,2-Dichloroethene	95
Methyl tert-butyl ether	94
Freon 12	114
Freon 114	104
Chloromethane	96
1,3-Butadiene	77
Bromomethane	100
Chloroethane	99
Freon 11	105
Ethanol	68
Freon 113	119
Acetone	96
2-Propanol	90
Carbon Disulfide	97
3-Chloropropene	79
Methylene Chloride	101
Hexane	94
2-Butanone (Methyl Ethyl Ketone)	89
Tetrahydrofuran	96
Chloroform	105
Cyclohexane	97
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	93
Heptane	100
1,2-Dichloropropane	88
1,4-Dioxane	87
Bromodichloromethane	102
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	103

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0908471A-11A

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

File Name:	**s082603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 06:41 AM**	

Compound	%Recovery
trans-1,3-Dichloropropene	120
2-Hexanone	104
Dibromochloromethane	119
1,2-Dibromoethane (EDB)	97
Chlorobenzene	101
Styrene	112
Bromoform	127
Cumene	123
Propylbenzene	126
4-Ethyltoluene	128
1,3,5-Trimethylbenzene	118
1,2,4-Trimethylbenzene	126
1,3-Dichlorobenzene	124
1,4-Dichlorobenzene	122
alpha-Chlorotoluene	130
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	92
Hexachlorobutadiene	102

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	126	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0908471A-11B

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

File Name:	**s082603sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/26/09 06:41 AM**	

Compound	%Recovery
Benzene	100
Toluene	109
Ethyl Benzene	103
m,p-Xylene	101
o-Xylene	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	122	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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

Project Manager Peter Cetterall
Collected by: (Print and Sign) R. Shropshire
Company SAIC Email cetterallpd@saic.com
Address 18912 North Creek Pkwy Suite 101 City Bothell State WA Zip 98011
Phone 425-482-3321 Fax 425-485-5566

Project Info:
P.O. #
Project #
Project Name

Turn Around Time:
[X] Normal
[ ] Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum: Initial	Final	Receipt	Final (psig)
01AB	Ambient Air - 081909	33586	8/19/09	10:35	O_2, CO_2, helium by	29	3.5		
02AB	Monterey Indoor Air - 081909	34190	8/19/09	11:05	Modified ASTM D-1946	29	3.0		
03AB	Del Rey Indoor Air - 081909	33580	8/19/09	12:01	Modified EPA Method	29	3.0		
04AB	MVP-1-081909	96100	8/19/09	16:05	TO-15 using GC/MS	29	3.0		
05AB	MVP-1D-081909	34248	8/19/09	16:05	in Full Scan and SIM	29	3.0		
06AB	MVPT-1-081909	25316	8/19/09	16:45	Full Scan	29.5	2.75		
07AB	DRVP-1-081909	34486	8/19/09	19:04		29.5	3.0		
08AB	DRVP-2-081909	33772	8/19/09	19:56		29.5	2.0		
					8/20/2009				

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	8/20/2009 12:00	Monica Green ATL	8/20/09 855
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: Analyze all samples for O_2, CO_2 and helium by Modified ASTM D-1946 and Modified EPA Method TO-15 GC/MS SIM/Full Scan.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No (None)	0908471

Form 1293 rev 11

Air Toxics LTD.
Laboratory Services Since 1989

8/28/2009
Mr. Peter Catterall
SAIC
18912 Northcreek Parkway
Suite 101
Bothell WA 98011

Project Name:
Project #:
Workorder #: 0908471B

Dear Mr. Peter Catterall

The following report includes the data for the above referenced project for sample(s) received on 8/21/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,

Kelly Buettner
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0908471B

Work Order Summary

CLIENT:	Mr. Peter Catterall SAIC 18912 Northcreek Parkway Suite 101 Bothell, WA 98011	**BILL TO:**	Mr. Peter Catterall SAIC 18912 Northcreek Parkway Suite 101 Bothell, WA 98011
PHONE:	425.482.3321	**P.O. #**	4400161437
FAX:	425-485-5566	**PROJECT #**	
DATE RECEIVED:	08/21/2009	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	08/28/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	Ambient Air-081909	Modified ASTM D-1946	3.0 "Hg	5 psi
01AA	Ambient Air-081909 Lab Duplicate	Modified ASTM D-1946	3.0 "Hg	5 psi
02A	Monterey Indoor Air- 081909	Modified ASTM D-1946	2.5 "Hg	5 psi
03A	Del Roy Indoor Air-081909	Modified ASTM D-1946	3.0 "Hg	5 psi
04A	MVP-1-081909	Modified ASTM D-1946	2.5 "Hg	5 psi
05A	MVP-1D-081909	Modified ASTM D-1946	3.0 "Hg	5 psi
06A	MVPT-1-081909	Modified ASTM D-1946	2.5 "Hg	5 psi
07A	DRVP-1-081909	Modified ASTM D-1946	3.5 "Hg	5 psi
08A	DRVP-2-081909	Modified ASTM D-1946	1.5 "Hg	5 psi
09A	Lab Blank	Modified ASTM D-1946	NA	NA
09B	Lab Blank	Modified ASTM D-1946	NA	NA
10A	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY: _____ DATE: 08/28/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified ASTM D-1946
SAIC
Workorder# 0908471B

Eight 6 Liter Summa Canister (SIM Certified) samples were received on August 21, 2009. The laboratory performed analysis via Modified ASTM Method D-1946 for fixed gases in air using GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

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

Requirement	*ASTM D-1946*	*ATL Modifications*
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

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

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: Ambient Air-081909

Lab ID#: 0908471B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.039

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471B-01AA

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.039

Client Sample ID: Monterey Indoor Air- 081909

Lab ID#: 0908471B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.059

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.046

Client Sample ID: MVP-1-081909

Lab ID#: 0908471B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Carbon Dioxide	0.015	0.053

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471B-05A

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Carbon Dioxide	0.015	0.046

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471B-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Carbon Dioxide	0.015	0.87

Client Sample ID: DRVP-1-081909

Lab ID#: 0908471B-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.30

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471B-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.14	18
Carbon Dioxide	0.014	2.7

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909

Lab ID#: 0908471B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082505b**	**Date of Collection:**	**8/19/09 10:35:00 AM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**8/25/09 10:17 AM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.039
Helium	0.074	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Ambient Air-081909 Lab Duplicate

Lab ID#: 0908471B-01AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082506b**	**Date of Collection: 8/19/09 10:35:00 AM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/25/09 11:01 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.15	22
Carbon Dioxide	0.015	0.039
Helium	0.074	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Monterey Indoor Air- 081909

Lab ID#: 0908471B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082507b**	**Date of Collection:**	**8/19/09 11:05:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**8/25/09 11:27 AM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.059
Helium	0.073	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Del Roy Indoor Air-081909

Lab ID#: 0908471B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082508b**	**Date of Collection: 8/19/09 12:01:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/25/09 11:50 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.046
Helium	0.074	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1-081909

Lab ID#: 0908471B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082509b**	**Date of Collection:**	**8/19/09 4:05:00 PM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**8/25/09 12:14 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Carbon Dioxide	0.015	0.053
Helium	0.073	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVP-1D-081909

Lab ID#: 0908471B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082510b**	**Date of Collection: 8/19/09 4:05:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/25/09 12:38 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Carbon Dioxide	0.015	0.046
Helium	0.074	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: MVPT-1-081909

Lab ID#: 0908471B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082511b**	**Date of Collection:**	**8/19/09 4:45:00 PM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**8/25/09 01:00 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Carbon Dioxide	0.015	0.87
Helium	0.073	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-1-081909

Lab ID#: 0908471B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082512b**	**Date of Collection: 8/19/09 7:04:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/25/09 01:25 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	22
Carbon Dioxide	0.015	0.30
Helium	0.076	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: DRVP-2-081909

Lab ID#: 0908471B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082513b**	**Date of Collection:**	**8/19/09 7:56:00 PM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**8/25/09 02:03 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.14	18
Carbon Dioxide	0.014	2.7
Helium	0.070	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0908471B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082504b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/09 09:51 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Carbon Dioxide	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0908471B-09B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082503b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/09 09:30 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0908471B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9082515b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/09 05:08 PM**	

Compound	%Recovery
Oxygen	100
Carbon Dioxide	100
Helium	101

Container Type: NA - Not Applicable

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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

Project Manager: Peter Cotterall
Collected by: (Print and Sign) P. Sharpshin [signature]
Company: SAIC
Email: cotterallpd@saic.com
Address: 18912 North Creek Pkwy Suite 101 City: Bothell State: WA Zip: 98011
Phone: 425-482-3321 Fax: 425-485-5566

Project Info:
P.O. #
Project #
Project Name

Turn Around Time: ☒ Normal ☐ Rush ______ specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	Ambient Air - 081909	33586	8/19/09	10:35	O_2, CO_2, helium by Modified ASTM D-1946	29	3.5		
02A	Monterey Indoor Air - 081909	34190	8/19/09	11:05	Modified EPA Method	29	3.0		
03A	Del Rey Indoor Air - 081909	33580	8/19/09	12:01	TO-15 using GC/MS	29	3.0		
04A	MVP-1-081909	96100	8/19/09	16:05	in Full Scan and SIM	29	3.0		
05A	MVP-1D-081909	34248	8/19/09	16:05	Full Scan	29	3.0		
06A	MVPT-1-081909	25316	8/19/09	16:45		29.5	2.75		
07A	DRVP-1-081909	34486	8/19/09	19:04		29.5	3.0		
08A	DRVP-2-081909	33772	8/19/09	19:56		29.5	2.0		

[signature] 8/20/2009

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
[signature] 8/20/2009 12:00	Monica Moreno AT 8/21/09 830
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Notes: Analyze all samples for O_2, CO_2 and helium by Modified ASTM D-1946 and Modified EPA Method TO-15 GC/MS SIM/Full Scan.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No (None)	0908471