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**Alameda County  
Environmental Health**

**Mike Bauer**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
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December 2, 2009

Mr. Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: Former Signal Oil Marine Storage and Distribution Facility  
(Former Chevron Bulk Plant 20-6127)  
2301-2311 Blanding Avenue  
Alameda, California  
LOP Case RO0002466

Dear Mr. Wickham:

The purpose of this letter is to verify that as a representative for Chevron Environmental Management Company (Chevron), I reviewed, and concur with, the comments in the *Vapor Sampling Report* for the referenced facility, prepared on behalf of Chevron by Conestoga-Rovers & Associates.

Please feel free to contact me at (714) 671-3207 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Mike Bauer".

---

Mike Bauer  
Project Manager



## VAPOR SAMPLING REPORT

**FORMER SIGNAL OIL BULK PLANT  
(CHEVRON FACILITY 20-6127)  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA**

**Prepared For:**

**Mr. Jerry Wickham  
Alameda County Health Care Services Agency  
Environmental Health Services**

**DECEMBER 2, 2009  
REF. NO. 631916 (9)**

**Prepared by:  
Conestoga-Rovers  
& Associates**

10969 Trade Center Drive, #107  
Rancho Cordova, California  
U.S.A. 95670

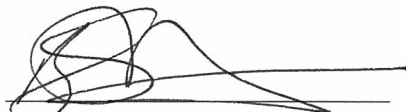
Office: (916) 889-8900  
Fax: (916) 889-8999

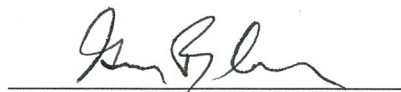
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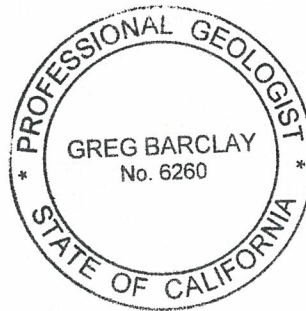


## VAPOR SAMPLING REPORT

FORMER SIGNAL OIL BULK PLANT  
(CHEVRON FACILITY 20-6127)  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA

  
Brian Silva

  
Greg Barclay, PG 6260



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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Vapor Sampling Report* on behalf of Chevron Environmental Management Company (Chevron) for the former Signal Oil Bulk Plant (Chevron facility 20-6127) located at 2301-2311 Blanding Avenue in Alameda, California. The work was performed in accordance with Alameda County Health Care Services Agency, Environmental Health Services (ACEH) correspondence dated September 17, 2009 (Appendix A).

The purpose of the work was to re-install and re-sample sub-slab vapor points VP-9 through VP-13 due to ambient air leaks detected during the initial sampling and to further evaluate the elevated soil vapor concentrations detected in vapor wells VP-1 through VP-6. The work was performed in general accordance with CRA's *Work Plan for Additional Site Investigation*, dated March 11, 2009, *Addendum to Work Plan for Additional Site Investigation*, dated May 28, 2009 (including the provisions outlined in ACEH's June 19, 2009 letter in which the work plan was approved), and CRA's *Well Installation and Sub-Slab Vapor Sampling Report*, dated September 8, 2009. This report includes the results of the soil vapor analyses as well as a summary of the site background, previous environmental work, sub-slab vapor point re-installation, and conclusions and recommendations.

## 2.0 SITE BACKGROUND

The following sections provide a description of the site and a summary of the geologic and hydrogeologic setting at the site.

### 2.1 SITE DESCRIPTION

The approximately 3.5-acre site is located on the northeast side of Blanding Avenue between Oak and Park Streets in Alameda, California (Figures 1 and 2). Land use in the site vicinity is primarily commercial and industrial. The Alameda Canal and a marina are located adjacent to the northeast side of the site. The site is currently occupied by three large commercial buildings, which are used for office, retail, and storage space, and identified as Park Street Landing at 2307-2337 Blanding Avenue. A summary of the site history dating back to 1897 is included in Appendix B.

## **2.2 SITE GEOLOGY AND HYDROGEOLOGY**

Based on past investigation, the soils encountered beneath the site generally consist of silty sand and clayey sand from just beneath grade to approximately 5 to 9 feet below grade (fbg). Fill consisting of black sand and debris, including concrete fragments, has been reported in several borings at shallow depths. A 4- to 5-foot-thick layer of clay with some sand underlies the silty sand and clayey sand. Below the clay is silty sand and sandy silt to the maximum depth of explored of approximately 20.5 fbg. Groundwater is typically encountered in site borings at approximately 14.5 to 15 fbg within the silty sand and sandy silt, and subsequently rises in the borings/wells to approximately 7 fbg to 10 fbg indicating that groundwater beneath the site is semi-confined.

## **2.3 PREVIOUS ENVIRONMENTAL WORK**

To date, 5 groundwater monitoring wells, 5 vapor wells, and 7 sub-slab vapor points have been installed at the site. Additionally, 28 soil borings have been advanced and 3 surface soil samples have been collected at the site. Quarterly monitoring and sampling of well MW-1 and surface water sampling from Alameda Canal (CS-2) initiated in 2001 is ongoing. Newly installed wells MW-2 through MW-5 were added to the quarterly monitoring and sampling program during the third quarter 2009. A summary of previous environmental work performed at the site is presented in Appendix B.

## **3.0 SUB-SLAB VAPOR POINT RE-INSTALLATION AND VAPOR SAMPLING ACTIVITIES**

CRA re-installed and re-sampled sub-slab vapor points VP-9 through VP-13 due to ambient air leaks detected during the initial sampling and sampled vapor wells VP-1 through VP-5 (well VP-6 had water in the screen interval) to further evaluate the elevated soil vapor concentrations detected during the initial sampling (Figure 2). Details of this work are described below.

### **3.1 SITE HEALTH AND SAFETY PLAN**

CRA prepared a comprehensive site health and safety plan to protect site workers. The plan was reviewed and signed by all site workers and visitors and kept onsite at all times.

### **3.2 PERMITS AND UNDERGROUND UTILITY LOCATION**

CRA conducted work under Alameda County Public Works Agency well permit W2009-0579 for sub-slab vapor points VP-9 through VP-13. A copy of the permit is included in Appendix C.

Prior to re-installation activities, CRA contacted Underground Service Alert to notify utility providers of the proposed work and to identify the locations of subsurface utilities.

### **3.3 SUB-SLAB VAPOR POINT RE-INSTALLATION**

On October 15, 2009, CRA removed and re-installed sub-slab vapor points VP-9 through VP-13. The vapor points were removed from each location and the "Fix-All" slurry was cleared from each sub-slab hole. The sub-slab probes were re-installed in the holes and completed flush with the slab. Quick-drying anchoring cement was placed into the annular space between the probe and the edge of the "outer" hole and allowed to cure for one week before sampling.

### **3.4 VAPOR SAMPLING AND LABORATORY ANALYSIS**

On October 22, 2009, CRA collected vapor samples from vapor wells VP-1 through VP-5 and sub-slab vapor points VP-9 through VP-13 (Figure 2) using a flow meter set at 100 milliliters per minute and 1-liter Summa™ canisters connected to the sampling tubes. Vapor well VP-6 could not be sampled due to presence of water in the well screen. CRA's soil vapor sampling field notes are included in Appendix D. The Summa™ canister valves were opened using the vacuum of the canisters to draw the soil vapor through the flow controller until a negative pressure of approximately 5 inches of mercury (Hg) was observed on the vacuum gauge. Additionally, a field duplicate sample was collected from VP-4. In accordance with the DTSC *Advisory-Active Soil Gas Investigations* guidance document, dated January 28, 2003, leak testing was



performed during sampling using helium. Samples were transported, under chain-of-custody, to Air Toxics, LTD, a California certified laboratory in Folsom, California for the following analyses:

- Total petroleum hydrocarbons as gasoline (TPHg) and VOCs by EPA Method TO-15
- Oxygen, carbon dioxide, methane, and helium (leak check compound) by ASTM Method D-1946

#### 4.0 SOIL VAPOR ANALYTICAL RESULTS

Analytical results for TPHg, benzene, and helium (leak check compound) are summarized below. Soil vapor analytical data, including historical data, is also summarized in Table 1. Laboratory analytical reports are included in Appendix E.

##### *Total Petroleum Hydrocarbons as Gasoline*

- No TPHg was detected in the vapor samples from vapor wells VP-1 and VP-2, or in sub-slab vapor points VP-9 and VP-11 through VP-13
- TPHg was detected in vapor samples from vapor wells VP-3, VP-4, and VP-5, and in sub-slab vapor point VP-10 at concentrations ranging from 2,100 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) in VP-10 to 140,000,000  $\mu\text{g}/\text{m}^3$  in VP-4
- The result for sub-slab vapor point VP-10 is well below the shallow soil gas ESL of 29,000  $\mu\text{g}/\text{m}^3$

##### *Benzene*

- No benzene was detected in the vapor samples from vapor wells VP-1 through VP-3, or in sub-slab vapor points VP-9, and VP-11 through VP-13
- Benzene was detected in vapor samples from vapor wells VP-4 and VP-5, and in sub-slab vapor point VP-10 at concentrations ranging from 16  $\mu\text{g}/\text{m}^3$  in VP-10 to 1,100,000  $\mu\text{g}/\text{m}^3$  in VP-4
- The benzene detection sub-slab vapor point VP-10 (16  $\mu\text{g}/\text{m}^3$ ) is well below the shallow soil vapor ESL of 280  $\mu\text{g}/\text{m}^3$

## *Helium*

- No helium was detected in the vapor samples from vapor wells VP-1 through VP-5 or in sub-slab vapor points VP-9 and VP-11 through VP-13.
- Helium was only detected in vapor sample from sub-slab vapor point VP-10 at 2.4 percent (indicating that there was a leak of ambient air into the sampling apparatus). Given the low percentage of helium reported and low concentrations of hydrocarbon vapor detected (well below any commercial/industrial ESLs for shallow soil gas), the minor detection of helium does not nullify results of the sub-slab samples.

In addition to the target compounds listed above, several non-target VOCs (e.g. trichloroethylene [TCE] and tetrachloroethylene [PCE]) were detected (Appendix E). However, these detections were all below ESLs and are unlikely to be attributed to historical bulk plant operations at the site.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Results of the laboratory analyses of sub-slab vapor samples collected during this investigation confirmed the initial results from sub-slab vapor points VP-9 through VP-13, indicating that there appears to be no human health risk associated with inhalation of vapor resulting from vapor intrusion into the building at 2307 Blanding Avenue.

- All detected soil vapor concentrations in sub-slab vapor samples from VP-9 through VP-13 installed within 2307 Blanding Avenue were at least one order of magnitude lower than the associated ESL.
- No benzene was detected in any of the sub-slab samples, except in VP-10 (16 µg/m<sup>3</sup>), collected within Suite E of 2307 Blanding Avenue, and any detected concentrations (primarily TPHg and benzene) were significantly below ESLs.
- It should be noted that one sub-slab vapor sample (VP-10) collected within 2307 Blanding Avenue had a detection of helium of 2.4 percent indicating that there was a leak of ambient air into the sampling apparatus. However, this minor detection of helium does not nullify the analytical results from this location.

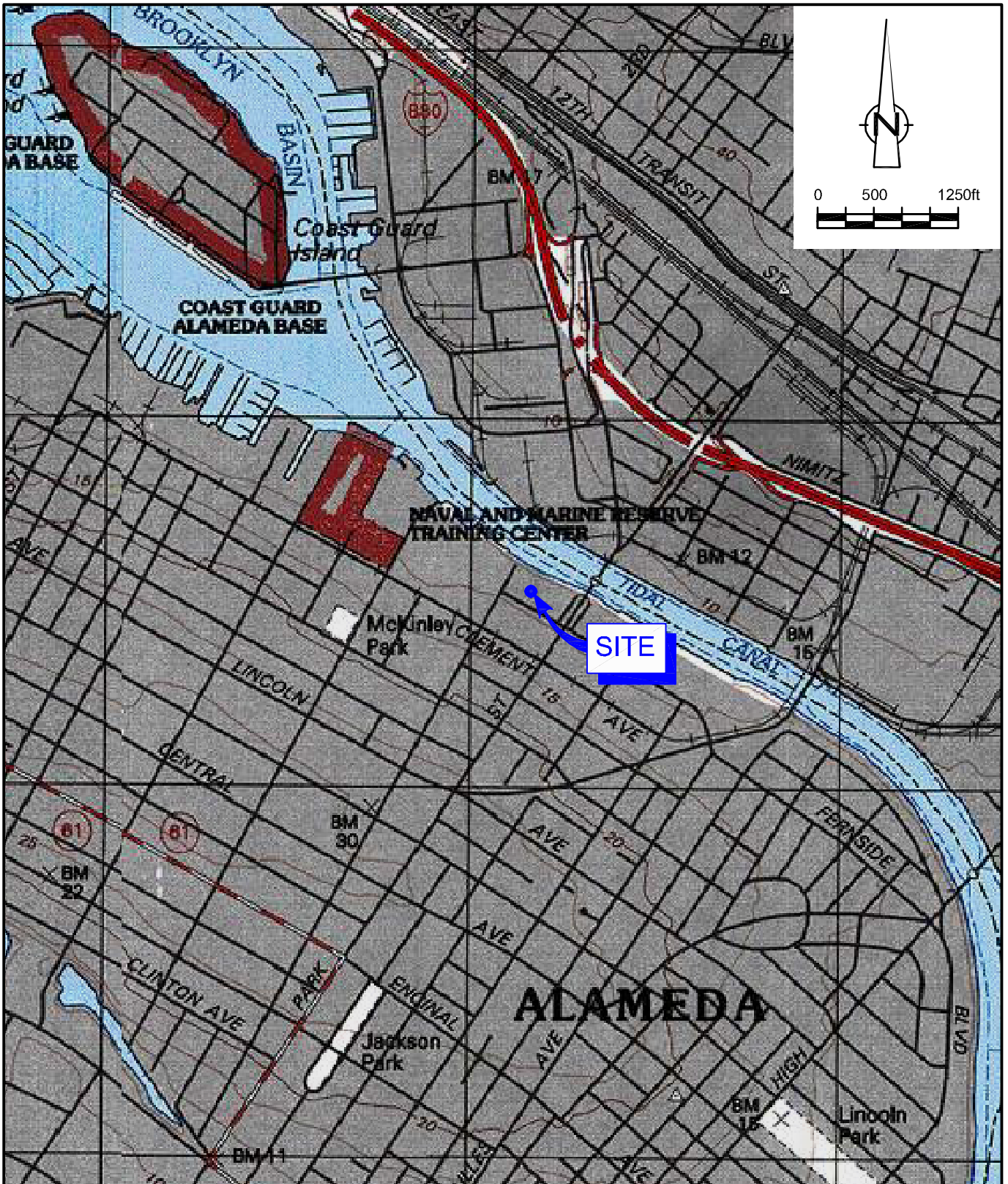
The results of the re-sampling of the vapor wells VP-1 through VP-5 located outside of the buildings were consistent with previous results for vapor wells VP-3 through VP-5.

However, results of the re-sampling of vapor wells VP-1 and VP-2 indicated no TPHg or benzene vapor concentrations at each of these locations, which is not consistent with the initial sample results from August 2008.

Based on the past sub-slab vapor sampling results from sub-slab vapor points VP-7 and VP-8 (installed at 2317 Blanding Avenue), and recent vapor sampling results from vapor points VP-9 through VP-13 (installed at 2307 Blanding Avenue), there does not appear to be a vapor intrusion risk for the buildings located at either location. Therefore, CRA recommends that sub-slab vapor points VP-7 through VP-13 be destroyed since all target analytes were not detected above reporting limits or are at least one order of magnitude lower than the associated ESL.

CRA recommends that the vapor wells (VP-1 through VP-6) be sampled on an annual basis. While elevated TPHg and benzene have recently been detected above ESLs in vapor wells VP-3 through VP-5, and initially in vapor wells VP-1 through VP-6, vapor concentrations have declined since the initial sampling, most notably in vapor wells VP-1 and VP-2. In addition, site soil and groundwater data suggest that these elevated vapor concentrations are likely limited to the immediate vicinity of the vapor wells.

## FIGURES

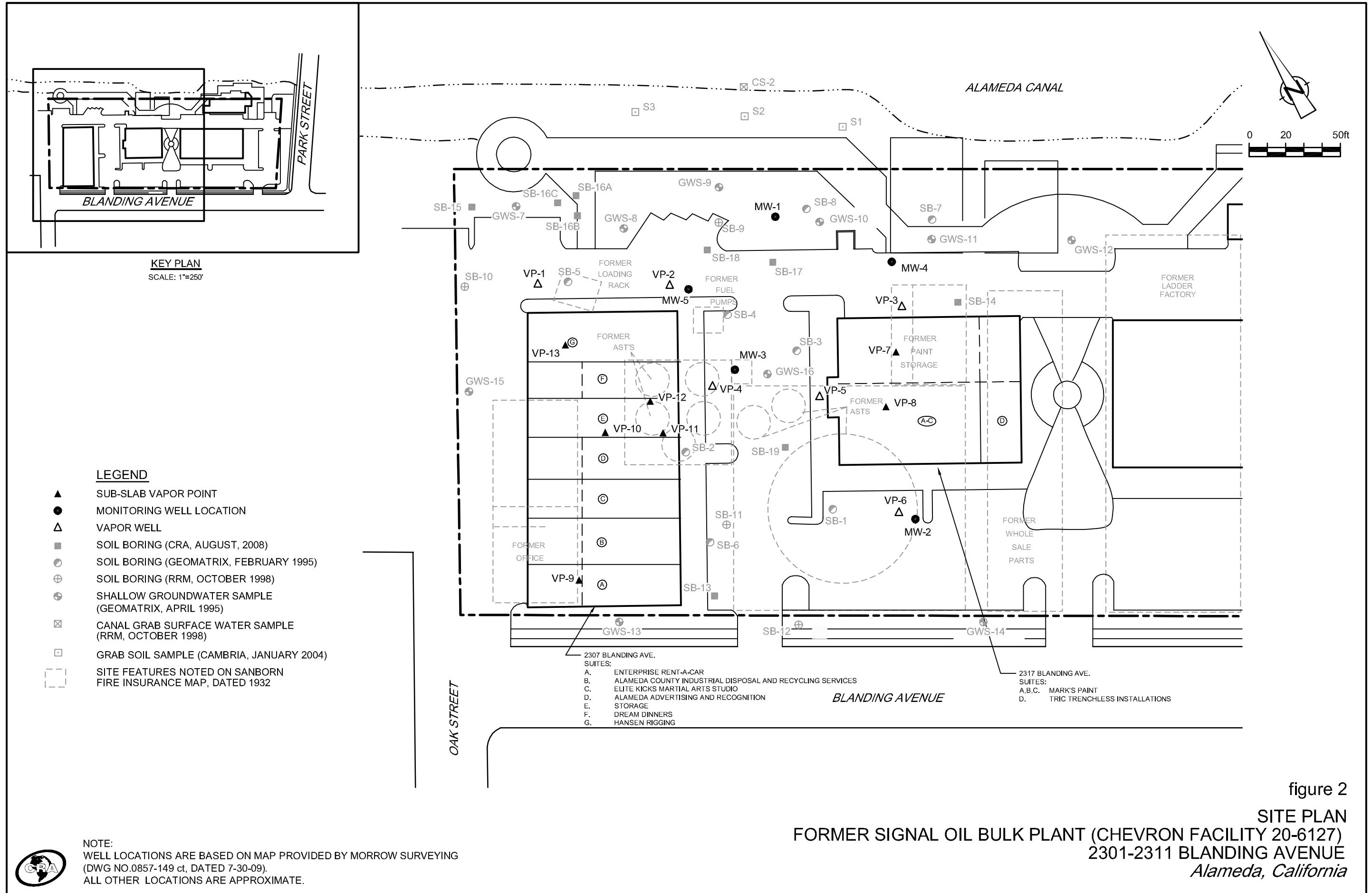


SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP  
 FORMER SIGNAL OIL BULK PLANT (CHEVRON FACILITY 20-6127)  
 2301-2311 BLANDING AVENUE  
 Alameda, California





NOTE:  
WELL LOCATIONS ARE BASED ON MAP PROVIDED BY MORROW SURVEYING  
(DWG NO.0857-149 ct, DATED 7-30-09).  
ALL OTHER LOCATIONS ARE APPROXIMATE.



TABLE

TABLE 1

SOIL VAPOR ANALYTICAL RESULTS  
FORMER SIGNAL OIL BULK PLANT  
(CHEVRON FACILITY 20-6127)  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA

Vapor Well/Point ID	Date Sampled	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylene	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	He (%)
<i>Concentrations in micrograms per cubic meter (µg/m<sup>3</sup>); except where noted</i>										
VP-1	8/19/2008	13,000	1,300,000	300	140	240	540	17	4.0	<0.12
	10/22/2009	NA	<88	<3.4	<4.1	<4.7	<4.7	9.4	5.7	<0.11
VP-2	8/19/2008	24,000	1,500,000	140	<86	130	300	8.9	11	<0.11
	10/22/2009	NA	<95	<3.7	<4.4	<5.0	<5.0	13	8.0	<0.12
VP-3	8/19/2008	53,000E	4,100,000	<700	<830	<960	1,200	1.7	11	<0.11
	10/22/2009	NA	1,800,000	<130	<150	<180	<180	1.4	8.1	<0.12
VP-4	8/19/2008	91,000S	220,000,000	1,100,000	49,000	570,000	70,000	0.55	16	<0.13
	10/22/2009	NA	140,000,000	1,100,000	<48,000	650,000	71,000	0.64	15	<0.13
	10/22/2009*	NA	130,000,000	1,000,000	<46,000	540,000	57,000	0.62	14	<0.12
VP-5	8/19/2008	110,000S	29,000,000	28,000	<4,400	<5,000	<5,000	2.0	15	<0.12
	10/22/2009	NA	20,000,000	16,000	<4,800	<5,500	<5,500	1.3	17	<0.13
VP-6	8/19/2008	96,000S	150,000,000	20,000	<10,000	<12,000	<12,000	3.9	9.8	<0.11
	8/19/2008*	22,000	840,000	100	<86	130	290	9.2	10	<0.11
VP-7	7/24/2009	NA	<95	<3.7	<4.4	<5.0	<5.0	19	0.6	<0.12
VP-8	7/24/2009	NA	490	<3.5	<4.1	<4.8	<4.8	21	0.56	<0.11
	7/24/2009*	NA	8,200	7	48	24	100	21	0.56	<0.11
VP-9	7/24/2009	NA	8,800	<3.8	38	<5.3	19	15	0.14	29
	10/22/2009	NA	<90	<3.5	<4.1	<4.8	<4.8	20	0.73	<0.11
VP-10	7/24/2009	NA	2,500B	<3.7	7	52	130	17	0.48	16
	10/22/2009	NA	2,100	16	6.1	12	<5.2	20	0.29	2.4
VP-11	7/24/2009	NA	450B	<3.9	13	<5.2	8	16	0.26	22
	10/22/2009	NA	<99	<3.9	<4.6	<5.2	<5.2	14	4.0	<0.12
VP-12	7/24/2009	NA	190B	<3.6	<4.2	<4.9	<4.9	19	0.73	0.43
	7/24/2009*	NA	1,600B	<3.6	<4.2	<4.9	<4.9	19	0.73	0.44



TABLE 1

SOIL VAPOR ANALYTICAL RESULTS  
FORMER SIGNAL OIL BULK PLANT  
(CHEVRON FACILITY 20-6127)  
2301-2311 BLANDING AVENUE  
ALAMEDA, CALIFORNIA

<i>Vapor Well/Point ID</i>	<i>Date Sampled</i>	<i>TPHd</i>	<i>TPHg</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethyl- benzene</i>	<i>m,p- Xylene</i>	<i>O<sub>2</sub> (%)</i>	<i>CO<sub>2</sub> (%)</i>	<i>He (%)</i>
<i>Concentrations in micrograms per cubic meter (<math>\mu\text{g}/\text{m}^3</math>); except where noted</i>										
	10/22/2009	NA	<95	<3.7	<4.4	<5.0	<5.0	18	1.4	<0.12
VP-13	7/24/2009	NA	<b>8,600B</b>	<3.6	<b>200</b>	<5.0	<b>9</b>	15	0.16	26
	10/22/2009	NA	<95	<3.7	<4.4	<5.0	<5.0	20	1.3	<0.12
ESLs		29,000	29,000	280	180,000	3,300	58,000**	NE	NE	NE

**Abbreviations and Notes:**

TPHd = Total petroleum hydrocarbons as diesel by EPA Method TO-17

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method TO-3 (8/19/08) or TO-15

Volatile Organic Compounds by EPA Method TO-15

O<sub>2</sub>, CO<sub>2</sub>, and He = Oxygen, Carbon Dioxide, and Helium by ASTM Method D-1946

&lt; = Not detected at or above stated laboratory reporting limit

\* = Duplicate sample

\*\* = ESL is for total xylenes

E = Laboratory data qualifier; exceeds instrument calibration range

S = Laboratory data qualifier; saturated peak, data reported as estimated

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed

ESLs = Shallow soil gas Environmental Screening Levels associated with vapor intrusion concerns at commercial/industrial (Table E). SFRWQCB - May 2008

NA = Not analyzed

NE = Not established

APPENDIX A

REGULATORY CORRESPONDENCE

ALAMEDA COUNTY  
**HEALTH CARE SERVICES**  
AGENCY  
ALEX BRISCOE, Acting Director

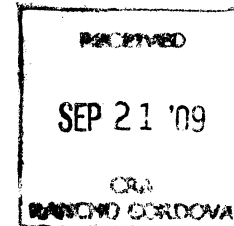


ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-93

September 17, 2009

Mr. Mike Bauer  
Chevron Environmental Management Company  
145 S. State College Blvd.  
Brea, CA 92821

Ms. Julie Beck Ball  
Mr. Peter Reinhold Beck  
2720 Broderick Street  
San Francisco, CA 94123



Subject: SLIC Case No. RO0002466 and Geotracker Global ID T06019744728, Park Street Landing  
2301-2337 Blanding Avenue, Alameda, CA 94501

Dear Mr. Bauer and Ms. Ball:

Alameda County Environmental Health (ACEH) staff has reviewed the Spills, Leaks, Investigations, and Cleanups (SLIC) case file for the above referenced site including the recently submitted document entitled, "*Well Installation and Sub Slab Vapor Sampling Report*," dated September 8, 2009 (Report) and prepared on Chevron's behalf by Conestoga-Rovers & Associates. The Report presents results from the soil vapor probe installation and sampling. Monitoring wells MW-2 through MW-5 were installed but had not been sampled at the time the report was prepared. Helium was detected in vapor probes VP-9 through VP-13. In addition, the results from the sub slab probes were significantly different than previous soil vapor sampling results outside the building.

The Report recommends re-sampling soil vapor probes VP-1 through VP-6 and re-installing and re-sampling sub-slab probes VP-9 through VP-13. This recommendation is generally acceptable; please present results from the re-installation and re-sampling in the report requested below. Please assure that the gap between the sub-slab probe and the concrete slab is completely sealed to prevent possible vapors intrusion through the slab into the building. The seal between the probe and slab must not have cracks or other openings that could potentially allow a preferential pathway for vapor migration through the slab.

The proposed quarterly groundwater sampling of recently installed wells MW-2 through MW-5 is acceptable. Please present the results in the reports requested below.

Mr. Mike Bauer  
Ms. Julie Beck Ball  
RO0002466  
September 17, 2009  
Page 2

### TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **December 2, 2009** – Soil Vapor and Sub-Slab Sampling Report
- **30 days after end of each quarter** – Quarterly Groundwater Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting)).

### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For

Mr. Mike Bauer  
Ms. Julie Beck Ball  
RO0002466  
September 17, 2009  
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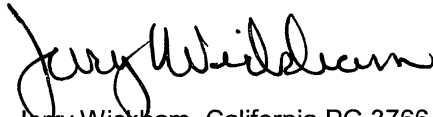
your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

### **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org).

Sincerely,



Jerry Wickham, California PG 3766, CEG 1177, and CHG 297  
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Mr. Brian Silva, Conestoga-Rovers & Associates, 10969 Trade Center Drive, Suite 107, Rancho Cordova, CA 95670

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Geotracker, File

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	ISSUE DATE: July 5, 2005
	REVISION DATE: March 27, 2009
	PREVIOUS REVISIONS: December 16, 2005, October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

#### REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:  
RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

#### Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

#### Submission Instructions

- 1) Obtain User Name and Password:
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org)
    - Or
    - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
  - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
  
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape and Firefox browsers will not open the FTP site.
  - b) Click on File, then on Login As.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
  
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

SUMMARY OF PREVIOUS ENVIRONMENTAL WORK

## SUMMARY OF SITE HISTORY AND PREVIOUS ENVIRONMENTAL WORK

*Former Signal Oil Bulk Plant 20-6127  
2301-2311 Blanding Avenue, Alameda, California*

**Site History:** A Sanborn map dated 1897 showed the site as occupied by several residential structures and outbuildings; the southeast portion of the site was shown as occupied by a laundry facility and a blacksmith. From at least 1930 until approximately 1961, the northwestern portion of the site was occupied by a petroleum bulk plant operated by Signal Oil & Gas Company. Former bulk plant facilities consisted of one large and seven smaller gasoline aboveground storage tanks (ASTs) within concrete secondary containment, underground piping, an office building, a loading rack, and a small structure containing gasoline pumps (Figure 2). The northeast portion of the facility was shown as occupied by a structure identified as an auto garage and also used for paint storage on Sanborn maps dated between 1932 and 1950. A rail spur was shown to service the facilities on Blanding Avenue. The central portion of the site was shown as occupied by two structures identified as wholesale tires and a can warehouse. An additional larger structure was shown in the central portion of the site that was identified as vacant on the 1948 Sanborn map and as a ladder factory on the 1950 Sanborn map. Several structures appeared to be present in the southeast portion of the site in the 1939 aerial photograph. However, only one or two small sheds were shown in this area on the 1948 and 1950 Sanborn maps. In the 1958 aerial photograph, the ladder factory structure no longer appeared present and the southeast portion of the site appeared vacant and used for parking. Between 1957 and 1963, the buildings at the site were reportedly removed; it is assumed that the ASTs and piping were also removed at this time. In the 1965 aerial photograph, all the bulk plant facilities appear to have been removed and the majority of the site appears occupied by a construction materials yard with several small structures. Several additional structures also appear present in the southeast portion of the site. From 1973 to 1983, the northwestern portion of the site reportedly was used as a construction yard and for boat repair activities; and the southeastern portion was occupied by a restaurant, paved parking area, and a possible automobile sales lot. In 1987, the site was redeveloped with the current configuration.

**1995 Soil and Groundwater Investigation:** In February 1995, Geomatrix Consultants, Inc. (Geomatrix) advanced eight soil borings (SB-1 through SB-8) to approximately 10 feet below grade (fbg) in the northwestern portion of the site to evaluate if previous site uses had impacted soil and groundwater quality. Groundwater was not encountered in the borings. Two to three soil samples were collected at various depths from each boring for laboratory analysis. Nineteen samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd); and benzene, toluene, ethylbenzene, and xylenes (BTEX). TPHg was detected in six of the samples at concentrations ranging from 4.0 to 2,000 milligrams per kilogram (mg/kg). TPHd was detected in the majority of the samples at concentrations ranging from 10 to 250 mg/kg. BTEX were also detected in several of the samples (benzene up to 3.7 mg/kg). The highest concentrations of petroleum hydrocarbons generally were detected in borings SB-2 and SB-4 located in the vicinity of the former ASTs and gasoline pump, respectively, between 4 and 7 fbg. One sample from each boring (depths ranging from 0.5 to 3 fbg) was also analyzed for



CAM 17 metals. The detected metals concentrations generally appeared to be within the range of natural background levels with the exception of slightly elevated arsenic in a few samples. Arsenic was detected in the samples collected at 1 fbg from borings SB-3, SB-4, and SB-6 at 68 mg/kg, 46 mg/kg, and 130 mg/kg, respectively. As a result, deeper samples collected from borings SB-3 (6.5 fbg) and SB-6 (8 fbg) were also analyzed for arsenic; arsenic was not detected in the sample collected from SB-3, but was detected at 2.5 mg/kg in the sample collected from SB-6. Based on these results, the soil impacted with arsenic appeared to be of limited vertical extent. Three soil samples (SB-4-7', SB-5-6', and SB-8-7') were also analyzed for VOCs, which were not detected. Based on the soil analytical results, a shallow groundwater survey was recommended to evaluate if groundwater had been impacted by petroleum hydrocarbons.

In April 1995, Geomatrix collected grab-groundwater samples from 10 shallow borings (GWS-7 through GWS-16) drilled to depths of 15 to 21.5 fbg at the site. Borings GWS-7 through GWS-12 were located in the northeastern portion of the site adjacent to Alameda Canal to evaluate if impacted groundwater was flowing toward the canal; based on an assumed groundwater flow direction toward the canal. Borings GWS-13 through GWS-15 were located on the southwest and northwest property boundaries in the assumed upgradient and perimeter crossgradient directions to evaluate the quality of groundwater coming onto the site. Boring GWS-16 was located to the northeast of the former ASTs and was drilled approximately 6 feet deeper than the remaining borings to evaluate deeper groundwater quality. The groundwater samples were analyzed for TPHg, BTEX, and TPHd; the samples were filtered by the laboratory to remove turbidity and a silica-gel cleanup was performed to remove non-petroleum organic matter prior to the TPHd analysis. TPHg was detected in the samples collected from borings GWS-8 through GWS-11 and GWS-16 at concentrations ranging from 70 (GWS-16) to 22,000 micrograms per liter ( $\mu\text{g/L}$ ) (GWS-9). TPHd was detected in the samples collected from borings GWS-8 through GWS-11 at concentrations ranging from 60 (GWS-8) to 1,200  $\mu\text{g/L}$  (GWS-9). Benzene was detected in the samples collected from borings GWS-8 through GWS-10 and GWS-16 at concentrations of 36  $\mu\text{g/L}$ , 6,200  $\mu\text{g/L}$ , and 880  $\mu\text{g/L}$ , respectively. Toluene, ethylbenzene, and xylenes (up to 1,200  $\mu\text{g/L}$ ) were also detected in several of the samples. The maximum concentrations were detected in boring GWS-9 located downgradient of the gasoline pump and loading rack. Petroleum hydrocarbons were not detected in the upgradient borings GWS-13 through GWS-15. The deeper sample (GWS-16) contained only low to trace hydrocarbon concentrations.

A black granular material was encountered in boring GWS-7 in the northern corner of the site from approximately 2.5 to 6 fbg. This material appeared similar to a small pile of black granular material observed on the northwestern property boundary that appeared to have originated from the adjacent property (a metal fabrication company). A sample of this material was collected and analyzed for TPHd, VOCs, semi-VOCs, and CAM 17 metals. An elevated concentration of copper (1,700 mg/kg) was detected in the sample. The detected concentration did not exceed the Total Threshold Limit Concentration (TTLC) of 2,500 mg/kg, which is the concentration above which a waste may be considered hazardous in California. The sample was also analyzed for soluble copper using the Waste Extraction Test (WET) method; which was detected at 0.04 milligrams per liter (mg/L). The detected soluble lead concentration did not exceed the Soluble Threshold Limit Concentration (STLC) of 25 mg/L, which is also the

concentration above which a waste may be considered hazardous in California. Details of this investigation were presented in the report entitled *Soil Investigation and Shallow Groundwater Survey, Northwestern Portion of the Park Street Landing Site*, prepared by Geomatrix and dated September 1995.

**1998 RBCA Tier 1 Evaluation:** In July 1998, RRM, Inc. (RRM) performed a Tier 1 Risk-Based Corrective Action (RBCA) assessment to evaluate the potential health risks posed by residual petroleum hydrocarbons in soil and groundwater at the site. Based on the results, RRM recommended the collection of site-specific data to complete a Tier 2 RBCA evaluation; the identification of the beneficial uses of groundwater beneath the site; an evaluation of background water quality in Alameda Canal; and to provide evidence that biodegradation was reducing hydrocarbon concentrations. Details of this investigation were presented in the report entitled *Risk-Based Corrective Action (RBCA) Tier 1 Evaluation, Park Street Landing Site*, prepared by RRM and dated July 24, 1998.

**1998 Soil and Groundwater Investigation:** In October 1998, RRM performed an additional soil and groundwater investigation at the site. The purpose of the investigation was to: 1) collect site-specific data to complete a Tier 2 RBCA evaluation; 2) identify the beneficial uses of groundwater beneath the site; 3) evaluate the background water quality in Alameda Canal; and 4) evaluate whether biodegradation of petroleum hydrocarbons was occurring beneath the site. Four additional borings (SB-9 through SB-12) were advanced to depths of 15 to 18 fbg during the investigation. A total of eight soil samples were collected at various depths from the borings and analyzed for TPHg, TPHd, BTEX, and methyl tertiary butyl ether (MTBE). TPHg was detected in the soil samples collected at 5 and 13 fbg from boring SB-9 (130 and 900 mg/kg, respectively); and in the sample collected at 6 fbg from boring SB-11 (140 mg/kg). TPHd was detected in the soil samples collected at 5, 13, and 15 fbg from boring SB-9 (3,300 mg/kg, 1,300 mg/kg, and 1.2 mg/kg, respectively); in the sample collected at 5.5 fbg from boring SB-10 (130 mg/kg); and in the sample collected at 6 fbg from boring SB-11 (60 mg/kg). BTEX (up to 3.3 mg/kg) were detected in the soil samples collected from borings SB-9 and SB-11; MTBE (using EPA Method 8020) was only detected in the sample collected at 13 fbg from boring SB-9 (12 mg/kg). Following the initial TPHd analysis, two rounds of silica gel cleanup followed by TPHd analysis were performed on the soil samples from boring SB-9. The detected TPHd concentrations were reduced after each round, indicating that biodegradation was occurring, and natural organic matter was present in the subsurface.

Grab-groundwater samples were collected from each boring and analyzed for TPHg, TPHd, BTEX, and MTBE. TPHg was only detected in the samples collected from borings SB-9 (14,000 µg/L) and SB-11 (310 µg/L). TPHd was detected in the samples collected from borings SB-9 (83,000 µg/L), SB-10 (97 µg/L), and SB-11 (270 µg/L). Benzene and MTBE (using EPA Method 8020) were only detected in the sample collected from boring SB-9 (1,400 and 260 µg/L, respectively); the sample was re-analyzed for MTBE using EPA Method 8260, and MTBE was not detected. Toluene, ethylbenzene, and xylenes (up to 630 µg/L) were detected in the samples collected from borings SB-9 and SB-11. As with the soil samples, a silica-gel cleanup reduced the detected TPHd concentrations. Based on the depth to water in the borings, and the elevation of the borings, the groundwater flow direction was calculated to be northerly. Based

on natural biodegradation indicator parameters in groundwater (dissolved oxygen, oxidation-reduction potential, nitrate, and sulfate), it appeared that petroleum hydrocarbons were being degraded both aerobically and anaerobically; although it appeared that anaerobic processes dominated.

Three grab-water samples (CS-1 through CS-3) were collected from Alameda Canal (Figure 2) and analyzed for TPHg, TPHd, BTEX, and MTBE; which were not detected. Water level measurements were collected from the Alameda Canal and the four temporary wells placed in borings SB-9 through SB-12 to evaluate potential tidal influence on groundwater beneath the site. The fluctuations in borings SB-10 through SB-12 were minimal indicating that groundwater was tidally influenced to a limited degree in these areas. A more significant fluctuation was observed in SB-9; suggesting that groundwater in this area was tidally influenced, and tidal fluctuations would tend to stabilize the petroleum hydrocarbon plume in this area. Two concrete sea walls separated shallow groundwater beneath the site from canal water; likely causing the limited tidal influence. Based on the site data, relevant beneficial uses, and associated water quality parameters, the most applicable beneficial use of groundwater beneath the site was determined to be freshwater replenishment to surface water.

A well survey was performed for a 1/2-mile radius around the site. Nine wells were identified within the search radius (one recovery well, one irrigation well, five extraction wells, and two industrial wells). All the wells were either located up-gradient of the site or across the Alameda Canal. Based on the results of the Tier 2 RBCA evaluation, soil and groundwater petroleum hydrocarbon concentrations at the site did not exceed the site-specific target levels (SSTLs). Details of this investigation were presented in the report entitled *Soil and Groundwater Investigation Results, Former Signal Oil Marine Terminal*, prepared by RRM and dated May 7, 1999.

**2000 Monitoring Well Installation:** In December 2000, Gettler-Ryan Inc., under the supervision of Delta Environmental Consultants, Inc. (Delta), installed one groundwater monitoring well (MW-1) along the northeastern portion of the site adjacent to the Alameda Canal. Soil samples were collected at depths of 5, 10, and 15 fbg from the well boring and analyzed for TPHg, TPHd, BTEX, and MTBE. TPHg was only detected in the sample collected at 10 fbg (320 mg/kg). TPHd was only detected in the samples collected at 5 and 10 fbg (30 and 160 mg/kg, respectively). Low concentrations of BTEX were detected in all the samples; MTBE was not detected in any of the samples. The initial groundwater sample collected from the well contained TPHg, TPHd, and benzene at 5,210 µg/L, 1,100 µg/L, and 868 µg/L, respectively. Details of this investigation were presented in the report entitled *Monitoring Well Installation Report*, prepared by Delta and dated April 10, 2001.

**2004 Soil Investigation:** In January 2004, Cambria Environmental Technology, Inc. (Cambria) collected three surface soil samples (S1, S2, and S3) from the bank above the western shore of the Alameda Canal. Sample S2 was collected directly down-slope of well MW-1 near a water seep observed on the slope above the canal. Samples S1 and S3 were collected approximately 70 feet east and 90 feet north of well MW-1, respectively, to evaluate background concentrations. The three samples were analyzed for TPHg, TPHd, BTEX, and MTBE. TPHg, BTEX, and MTBE

were not detected in any of the samples. TPHd was detected in samples S1, S2, and S3 at 14 mg/kg, 220 mg/kg, and 220 mg/kg, respectively. The laboratory chromatographs indicated that the hydrocarbon pattern observed in these soil samples was not typical of diesel fuel. Therefore, it was concluded the TPHd detections may have represented either highly-degraded diesel fuel from various historical onsite and nearby operations, or residual organic material of unknown origin present in local fill material. Details of this investigation were presented in the report entitled *Soil Sampling Report*, prepared by Cambria and dated February 18, 2004.

Based on generally decreasing petroleum hydrocarbon concentrations in well MW-1 observed during quarterly monitoring, Cambria submitted a case closure request to ACEH dated January 10, 2006. In response to this request, and in a letter dated October 17, 2007, the ACEH requested the collection of additional data to substantiate the conclusion that petroleum hydrocarbons were not migrating and discharging into Alameda Canal. In addition, the potential for vapor intrusion was to be evaluated. Therefore, CRA prepared and submitted *Soil Boring and Vapor Point Installation Work Plan*, dated January 10, 2008. In a letter dated January 30, 2008, the ACEH approved the work plan, with several provisions.

**2008 Site Investigation:** In July 2008, CRA advanced six soil borings (SB-13 through SB-15 and SB-17 through SB-19) to a maximum depth of 16 fbg, and installed and sampled six permanent soil vapor wells (VP-1 through VP-6) to depths of 4.5 to 6 fbg. Soil boring SB-16 was cleared to 3 fbg but could not be completed due to refusal encountered at three locations (16A, B, and C). Soil boring SB-16 was cleared to 3 fbg but could not be completed due to refusal encountered at three locations (16A, B, and C).

Soil analytical data indicated that the majority of TPHd and TPHg concentrations in soil are generally located in the area of and downgradient of the former ASTs. The highest concentrations were detected in boring VP-4 at 5 fbg. Relatively low concentrations of TPHd and TPHg were detected in the perimeter borings. Low concentrations of petroleum-related VOCs were also detected in the majority of the soil samples. The BTEX and VOC concentrations generally did not exceed the ESLs, with the exception of a few samples. Concentrations generally appeared to attenuate or were significantly reduced at 10 fbg. Generally, concentrations of metals were consistent with background levels and only exceeded the ESLs in a few of the samples. Metals in shallow soil across the northwest portion of the site do not appear to be a result of former bulk plant operations. The metals do not appear to have impacted groundwater as only barium was detected in well MW-1.

The highest concentrations of hydrocarbons in groundwater were generally located downgradient of the former ASTs. TPHd, TPHg, and benzene were detected in downgradient boring SB-18 at 19,000 µg/L, 3,800 µg/L, and 590 µg/L, respectively; but only at 1,600 µg/L, 650 µg/L, and 3 µg/L, respectively, in boring SB-19 adjacent to the former large AST. Only relatively low concentrations of TPHd (up to 750 µg/L) were detected in perimeter borings SB-13, SB-14, and SB-15; and as evidenced by the work performed by RRM, some or most of the detected TPHd may be due to natural organic matter. The extent of the impacted groundwater is well-defined by borings GWS-7, GWS-12 through GWS-15, SB-10 (following silica gel cleanup), and SB-12. Chlorinated solvents were not detected in any of the soil samples

collected, and generally were not detected in the groundwater samples with the exception of low concentrations of TCE, cis-1,2-DCE, and vinyl chloride in the sample collected from boring SB-15 in the northeast corner of the site.

The highest hydrocarbon concentrations in soil gas were detected in vapor wells VP-4, VP-5, and VP-6 located in the area of the former ASTs. Significantly lower concentrations were detected in vapor wells VP-1 and VP-2 located downgradient of VP-4. Chlorinated solvents were not detected in the soil vapor samples. Additional details of this investigation are presented in CRA's report entitled *Site Investigation Report*, dated October 2008.

**2009 Monitoring Well Installation and Sub-Slab Vapor Sampling:** In June 2009, CRA installed monitoring wells MW-2 through MW-5 to total depths of 16 to 20.5 fbg in order to further evaluate groundwater quality beneath the site. The new monitoring wells were installed within the former ASTs (MW-3), and north (MW-5), south (MW-2), and east (MW-4) of the former ASTs. Soil analytical data indicated that the majority of TPHd and TPHg concentrations in soil are located north to south through the former ASTs and generally decreases with depth. The highest TPHd concentration detected was from well boring MW-3 at 4 fbg at a concentration of 610 mg/kg. The highest TPHg concentration detected was from well boring MW-2 at 4.5 fbg at 1,100 mg/kg. No petroleum hydrocarbons were detected in perimeter well boring MW-4. No grab-groundwater samples were collected.

CRA also installed sub-slab vapor points beneath the two western buildings at the site in order to further evaluate potential vapor intrusion beneath the buildings. Two sub-slab vapor points (VP-7 and VP-8) were installed inside 2317 Blanding Avenue and five sub-slab vapor points (VP-9 through VP-13) were installed inside 2307 Blanding Avenue. The highest hydrocarbon concentrations in soil gas were detected in vapor points VP-9 and VP-13, located west-southwest of the former ASTs. Lower concentrations were detected in vapor points VP-8, and VP-10 through VP-12. All detected concentrations were below the shallow soil gas ESL of 29,000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Target chlorinated solvents were not detected in the soil vapor samples. Additional details of this investigation are presented in CRA's *Well Installation and Sub-Slab Vapor Sampling Report*, dated September 8, 2009.

APPENDIX C

PERMIT

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 06/16/2009 By jamesy**

**Permit Numbers: W2009-0579 to W2009-0584**  
**Permits Valid from 10/15/2009 to 10/15/2009**

**Application Id:** 1244498395674  
**Site Location:** 2301-2311 Blanding, Alameda, CA  
**Project Start Date:** 06/18/2009  
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org  
**Extension Start Date:** 10/15/2009  
**Extension Count:** 3

**City of Project Site:** Alameda

**Completion Date:** 06/22/2009

**Extension End Date:** 10/15/2009  
**Extended By:** vickyh1

**Applicant:** Conestoga-Rovers & Associates - B Silva  
10969 Trade Center Dr #107, Sacramento, CA 95670  
**Property Owner:** Julie B Hall & Peter Totsy Becky Trustees  
PO Box 278, Meadow Valley, CA 95956  
**Client:** \*\* same as Property Owner \*\*

**Phone:** 916-889-8900

**Phone:** --

	<b>Total Due:</b>	\$1955.00
<b>Receipt Number: WR2009-0221</b>	<b>Total Amount Paid:</b>	\$1955.00
<b>Payer Name : Conestoga Rovers &amp; Associates</b>		<b>PAID IN FULL</b>
<b>Paid By: CHECK</b>		

## Works Requesting Permits:

Remediation Well Construction-Vapor Remediation Well - 7 Wells  
Driller: Conestoga Rovers - Lic #: 0 - Method: Hand

**Work Total: \$230.00**

### Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0579	06/16/2009	09/16/2009	VP10	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP11	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP12	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP13	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP7	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP8	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP9	3.00 in.	0.25 in.	1.00 ft	1.00 ft

### Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or

## Alameda County Public Works Agency - Water Resources Well Permit

waterways or be allowed to move off the property where work is being completed.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.
4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).
7. Minimum surface seal thickness is two inches of cement grout placed by tremie
8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
9. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

Well Construction-Monitoring-Monitoring - 5 Wells

Driller: Gregg Drilling - Lic #: 485165 - Method: DP

**Work Total: \$1725.00**

### Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0580	06/16/2009	09/16/2009	MW2	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0581	06/16/2009	09/16/2009	MW3	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0582	06/16/2009	09/16/2009	MW4	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0583	06/16/2009	09/16/2009	MW5	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0584	06/16/2009	09/16/2009	MW6 cancelled	6.00 in.	2.00 in.	5.00 ft	15.00 ft

### Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters



## Alameda County Public Works Agency - Water Resources Well Permit

generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

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APPENDIX D

CRA FIELD DATA SHEETS

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET PAGE 1 OF 6

Soil Vapor Sampling Point ID: VP-9 (SS)

Project Name: 20-6127

Date: 10/22/2009

Project No: 631916

Sampler: JAN HULL

Site Address: BLANDING AVE, OAKLAND

PM: BRIAN SILVA

**Purge Volume**

Calculated Purge Volume: SUB-SLAB NO PURGE

Time	Flow Rate	Volume	Comments

**Sample Collection**

Flow Control Setting: 167 mL/min

Summa Canister ID: 1433

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
<u>0900</u>	<u>-30</u>	<u>0915</u>	<u>-3</u>	

Notes: CLOUDY, COOL (65°F), DRY GROUND  
HELIUM LEAK TEST: ~0/80 He WHILE SAMPLING  
SHUT-IN TEST: -30" Hg FROM 0850-0900

Soil Vapor Sampling Point ID: VP-405.5

Project Name: \_\_\_\_\_

Date: 10/22/2009

Project No: \_\_\_\_\_

Sampler: IMH

Site Address: \_\_\_\_\_

PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: +1/10-L = 4" Hg

Time	Flow Rate	Volume	Comments
<u>1027-1028</u>	<u>167 mL/min</u>	<u>+1/10-L/4" Hg</u>	

**Sample Collection**

Flow Control Setting: 167 mL/min

Summa Canister ID: 35635

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
<u>1038</u>	<u>-30</u>	<u><del>1055</del></u>	<u>-7</u>	

Notes: WELL BOX FLOODED, PROBE NOT PROPERLY CAPPED. SOME WATER INSIDE  
PROBE TUBING, INCLUDING ~~IN~~ CONDENSATION.  
SHUT-IN TEST: -26" Hg FROM 1010-1020  
LEAK TEST: ~8% He DURING SAMPLING

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET

PAGE 2 OF 6

Soil Vapor Sampling Point ID: VP-4 DUP @ 5.5

Project Name: 20-6127  
 Project No: 631916  
 Site Address: \_\_\_\_\_

Date: 10/22/2009  
 Sampler: IAN HULL  
 PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: PURGED FOR ABOVE PARENT SAMPLE

Time	Flow Rate	Volume	Comments

**Sample Collection**

Flow Control Setting: 167 mL/min      Summa Canister ID: 35641  
 Summa Canister Size: 1L      Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
<u>1038</u>	<u>-30</u>	<u>1055</u>	<u>-6</u>	

Notes: SEE ABOVE NOTES

Soil Vapor Sampling Point ID: VP-13      (SS)

Project Name: \_\_\_\_\_  
 Project No: \_\_\_\_\_  
 Site Address: \_\_\_\_\_

Date: 10/22/2009  
 Sampler: IMH  
 PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: SUB-SLAB: NO PURGING

Time	Flow Rate	Volume	Comments

**Sample Collection**

Flow Control Setting: 167 mL/min      Summa Canister ID: 9512  
 Summa Canister Size: 1L      Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
<u>1104</u>	<u>-30</u>	<u>1111</u>	<u>-5</u>	

Notes: SHUT-IN TEST: -30" H<sub>2</sub>O FROM 1045 - 1055,  
LEAK TEST: ~80% HE ~~FROM~~ WHILE SAMPLING

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET PAGE 3 OF 6

Soil Vapor Sampling Point ID: VP-12      (SS)

Project Name: 20-6127

Date: 10/22/2009

Project No: 631916

Sampler: IAN M. HULL

Site Address: SEE FIRST PG.

PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: SUB-SLAB: NO PURGE

Time	Flow Rate	Volume	Comments

**Sample Collection**

Flow Control Setting: 167 mL/min

Summa Canister ID: 9534

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
1221	L-30	1226	-5	

Notes: SHUT-IN TEST: -30" Hg FROM 1200-1210  
LEAK TEST: ~80% HE DURING SAMPLING

Soil Vapor Sampling Point ID: VP-10      (SS)

Project Name: \_\_\_\_\_

Date: 10/22/2009

Project No: \_\_\_\_\_

Sampler: IAN HULL

Site Address: \_\_\_\_\_

PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: SUB-SLAB: NO PURGE

Time	Flow Rate	Volume	Comments

**Sample Collection**

Flow Control Setting: 167 mL/min

Summa Canister ID: 9399

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
1238	L-30	1245	-6	

Notes: SHUT-IN TEST: -30" Hg FROM 1200-120  
LEAK TEST: ~80% HE DURING SAMPLING

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET

PAGE 4 OF 6

Soil Vapor Sampling Point ID: VP-11      (SS)

Project Name: 20-6127

Date: 10/22/2009

Project No: 631916

Sampler: IAN HULL

Site Address: SEE FIRST PG.

PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: SUB-SLAB: NO PURGE

Time	Flow Rate	Volume	Comments

**Sample Collection**

Flow Control Setting: 167 mL/min

Summa Canister ID: 9539

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
<u>1256</u>	<u>-30</u>	<u>1300</u>	<u>-6</u>	

Notes: SHUT-IN TEST: -30" Hg FROM 1200-1210  
LEAK TEST: ~80% He DURING SAMPLING  
~~SLIGHT TURNING OF PROBE STAGE-LOK IN GROUND~~

Soil Vapor Sampling Point ID: VP-5      @ 5.5

Project Name: \_\_\_\_\_

Date: 10/22/2009

Project No: \_\_\_\_\_

Sampler: IAN HULL

Site Address: \_\_\_\_\_

PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: +1/10-L = 4" Hg

Time	Flow Rate	Volume	Comments
<u>1357-1358</u>		<u>+1/10-L / 4" Hg</u>	

**Sample Collection**

Flow Control Setting: 167 mL/min

Summa Canister ID: 36392

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
<u>1403</u>	<u>-30</u>	<u>1412</u>	<u>-7</u>	

Notes: SHUT-IN: -30" FROM 1330-1340  
~80% He DURING SAMPLING.  
WELL BOX FLOODED, BUT PROBE TUBE INSIDE APPEARS DRY.

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET PAGE 5 OF 6

Soil Vapor Sampling Point ID: VP-6 @ 5.5  
 Project Name: 20-6127 Date: 10/22/2009  
 Project No: 631916 Sampler: JAN HULL  
 Site Address: \_\_\_\_\_ PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: +1/10-L = 4" Hg

Time	Flow Rate	Volume	Comments
1429	_____	_____	SEE BELOW

**Sample Collection**

Flow Control Setting: 167 mL/min Summa Canister ID: 36374  
 Summa Canister Size: 1L Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
_____	_____	_____	_____	_____

Notes: COULDN'T PURGE, WATER PULLED THROUGH PROBE TUBING.  
NO SAMPLE COLLECTABLE

Soil Vapor Sampling Point ID: VP-3 @ 5.5  
 Project Name: \_\_\_\_\_ Date: 10/22/2009  
 Project No: \_\_\_\_\_ Sampler: JAN HULL  
 Site Address: \_\_\_\_\_ PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: +1/10-L / 4" Hg

Time	Flow Rate	Volume	Comments
1453-1455	_____	_____	_____

**Sample Collection**

Flow Control Setting: 167 mL/min Summa Canister ID: 33394  
 Summa Canister Size: 1L Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
1503	<-30	1512	-6	_____

Notes: SHUT-IN: 1436-1440 -12" Hg  
LEAK: ~80% He DURING SAMPLING

\* TRIP BLANK: CAN 2034, TIME 1635

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET

PAGE 6 OF 6

Soil Vapor Sampling Point ID: VP-2 @ 4.5 FBG

Project Name: 20-G127

Date: 10/22/09

Project No: G31916

Sampler: JAN HULL

Site Address: SEE 1<sup>st</sup> PG.

PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: 1/10-L = 3" Hg

Time	Flow Rate	Volume	Comments
1537-1538		1/10-L/3" Hg	

**Sample Collection**

Flow Control Setting: 167 mL/min

Summa Canister ID: 36511

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
1545	L-30	1552	-5	

Notes: SHUT-IN TEST: -17 FROM 1510-1520  
 LEAK TEST: ~80% He DURING SAMPLING  
 WELL BOX DRY. SOME MOISTURE IN PROBE TUBE.  
 IMPROPER FERRULES ON PROBE.

Soil Vapor Sampling Point ID: VP-1 @ 4.0

Project Name: \_\_\_\_\_

Date: 10/22/2009

Project No: \_\_\_\_\_

Sampler: JAN HULL

Site Address: \_\_\_\_\_

PM: \_\_\_\_\_

**Purge Volume**

Calculated Purge Volume: 1/10-L = 3" Hg

Time	Flow Rate	Volume	Comments
1616-1618		~1/10-L/3" Hg	

**Sample Collection**

Flow Control Setting: 167

Summa Canister ID: 1041

Summa Canister Size: 1L

Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum	Sampling Time
1622	L-30	1634	-2	

Notes: SHUT-IN: -18" Hg FROM 1540-1550  
 LEAKS ~80% He DURING SAMPLING.



APPENDIX E

LABORATORY ANALYTICAL REPORTS

11/5/2009

Mr. Brian Silva  
Conestoga-Rovers Associates (CRA)  
10969 Trade Center Dr  
Suite 107  
Rancho Cordova CA 95670

Project Name: Chevron 20-6127  
Project #: 631916  
Workorder #: 0910619B

Dear Mr. Brian Silva

The following report includes the data for the above referenced project for sample(s) received on 10/27/2009 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

**WORK ORDER #: 0910619B**

Work Order Summary

<b>CLIENT:</b>	Mr. Brian Silva Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	<b>BILL TO:</b>	Accounts Payable Conestoga-Rovers Associates (CRA) 2055 Niagara Falls Blvd. Suite Three Niagara Falls, NY 14304
<b>PHONE:</b>	916-889-8900	<b>P.O. #</b>	40-4023395
<b>FAX:</b>		<b>PROJECT #</b>	631916 Chevron 20-6127
<b>DATE RECEIVED:</b>	10/27/2009	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	11/05/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-1	Modified ASTM D-1946	2.0 "Hg	15 psi
02A	VP-2	Modified ASTM D-1946	4.0 "Hg	15 psi
03A	VP-3	Modified ASTM D-1946	5.0 "Hg	15 psi
04A	VP-4	Modified ASTM D-1946	6.0 "Hg	15 psi
05A	VP-4 DUP	Modified ASTM D-1946	5.0 "Hg	15 psi
06A	VP-5	Modified ASTM D-1946	6.0 "Hg	15 psi
07A	VP-9	Modified ASTM D-1946	2.5 "Hg	15 psi
08A	VP-10	Modified ASTM D-1946	5.0 "Hg	15 psi
08AA	VP-10 Lab Duplicate	Modified ASTM D-1946	5.0 "Hg	15 psi
09A	VP-11	Modified ASTM D-1946	5.0 "Hg	15 psi
10A	VP-12	Modified ASTM D-1946	4.0 "Hg	15 psi
11A	VP-13	Modified ASTM D-1946	4.0 "Hg	15 psi
12A	TRIP BLANK	Modified ASTM D-1946	27.5 "Hg	15 psi
13A	Lab Blank	Modified ASTM D-1946	NA	NA
13B	Lab Blank	Modified ASTM D-1946	NA	NA
14A	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY: 

DATE: 11/05/09

Laboratory Director

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

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

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

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

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

**LABORATORY NARRATIVE**  
**Modified ASTM D-1946**  
**Conestoga-Rovers Associates (CRA)**  
**Workorder# 0910619B**

Twelve 1 Liter Summa Canister (100% Certified) samples were received on October 27, 2009. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or 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.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

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

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
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 $\geq 95\%$ 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

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

**Client Sample ID: VP-1**

**Lab ID#: 0910619B-01A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.22	9.4
Nitrogen	0.22	85
Carbon Dioxide	0.022	5.7

**Client Sample ID: VP-2**

**Lab ID#: 0910619B-02A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.23	13
Nitrogen	0.23	79
Carbon Dioxide	0.023	8.0
Methane	0.00023	0.00028

**Client Sample ID: VP-3**

**Lab ID#: 0910619B-03A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	1.4
Nitrogen	0.24	86
Carbon Dioxide	0.024	8.1
Methane	0.00024	4.8

**Client Sample ID: VP-4**

**Lab ID#: 0910619B-04A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.25	0.64
Nitrogen	0.25	38
Carbon Dioxide	0.025	15
Methane	0.00025	43

**Client Sample ID: VP-4 DUP**

**Lab ID#: 0910619B-05A**

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

**Client Sample ID: VP-4 DUP**

**Lab ID#: 0910619B-05A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	0.62
Nitrogen	0.24	40
Carbon Dioxide	0.024	14
Methane	0.00024	42

**Client Sample ID: VP-5**

**Lab ID#: 0910619B-06A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.25	1.3
Nitrogen	0.25	81
Carbon Dioxide	0.025	17
Methane	0.00025	0.041

**Client Sample ID: VP-9**

**Lab ID#: 0910619B-07A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.22	20
Nitrogen	0.22	79
Carbon Dioxide	0.022	0.73

**Client Sample ID: VP-10**

**Lab ID#: 0910619B-08A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	20
Nitrogen	0.24	77
Carbon Dioxide	0.024	0.29
Methane	0.00024	0.00065
Helium	0.12	2.4

**Client Sample ID: VP-10 Lab Duplicate**

**Lab ID#: 0910619B-08AA**

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

**Client Sample ID: VP-10 Lab Duplicate**

**Lab ID#: 0910619B-08AA**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	20
Nitrogen	0.24	77
Carbon Dioxide	0.024	0.29
Methane	0.00024	0.00062
Helium	0.12	2.4

**Client Sample ID: VP-11**

**Lab ID#: 0910619B-09A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	14
Nitrogen	0.24	82
Carbon Dioxide	0.024	4.0

**Client Sample ID: VP-12**

**Lab ID#: 0910619B-10A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.23	18
Nitrogen	0.23	81
Carbon Dioxide	0.023	1.4

**Client Sample ID: VP-13**

**Lab ID#: 0910619B-11A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.23	20
Nitrogen	0.23	79
Carbon Dioxide	0.023	1.3

**Client Sample ID: TRIP BLANK**

**Lab ID#: 0910619B-12A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
-----------------	-----------------------	-------------------





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

**Client Sample ID: TRIP BLANK**

**Lab ID#: 0910619B-12A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Nitrogen	0.10	100

**Client Sample ID: VP-1**

**Lab ID#: 0910619B-01A**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9110406</b>	<b>Date of Collection: 10/22/09 4:34:00 PM</b>
<b>Dil. Factor:</b>	<b>2.16</b>	<b>Date of Analysis: 11/4/09 09:38 AM</b>

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.22	9.4
Nitrogen	0.22	85
Carbon Dioxide	0.022	5.7
Methane	0.00022	Not Detected
Helium	0.11	Not Detected

**Container Type: 1 Liter Summa Canister (100% Certified)**



Client Sample ID: VP-2

Lab ID#: 0910619B-02A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110407	Date of Collection:	10/22/09 3:52:00 PM
Dil. Factor:	2.33	Date of Analysis:	11/4/09 10:00 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	13
Nitrogen	0.23	79
Carbon Dioxide	0.023	8.0
Methane	0.00023	0.00028
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-3

Lab ID#: 0910619B-03A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110408	Date of Collection:	10/22/09 3:12:00 PM
Dil. Factor:	2.42	Date of Analysis:	11/4/09 10:21 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.4
Nitrogen	0.24	86
Carbon Dioxide	0.024	8.1
Methane	0.00024	4.8
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-4

Lab ID#: 0910619B-04A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110409	Date of Collection:	10/22/09 10:55:00 A
Dil. Factor:	2.53	Date of Analysis:	11/4/09 10:47 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	0.64
Nitrogen	0.25	38
Carbon Dioxide	0.025	15
Methane	0.00025	43
Helium	0.13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-4 DUP

Lab ID#: 0910619B-05A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110410	Date of Collection: 10/22/09 10:55:00 A
Dil. Factor:	2.42	Date of Analysis: 11/4/09 11:12 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	0.62
Nitrogen	0.24	40
Carbon Dioxide	0.024	14
Methane	0.00024	42
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-5

Lab ID#: 0910619B-06A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110413	Date of Collection:	10/22/09 2:12:00 PM
Dil. Factor:	2.53	Date of Analysis:	11/4/09 12:32 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	1.3
Nitrogen	0.25	81
Carbon Dioxide	0.025	17
Methane	0.00025	0.041
Helium	0.13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-9

Lab ID#: 0910619B-07A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110416	Date of Collection:	10/22/09 9:15:00 AM
Dil. Factor:	2.20	Date of Analysis:	11/4/09 01:49 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	20
Nitrogen	0.22	79
Carbon Dioxide	0.022	0.73
Methane	0.00022	Not Detected
Helium	0.11	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)





Client Sample ID: VP-10

Lab ID#: 0910619B-08A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110417	Date of Collection:	10/22/09 12:45:00 P
Dil. Factor:	2.42	Date of Analysis:	11/4/09 02:12 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	20
Nitrogen	0.24	77
Carbon Dioxide	0.024	0.29
Methane	0.00024	0.00065
Helium	0.12	2.4

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-10 Lab Duplicate

Lab ID#: 0910619B-08AA

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110422	Date of Collection: 10/22/09 12:45:00 P
Dil. Factor:	2.42	Date of Analysis: 11/4/09 04:23 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	20
Nitrogen	0.24	77
Carbon Dioxide	0.024	0.29
Methane	0.00024	0.00062
Helium	0.12	2.4

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-11

Lab ID#: 0910619B-09A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110418	Date of Collection:	10/22/09 1:00:00 PM
Dil. Factor:	2.42	Date of Analysis:	11/4/09 02:39 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	14
Nitrogen	0.24	82
Carbon Dioxide	0.024	4.0
Methane	0.00024	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-12

Lab ID#: 0910619B-10A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110419	Date of Collection:	10/22/09 12:26:00 P
Dil. Factor:	2.33	Date of Analysis:	11/4/09 03:02 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	18
Nitrogen	0.23	81
Carbon Dioxide	0.023	1.4
Methane	0.00023	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-13

Lab ID#: 0910619B-11A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110420	Date of Collection:	10/22/09 11:11:00 A
Dil. Factor:	2.33	Date of Analysis:	11/4/09 03:29 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	20
Nitrogen	0.23	79
Carbon Dioxide	0.023	1.3
Methane	0.00023	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: TRIP BLANK

Lab ID#: 0910619B-12A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9110421	Date of Collection:	10/22/09 4:35:00 PM
Dil. Factor:	1.00	Date of Analysis:	11/4/09 03:53 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	100
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected
Helium	0.050	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

**Client Sample ID: Lab Blank**

**Lab ID#: 0910619B-13A**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9110404</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/4/09 08:37 AM</b>

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected

**Container Type: NA - Not Applicable**



**Client Sample ID: Lab Blank**

**Lab ID#: 0910619B-13B**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9110403b</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/4/09 08:15 AM</b>

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Helium	0.050	Not Detected

**Container Type: NA - Not Applicable**



**Client Sample ID: LCS**

**Lab ID#: 0910619B-14A**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9110428</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/4/09 08:42 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Oxygen	98
Nitrogen	99
Carbon Dioxide	100
Methane	102
Helium	104

**Container Type: NA - Not Applicable**



**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 BRIAN SILVA  
 Collected by: (Print and Sign) FAN HULL  
 Company CRA Email bsilva@craworld.com  
 Address 10969 TRADE CENTER DR SUITE 107 City RANCHO CORDOVA State CA Zip 95670  
 Phone 916-889-8908 Fax 916-889-8999

<b>Project Info:</b> P.O. # <u>40-4023395</u> Project # <u>631916</u> Project Name <u>CHEVRON 20-6127</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: Date: Pressurization Gas: N <sub>2</sub> He
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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	VP-1	1041	10/22/2009	1634	TPH <sub>9</sub> + VOCs	-30	-2		
02A	VP-2	36511 → <del>1552</del> <sup>1M<sup>4</sup></sup>		1552	BY TO-15	-30	-5		
03A	VP-3	33394		1512	O <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub>	-30	-6		
04A	VP-4	35635		1055	HELIUM BY	-30	-7		
05A	VP-4 DUP	35641		1055	ASTM D-1946	-30	-6		
06A	VP-5	36392		1412		-30	-7		
07A	VP-9	1433		0915		-30	-3		
08A	VP-10	9399		1245		-30	-6		
09A	VP-11	9539		1300		-30	-6		
10A	VP-12	9534		1226		-30	-5		

Relinquished by: (signature) <u>Fan Hull</u> Date/Time <u>10/22/2009 @ 1730</u>	Received by: (signature) <u>Monica Grogen</u> Date/Time <u>10/27/09 905</u>	<b>Notes:</b> PLEASE REPORT IN PBPV AND P <sub>9</sub> /m <sup>3</sup>
Relinquished by: (signature) <u>Fan Hull</u> Date/Time <u>10/26/2009 @ 0800</u>	Received by: (signature) <u>FEDEx</u> Date/Time	
Relinquished by: (signature) _____ Date/Time	Received by: (signature) _____ Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>Jed Ex</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>0910619</u>



**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

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Project Manager BRIAN SILVA

Collected by: (Print and Sign) IAN HULL

Company CRA Email bsilva@craworth.com

Address 1096A TRADE CENTER DR. City RANCHO COORDINATE State CA Zip 95670

Phone 916-889-8908 Fax 916-889-8999

<b>Project Info:</b> P.O. # <u>40-4023395</u> Project # <u>631916</u> Project Name <u>CHEVRON 20-6127</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: Date: Pressurization Gas: N <sub>2</sub> 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)
11A	VP-13	9512	10/22/09	1111	TO-15: TPH <sub>3</sub> , VOC <sub>5</sub>	-30	-5		
12A	TRIP BLANK	2034	↓	1635	ASTM D-1146: O <sub>2</sub> , CO <sub>2</sub> , N <sub>2</sub> , CH <sub>4</sub> , HELIUM	-	-		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>10/22/09 @ 1730</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>SECURE LOCATION</u>	<b>Notes:</b> PLEASE REPORT IN PPBV AND µS/m <sup>3</sup>
Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>10/22/09 @ 0800</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>FED EX</u>	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) <u>Monica Grogan</u> Date/Time <u>AZ 10/27/09 905</u>	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>Fed Ex</u>		<u>NA</u>	<u>Good</u>	Yes No <u>(None)</u>	<u>0910619</u>

11/12/2009

Mr. Brian Silva  
Conestoga-Rovers Associates (CRA)  
10969 Trade Center Dr  
Suite 107  
Rancho Cordova CA 95670

Project Name: Chevron 20-6127  
Project #: 631916  
Workorder #: 0910619A

Dear Mr. Brian Silva

The following report includes the data for the above referenced project for sample(s) received on 10/27/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15/TICs 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 #: 0910619A**

Work Order Summary

<b>CLIENT:</b>	Mr. Brian Silva Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	<b>BILL TO:</b>	Accounts Payable Conestoga-Rovers Associates (CRA) 2055 Niagara Falls Blvd. Suite Three Niagara Falls, NY 14304
<b>PHONE:</b>	916-889-8900	<b>P.O. #</b>	40-4023395
<b>FAX:</b>		<b>PROJECT #</b>	631916 Chevron 20-6127
<b>DATE RECEIVED:</b>	10/27/2009	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	11/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-1	Modified TO-15/TICs	2.0 "Hg	15 psi
02A	VP-2	Modified TO-15/TICs	4.0 "Hg	15 psi
03A	VP-3	Modified TO-15/TICs	5.0 "Hg	15 psi
03AA	VP-3 Lab Duplicate	Modified TO-15/TICs	5.0 "Hg	15 psi
04A	VP-4	Modified TO-15/TICs	6.0 "Hg	15 psi
05A	VP-4 DUP	Modified TO-15/TICs	5.0 "Hg	15 psi
06A	VP-5	Modified TO-15/TICs	6.0 "Hg	15 psi
07A	VP-9	Modified TO-15/TICs	2.5 "Hg	15 psi
08A	VP-10	Modified TO-15/TICs	5.0 "Hg	15 psi
09A	VP-11	Modified TO-15/TICs	5.0 "Hg	15 psi
10A	VP-12	Modified TO-15/TICs	4.0 "Hg	15 psi
11A	VP-13	Modified TO-15/TICs	4.0 "Hg	15 psi
11AA	VP-13 Lab Duplicate	Modified TO-15/TICs	4.0 "Hg	15 psi
12A	TRIP BLANK	Modified TO-15/TICs	27.5 "Hg	15 psi
13A	Lab Blank	Modified TO-15/TICs	NA	NA
13B	Lab Blank	Modified TO-15/TICs	NA	NA
14A	CCV	Modified TO-15/TICs	NA	NA


Continued on next page

**WORK ORDER #: 0910619A**

Work Order Summary

<b>CLIENT:</b>	Mr. Brian Silva Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	<b>BILL TO:</b>	Accounts Payable Conestoga-Rovers Associates (CRA) 2055 Niagara Falls Blvd. Suite Three Niagara Falls, NY 14304
<b>PHONE:</b>	916-889-8900	<b>P.O. #</b>	40-4023395
<b>FAX:</b>		<b>PROJECT #</b>	631916 Chevron 20-6127
<b>DATE RECEIVED:</b>	10/27/2009	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	11/12/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
14B	CCV	Modified TO-15/TICs	NA	NA
15A	LCS	Modified TO-15/TICs	NA	NA
15B	LCS	Modified TO-15/TICs	NA	NA

CERTIFIED BY:   
Laboratory Director

DATE: 11/12/09

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719  
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
 Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10  
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards  
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 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE  
Modified TO-15 Std & Soil Gas  
Conestoga-Rovers Associates (CRA)  
Workorder# 0910619A**

Twelve 1 Liter Summa Canister (100% Certified) samples were received on October 27, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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

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

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Daily CCV	+/- 30% Difference	<= 30% Difference with two allowed out up to <=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
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**

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

Due to matrix interference in the Total Ion Chromatogram internal standard Chlorobenzene-d5 was not used to calculate concentration of TICs in samples VP-3 and VP-3 Lab Duplicate .

**Definition of Data Qualifying Flags**

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

- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
- J - Estimated value.
- E - Exceeds instrument calibration range.

- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

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

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



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

**Client Sample ID: VP-1**

**Lab ID#: 0910619A-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	4.3	23	10	56
2-Butanone (Methyl Ethyl Ketone)	1.1	4.3	3.2	13

**Client Sample ID: VP-2**

**Lab ID#: 0910619A-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	4.7	26	11	61
2-Butanone (Methyl Ethyl Ketone)	1.2	1.6	3.4	4.7

**Client Sample ID: VP-3**

**Lab ID#: 0910619A-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	40	1800	140	6200
Cyclohexane	40	1800	140	6200
2,2,4-Trimethylpentane	40	6400	190	30000
Heptane	40	450	160	1800
TPH ref. to Gasoline (MW=100)	810	450000	3300	1800000

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount (ppbv)
Pentane, 2,4-dimethyl-	108-08-7	91%	9500 NJ
Pentane, 2,3-dimethyl-	565-59-3	87%	22000 NJ
Cyclopentane, 1,1-dimethyl-	1638-26-2	47%	8000 NJ
Cyclopentane, 1,2-dimethyl-, trans-	822-50-4	72%	6300 NJ
Cyclopentene, 4,4-dimethyl-	19037-72-0	87%	8600 NJ
Cyclopentane, 1,1,3-trimethyl-	4516-69-2	97%	11000 NJ
Hexane, 2,5-dimethyl-	592-13-2	52%	7400 NJ
Cyclopentane, 1,2,4-trimethyl-, (1.alpha)	16883-48-0	94%	16000 NJ
Cyclopentane, 1,2,3-trimethyl-	2815-57-8	72%	16000 NJ
Unknown	NA	NA	11000 J
Cyclopentane, 1,1,3,4-tetramethyl-, tran	20309-77-7	91%	8200 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	10000 NJ

**Summary of Detected Compounds  
MODIFIED EPA METHOD TO-15 GC/MS**

**Client Sample ID: VP-3**

**Lab ID#: 0910619A-03A**

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Cyclopentanone, 2-ethyl-	4971-18-0	47%	20000 NJ
1,4-Hexadiene, 2,3-dimethyl-	18669-52-8	64%	15000 NJ
Unknown	NA	NA	9000 J
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	64%	10000 NJ
Unknown	NA	NA	7700 J
Unknown	NA	NA	7900 J
Cyclohexane, 1,2,4-trimethyl-, (1.alpha.	7667-60-9	94%	9300 NJ
Cyclohexane, 1-ethyl-4-methyl-, cis-	4926-78-7	50%	7600 NJ

**Client Sample ID: VP-3 Lab Duplicate**

**Lab ID#: 0910619A-03AA**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Hexane	40	1800	140	6400
Cyclohexane	40	1800	140	6200
2,2,4-Trimethylpentane	40	6500	190	30000
Heptane	40	440	160	1800
TPH ref. to Gasoline (MW=100)	810	430000	3300	1800000

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Pentane, 2,4-dimethyl-	108-08-7	91%	9900 NJ
Pentane, 2,3-dimethyl-	565-59-3	80%	23000 NJ
Cyclopentane, 1,1-dimethyl-	1638-26-2	78%	8100 NJ
Cyclopentane, 1,2-dimethyl-, trans-	822-50-4	36%	6800 NJ
Cyclopentene, 4,4-dimethyl-	19037-72-0	90%	9800 NJ
Cyclopentane, 1,1,3-trimethyl-	4516-69-2	95%	13000 NJ
Hexane, 2,5-dimethyl-	592-13-2	49%	7300 NJ
Cyclopentane, 1,2,4-trimethyl-, (1.alpha.	16883-48-0	91%	18000 NJ
Cyclopentane, 1,2,3-trimethyl-	2815-57-8	72%	17000 NJ
Unknown	NA	NA	12000 J
Cyclopentane, 1,1,3,4-tetramethyl-, tran	20309-77-7	91%	9200 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	11000 NJ

**Summary of Detected Compounds  
MODIFIED EPA METHOD TO-15 GC/MS**

**Client Sample ID: VP-3 Lab Duplicate**

**Lab ID#: 0910619A-03AA**

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Cyclopentanone, 2-ethyl-	4971-18-0	47%	22000 NJ
1,4-Hexadiene, 2,3-dimethyl-	18669-52-8	64%	20000 NJ
Unknown	NA	NA	9900 J
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	64%	12000 NJ
Unknown	NA	NA	8500 J
Unknown	NA	NA	8700 J
Cyclohexane, 1,2,4-trimethyl-, (1.alpha.	7667-60-9	94%	10000 NJ
Cyclohexane, 1-ethyl-4-methyl-, cis-	4926-78-7	50%	8400 NJ

**Client Sample ID: VP-4**

**Lab ID#: 0910619A-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Hexane	13000	2200000	44000	7700000
Cyclohexane	13000	980000	44000	3400000
2,2,4-Trimethylpentane	13000	220000	59000	1000000
Benzene	13000	340000	40000	1100000
Heptane	13000	1200000	52000	4900000
Ethyl Benzene	13000	150000	55000	650000
m,p-Xylene	13000	16000	55000	71000
Cumene	13000	13000	62000	64000
Propylbenzene	13000	23000	62000	110000
TPH ref. to Gasoline (MW=100)	250000	33000000	1000000	140000000

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Butane, 2-methyl-	78-78-4	78%	1400000 NJ
Pentane	109-66-0	90%	1900000 NJ
2-Pentene	109-68-2	91%	470000 NJ
Pentane, 2-methyl-	107-83-5	91%	2400000 NJ
Unknown	NA	NA	730000 J
Pentane, 3-methyl-	96-14-0	78%	1200000 NJ
Cyclopropane, 1,1,2-trimethyl-	4127-45-1	91%	470000 NJ
Cyclopentane, methyl-	96-37-7	90%	2200000 NJ

**Summary of Detected Compounds  
MODIFIED EPA METHOD TO-15 GC/MS**

**Client Sample ID: VP-4**

**Lab ID#: 0910619A-04A**

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Hexane, 2-methyl-	591-76-4	76%	870000 NJ
Hexane, 3-methyl-	589-34-4	91%	1100000 NJ
Cyclopentane, 1,3-dimethyl-, trans-	1759-58-6	91%	1400000 NJ
Cyclobutanone, 2,3-dimethyl-, cis-	28113-36-2	58%	1400000 NJ
Cyclopentene, 4,4-dimethyl-	19037-72-0	68%	640000 NJ
Cyclohexane, methyl-	108-87-2	94%	2600000 NJ
Cyclopentane, 1,2,3-trimethyl-, (1.alpha)	15890-40-1	87%	720000 NJ
Cyclopentene, 1,5-dimethyl-	16491-15-9	58%	570000 NJ
Heptane, 2-methyl-	592-27-8	90%	990000 NJ
Heptane, 3-methyl-	589-81-1	80%	440000 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	580000 NJ
Octane	111-65-9	91%	670000 NJ

**Client Sample ID: VP-4 DUP**

**Lab ID#: 0910619A-05A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Hexane	12000	2100000	43000	7300000
Cyclohexane	12000	940000	42000	3200000
2,2,4-Trimethylpentane	12000	200000	56000	950000
Benzene	12000	320000	39000	1000000
Heptane	12000	1100000	50000	4600000
Ethyl Benzene	12000	120000	52000	540000
m,p-Xylene	12000	13000	52000	57000
Propylbenzene	12000	19000	59000	92000
TPH ref. to Gasoline (MW=100)	240000	31000000	990000	130000000

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Butane, 2-methyl-	78-78-4	80%	1400000 NJ
Pentane	109-66-0	90%	1800000 NJ
Cyclopropane, 1,1-dimethyl-	1630-94-0	90%	450000 NJ
Pentane, 2-methyl-	107-83-5	91%	2300000 NJ
Unknown	NA	NA	700000 J

**Summary of Detected Compounds  
MODIFIED EPA METHOD TO-15 GC/MS**

**Client Sample ID: VP-4 DUP**

**Lab ID#: 0910619A-05A**

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Pentane, 3-methyl-	96-14-0	78%	1200000 NJ
2-Pentene, 2-methyl-	625-27-4	91%	460000 NJ
Cyclopentane, methyl-	96-37-7	90%	2100000 NJ
Hexane, 2-methyl-	591-76-4	76%	830000 NJ
Hexane, 3-methyl-	589-34-4	81%	1000000 NJ
Cyclopentane, 1,3-dimethyl-, trans-	1759-58-6	91%	1400000 NJ
Unknown	NA	NA	1300000 J
1,4-Pentadiene, 3,3-dimethyl-	1112-35-2	72%	610000 NJ
Cyclohexane, methyl-	108-87-2	93%	2500000 NJ
Cyclopentane, 1,2,3-trimethyl-	2815-57-8	87%	680000 NJ
Cyclopentene, 4,4-dimethyl-	19037-72-0	68%	540000 NJ
Heptane, 2-methyl-	592-27-8	90%	910000 NJ
Heptane, 3-methyl-	589-81-1	72%	410000 NJ
Cyclohexane, 1,2-dimethyl-, trans-	6876-23-9	91%	550000 NJ
Octane	111-65-9	91%	490000 NJ

**Client Sample ID: VP-5**

**Lab ID#: 0910619A-06A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Hexane	1300	100000	4400	370000
Cyclohexane	1300	90000	4400	310000
2,2,4-Trimethylpentane	1300	23000	5900	110000
Benzene	1300	5000	4000	16000
Heptane	1300	120000	5200	490000
Cumene	1300	2400	6200	12000
Propylbenzene	1300	3000	6200	15000
TPH ref. to Gasoline (MW=100)	25000	4800000	100000	20000000

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Pentane, 2-methyl-	107-83-5	91%	110000 NJ
Pentane, 3-methyl-	96-14-0	86%	69000 NJ
Cyclopentane, methyl-	96-37-7	90%	170000 NJ
Hexane, 2-methyl-	591-76-4	90%	91000 NJ

**Summary of Detected Compounds  
MODIFIED EPA METHOD TO-15 GC/MS**

**Client Sample ID: VP-5**

**Lab ID#: 0910619A-06A**

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Hexane, 3-methyl-	589-34-4	87%	130000 NJ
Cyclopentane, 1,3-dimethyl-, trans-	1759-58-6	91%	140000 NJ
Cyclopentane, 1,2-dimethyl-, trans-	822-50-4	53%	170000 NJ
Cyclopentene, 4,4-dimethyl-	19037-72-0	76%	70000 NJ
Cyclohexane, methyl-	108-87-2	93%	400000 NJ
Cyclopentane, ethyl-	1640-89-7	91%	66000 NJ
Cyclopentane, 1,2,4-trimethyl-, (1.alpha	16883-48-0	72%	78000 NJ
Cyclopentane, 1,2,3-trimethyl-, (1.alpha	15890-40-1	90%	160000 NJ
Cyclopentene, 1,5-dimethyl-	16491-15-9	81%	110000 NJ
Heptane, 2-methyl-	592-27-8	90%	240000 NJ
Pentane, 2,3,3,4-tetramethyl-	16747-38-9	64%	82000 NJ
Cyclohexene, 1-methyl-	591-49-1	87%	82000 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	120000 NJ
Octane	111-65-9	83%	86000 NJ
Cyclohexane, 1,2-dimethyl-, trans-	6876-23-9	90%	81000 NJ
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	49%	140000 NJ

**Client Sample ID: VP-9**

**Lab ID#: 0910619A-07A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.1	2.4	7.5	16

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Ethane, 1,1-difluoro-	75-37-6	90%	10 NJ
Acetic acid, cyano-, 1,1-dimethylethyl e	1116-98-9	64%	11 NJ
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	15 NJ
Cyclotetrasiloxane, octamethyl-	556-67-2	80%	38 NJ
Benzeneacetic acid, .alpha.,4-bis[(trime	55334-40-2	50%	7.6 NJ

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

**Client Sample ID: VP-10**

**Lab ID#: 0910619A-08A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	1.2	4.9	3.9	16
Toluene	1.2	1.6	4.6	6.1
Tetrachloroethene	1.2	9.2	8.2	63
Ethyl Benzene	1.2	2.9	5.2	12
Hexane	1.2	30	4.3	100
Cyclohexane	1.2	13	4.2	45
Heptane	1.2	22	5.0	91
Acetone	4.8	7.1	11	17
2,2,4-Trimethylpentane	1.2	10	5.6	49
TPH ref. to Gasoline (MW=100)	24	500	99	2100

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Butane	106-97-8	72%	8.4 NJ
Butane, 2-methyl-	78-78-4	80%	35 NJ
Pentane	109-66-0	86%	44 NJ
2-Pentene	109-68-2	83%	8.8 NJ
Pentane, 2-methyl-	107-83-5	91%	69 NJ
Pentane, 3-methyl-	96-14-0	90%	32 NJ
2-Pentene, 4-methyl-, (E)-	674-76-0	91%	9.0 NJ
2-Pentene, 3-methyl-, (Z)-	922-62-3	81%	9.8 NJ
Cyclobutane, ethyl-	4806-61-5	72%	49 NJ
Hexane, 2-methyl-	591-76-4	91%	21 NJ
Hexane, 2,3-dimethyl-	584-94-1	43%	25 NJ
2-Heptene	592-77-8	64%	17 NJ
Furan, 2-propyl-	4229-91-8	78%	7.2 NJ
Cyclohexane, methyl-	108-87-2	97%	39 NJ
Cyclopentane, 1,2,3-trimethyl-, (1.alpha)	15890-40-1	81%	9.5 NJ
Heptane, 2-methyl-	592-27-8	58%	21 NJ
Heptane, 3-methyl-	589-81-1	64%	7.4 NJ
Cyclohexane, 1,4-dimethyl-, cis-	624-29-3	90%	9.7 NJ
Cyclohexane, 1,4-dimethyl-	589-90-2	64%	9.3 NJ
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	91%	6.7 NJ

**Client Sample ID: VP-11**

**Lab ID#: 0910619A-09A**

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

**Client Sample ID: VP-11**

**Lab ID#: 0910619A-09A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 11	1.2	2.3	6.8	13
Tetrachloroethene	1.2	2.2	8.2	15

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Unknown	NA	NA	8.7 J
1-Butanol	71-36-3	78%	12 NJ

**Client Sample ID: VP-12**

**Lab ID#: 0910619A-10A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 11	1.2	1.3	6.5	7.2

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	14 NJ

**Client Sample ID: VP-13**

**Lab ID#: 0910619A-11A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Acetone	4.7	9.6	11	23

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
2-Propanol, 2-methyl-	75-65-0	56%	6.6 NJ
Furan, 2-propyl-	4229-91-8	64%	10 NJ

**Client Sample ID: VP-13 Lab Duplicate**

**Lab ID#: 0910619A-11AA**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Acetone	4.7	9.0	11	21



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

**Client Sample ID: VP-13 Lab Duplicate**

**Lab ID#: 0910619A-11AA**

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount (ppbv)</b>
2-Propanol, 2-methyl-	75-65-0	39%	6.4 NJ
Furan, 2-propyl-	4229-91-8	64%	9.8 NJ

**Client Sample ID: TRIP BLANK**

**Lab ID#: 0910619A-12A**

No Detections Were Found.

Client Sample ID: VP-1

Lab ID#: 0910619A-01A

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

<b>File Name:</b>	<b>t110814</b>	<b>Date of Collection:</b>	<b>10/22/09 4:34:00 PM</b>
<b>Dil. Factor:</b>	<b>2.16</b>	<b>Date of Analysis:</b>	<b>11/8/09 04:54 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 114	1.1	Not Detected	7.6	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	1.1	Not Detected	4.2	Not Detected
Chloroethane	1.1	Not Detected	2.8	Not Detected
Freon 11	1.1	Not Detected	6.1	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Freon 113	1.1	Not Detected	8.3	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	Not Detected	7.3	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.4	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected

Client Sample ID: VP-1

Lab ID#: 0910619A-01A

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

<b>File Name:</b>	t110814	<b>Date of Collection:</b> 10/22/09 4:34:00 PM
<b>Dil. Factor:</b>	2.16	<b>Date of Analysis:</b> 11/8/09 04:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.1	Not Detected	4.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
Dibromochloromethane	1.1	Not Detected	9.2	Not Detected
Cumene	1.1	Not Detected	5.3	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
Chloromethane	4.3	Not Detected	8.9	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected UJ	32	Not Detected UJ
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
Acetone	4.3	23	10	56
Carbon Disulfide	1.1	Not Detected	3.4	Not Detected
2-Propanol	4.3	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	4.3	3.2	13
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
1,4-Dioxane	4.3	Not Detected	16	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
Ethanol	4.3	Not Detected	8.1	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.9	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
3-Chloropropene	4.3	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	22	Not Detected	88	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

**Container Type: 1 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: VP-2

Lab ID#: 0910619A-02A

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

<b>File Name:</b>	<b>t110815</b>	<b>Date of Collection:</b>	<b>10/22/09 3:52:00 PM</b>
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b>	<b>11/8/09 05:30 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected

Client Sample ID: VP-2

Lab ID#: 0910619A-02A

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

<b>File Name:</b>	<b>t110815</b>	<b>Date of Collection:</b> 10/22/09 3:52:00 PM
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 11/8/09 05:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	Not Detected	4.8	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected UJ	34	Not Detected UJ
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Acetone	4.7	26	11	61
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
2-Propanol	4.7	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	1.6	3.4	4.7
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	23	Not Detected	95	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

**Container Type: 1 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: VP-3

Lab ID#: 0910619A-03A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110614</b>	<b>Date of Collection:</b> 10/22/09 3:12:00 PM
<b>Dil. Factor:</b>	<b>8.07</b>	<b>Date of Analysis:</b> 11/7/09 11:03 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	40	Not Detected	200	Not Detected
Freon 114	40	Not Detected	280	Not Detected
Chloromethane	160	Not Detected	330	Not Detected
Vinyl Chloride	40	Not Detected	100	Not Detected
1,3-Butadiene	40	Not Detected	89	Not Detected
Bromomethane	40	Not Detected	160	Not Detected
Chloroethane	40	Not Detected	110	Not Detected
Freon 11	40	Not Detected	230	Not Detected
Ethanol	160	Not Detected	300	Not Detected
Freon 113	40	Not Detected	310	Not Detected
1,1-Dichloroethene	40	Not Detected	160	Not Detected
Acetone	160	Not Detected	380	Not Detected
2-Propanol	160	Not Detected	400	Not Detected
Carbon Disulfide	40	Not Detected	120	Not Detected
3-Chloropropene	160	Not Detected	500	Not Detected
Methylene Chloride	40	Not Detected	140	Not Detected
Methyl tert-butyl ether	40	Not Detected	140	Not Detected
trans-1,2-Dichloroethene	40	Not Detected	160	Not Detected
Hexane	40	1800	140	6200
1,1-Dichloroethane	40	Not Detected	160	Not Detected
2-Butanone (Methyl Ethyl Ketone)	40	Not Detected	120	Not Detected
cis-1,2-Dichloroethene	40	Not Detected	160	Not Detected
Tetrahydrofuran	40	Not Detected	120	Not Detected
Chloroform	40	Not Detected	200	Not Detected
1,1,1-Trichloroethane	40	Not Detected	220	Not Detected
Cyclohexane	40	1800	140	6200
Carbon Tetrachloride	40	Not Detected	250	Not Detected
2,2,4-Trimethylpentane	40	6400	190	30000
Benzene	40	Not Detected	130	Not Detected
1,2-Dichloroethane	40	Not Detected	160	Not Detected
Heptane	40	450	160	1800
Trichloroethene	40	Not Detected	220	Not Detected
1,2-Dichloropropane	40	Not Detected	190	Not Detected
1,4-Dioxane	160	Not Detected	580	Not Detected
Bromodichloromethane	40	Not Detected	270	Not Detected
cis-1,3-Dichloropropene	40	Not Detected	180	Not Detected
4-Methyl-2-pentanone	40	Not Detected	160	Not Detected
Toluene	40	Not Detected	150	Not Detected
trans-1,3-Dichloropropene	40	Not Detected	180	Not Detected

Client Sample ID: VP-3

Lab ID#: 0910619A-03A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110614</b>	<b>Date of Collection:</b> 10/22/09 3:12:00 PM
<b>Dil. Factor:</b>	<b>8.07</b>	<b>Date of Analysis:</b> 11/7/09 11:03 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	40	Not Detected	220	Not Detected
Tetrachloroethene	40	Not Detected	270	Not Detected
2-Hexanone	160	Not Detected	660	Not Detected
Dibromochloromethane	40	Not Detected	340	Not Detected
1,2-Dibromoethane (EDB)	40	Not Detected	310	Not Detected
Chlorobenzene	40	Not Detected	180	Not Detected
Ethyl Benzene	40	Not Detected	180	Not Detected
m,p-Xylene	40	Not Detected	180	Not Detected
o-Xylene	40	Not Detected	180	Not Detected
Styrene	40	Not Detected	170	Not Detected
Bromoform	40	Not Detected	420	Not Detected
Cumene	40	Not Detected	200	Not Detected
1,1,2,2-Tetrachloroethane	40	Not Detected	280	Not Detected
Propylbenzene	40	Not Detected	200	Not Detected
4-Ethyltoluene	40	Not Detected	200	Not Detected
1,3,5-Trimethylbenzene	40	Not Detected	200	Not Detected
1,2,4-Trimethylbenzene	40	Not Detected	200	Not Detected
1,3-Dichlorobenzene	40	Not Detected	240	Not Detected
1,4-Dichlorobenzene	40	Not Detected	240	Not Detected
alpha-Chlorotoluene	40	Not Detected	210	Not Detected
1,2-Dichlorobenzene	40	Not Detected	240	Not Detected
1,2,4-Trichlorobenzene	160	Not Detected	1200	Not Detected
Hexachlorobutadiene	160	Not Detected	1700	Not Detected
TPH ref. to Gasoline (MW=100)	810	450000	3300	1800000

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Pentane, 2,4-dimethyl-	108-08-7	91%	9500 NJ
Pentane, 2,3-dimethyl-	565-59-3	87%	22000 NJ
Cyclopentane, 1,1-dimethyl-	1638-26-2	47%	8000 NJ
Cyclopentane, 1,2-dimethyl-, trans-	822-50-4	72%	6300 NJ
Cyclopentane, 4,4-dimethyl-	19037-72-0	87%	8600 NJ
Cyclopentane, 1,1,3-trimethyl-	4516-69-2	97%	11000 NJ
Hexane, 2,5-dimethyl-	592-13-2	52%	7400 NJ
Cyclopentane, 1,2,4-trimethyl-, (1.alpha	16883-48-0	94%	16000 NJ
Cyclopentane, 1,2,3-trimethyl-	2815-57-8	72%	16000 NJ
Unknown	NA	NA	11000 J

Client Sample ID: VP-3

Lab ID#: 0910619A-03A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110614</b>	<b>Date of Collection:</b> 10/22/09 3:12:00 PM
<b>Dil. Factor:</b>	<b>8.07</b>	<b>Date of Analysis:</b> 11/7/09 11:03 AM

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount ((ppbv))</b>
Cyclopentane, 1,1,3,4-tetramethyl-, tran	20309-77-7	91%	8200 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	10000 NJ
Cyclopentanone, 2-ethyl-	4971-18-0	47%	20000 NJ
1,4-Hexadiene, 2,3-dimethyl-	18669-52-8	64%	15000 NJ
Unknown	NA	NA	9000 J
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	64%	10000 NJ
Unknown	NA	NA	7700 J
Unknown	NA	NA	7900 J
Cyclohexane, 1,2,4-trimethyl-, (1.alpha.	7667-60-9	94%	9300 NJ
Cyclohexane, 1-ethyl-4-methyl-, cis-	4926-78-7	50%	7600 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	93	70-130



Client Sample ID: VP-3 Lab Duplicate

Lab ID#: 0910619A-03AA

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110615</b>	<b>Date of Collection:</b> 10/22/09 3:12:00 PM
<b>Dil. Factor:</b>	<b>8.07</b>	<b>Date of Analysis:</b> 11/7/09 11:29 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	40	Not Detected	200	Not Detected
Freon 114	40	Not Detected	280	Not Detected
Chloromethane	160	Not Detected	330	Not Detected
Vinyl Chloride	40	Not Detected	100	Not Detected
1,3-Butadiene	40	Not Detected	89	Not Detected
Bromomethane	40	Not Detected	160	Not Detected
Chloroethane	40	Not Detected	110	Not Detected
Freon 11	40	Not Detected	230	Not Detected
Ethanol	160	Not Detected	300	Not Detected
Freon 113	40	Not Detected	310	Not Detected
1,1-Dichloroethene	40	Not Detected	160	Not Detected
Acetone	160	Not Detected	380	Not Detected
2-Propanol	160	Not Detected	400	Not Detected
Carbon Disulfide	40	Not Detected	120	Not Detected
3-Chloropropene	160	Not Detected	500	Not Detected
Methylene Chloride	40	Not Detected	140	Not Detected
Methyl tert-butyl ether	40	Not Detected	140	Not Detected
trans-1,2-Dichloroethene	40	Not Detected	160	Not Detected
Hexane	40	1800	140	6400
1,1-Dichloroethane	40	Not Detected	160	Not Detected
2-Butanone (Methyl Ethyl Ketone)	40	Not Detected	120	Not Detected
cis-1,2-Dichloroethene	40	Not Detected	160	Not Detected
Tetrahydrofuran	40	Not Detected	120	Not Detected
Chloroform	40	Not Detected	200	Not Detected
1,1,1-Trichloroethane	40	Not Detected	220	Not Detected
Cyclohexane	40	1800	140	6200
Carbon Tetrachloride	40	Not Detected	250	Not Detected
2,2,4-Trimethylpentane	40	6500	190	30000
Benzene	40	Not Detected	130	Not Detected
1,2-Dichloroethane	40	Not Detected	160	Not Detected
Heptane	40	440	160	1800
Trichloroethene	40	Not Detected	220	Not Detected
1,2-Dichloropropane	40	Not Detected	190	Not Detected
1,4-Dioxane	160	Not Detected	580	Not Detected
Bromodichloromethane	40	Not Detected	270	Not Detected
cis-1,3-Dichloropropene	40	Not Detected	180	Not Detected
4-Methyl-2-pentanone	40	Not Detected	160	Not Detected
Toluene	40	Not Detected	150	Not Detected
trans-1,3-Dichloropropene	40	Not Detected	180	Not Detected

Client Sample ID: VP-3 Lab Duplicate

Lab ID#: 0910619A-03AA

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110615</b>	<b>Date of Collection:</b> 10/22/09 3:12:00 PM
<b>Dil. Factor:</b>	<b>8.07</b>	<b>Date of Analysis:</b> 11/7/09 11:29 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	40	Not Detected	220	Not Detected
Tetrachloroethene	40	Not Detected	270	Not Detected
2-Hexanone	160	Not Detected	660	Not Detected
Dibromochloromethane	40	Not Detected	340	Not Detected
1,2-Dibromoethane (EDB)	40	Not Detected	310	Not Detected
Chlorobenzene	40	Not Detected	180	Not Detected
Ethyl Benzene	40	Not Detected	180	Not Detected
m,p-Xylene	40	Not Detected	180	Not Detected
o-Xylene	40	Not Detected	180	Not Detected
Styrene	40	Not Detected	170	Not Detected
Bromoform	40	Not Detected	420	Not Detected
Cumene	40	Not Detected	200	Not Detected
1,1,2,2-Tetrachloroethane	40	Not Detected	280	Not Detected
Propylbenzene	40	Not Detected	200	Not Detected
4-Ethyltoluene	40	Not Detected	200	Not Detected
1,3,5-Trimethylbenzene	40	Not Detected	200	Not Detected
1,2,4-Trimethylbenzene	40	Not Detected	200	Not Detected
1,3-Dichlorobenzene	40	Not Detected	240	Not Detected
1,4-Dichlorobenzene	40	Not Detected	240	Not Detected
alpha-Chlorotoluene	40	Not Detected	210	Not Detected
1,2-Dichlorobenzene	40	Not Detected	240	Not Detected
1,2,4-Trichlorobenzene	160	Not Detected	1200	Not Detected
Hexachlorobutadiene	160	Not Detected	1700	Not Detected
TPH ref. to Gasoline (MW=100)	810	430000	3300	1800000

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Pentane, 2,4-dimethyl-	108-08-7	91%	9900 NJ
Pentane, 2,3-dimethyl-	565-59-3	80%	23000 NJ
Cyclopentane, 1,1-dimethyl-	1638-26-2	78%	8100 NJ
Cyclopentane, 1,2-dimethyl-, trans-	822-50-4	36%	6800 NJ
Cyclopentane, 4,4-dimethyl-	19037-72-0	90%	9800 NJ
Cyclopentane, 1,1,3-trimethyl-	4516-69-2	95%	13000 NJ
Hexane, 2,5-dimethyl-	592-13-2	49%	7300 NJ
Cyclopentane, 1,2,4-trimethyl-, (1.alpha	16883-48-0	91%	18000 NJ
Cyclopentane, 1,2,3-trimethyl-	2815-57-8	72%	17000 NJ
Unknown	NA	NA	12000 J

Client Sample ID: VP-3 Lab Duplicate

Lab ID#: 0910619A-03AA

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110615</b>	<b>Date of Collection:</b> 10/22/09 3:12:00 PM
<b>Dil. Factor:</b>	<b>8.07</b>	<b>Date of Analysis:</b> 11/7/09 11:29 AM

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount ((ppbv))</b>
Cyclopentane, 1,1,3,4-tetramethyl-, tran	20309-77-7	91%	9200 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	11000 NJ
Cyclopentanone, 2-ethyl-	4971-18-0	47%	22000 NJ
1,4-Hexadiene, 2,3-dimethyl-	18669-52-8	64%	20000 NJ
Unknown	NA	NA	9900 J
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	64%	12000 NJ
Unknown	NA	NA	8500 J
Unknown	NA	NA	8700 J
Cyclohexane, 1,2,4-trimethyl-, (1.alpha.	7667-60-9	94%	10000 NJ
Cyclohexane, 1-ethyl-4-methyl-, cis-	4926-78-7	50%	8400 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: VP-4

Lab ID#: 0910619A-04A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110617</b>	<b>Date of Collection:</b> 10/22/09 10:55:00 A
<b>Dil. Factor:</b>	<b>2530</b>	<b>Date of Analysis:</b> 11/7/09 01:00 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	13000	Not Detected	62000	Not Detected
Freon 114	13000	Not Detected	88000	Not Detected
Chloromethane	51000	Not Detected	100000	Not Detected
Vinyl Chloride	13000	Not Detected	32000	Not Detected
1,3-Butadiene	13000	Not Detected	28000	Not Detected
Bromomethane	13000	Not Detected	49000	Not Detected
Chloroethane	13000	Not Detected	33000	Not Detected
Freon 11	13000	Not Detected	71000	Not Detected
Ethanol	51000	Not Detected	95000	Not Detected
Freon 113	13000	Not Detected	97000	Not Detected
1,1-Dichloroethene	13000	Not Detected	50000	Not Detected
Acetone	51000	Not Detected	120000	Not Detected
2-Propanol	51000	Not Detected	120000	Not Detected
Carbon Disulfide	13000	Not Detected	39000	Not Detected
3-Chloropropene	51000	Not Detected	160000	Not Detected
Methylene Chloride	13000	Not Detected	44000	Not Detected
Methyl tert-butyl ether	13000	Not Detected	46000	Not Detected
trans-1,2-Dichloroethene	13000	Not Detected	50000	Not Detected
Hexane	13000	2200000	44000	7700000
1,1-Dichloroethane	13000	Not Detected	51000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	13000	Not Detected	37000	Not Detected
cis-1,2-Dichloroethene	13000	Not Detected	50000	Not Detected
Tetrahydrofuran	13000	Not Detected	37000	Not Detected
Chloroform	13000	Not Detected	62000	Not Detected
1,1,1-Trichloroethane	13000	Not Detected	69000	Not Detected
Cyclohexane	13000	980000	44000	3400000
Carbon Tetrachloride	13000	Not Detected	80000	Not Detected
2,2,4-Trimethylpentane	13000	220000	59000	1000000
Benzene	13000	340000	40000	1100000
1,2-Dichloroethane	13000	Not Detected	51000	Not Detected
Heptane	13000	1200000	52000	4900000
Trichloroethene	13000	Not Detected	68000	Not Detected
1,2-Dichloropropane	13000	Not Detected	58000	Not Detected
1,4-Dioxane	51000	Not Detected	180000	Not Detected
Bromodichloromethane	13000	Not Detected	85000	Not Detected
cis-1,3-Dichloropropene	13000	Not Detected	57000	Not Detected
4-Methyl-2-pentanone	13000	Not Detected	52000	Not Detected
Toluene	13000	Not Detected	48000	Not Detected
trans-1,3-Dichloropropene	13000	Not Detected	57000	Not Detected

Client Sample ID: VP-4

Lab ID#: 0910619A-04A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110617</b>	<b>Date of Collection:</b> 10/22/09 10:55:00 A
<b>Dil. Factor:</b>	<b>2530</b>	<b>Date of Analysis:</b> 11/7/09 01:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	13000	Not Detected	69000	Not Detected
Tetrachloroethene	13000	Not Detected	86000	Not Detected
2-Hexanone	51000	Not Detected	210000	Not Detected
Dibromochloromethane	13000	Not Detected	110000	Not Detected
1,2-Dibromoethane (EDB)	13000	Not Detected	97000	Not Detected
Chlorobenzene	13000	Not Detected	58000	Not Detected
Ethyl Benzene	13000	150000	55000	650000
m,p-Xylene	13000	16000	55000	71000
o-Xylene	13000	Not Detected	55000	Not Detected
Styrene	13000	Not Detected	54000	Not Detected
Bromoform	13000	Not Detected	130000	Not Detected
Cumene	13000	13000	62000	64000
1,1,2,2-Tetrachloroethane	13000	Not Detected	87000	Not Detected
Propylbenzene	13000	23000	62000	110000
4-Ethyltoluene	13000	Not Detected	62000	Not Detected
1,3,5-Trimethylbenzene	13000	Not Detected	62000	Not Detected
1,2,4-Trimethylbenzene	13000	Not Detected	62000	Not Detected
1,3-Dichlorobenzene	13000	Not Detected	76000	Not Detected
1,4-Dichlorobenzene	13000	Not Detected	76000	Not Detected
alpha-Chlorotoluene	13000	Not Detected	65000	Not Detected
1,2-Dichlorobenzene	13000	Not Detected	76000	Not Detected
1,2,4-Trichlorobenzene	51000	Not Detected	380000	Not Detected
Hexachlorobutadiene	51000	Not Detected	540000	Not Detected
TPH ref. to Gasoline (MW=100)	250000	33000000	1000000	14000000

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Butane, 2-methyl-	78-78-4	78%	1400000 NJ
Pentane	109-66-0	90%	1900000 NJ
2-Pentene	109-68-2	91%	470000 NJ
Pentane, 2-methyl-	107-83-5	91%	2400000 NJ
Unknown	NA	NA	730000 J
Pentane, 3-methyl-	96-14-0	78%	1200000 NJ
Cyclopropane, 1,1,2-trimethyl-	4127-45-1	91%	470000 NJ
Cyclopentane, methyl-	96-37-7	90%	2200000 NJ
Hexane, 2-methyl-	591-76-4	76%	870000 NJ
Hexane, 3-methyl-	589-34-4	91%	1100000 NJ
Cyclopentane, 1,3-dimethyl-, trans-	1759-58-6	91%	1400000 NJ

Client Sample ID: VP-4

Lab ID#: 0910619A-04A

**MODIFIED EPA METHOD TO-15 GC/MS**

File Name:	b110617	Date of Collection: 10/22/09 10:55:00 A
Dil. Factor:	2530	Date of Analysis: 11/7/09 01:00 PM

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Cyclobutanone, 2,3-dimethyl-, cis-	28113-36-2	58%	1400000 NJ
Cyclopentene, 4,4-dimethyl-	19037-72-0	68%	640000 NJ
Cyclohexane, methyl-	108-87-2	94%	2600000 NJ
Cyclopentane, 1,2,3-trimethyl-, (1.alpha	15890-40-1	87%	720000 NJ
Cyclopentene, 1,5-dimethyl-	16491-15-9	58%	570000 NJ
Heptane, 2-methyl-	592-27-8	90%	990000 NJ
Heptane, 3-methyl-	589-81-1	80%	440000 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	580000 NJ
Octane	111-65-9	91%	670000 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: VP-4 DUP

Lab ID#: 0910619A-05A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110618</b>	<b>Date of Collection:</b> 10/22/09 10:55:00 A
<b>Dil. Factor:</b>	<b>2420</b>	<b>Date of Analysis:</b> 11/7/09 01:23 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	12000	Not Detected	60000	Not Detected
Freon 114	12000	Not Detected	84000	Not Detected
Chloromethane	48000	Not Detected	100000	Not Detected
Vinyl Chloride	12000	Not Detected	31000	Not Detected
1,3-Butadiene	12000	Not Detected	27000	Not Detected
Bromomethane	12000	Not Detected	47000	Not Detected
Chloroethane	12000	Not Detected	32000	Not Detected
Freon 11	12000	Not Detected	68000	Not Detected
Ethanol	48000	Not Detected	91000	Not Detected
Freon 113	12000	Not Detected	93000	Not Detected
1,1-Dichloroethene	12000	Not Detected	48000	Not Detected
Acetone	48000	Not Detected	110000	Not Detected
2-Propanol	48000	Not Detected	120000	Not Detected
Carbon Disulfide	12000	Not Detected	38000	Not Detected
3-Chloropropene	48000	Not Detected	150000	Not Detected
Methylene Chloride	12000	Not Detected	42000	Not Detected
Methyl tert-butyl ether	12000	Not Detected	44000	Not Detected
trans-1,2-Dichloroethene	12000	Not Detected	48000	Not Detected
Hexane	12000	2100000	43000	7300000
1,1-Dichloroethane	12000	Not Detected	49000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	12000	Not Detected	36000	Not Detected
cis-1,2-Dichloroethene	12000	Not Detected	48000	Not Detected
Tetrahydrofuran	12000	Not Detected	36000	Not Detected
Chloroform	12000	Not Detected	59000	Not Detected
1,1,1-Trichloroethane	12000	Not Detected	66000	Not Detected
Cyclohexane	12000	940000	42000	3200000
Carbon Tetrachloride	12000	Not Detected	76000	Not Detected
2,2,4-Trimethylpentane	12000	200000	56000	950000
Benzene	12000	320000	39000	1000000
1,2-Dichloroethane	12000	Not Detected	49000	Not Detected
Heptane	12000	1100000	50000	4600000
Trichloroethene	12000	Not Detected	65000	Not Detected
1,2-Dichloropropane	12000	Not Detected	56000	Not Detected
1,4-Dioxane	48000	Not Detected	170000	Not Detected
Bromodichloromethane	12000	Not Detected	81000	Not Detected
cis-1,3-Dichloropropene	12000	Not Detected	55000	Not Detected
4-Methyl-2-pentanone	12000	Not Detected	50000	Not Detected
Toluene	12000	Not Detected	46000	Not Detected
trans-1,3-Dichloropropene	12000	Not Detected	55000	Not Detected

Client Sample ID: VP-4 DUP

Lab ID#: 0910619A-05A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110618</b>	<b>Date of Collection:</b> 10/22/09 10:55:00 A
<b>Dil. Factor:</b>	<b>2420</b>	<b>Date of Analysis:</b> 11/7/09 01:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	12000	Not Detected	66000	Not Detected
Tetrachloroethene	12000	Not Detected	82000	Not Detected
2-Hexanone	48000	Not Detected	200000	Not Detected
Dibromochloromethane	12000	Not Detected	100000	Not Detected
1,2-Dibromoethane (EDB)	12000	Not Detected	93000	Not Detected
Chlorobenzene	12000	Not Detected	56000	Not Detected
Ethyl Benzene	12000	120000	52000	540000
m,p-Xylene	12000	13000	52000	57000
o-Xylene	12000	Not Detected	52000	Not Detected
Styrene	12000	Not Detected	52000	Not Detected
Bromoform	12000	Not Detected	120000	Not Detected
Cumene	12000	Not Detected	59000	Not Detected
1,1,2,2-Tetrachloroethane	12000	Not Detected	83000	Not Detected
Propylbenzene	12000	19000	59000	92000
4-Ethyltoluene	12000	Not Detected	59000	Not Detected
1,3,5-Trimethylbenzene	12000	Not Detected	59000	Not Detected
1,2,4-Trimethylbenzene	12000	Not Detected	59000	Not Detected
1,3-Dichlorobenzene	12000	Not Detected	73000	Not Detected
1,4-Dichlorobenzene	12000	Not Detected	73000	Not Detected
alpha-Chlorotoluene	12000	Not Detected	63000	Not Detected
1,2-Dichlorobenzene	12000	Not Detected	73000	Not Detected
1,2,4-Trichlorobenzene	48000	Not Detected	360000	Not Detected
Hexachlorobutadiene	48000	Not Detected	520000	Not Detected
TPH ref. to Gasoline (MW=100)	240000	31000000	990000	13000000

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Butane, 2-methyl-	78-78-4	80%	1400000 NJ
Pentane	109-66-0	90%	1800000 NJ
Cyclopropane, 1,1-dimethyl-	1630-94-0	90%	450000 NJ
Pentane, 2-methyl-	107-83-5	91%	2300000 NJ
Unknown	NA	NA	700000 J
Pentane, 3-methyl-	96-14-0	78%	1200000 NJ
2-Pentene, 2-methyl-	625-27-4	91%	460000 NJ
Cyclopentane, methyl-	96-37-7	90%	2100000 NJ
Hexane, 2-methyl-	591-76-4	76%	830000 NJ
Hexane, 3-methyl-	589-34-4	81%	1000000 NJ
Cyclopentane, 1,3-dimethyl-, trans-	1759-58-6	91%	1400000 NJ



**Client Sample ID: VP-4 DUP**

**Lab ID#: 0910619A-05A**

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110618</b>	<b>Date of Collection: 10/22/09 10:55:00 A</b>
<b>Dil. Factor:</b>	<b>2420</b>	<b>Date of Analysis: 11/7/09 01:23 PM</b>

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount ((ppbv))</b>
Unknown	NA	NA	1300000 J
1,4-Pentadiene, 3,3-dimethyl-	1112-35-2	72%	610000 NJ
Cyclohexane, methyl-	108-87-2	93%	2500000 NJ
Cyclopentane, 1,2,3-trimethyl-	2815-57-8	87%	680000 NJ
Cyclopentene, 4,4-dimethyl-	19037-72-0	68%	540000 NJ
Heptane, 2-methyl-	592-27-8	90%	910000 NJ
Heptane, 3-methyl-	589-81-1	72%	410000 NJ
Cyclohexane, 1,2-dimethyl-, trans-	6876-23-9	91%	550000 NJ
Octane	111-65-9	91%	490000 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: VP-5

Lab ID#: 0910619A-06A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110616</b>	<b>Date of Collection:</b> 10/22/09 2:12:00 PM
<b>Dil. Factor:</b>	<b>253</b>	<b>Date of Analysis:</b> 11/7/09 12:01 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1300	Not Detected	6200	Not Detected
Freon 114	1300	Not Detected	8800	Not Detected
Chloromethane	5100	Not Detected	10000	Not Detected
Vinyl Chloride	1300	Not Detected	3200	Not Detected
1,3-Butadiene	1300	Not Detected	2800	Not Detected
Bromomethane	1300	Not Detected	4900	Not Detected
Chloroethane	1300	Not Detected	3300	Not Detected
Freon 11	1300	Not Detected	7100	Not Detected
Ethanol	5100	Not Detected	9500	Not Detected
Freon 113	1300	Not Detected	9700	Not Detected
1,1-Dichloroethene	1300	Not Detected	5000	Not Detected
Acetone	5100	Not Detected	12000	Not Detected
2-Propanol	5100	Not Detected	12000	Not Detected
Carbon Disulfide	1300	Not Detected	3900	Not Detected
3-Chloropropene	5100	Not Detected	16000	Not Detected
Methylene Chloride	1300	Not Detected	4400	Not Detected
Methyl tert-butyl ether	1300	Not Detected	4600	Not Detected
trans-1,2-Dichloroethene	1300	Not Detected	5000	Not Detected
Hexane	1300	100000	4400	370000
1,1-Dichloroethane	1300	Not Detected	5100	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1300	Not Detected	3700	Not Detected
cis-1,2-Dichloroethene	1300	Not Detected	5000	Not Detected
Tetrahydrofuran	1300	Not Detected	3700	Not Detected
Chloroform	1300	Not Detected	6200	Not Detected
1,1,1-Trichloroethane	1300	Not Detected	6900	Not Detected
Cyclohexane	1300	90000	4400	310000
Carbon Tetrachloride	1300	Not Detected	8000	Not Detected
2,2,4-Trimethylpentane	1300	23000	5900	110000
Benzene	1300	5000	4000	16000
1,2-Dichloroethane	1300	Not Detected	5100	Not Detected
Heptane	1300	120000	5200	490000
Trichloroethene	1300	Not Detected	6800	Not Detected
1,2-Dichloropropane	1300	Not Detected	5800	Not Detected
1,4-Dioxane	5100	Not Detected	18000	Not Detected
Bromodichloromethane	1300	Not Detected	8500	Not Detected
cis-1,3-Dichloropropene	1300	Not Detected	5700	Not Detected
4-Methyl-2-pentanone	1300	Not Detected	5200	Not Detected
Toluene	1300	Not Detected	4800	Not Detected
trans-1,3-Dichloropropene	1300	Not Detected	5700	Not Detected

Client Sample ID: VP-5

Lab ID#: 0910619A-06A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110616</b>	<b>Date of Collection:</b> 10/22/09 2:12:00 PM
<b>Dil. Factor:</b>	<b>253</b>	<b>Date of Analysis:</b> 11/7/09 12:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	1300	Not Detected	6900	Not Detected
Tetrachloroethene	1300	Not Detected	8600	Not Detected
2-Hexanone	5100	Not Detected	21000	Not Detected
Dibromochloromethane	1300	Not Detected	11000	Not Detected
1,2-Dibromoethane (EDB)	1300	Not Detected	9700	Not Detected
Chlorobenzene	1300	Not Detected	5800	Not Detected
Ethyl Benzene	1300	Not Detected	5500	Not Detected
m,p-Xylene	1300	Not Detected	5500	Not Detected
o-Xylene	1300	Not Detected	5500	Not Detected
Styrene	1300	Not Detected	5400	Not Detected
Bromoform	1300	Not Detected	13000	Not Detected
Cumene	1300	2400	6200	12000
1,1,2,2-Tetrachloroethane	1300	Not Detected	8700	Not Detected
Propylbenzene	1300	3000	6200	15000
4-Ethyltoluene	1300	Not Detected	6200	Not Detected
1,3,5-Trimethylbenzene	1300	Not Detected	6200	Not Detected
1,2,4-Trimethylbenzene	1300	Not Detected	6200	Not Detected
1,3-Dichlorobenzene	1300	Not Detected	7600	Not Detected
1,4-Dichlorobenzene	1300	Not Detected	7600	Not Detected
alpha-Chlorotoluene	1300	Not Detected	6500	Not Detected
1,2-Dichlorobenzene	1300	Not Detected	7600	Not Detected
1,2,4-Trichlorobenzene	5100	Not Detected	38000	Not Detected
Hexachlorobutadiene	5100	Not Detected	54000	Not Detected
TPH ref. to Gasoline (MW=100)	25000	4800000	100000	20000000

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Pentane, 2-methyl-	107-83-5	91%	110000 NJ
Pentane, 3-methyl-	96-14-0	86%	69000 NJ
Cyclopentane, methyl-	96-37-7	90%	170000 NJ
Hexane, 2-methyl-	591-76-4	90%	91000 NJ
Hexane, 3-methyl-	589-34-4	87%	130000 NJ
Cyclopentane, 1,3-dimethyl-, trans-	1759-58-6	91%	140000 NJ
Cyclopentane, 1,2-dimethyl-, trans-	822-50-4	53%	170000 NJ
Cyclopentane, 4,4-dimethyl-	19037-72-0	76%	70000 NJ
Cyclohexane, methyl-	108-87-2	93%	400000 NJ
Cyclopentane, ethyl-	1640-89-7	91%	66000 NJ

Client Sample ID: VP-5

Lab ID#: 0910619A-06A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110616</b>	<b>Date of Collection: 10/22/09 2:12:00 PM</b>
<b>Dil. Factor:</b>	<b>253</b>	<b>Date of Analysis: 11/7/09 12:01 PM</b>

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount ((ppbv))</b>
Cyclopentane, 1,2,4-trimethyl-, (1.alpha)	16883-48-0	72%	78000 NJ
Cyclopentane, 1,2,3-trimethyl-, (1.alpha)	15890-40-1	90%	160000 NJ
Cyclopentene, 1,5-dimethyl-	16491-15-9	81%	110000 NJ
Heptane, 2-methyl-	592-27-8	90%	240000 NJ
Pentane, 2,3,3,4-tetramethyl-	16747-38-9	64%	82000 NJ
Cyclohexene, 1-methyl-	591-49-1	87%	82000 NJ
Cyclohexane, 1,4-dimethyl-, trans-	2207-04-7	91%	120000 NJ
Octane	111-65-9	83%	86000 NJ
Cyclohexane, 1,2-dimethyl-, trans-	6876-23-9	90%	81000 NJ
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	49%	140000 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

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

Client Sample ID: VP-9

Lab ID#: 0910619A-07A

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

<b>File Name:</b>	<b>t110816</b>	<b>Date of Collection:</b> 10/22/09 9:15:00 AM
<b>Dil. Factor:</b>	<b>2.20</b>	<b>Date of Analysis:</b> 11/8/09 06:06 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 114	1.1	Not Detected	7.7	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	1.1	Not Detected	4.3	Not Detected
Chloroethane	1.1	Not Detected	2.9	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Tetrachloroethene	1.1	2.4	7.5	16
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected
Styrene	1.1	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected

Client Sample ID: VP-9

Lab ID#: 0910619A-07A

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

<b>File Name:</b>	t110816	<b>Date of Collection:</b> 10/22/09 9:15:00 AM
<b>Dil. Factor:</b>	2.20	<b>Date of Analysis:</b> 11/8/09 06:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.1	Not Detected	4.5	Not Detected
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Propylbenzene	1.1	Not Detected	5.4	Not Detected
Chloromethane	4.4	Not Detected	9.1	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected UJ	33	Not Detected UJ
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Acetone	4.4	Not Detected	10	Not Detected
Carbon Disulfide	1.1	Not Detected	3.4	Not Detected
2-Propanol	4.4	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	Not Detected	3.2	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
Ethanol	4.4	Not Detected	8.3	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.1	Not Detected
3-Chloropropene	4.4	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	22	Not Detected	90	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Ethane, 1,1-difluoro-	75-37-6	90%	10 NJ
Acetic acid, cyano-, 1,1-dimethylethyl e	1116-98-9	64%	11 NJ
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	15 NJ
Cyclotetrasiloxane, octamethyl-	556-67-2	80%	38 NJ
Benzeneacetic acid, .alpha.,4-bis[(trime	55334-40-2	50%	7.6 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

Client Sample ID: VP-9

Lab ID#: 0910619A-07A

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

File Name:	t110816	Date of Collection: 10/22/09 9:15:00 AM
Dil. Factor:	2.20	Date of Analysis: 11/8/09 06:06 PM

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

Client Sample ID: VP-10

Lab ID#: 0910619A-08A

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

<b>File Name:</b>	<b>t110817</b>	<b>Date of Collection:</b> 10/22/09 12:45:00 P
<b>Dil. Factor:</b>	<b>2.42</b>	<b>Date of Analysis:</b> 11/8/09 06:43 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	1.2	Not Detected	4.7	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	4.9	3.9	16
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
Toluene	1.2	1.6	4.6	6.1
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	9.2	8.2	63
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	2.9	5.2	12
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Hexane	1.2	30	4.3	100
Cyclohexane	1.2	13	4.2	45



Client Sample ID: VP-10

Lab ID#: 0910619A-08A

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

<b>File Name:</b>	t110817	<b>Date of Collection:</b> 10/22/09 12:45:00 P
<b>Dil. Factor:</b>	2.42	<b>Date of Analysis:</b> 11/8/09 06:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	22	5.0	91
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
Chloromethane	4.8	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected UJ	36	Not Detected UJ
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Acetone	4.8	7.1	11	17
Carbon Disulfide	1.2	Not Detected	3.8	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	Not Detected	3.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
Ethanol	4.8	Not Detected	9.1	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
2,2,4-Trimethylpentane	1.2	10	5.6	49
3-Chloropropene	4.8	Not Detected	15	Not Detected
TPH ref. to Gasoline (MW=100)	24	500	99	2100

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Butane	106-97-8	72%	8.4 NJ
Butane, 2-methyl-	78-78-4	80%	35 NJ
Pentane	109-66-0	86%	44 NJ
2-Pentene	109-68-2	83%	8.8 NJ
Pentane, 2-methyl-	107-83-5	91%	69 NJ
Pentane, 3-methyl-	96-14-0	90%	32 NJ
2-Pentene, 4-methyl-, (E)-	674-76-0	91%	9.0 NJ
2-Pentene, 3-methyl-, (Z)-	922-62-3	81%	9.8 NJ
Cyclobutane, ethyl-	4806-61-5	72%	49 NJ
Hexane, 2-methyl-	591-76-4	91%	21 NJ

Client Sample ID: VP-10

Lab ID#: 0910619A-08A

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

<b>File Name:</b>	t110817	<b>Date of Collection:</b> 10/22/09 12:45:00 P
<b>Dil. Factor:</b>	2.42	<b>Date of Analysis:</b> 11/8/09 06:43 PM

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount ((ppbv))</b>
Hexane, 2,3-dimethyl-	584-94-1	43%	25 NJ
2-Heptene	592-77-8	64%	17 NJ
Furan, 2-propyl-	4229-91-8	78%	7.2 NJ
Cyclohexane, methyl-	108-87-2	97%	39 NJ
Cyclopentane, 1,2,3-trimethyl-, (1.alpha	15890-40-1	81%	9.5 NJ
Heptane, 2-methyl-	592-27-8	58%	21 NJ
Heptane, 3-methyl-	589-81-1	64%	7.4 NJ
Cyclohexane, 1,4-dimethyl-, cis-	624-29-3	90%	9.7 NJ
Cyclohexane, 1,4-dimethyl-	589-90-2	64%	9.3 NJ
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	91%	6.7 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: VP-11

Lab ID#: 0910619A-09A

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

<b>File Name:</b>	<b>t110818</b>	<b>Date of Collection:</b>	<b>10/22/09 1:00:00 PM</b>
<b>Dil. Factor:</b>	<b>2.42</b>	<b>Date of Analysis:</b>	<b>11/8/09 07:20 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	1.2	Not Detected	4.7	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	2.3	6.8	13
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	2.2	8.2	15
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected

Client Sample ID: VP-11

Lab ID#: 0910619A-09A

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

<b>File Name:</b>	t110818	<b>Date of Collection:</b> 10/22/09 1:00:00 PM
<b>Dil. Factor:</b>	2.42	<b>Date of Analysis:</b> 11/8/09 07:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	Not Detected	5.0	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
Chloromethane	4.8	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected UJ	36	Not Detected UJ
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Acetone	4.8	Not Detected	11	Not Detected
Carbon Disulfide	1.2	Not Detected	3.8	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	Not Detected	3.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
Ethanol	4.8	Not Detected	9.1	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
TPH ref. to Gasoline (MW=100)	24	Not Detected	99	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Unknown	NA	NA	8.7 J
1-Butanol	71-36-3	78%	12 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	97	70-130



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**Client Sample ID: VP-11**

**Lab ID#: 0910619A-09A**

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

<b>File Name:</b>	<b>t110818</b>	<b>Date of Collection: 10/22/09 1:00:00 PM</b>
<b>Dil. Factor:</b>	<b>2.42</b>	<b>Date of Analysis: 11/8/09 07:20 PM</b>

Client Sample ID: VP-12

Lab ID#: 0910619A-10A

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

<b>File Name:</b>	<b>t110819</b>	<b>Date of Collection:</b> 10/22/09 12:26:00 P
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 11/8/09 07:56 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	1.3	6.5	7.2
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected

Client Sample ID: VP-12

Lab ID#: 0910619A-10A

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

<b>File Name:</b>	<b>t110819</b>	<b>Date of Collection:</b>	<b>10/22/09 12:26:00 P</b>
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b>	<b>11/8/09 07:56 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Heptane	1.2	Not Detected	4.8	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected UJ	34	Not Detected UJ
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Acetone	4.7	Not Detected	11	Not Detected
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
2-Propanol	4.7	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	Not Detected	3.4	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	23	Not Detected	95	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

<b>Compound</b>	<b>CAS Number</b>	<b>Match Quality</b>	<b>Amount ((ppbv))</b>
Cyclotrisiloxane, hexamethyl-	541-05-9	80%	14 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: VP-13

Lab ID#: 0910619A-11A

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

<b>File Name:</b>	<b>t110820</b>	<b>Date of Collection:</b> 10/22/09 11:11:00 A
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 11/8/09 08:33 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected



Client Sample ID: VP-13

Lab ID#: 0910619A-11A

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

<b>File Name:</b>	<b>t110820</b>	<b>Date of Collection:</b> 10/22/09 11:11:00 A
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 11/8/09 08:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	Not Detected	4.8	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected UJ	34	Not Detected UJ
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Acetone	4.7	9.6	11	23
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
2-Propanol	4.7	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	Not Detected	3.4	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	23	Not Detected	95	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
2-Propanol, 2-methyl-	75-65-0	56%	6.6 NJ
Furan, 2-propyl-	4229-91-8	64%	10 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	96	70-130



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**Client Sample ID: VP-13**

**Lab ID#: 0910619A-11A**

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

<b>File Name:</b>	<b>t110820</b>	<b>Date of Collection: 10/22/09 11:11:00 A</b>
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis: 11/8/09 08:33 PM</b>

Client Sample ID: VP-13 Lab Duplicate

Lab ID#: 0910619A-11AA

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

<b>File Name:</b>	<b>t110821</b>	<b>Date of Collection:</b> 10/22/09 11:11:00 A
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 11/8/09 09:15 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected

Client Sample ID: VP-13 Lab Duplicate

Lab ID#: 0910619A-11AA

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

<b>File Name:</b>	t110821	<b>Date of Collection:</b> 10/22/09 11:11:00 A
<b>Dil. Factor:</b>	2.33	<b>Date of Analysis:</b> 11/8/09 09:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	Not Detected	4.8	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected UJ	34	Not Detected UJ
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Acetone	4.7	9.0	11	21
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
2-Propanol	4.7	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	Not Detected	3.4	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	23	Not Detected	95	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
2-Propanol, 2-methyl-	75-65-0	39%	6.4 NJ
Furan, 2-propyl-	4229-91-8	64%	9.8 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	97	70-130



**Client Sample ID: VP-13 Lab Duplicate**

**Lab ID#: 0910619A-11AA**

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

<b>File Name:</b>	<b>t110821</b>	<b>Date of Collection: 10/22/09 11:11:00 A</b>
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis: 11/8/09 09:15 PM</b>

Client Sample ID: TRIP BLANK

Lab ID#: 0910619A-12A

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

<b>File Name:</b>	<b>t110822</b>	<b>Date of Collection:</b> 10/22/09 4:35:00 PM
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 11/8/09 10:18 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected

Client Sample ID: TRIP BLANK

Lab ID#: 0910619A-12A

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

<b>File Name:</b>	<b>t110822</b>	<b>Date of Collection:</b> 10/22/09 4:35:00 PM
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 11/8/09 10:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected UJ	15	Not Detected UJ
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
TPH ref. to Gasoline (MW=100)	10	Not Detected	41	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

**Container Type: 1 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 0910619A-13A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110607</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/6/09 10:28 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 0910619A-13A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110607</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/6/09 10:28 PM</b>

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	410	Not Detected

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: Lab Blank

Lab ID#: 0910619A-13B

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

<b>File Name:</b>	<b>t110807</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/8/09 11:42 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 0910619A-13B

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

<b>File Name:</b>	<b>t110807</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 11/8/09 11:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected UJ	15	Not Detected UJ
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
TPH ref. to Gasoline (MW=100)	10	Not Detected	41	Not Detected

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

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: CCV

Lab ID#: 0910619A-14A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110602</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/6/09 06:55 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Freon 12	92
Freon 114	100
Chloromethane	94
Vinyl Chloride	99
1,3-Butadiene	101
Bromomethane	104
Chloroethane	118
Freon 11	85
Ethanol	109
Freon 113	100
1,1-Dichloroethene	96
Acetone	101
2-Propanol	102
Carbon Disulfide	101
3-Chloropropene	110
Methylene Chloride	99
Methyl tert-butyl ether	123
trans-1,2-Dichloroethene	102
Hexane	102
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	107
cis-1,2-Dichloroethene	97
Tetrahydrofuran	100
Chloroform	94
1,1,1-Trichloroethane	89
Cyclohexane	104
Carbon Tetrachloride	89
2,2,4-Trimethylpentane	103
Benzene	107
1,2-Dichloroethane	91
Heptane	106
Trichloroethene	96
1,2-Dichloropropane	103
1,4-Dioxane	104
Bromodichloromethane	92
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	101
Toluene	101
trans-1,3-Dichloropropene	99

Client Sample ID: CCV

Lab ID#: 0910619A-14A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110602</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/6/09 06:55 PM</b>

<b>Compound</b>	<b>%Recovery</b>
1,1,2-Trichloroethane	103
Tetrachloroethene	98
2-Hexanone	106
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	100
Chlorobenzene	102
Ethyl Benzene	105
m,p-Xylene	105
o-Xylene	103
Styrene	106
Bromoform	96
Cumene	100
1,1,2,2-Tetrachloroethane	103
Propylbenzene	98
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	92
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	91
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	76
TPH ref. to Gasoline (MW=100)	93

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: CCV

Lab ID#: 0910619A-14B

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

<b>File Name:</b>	<b>t110803</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/8/09 08:44 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Freon 12	98
Freon 114	120
Vinyl Chloride	108
Bromomethane	108
Chloroethane	116
Freon 11	108
1,1-Dichloroethene	120
Freon 113	107
Methylene Chloride	106
1,1-Dichloroethane	116
cis-1,2-Dichloroethene	115
Chloroform	109
1,1,1-Trichloroethane	104
Carbon Tetrachloride	122
Benzene	118
1,2-Dichloroethane	117
Trichloroethene	119
1,2-Dichloropropane	123
cis-1,3-Dichloropropene	125
Toluene	118
trans-1,3-Dichloropropene	128
1,1,2-Trichloroethane	119
Tetrachloroethene	118
1,2-Dibromoethane (EDB)	119
Chlorobenzene	117
Ethyl Benzene	122
m,p-Xylene	122
o-Xylene	120
Styrene	118
1,1,2,2-Tetrachloroethane	115
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	108
1,3-Butadiene	116
Hexane	113
Cyclohexane	117

Client Sample ID: CCV

Lab ID#: 0910619A-14B

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

<b>File Name:</b>	<b>t110803</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/8/09 08:44 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Heptane	126
Bromodichloromethane	120
Dibromochloromethane	125
Cumene	112
Propylbenzene	115
Chloromethane	106
1,2,4-Trichlorobenzene	61 Q
Hexachlorobutadiene	72
Acetone	112
Carbon Disulfide	124
2-Propanol	116
trans-1,2-Dichloroethene	113
2-Butanone (Methyl Ethyl Ketone)	122
Tetrahydrofuran	116
1,4-Dioxane	122
4-Methyl-2-pentanone	130
2-Hexanone	125
Bromoform	122
4-Ethyltoluene	118
Ethanol	120
Methyl tert-butyl ether	108
2,2,4-Trimethylpentane	117
3-Chloropropene	117
TPH ref. to Gasoline (MW=100)	125

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: LCS

Lab ID#: 0910619A-15A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110603</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/6/09 07:19 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Freon 12	91
Freon 114	97
Chloromethane	92
Vinyl Chloride	96
1,3-Butadiene	96
Bromomethane	101
Chloroethane	114
Freon 11	83
Ethanol	73
Freon 113	106
1,1-Dichloroethene	103
Acetone	99
2-Propanol	104
Carbon Disulfide	99
3-Chloropropene	111
Methylene Chloride	104
Methyl tert-butyl ether	120
trans-1,2-Dichloroethene	101
Hexane	99
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	97
Tetrahydrofuran	98
Chloroform	93
1,1,1-Trichloroethane	88
Cyclohexane	100
Carbon Tetrachloride	86
2,2,4-Trimethylpentane	101
Benzene	106
1,2-Dichloroethane	91
Heptane	104
Trichloroethene	97
1,2-Dichloropropane	102
1,4-Dioxane	100
Bromodichloromethane	93
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	101
Toluene	104
trans-1,3-Dichloropropene	96



Client Sample ID: LCS

Lab ID#: 0910619A-15A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>b110603</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/6/09 07:19 PM</b>

<b>Compound</b>	<b>%Recovery</b>
1,1,2-Trichloroethane	100
Tetrachloroethene	96
2-Hexanone	101
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	94
Chlorobenzene	97
Ethyl Benzene	99
m,p-Xylene	99
o-Xylene	100
Styrene	103
Bromoform	92
Cumene	98
1,1,2,2-Tetrachloroethane	93
Propylbenzene	95
4-Ethyltoluene	90
1,3,5-Trimethylbenzene	87
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	83
1,4-Dichlorobenzene	90
alpha-Chlorotoluene	86
1,2-Dichlorobenzene	84
1,2,4-Trichlorobenzene	66 Q
Hexachlorobutadiene	61 Q
TPH ref. to Gasoline (MW=100)	Not Spiked

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: LCS

Lab ID#: 0910619A-15B

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

<b>File Name:</b>	<b>t110804</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/8/09 09:29 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Freon 12	94
Freon 114	106
Vinyl Chloride	106
Bromomethane	107
Chloroethane	107
Freon 11	102
1,1-Dichloroethene	127
Freon 113	114
Methylene Chloride	107
1,1-Dichloroethane	117
cis-1,2-Dichloroethene	114
Chloroform	108
1,1,1-Trichloroethane	102
Carbon Tetrachloride	118
Benzene	116
1,2-Dichloroethane	116
Trichloroethene	117
1,2-Dichloropropane	119
cis-1,3-Dichloropropene	121
Toluene	122
trans-1,3-Dichloropropene	121
1,1,2-Trichloroethane	113
Tetrachloroethene	115
1,2-Dibromoethane (EDB)	109
Chlorobenzene	112
Ethyl Benzene	115
m,p-Xylene	116
o-Xylene	116
Styrene	116
1,1,2,2-Tetrachloroethane	116
1,3,5-Trimethylbenzene	108
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	105
1,3-Butadiene	109
Hexane	112
Cyclohexane	114

Client Sample ID: LCS

Lab ID#: 0910619A-15B

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

<b>File Name:</b>	<b>t110804</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/8/09 09:29 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Heptane	124
Bromodichloromethane	119
Dibromochloromethane	119
Cumene	114
Propylbenzene	119
Chloromethane	103
1,2,4-Trichlorobenzene	85
Hexachlorobutadiene	93
Acetone	110
Carbon Disulfide	116
2-Propanol	116
trans-1,2-Dichloroethene	110
2-Butanone (Methyl Ethyl Ketone)	120
Tetrahydrofuran	113
1,4-Dioxane	117
4-Methyl-2-pentanone	129
2-Hexanone	120
Bromoform	118
4-Ethyltoluene	120
Ethanol	67
Methyl tert-butyl ether	108
2,2,4-Trimethylpentane	115
3-Chloropropene	114
TPH ref. to Gasoline (MW=100)	Not Spiked

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	99	70-130



**CHAIN-OF-CUSTODY RECORD**

**Sample Transportation Notice**

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

Project Manager BRIAN SILVA  
 Collected by: (Print and Sign) FAN HULL  
 Company CRA Email bsilva@craworld.com  
 Address 10969 TRADE CENTER DR SUITE 107 City RANCHO CORDOVA State CA Zip 95670  
 Phone 916-889-8908 Fax 916-889-8999

<b>Project Info:</b> P.O. # <u>40-4023395</u> Project # <u>631916</u> Project Name <u>CHEVRON 20-6127</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: Date: Pressurization Gas: N <sub>2</sub> He
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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	VP-1	1041	10/22/2009	1634	TPH <sub>9</sub> + VOCs	-30	-2		
02A	VP-2	<del>1552</del> <sup>1552<sup>IMH</sup></sup>		1552	BY TO-15	-30	-5		
03A	VP-3	33394		1512	O <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub>	-30	-6		
04A	VP-4	35635		1055	HELIUM BY	-30	-7		
05A	VP-4 DUP	35641		1055	ASTM D-1946	-30	-6		
06A	VP-5	36392		1412		-30	-7		
07A	VP-9	1433		0915		-30	-3		
08A	VP-10	9399		1245		-30	-6		
09A	VP-11	9539		1300		-30	-6		
10A	VP-12	9534		1226		-30	-5		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>10/22/2009 @ 1730</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>SECURE LOCATION</u>	<b>Notes:</b> PLEASE REPORT IN <u>PPBV AND</u> <u>µg/m<sup>3</sup></u>
Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>10/26/2009 @ 0800</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>FEDEX</u>	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) <u>[Signature]</u> Date/Time <u>10/27/09 905</u>	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>Jed Ex</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>0910619</u>



**CHAIN-OF-CUSTODY RECORD**

**Sample Transportation Notice**

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

Project Manager BRIAN SILVA

Collected by: (Print and Sign) IAN HULL *[Signature]*

Company CRA Email bsilva@craworth.com

Address 1096A TRADE CENTER DR. City RANCHO COPPOVA State CA Zip 95670

Phone 916-889-8908 Fax 916-889-8999

<b>Project Info:</b> P.O. # <u>40-4023395</u> Project # <u>631916</u> Project Name <u>CHEVRON 20-6127</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: Date: Pressurization Gas: N <sub>2</sub> He
	<small>specify</small>	

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)
11A	VP-13	9512	10/22/09	1111	TO-15: TPH <sub>3</sub> , VOC <sub>5</sub>	-30	-5		
12A	TRIP BLANK	2034	↓	1635	ASTM D-1446: O <sub>2</sub> , CO <sub>2</sub> , N <sub>2</sub> , CH <sub>4</sub> , HELIUM	-	-		

Relinquished by: (signature) <i>[Signature]</i> Date/Time <u>10/22/09 @ 1730</u>	Received by: (signature) <u>SECURE LOCATION</u> Date/Time	<b>Notes:</b> PLEASE REPORT IN PPBV AND µS/m <sup>3</sup>
Relinquished by: (signature) <i>[Signature]</i> Date/Time <u>10/22/09 @ 0800</u>	Received by: (signature) <u>FED EX</u> Date/Time	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) <u>Monica Grogan</u> Date/Time <u>AZ 10/27/09 905</u>	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>Fed Ex</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>0910619</u>