



**Stantec**

**PHASE II SITE ASSESSMENT**

**Former Randy's Automotive  
2089 Harbor Boulevard  
Costa Mesa, California**

**Stantec Project No.:** 185802664

**Submitted to:**

RMG- Red Mountain Group  
1234 E. Seventeenth Street  
Santa Ana, California 92701

**Submitted by:**

Stantec Consulting Corporation  
25864-F Business Center Drive  
Redlands, California

March 5, 2012



**Stantec**

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March 5, 2012

Mr. Eric A. Nelson  
Vice President-Entitlements/ Government  
RMG- Red Mountain Group  
1234 E. Seventeenth Street  
Santa Ana, California 92701

**RE: PHASE II SITE ASSESSMENT**

Former Randy's Automotive  
2089 Harbor Boulevard  
Costa Mesa, California

Dear Mr. Nelson,

At the request and authorization of Red Mountain Group (RMG), Stantec Consulting Corporation (Stantec) has prepared this report detailing the results of a Phase II investigation of soil, soil vapor, and groundwater at 2089 Harbor Boulevard, Costa Mesa, California (the "Site"). The investigation was completed in general accordance with Stantec's *Proposal to Perform Soil Gas Investigation and Soil and Groundwater Sampling*, dated January 12, 2012. The results of the completed work are summarized in the following Executive Summary, and described in greater detail in the attached report.

**EXECUTIVE SUMMARY**

The Site consists of former automotive repair and generator service facilities on the eastern portion and an undeveloped lot used for storage and parking on the western portion within the City of Costa Mesa, Orange County, California. The address for the property is 2089 Harbor Boulevard and is located at the southwest corner of Harbor Boulevard and Hamilton Street. Currently, the Site is vacant and fenced and gated.

The Site was formerly used as automotive repair and generator service facilities on the eastern portion and an undeveloped lot used for storage and parking on the western portion. There is known soil and groundwater contamination on the Site centered on the eastern portion in the vicinity of the former automotive and generator repair facilities. Several soil and groundwater assessments have taken place. The most recent groundwater sampling event that took place in the third quarter of 2008 reported free product in several wells that are located on the Site, with peak thickness in MW-2 at 1.27 feet. It is not known whether free product currently exists at the Site.

A Remedial Action Plan (RAP) was developed by SECOR (now Stantec) dated April 3, 2006. Based on historical assessment data, SECOR recommended soil vapor extraction and free product removal as remediation alternatives for the property in which the Site is included. In a

## Stantec

Red Mountain Group  
Phase II Site Assessment, Costa Mesa, California  
March 5, 2012  
Page 2

letter dated April 17, 2006, the California Regional Water Quality Control Board (CRWQCB) approved the RAP. To date, it has not been implemented.

No soil vapor data has been collected for the Site. In correspondence with the CRWQCB dated January 6, 2011, the CRWQCB required that a soil vapor survey be completed prior to any development of the Site to determine whether any engineering controls will be necessary to be protective of human health. Stantec developed the scope of work below to comply with that requirement. In addition, the planned develop for this property includes residential on the eastern parcel and commercial uses on the western parcel. This use was taken into consideration in the evaluation of the soil vapor data discussed below.

On February 16<sup>th</sup> and 17<sup>th</sup>, 2012, Stantec personnel oversaw the advancement fifteen (15) soil borings at the Site. Twelve (12) of these borings were completed as dual completion semi-permanent soil gas probes. The locations are presented on figure 2. Of the 12 locations, six (6) were located on the eastern portion of the property designated for commercial use and six (6) were located on the western portion of the property designated as residential use. Stantec advanced a total of three (3) soil borings on the western portion of the Site for further assessment of soil and groundwater impacts.

H&P Laboratories analyzed twenty four (24) samples from the two sample depths of 5 and 15 feet below ground surface (bgs) from each of the twelve (12) locations. In general, low concentrations to not detectable above laboratory reporting limits of volatile organic compounds (VOCs) were reported in the soil vapor samples collected from the Site. One area of elevated VOC concentrations was reported at sample locations EB-3 and EB-4, in the known source area (former underground storage tank (UST) area) located on the eastern parcel.

On the eastern parcel planned for residential uses, only benzene was reported at or above the laboratory reporting limit of 0.02 micrograms per liter ( $\mu\text{g/L}$ ) in sample WB5-SV-5 at 0.02  $\mu\text{g/L}$ . This concentration does not exceed the residential California Human Health Screening Levels (CHHSLs) for structures with engineered fill below slab of 0.085  $\mu\text{g/L}$ . No other VOCs were reported above the laboratory reporting limits.

On the western parcel planned for commercial uses, benzene, ethylbenzene, xylenes and chloroform were reported at or above the laboratory reporting limits. Of these, benzene and ethlybenzene exceed commercial California Human Health Screening Levels (CHHSLs) for structures with engineered fill below slab. Benzene was reported above the commercial CHHSL of 0.28  $\mu\text{g/L}$ , at 0.72  $\mu\text{g/L}$ , 360  $\mu\text{g/L}$ , and 4.8  $\mu\text{g/L}$ , in samples EB3-SV-5, EB3-SV-15, and EB4-SV-15, respectively. Ethylbenzene was reported above the commercial CHHSL of 3.6  $\mu\text{g/L}$ , at 36  $\mu\text{g/L}$  in sample EB3-SV-15. Chloroform was reported in sample EB1-SV-15 at 0.10  $\mu\text{g/L}$  and xylenes were reported in sample EB4-SV-15 at 2.2  $\mu\text{g/L}$ , neither of which exceeded their respective CHHSLs. No other VOCs were reported above the laboratory reporting limits.

Soil samples were collected from boring locations WB-7 through WB-9. Soil samples collected from the capillary fringe as observed during the site investigation were chosen for analysis and TPH and VOCs. No analytes were reported above laboratory reporting limits.

## Stantec

Red Mountain Group  
Phase II Site Assessment, Costa Mesa, California  
March 5, 2012  
Page 3

One partial groundwater sample was collected from boring location WB-9 and was analyzed for VOCs. Groundwater did not enter borings WB-7 and WB-8 in sufficient volume to sample due to lithology.

- Methyl tert-butyl ether (MTBE) was reported at a concentration of 20 µg/L, which exceeds the California Regional Water Quality Control Board Environmental Screening Level (CRWQCB ESL).
- Tert-butyl alcohol (TBA) was reported at a concentration of 120 µg/L, which exceeds the CRWQCB ESL.
- No benzene, toluene, ethylbenzene, total xylenes or other VOCs were detected above laboratory reporting limits in the collected groundwater sample.

Based on the data obtained from this assessment, Stantec concludes that soil gas impact appears to be limited to the source area on the eastern parcel, where groundwater and soil impact has also been reported as highest. Soil vapor impact was detected in only one sample on the western portion planned for residential development. However, Stantec recommends that a human health risk assessment (HHRA) be conducted for the property to determine whether any engineering controls such as vapor barriers would be required for either residential or commercial development.

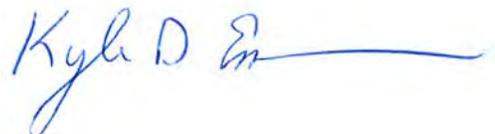
Groundwater and soil impact is known to exist at the Site. Soil contamination appeared to be limited to a clay layer below the water table in the northernmost soil boring on the Site, which is consistent with what has been observed in previous investigations. Groundwater could not be fully assessed due to lack of sample, but results from the one sample obtained indicate that the groundwater plume requires further delineation. Stantec recommends that further delineation and assessment take place at the direction of the CRWQCB.

It has been a pleasure to provide environmental consulting services for you on this project and we look forward to working with you in the future. Should there be any questions regarding the information provided within the accompanying report, please do not hesitate to contact the undersigned at (909) 335-6116.

Respectfully submitted,  
**STANTEC CONSULTING CORPORATION**



Kristen Daly  
Project Geologist



Kyle D. Emerson, CEG 1271  
Managing Principal Geologist

**TABLE OF CONTENTS**

<b><u>Section</u></b>	<b><u>Page</u></b>
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 SITE DESCRIPTION AND OPERATIONS.....	1
1.2 SITE GEOLOGY AND HYDROGEOLOGY.....	1
<b>2.0 BACKGROUND INFORMATION .....</b>	<b>2</b>
<b>3.0 FIELD INVESTIGATION PROGRAM .....</b>	<b>3</b>
3.1 SCOPE-OF-WORK.....	3
3.2 SAMPLING PROCEDURES.....	4
3.3 BORING ABANDONMENT PROCEDURES .....	5
3.4 DECONTAMINATION PROCEDURES .....	5
3.5 WASTE DISPOSAL.....	5
<b>4.0 LABORATORY TESTING PROGRAM.....</b>	<b>6</b>
<b>5.0 INVESTIGATION RESULTS .....</b>	<b>7</b>
5.1 FIELD OBSERVATIONS .....	7
5.2 ANALYTICAL RESULTS .....	7
<b>6.0 CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>9</b>
<b>7.0 CLOSURE .....</b>	<b>11</b>
<b>8.0 REFERENCES .....</b>	<b>12</b>

**LIST OF TABLES**

- Table 1 – Summary of Analytical Soil Vapor Results – VOCs
- Table 2 – Summary of Soil Analytical Results – TPH and VOCs
- Table 3 – Summary of Groundwater Analytical Results – TPH and VOCs

**LIST OF FIGURES**

- Figure 1 – Site Location Map
- Figure 2 – Site Plan with Sampling Locations

**LIST OF APPENDICES**

- Appendix A – Boring Logs
- Appendix B – Laboratory Data Sheets and QA/QC Results

## **1.0 INTRODUCTION**

This report documents the methodology and results of a soil, soil vapor, and groundwater investigation completed by Stantec Consulting Inc. (Stantec) at the former Randy's Automotive property, located at 2089 Harbor Boulevard, Costa Mesa, California (the "Site").

The completed work was conducted in general accordance with Stantec's *Proposal to Perform Soil Gas Investigation and Soil and Groundwater Sampling*, dated January 12, 2012. The scope of work and the results of the investigation are described in subsequent sections. The following subsections provide the site description and a summary of past operations.

### **1.1 SITE DESCRIPTION AND OPERATIONS**

The Site consists of former automotive repair and generator service facilities on the eastern portion and an undeveloped lot used for storage and parking on the western portion within the City of Costa Mesa, Orange County, California. The address for the property is 2089 Harbor Boulevard and is located at the southwest corner of Harbor Boulevard and Hamilton Street. Currently, the Site is vacant and fenced and gated.

### **1.2 SITE GEOLOGY AND HYDROGEOLOGY**

The Site is located in Orange County. The area is located within the Peninsular Ranges Geomorphic Province, which includes northwest-southeast trending features that have been developed by the San Andreas Fault system (California Geological Survey [CGS], 2002). The stratigraphy underlying the Site consists primarily of recent-age non-marine terrace deposits (CDMG, 1965).

The Site is at an elevation of approximately 80 feet above mean sea level. The regional topographic gradient is to the northeast (USGS, 1965).

The closest mapped active fault is the Newport Inglewood Fault located approximately 2 miles northeast (CGS, 2012). According to official maps of California, the Site is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary (CDMG, 2000).

The Site is located within the Coastal Plain of Orange County, which underlies a coastal alluvial plain in northwestern Orange County and the Santa Ana Watershed. The basin is constrained by non-porous rocks to the north, east and south, and the Pacific Ocean to the southwest and a low topographic divide to the northwest. The basin consists of upper, middle and lower aquifers that are contained in marine and non-marine sediments (Department of Water Resources [DWR], 2004). Groundwater at the Site was most recently measured at approximately 20 feet below ground surface (bgs) in August 2008 and flow was measured to the north (Stantec, 2008).

## **2.0 BACKGROUND INFORMATION**

The Site was formerly used as automotive repair and generator service facilities on the eastern portion and an undeveloped lot used for storage and parking on the western portion. There is known soil and groundwater contamination on the Site centered on the eastern portion in the vicinity of the former automotive and generator repair facilities. Several soil and groundwater assessments have taken place. The most recent groundwater sampling event that took place in the third quarter of 2008 and reported free product (FP) in several wells that are located on the Site. Peak thickness of FP were measured in MW-2 at 1.27 feet. It is not known whether free product currently exists at the Site.

A Remedial Action Plan (RAP) was developed by SECOR (now Stantec) dated April 3, 2006. Based on historical assessment data . The RAP prepared by SECOR recommended soil vapor extraction and free product removal as remediation alternatives for the property in which the Site is included. In a letter dated April 17, 2006, the California Regional Water Quality Control Board (CRWQCB) approved the RAP. To date, it has not been implemented.

No soil vapor data has been collected for the Site. In correspondence with the CRWQCB dated January 6, 2011, the CRWQCB required that a soil vapor survey be completed prior to any development of the Site to determine whether any engineering controls will be necessary to be protective of human health. Stantec developed the scope of work below to comply with that requirement.

## **3.0 FIELD INVESTIGATION PROGRAM**

### **3.1 SCOPE-OF-WORK**

The scope of work consisted of the following general elements:

#### **Task 1: USA Notification and Marking**

As required by law, Stantec visited the Site to mark the proposed boring locations and acquired a current Underground Service Alert (USA) ticket number prior to commencement of Site drilling activities.

#### **Task 2: Pre-Drilling Activities**

In accordance with federal OSHA regulations (29 CFR, Section 1910.120), Stantec developed a site specific Health and Safety Plan (HASP) for the subject property. All Stantec personnel and subcontractors associated with the project were required to be familiar with, and comply with, all provisions of the HASP.

#### **Task 3: Field Investigation**

This soil vapor survey is designed to be an initial screening to determine general impact or lack thereof on the property, and additional sampling may be required dependent on the findings of this proposed assessment and additional vapor assessment following completion of remediation activities. Stantec provided the services of a field engineer to supervise and direct all onsite activities. All work was conducted under the supervision of a State of California registered professional and included the following:

##### Soil Vapor Sampling:

- Stantec installed a total of twelve (12) dual completion semi-permanent soil gas probes across the Site. Six (6) were located on the eastern portion of the property designated for commercial use and six (6) were located on the western portion of the property designated as residential use. Each of these soil gas probes were constructed to sample soil gas at 5 and 15 feet below ground surface (bgs) using a limited access direct push drill rig.
- Each location was hand-augered to a depth of 3 feet bgs in order to clear utilities. The soil boring was further advanced to a depth of 15 feet bgs. At each location soil gas probes were constructed so that the sampling depths were located at 5 feet and 15 feet bgs. Soil gas samples were collected at both depths.

##### Soil and Groundwater Sampling:

- Stantec advanced a total of three (3) soil borings on the western portion of the Site. Each of these borings were sampled at five foot intervals and at the capillary fringe. An attempt was made to collect a groundwater sample from each soil boring using a hydropunch sampler. A partial groundwater sample was collected from only one location. Groundwater did not enter the other two borings during the timeframe of this investigation, so no amples were collected from those borings.
- Stantec collected four (4) soil samples from a depth of between 5 and 10 feet bgs and four (4) samples from a depth of between 15 and 20 feet bgs for physical parameters for use in the HHRA calculations.

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- Soil cuttings and waste water were disposed of as appropriate from the job site listing the client as the waste generator.

### **3.2 SAMPLING PROCEDURES**

All field sampling activities were performed in general accordance with the methodologies outlined in the State of California Department of Toxic Substance Controls (DTSC) and CRWQCB *Advisory-Active Soil Gas Investigations* dated January 28, 2003 and under a site specific HASP.

#### **Soil Sampling**

Soil boring locations were hand augered within the upper three feet for utility clearance. Once the three foot depth had been reached, each of the boring locations was further advanced using a Powerprobe direct push rig. During advancement at each location, sampling of subsurface soils was performed starting at a depth of approximately 5 feet bgs and subsequently every five feet using a 12-inch long by 1.25-inch inner diameter stainless steel sampler with acetate inserts. At each sampling interval, the sampler was driven into undisturbed soil using a hydraulic ram on the Powerprobe rig until 12 inches of penetration was achieved. Upon advancement of the sampler to the desired sampling depth interval, the steel rods were extracted from the boring and the sample sleeves were removed. The drilling and sampling sequence was then repeated for the entire depth of each boring.

Upon extracting the sampler at each depth interval, the soils contained therein were visually examined by Stantec field personnel who then classified the soils in accordance with the unified soil classification system (USCS). A photo-ionization detector (PID) was also used to monitor the soils collected for volatile organic compound (VOC) vapors. Soil was removed from the steel sleeve and placed in a zip-lock type baggie and the PID probe was inserted into the baggie to monitor the headspace for VOC vapors.

After classification and VOC vapor evaluation, the soil samples were collected from the bottom portion of the acetate liner. All soil samples were carefully packaged for chemical analysis by sealing the sleeve with Teflon sheets, plastic end-caps, and non-VOC tape. After the sleeve was sealed, it was labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time). The samples were then logged on a chain-of-custody form and placed in an ice-filled cooler for transport to the laboratory. Copies of the chain-of-custody forms are included as Appendix B.

#### **Groundwater Sampling**

A hydro-punch type driven sampler was used to collect groundwater samples at first encountered groundwater. The sampler was driven to the selected depth below first encountered groundwater and retracted to expose a well screen and the groundwater sample was collected with a decontaminated stainless steel bailer lowered and raised within the hollow drill rod. After an allotted amount of time the sampler was brought to the surface. Due to the soil condition, groundwater was only located in one of the three soil borings.

Upon extracting the sampler at each depth interval, the groundwater contained therein was discharged into laboratory provided 40 milliliter glass vials and 1 liter amber bottles. The sample vessels were capped and labeled with the appropriate identification (sample ID, sample time, date, and sample location) and placed in an ice-filled cooler pending delivery under Chain-of-Custody (COC) to a laboratory for potential chemical analysis. The COC records for the samples collected from the borings are presented in Appendix B.

### **Soil Gas Sampling**

Twelve soil gas probes were advanced using a truck-mounted hydraulic push rig operated by H&P Mobile Geochemistry. Soil vapor samples were collected at a depth interval of 5 and 15 feet bgs (see Figure 2 for locations).

Soil vapor sampling points were installed by pushing the Powerprobe tip to the desired bottom depth, removing the rods and then lowering a diffuser point connected to 1/8-inch Tygon or polyethylene tubing to the target depth. The diffuser point was then backfilled with approximately one foot of sand and then backfilled with bentonite. Samples analyzed by the mobile laboratory were collected using a syringe attached to a stopcock to prevent dilution from atmospheric air.

All samples were collected at a flow rate of 200 milliliters per minute (ml/min). Based on results of the purge volume test performed on February 16, 2012, samples across the Site were collected after purging one dead space air volume.

To assess the potential for air leakage between the sample point and surface, a tracer compound (1,1-difluoroethane) was placed at the surface seal at the time of sampling and then tested as one of the analytes in the EPA Method 8260B method.

One blank sample was collected and submitted to the laboratory for Quality Assurance/ Quality Control (QA/QC) purposes. The results are tabulated in Table 1.

### **3.3 BORING ABANDONMENT PROCEDURES**

Following the completion of drilling and soil sampling, borings were abandoned by removing the sampling equipment from the borehole and subsequently backfilling with cement. Concrete surfaces were patched with concrete to match the surrounding surface conditions.

### **3.4 DECONTAMINATION PROCEDURES**

To maintain quality control during soil sampling, prior to each sampling interval, the sampling equipment was decontaminated in an Alconox scrub solution and double-rinsed, first with tap water followed by a final rinse using distilled water. In addition, prior to, and between each boring advanced, the hollow steel rods were cleaned following the same protocol.

### **3.5 WASTE DISPOSAL**

All soil cuttings and purge/decon-water generated during this investigation were placed in a DOT approved 55-gallon drum and labeled with the appropriate identification. The drum was temporarily stored on-site prior to removal and proper disposal.

## **4.0 LABORATORY TESTING PROGRAM**

All leak test/soil gas samples were collected in gas tight syringes for analysis in a mobile laboratory located on site during the sampling. Soil vapor survey samples were analyzed in H&P's mobile laboratory by EPA method 8260B. The H&P Laboratories are certified by the California Department of Health Service Environmental Laboratory Accreditation Program (ELAP) to perform EPA method 8260B analysis. Analytical results are tabulated in Table 1.

A total of twelve (12) soil samples and one (1) groundwater sample collected during this investigation were delivered under chain-of-custody (Appendix B) to Test America Laboratories located in Irvine, California. Test America is certified to perform hazardous waste testing by the State of California Department of Health Services, Environmental Laboratory Accreditation Program. A total of four soil samples were collected for physical parameter analysis and analyzed by PTS Laboratories in Santa Fe Springs, California.

Three (3) soil samples, from soil borings WB-7 through WB-9, were analyzed for Total Petroleum Hydrocarbons (TPH) and volatile organic compounds (VOCs) by EPA Test Methods 8015m and 8260b, respectively. One groundwater sample from location WB-9 was analyzed for VOCs by EPA Test Method 8260b. Analytical results are tabulated in Tables 2 and 3. Analytical laboratory test results are included in Appendix B and discussed in Section 5.0.

## 5.0 INVESTIGATION RESULTS

### 5.1 FIELD OBSERVATIONS

On February 16<sup>th</sup> and 17<sup>th</sup>, 2012, Stantec personnel oversaw the advancement fifteen (15) soil borings at the Site. Soils encountered during the investigation consisted primarily of sandy silt and sandy clay from the surface to approximately 5 feet bgs, sand with varying amounts of fines from approximately 5 to 20 feet bgs, and clay at approximately 20 feet bgs. Groundwater was encountered in each borehole at an approximate depth of 19 feet bgs. However, groundwater did not enter boreholes WB-7 and WB-8 during the course of this investigation, and a limited amount of sample was collected from location WB-9. Staining and a hydrocarbon odor was observed at approximately 20 feet bgs in location WB-7 within the clay layer below first encountered groundwater. PID readings ranged from 0.0 to 25.6 parts per million (ppm).

### 5.2 ANALYTICAL RESULTS

The laboratory test results are discussed below. Laboratory test results are summarized in attached Tables 1 through 3. The complete laboratory analytical test results are presented on the laboratory data sheets attached as Appendix B.

#### Soil Gas Samples

Excluding QA/QC samples, H&P Laboratories analyzed twenty four (24) samples from discrete sample depths at twelve (12) locations. In general, low concentrations to not detectable levels of VOCs were reported in samples collected from the Site. One area of elevated VOC concentrations was reported at sample locations EB-3 and EB-4, in the known source area (former USTs) located on the eastern parcel.

#### Eastern Parcel:

Of the VOC analytes, only benzene was reported at or above the laboratory reporting limit of 0.02 micrograms per liter ( $\mu\text{g/L}$ ) in sample WB5-SV-5 at 0.02  $\mu\text{g/L}$ . No other VOCs were reported above the laboratory reporting limits.

#### Western Parcel:

Of the VOC analytes, benzene, ethylbenzene, xylenes and chloroform were reported at or above the laboratory reporting limits. Benzene was reported at 0.72  $\mu\text{g/L}$ , 360  $\mu\text{g/L}$ , 4.8  $\mu\text{g/L}$ , and 0.12  $\mu\text{g/L}$  in samples EB3-SV-5, EB3-SV-15, EB4-SV-15 and EB5-SV-5, respectively. Ethylbenzene was reported at 36  $\mu\text{g/L}$  and 2.9  $\mu\text{g/L}$  in samples EB3-SV-15 and EB4-SV-15, respectively. Chloroform was reported in sample EB1-SV-15 at 0.10  $\mu\text{g/L}$  and xylenes were reported in sample EB4-SV-15 at 2.2  $\mu\text{g/L}$ . No other VOCs were reported above the laboratory reporting limits.

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### **Soil Samples**

Soil samples were collected from boring locations WB-7 through WB-9. Soil samples collected from the capillary fringe as observed during the site investigation were chosen for analysis and TPH and VOCs were not reported above laboratory reporting limits.

### **Groundwater Samples**

One partial groundwater sample was collected from boring location WB-9 and was analyzed for VOCs. Groundwater did not enter borings WB-7 and WB-8 in sufficient volume to sample due to lithology.

- Methyl tert-butyl ether (MTBE) was reported at a concentration of 20 µg/L, which exceeds the California Regional Water Quality Control Board Environmental Screening Level (CRWQCB ESL).
- Tert-butyl alcohol (TBA) was reported at a concentration of 120 µg/L, which exceeds the CRWQCB ESL.
- No benzene, toluene, ethylbenzene, total xylenes or other VOCs were detected above laboratory reporting limits.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

The Site consists of former automotive repair and generator service facilities on the eastern portion and an undeveloped lot used for storage and parking on the western portion within the City of Costa Mesa, Orange County, California. The address for the property is 2089 Harbor Boulevard and is located at the southwest corner of Harbor Boulevard and Hamilton Street. Currently, the Site is vacant and fenced and gated.

The Site was formerly used as automotive repair and generator service facilities on the eastern portion and an undeveloped lot used for storage and parking on the western portion. There is known soil and groundwater contamination on the Site centered on the eastern portion in the vicinity of the former automotive and generator repair facilities. Several soil and groundwater assessments have taken place. The most recent groundwater sampling event that took place in the third quarter of 2008 reported free product in several wells that are located on the Site, with peak thickness in MW-2 at 1.27 feet. It is not known whether free product currently exists at the Site.

A Remedial Action Plan (RAP) was developed by SECOR (now Stantec) dated April 3, 2006. Based on historical assessment data, SECOR recommended soil vapor extraction and free product removal as remediation alternatives for the property in which the Site is included. In a letter dated April 17, 2006, the California Regional Water Quality Control Board (CRWQCB) approved the RAP. To date, it has not been implemented.

No soil vapor data has been collected for the Site. In correspondence with the CRWQCB dated January 6, 2011, the CRWQCB required that a soil vapor survey be completed prior to any development of the Site to determine whether any engineering controls will be necessary to be protective of human health. Stantec developed the scope of work below to comply with that requirement. In addition, the planned develop for this property includes residential on the eastern parcel and commercial uses on the western parcel. This use was taken into consideration in the evaluation of the soil vapor data discussed below.

On February 16<sup>th</sup> and 17<sup>th</sup>, 2012, Stantec personnel oversaw the advancement fifteen (15) soil borings at the Site. Twelve (12) of these borings were completed as dual completion semi-permanent soil gas probes. The locations are presented on figure 2. Of the 12 locations, six (6) were located on the eastern portion of the property designated for commercial use and six (6) were located on the western portion of the property designated as residential use. Stantec advanced a total of three (3) soil borings on the western portion of the Site for further assessment of soil and groundwater impacts.

H&P Laboratories analyzed twenty four (24) samples from the two sample depths of 5 and 15 feet below ground surface (bgs) from each of the twelve (12) locations. In general, low concentrations to not detectable above laboratory reporting limits of volatile organic compounds (VOCs) were reported in the soil vapor samples collected from the Site. One area of elevated VOC concentrations was reported at sample locations EB-3 and EB-4, in the known source area (former underground storage tank (UST) area) located on the eastern parcel.

On the eastern parcel planned for residential uses, only benzene was reported at or above the laboratory reporting limit of 0.02 micrograms per liter ( $\mu\text{g/L}$ ) in sample WB5-SV-5 at 0.02  $\mu\text{g/L}$ . This concentration does not exceed the residential California Human Health Screening Levels

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(CHHSLs) for structures with engineered fill below slab of 0.085 µg/L. No other VOCs were reported above the laboratory reporting limits.

On the western parcel planned for commercial uses, benzene, ethylbenzene, xylenes and chloroform were reported at or above the laboratory reporting limits. Of these, benzene and ethylbenzene exceed commercial California Human Health Screening Levels (CHHSLs) for structures with engineered fill below slab. Benzene was reported above the commercial CHHSL of 0.28 µg/L, at 0.72 µg/L, 360 µg/L, and 4.8 µg/L, in samples EB3-SV-5, EB3-SV-15, and EB4-SV-15, respectively. Ethylbenzene was reported above the commercial CHHSL of 3.6 µg/L, at 36 µg/L in sample EB3-SV-15. Chloroform was reported in sample EB1-SV-15 at 0.10 µg/L and xylenes were reported in sample EB4-SV-15 at 2.2 µg/L, neither of which exceeded their respective CHHSLs. No other VOCs were reported above the laboratory reporting limits.

Soil samples were collected from boring locations WB-7 through WB-9. Soil samples collected from the capillary fringe as observed during the site investigation were chosen for analysis and TPH and VOCs. No analytes were reported above laboratory reporting limits.

One partial groundwater sample was collected from boring location WB-9 and was analyzed for VOCs. Groundwater did not enter borings WB-7 and WB-8 in sufficient volume to sample due to lithology.

- Methyl tert-butyl ether (MTBE) was reported at a concentration of 20 µg/L, which exceeds the California Regional Water Quality Control Board Environmental Screening Level (CRWQCB ESL).
- Tert-butyl alcohol (TBA) was reported at a concentration of 120 µg/L, which exceeds the CRWQCB ESL.
- No benzene, toluene, ethylbenzene, total xylenes or other VOCs were detected above laboratory reporting limits in the collected groundwater sample.

Based on the data obtained from this assessment, Stantec concludes that soil gas impact appears to be limited to the source area on the eastern parcel, where groundwater and soil impact has also been reported as highest. Soil vapor impact was detected in only one sample on the western portion planned for residential development. However, Stantec recommends that a human health risk assessment (HHRA) be conducted for the property to determine whether any engineering controls such as vapor barriers would be required for either residential or commercial development.

Groundwater and soil impact is known to exist at the Site. Soil contamination appeared to be limited to a clay layer below the water table in the northernmost soil boring on the Site, which is consistent with what has been observed in previous investigations. Groundwater could not be fully assessed due to lack of sample, but results from the one sample obtained indicate that the groundwater plume requires further delineation. Stantec recommends that further delineation and assessment take place at the direction of the CRWQCB.

## **7.0 CLOSURE**

The conclusions presented in this report are professional opinions based on data described in this report. The opinions of this report have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location, and are subject to the following inherent limitations. Stantec makes no other warranty, either expressed or implied, concerning the conclusions and professional advice that is contained within the body of this report.

Inherent in most projects performed in a heterogeneous subsurface environment, continuing excavation and assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

This report has been issued with the clear understanding that it is the responsibility of the owner, or their representative, to make appropriate notifications to regulatory agencies. It is specifically not the responsibility of Stantec to conduct appropriate notifications as specified by current County and State regulations.

The information presented in this report is valid as of the date our exploration was performed. Site conditions may degrade with time; consequently, the findings presented herein are subject to change.

## **8.0 REFERENCES**

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California Division of Mines and Geology (CDMG), 1965, Geologic Map of California, Santa Ana Sheet, scale 1:250,000.

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\_\_\_\_\_, 2012, Fault Activity Map of California, adjustable scale, <http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html>.

Department of Water Resources, 2004, Bulletin 118.

State Water Resources Control Board, 2012, Geotracker website, <http://geotracker.swrcb.ca.gov/>.

United States Geological Survey (USGS), 1965, Newport Beach Quadrangle, 7.5 Minute Topographic Map, Scale 1 inch = 2,000 feet, photorevised 1981.

**TABLES**

**Table 1**  
**Analytical Soil Vapor Data**  
**Former Randy's Automotive**  
**SWC Hamilton St. and Harbor Blvd.**  
**Costa Mesa, CA**

CHHSL			Chloroform	Benzene	Toluene	Ethylbenzene	Xylene <sup>1</sup>	All Other VOCs
Commercial/Industrial Use			NA	0.28	890	3.6	2,100	NA
Residential Land Use			NA	0.085	320	1.1	740	NA
Sample Name	Property	Depth	Chloroform	Benzene	Toluene	Ethylbenzene	Xylene <sup>2</sup>	All Other VOCs
<b>Commercial</b>								
EB1-SV-5	Eastern parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
EB1-SV-15	Eastern parcel	15	<b>0.10</b>	<0.02	<0.50	<0.30	<0.60	ND
EB2-SV-5	Eastern parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
EB2-SV-15	Eastern parcel	15	<0.10	<0.02	<0.50	<0.30	<0.60	ND
EB3-SV-5	Eastern parcel	5	<0.10	<b>0.72</b>	<1.0	<0.50	<1.0	ND
EB3-SV-15	Eastern parcel	15	<2.0	<b>360</b>	<20	<b>36</b>	<20	ND
EB4-SV-5	Eastern parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
EB4-SV-15	Eastern parcel	15	<0.40	<b>4.8</b>	<4.0	<b>2.9</b>	<b>2.2</b>	ND
EB5-SV-5	Eastern parcel	5	<0.10	<b>0.12</b>	<1.0	<0.50	<1.0	ND
EB5-SV-15	Eastern parcel	15	<4.0	<4.0	<40	<20	<40	ND
EB6-SV-5	Eastern parcel	5	<0.10	<0.10	<1.0	<0.50	<1.0	ND
EB6-SV-15	Eastern parcel	15	<4.0	<4.0	<40	<20	<40	ND
<b>Residential</b>								
WB1-SV-5	Western parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB1-SV-15	Western parcel	15	<2.0	<2.0	<10	<10	<20	ND
WB2-SV-5	Western parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB2-SV-15	Western parcel	15	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB3-SV-5	Western parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB3-SV-15	Western parcel	15	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB4-SV-5	Western parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB4-SV-15	Western parcel	15	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB5-SV-5	Western parcel	5	<0.10	<b>0.02</b>	<0.50	<0.30	<0.60	ND
WB5-SV-15	Western parcel	15	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB6-SV-5	Western parcel	5	<0.10	<0.02	<0.50	<0.30	<0.60	ND
WB6-SV-15	Western parcel	15	<0.10	<0.02	<0.50	<0.30	<0.60	ND

**Table 1**  
**Analytical Soil Vapor Data**  
**Former Randy's Automotive**  
**SWC Hamilton St. and Harbor Blvd.**  
**Costa Mesa, CA**

---

1 - Value for o-xylene, the most conservative of the xylene values

2 - Total xylenes

Notes: CHHSL - California Human Health Screening Level

CHHSLs updated on 9/23/10.

All CHHSLs are for buildings with engineered fill below sub-slab level.

**Table 2**  
**Summary of Soil Analytical Results - TPH and VOCs**  
**Former Randy's Automotive**  
**SWC Hamilton St. and Harbor Blvd.**  
**Costa Mesa, California**

Sample ID <sup>(1)</sup>	Sampling Date	TPH <sup>(2)</sup> 8015m <sup>(3)</sup>			VOCs <sup>(2)</sup> 8260 <sup>(3)</sup>					
		TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl-tert butyl ether (MtBE)	All Other VOCs
USEPA RSLs (mg/kg)		NA	NA	NA	1.1	5,000	5.4	630	43	varies
CRWQCB ESLs (mg/kg)		100	100	370	0.12	9.3	2.3	11	8.4	varies
<i>Samples</i>										
WB-7-S-17	2/17/2012	<0.37	<5.0	<5.0	<0.002	<0.002	<0.002	<0.004	<0.005	<varies
WB-8-S-18	2/17/2012	<0.39	<5.0	<5.0	<0.002	<0.002	<0.002	<0.004	<0.005	<varies
WB-9-S-18	2/17/2012	<0.38	<5.0	<5.0	<0.002	<0.002	<0.002	<0.004	<0.005	<varies

NOTES:

(1) Refer to Figure 2 for sampling locations

(2) Concentrations reported in milligrams per kilogram (mg/kg)

(3) EPA Test Method

< - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

NA - Not Analyzed

TPHg - Total Petroleum Hydrocarbons as gasoline

TPHd - Total Petroleum Hydrocarbons as diesel

TPHo - Total Petroleum Hydrocarbons as oil

VOCs - Volatile Organic Compounds

CRWQCB ESL - California Regional Water Quality Control Board Environmental Screening Level, shallow soils and groundwater not a source of drinking water

USEPA RSLs - United States Environmental Protection Agency Regional Screening Levels for Residential Soils- June 2011

**Table 3**  
**Summary of Groundwater Analytical Results**  
**Former Randy's Automotive**  
**SWC Hamilton St. and Harbor Blvd.**  
**Costa Mesa, California**

Sample ID <sup>(1)</sup>	VOCs <sup>(2)</sup> (8260) <sup>(4)</sup>						
	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl-tert-butyl ether (MtBE)	tert-butyl alcohol (TBA)	All Other VOCs
CWQCB ESLs (ug/L)	1.0	40	30	20	5.0	12.0	NR
<i>Samples</i>							
WB-9	<2.0	<2.0	<2.0	<2.0	<b>20</b>	<b>120</b>	ND

NOTES:

(1) Refer to Figure 2 for boring locations

(2) Concentrations reported in micrograms per liter (µg/L)

(3) EPA Test Method

< - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

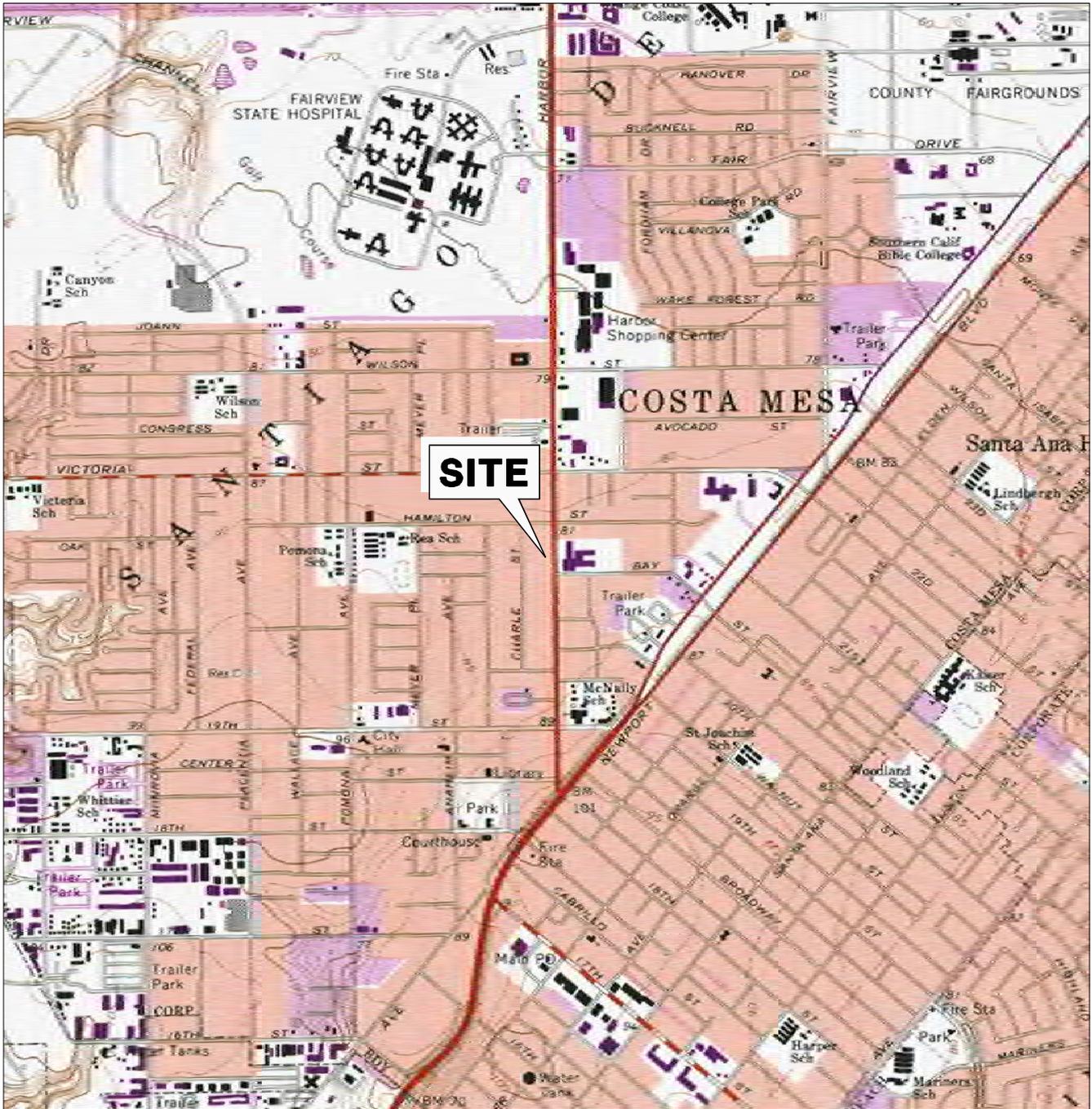
VOCs - Volatile Organic Compounds

CWQCB ESL - California Regional Water Quality Control Board Environmental Screening Level  
 Shallow soils with groundwater a potential drinking water source

NR - Not Reported

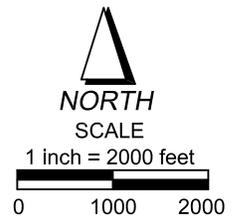
ND - Not Detected

**FIGURES**



CALIFORNIA

QUADRANGLE LOCATION



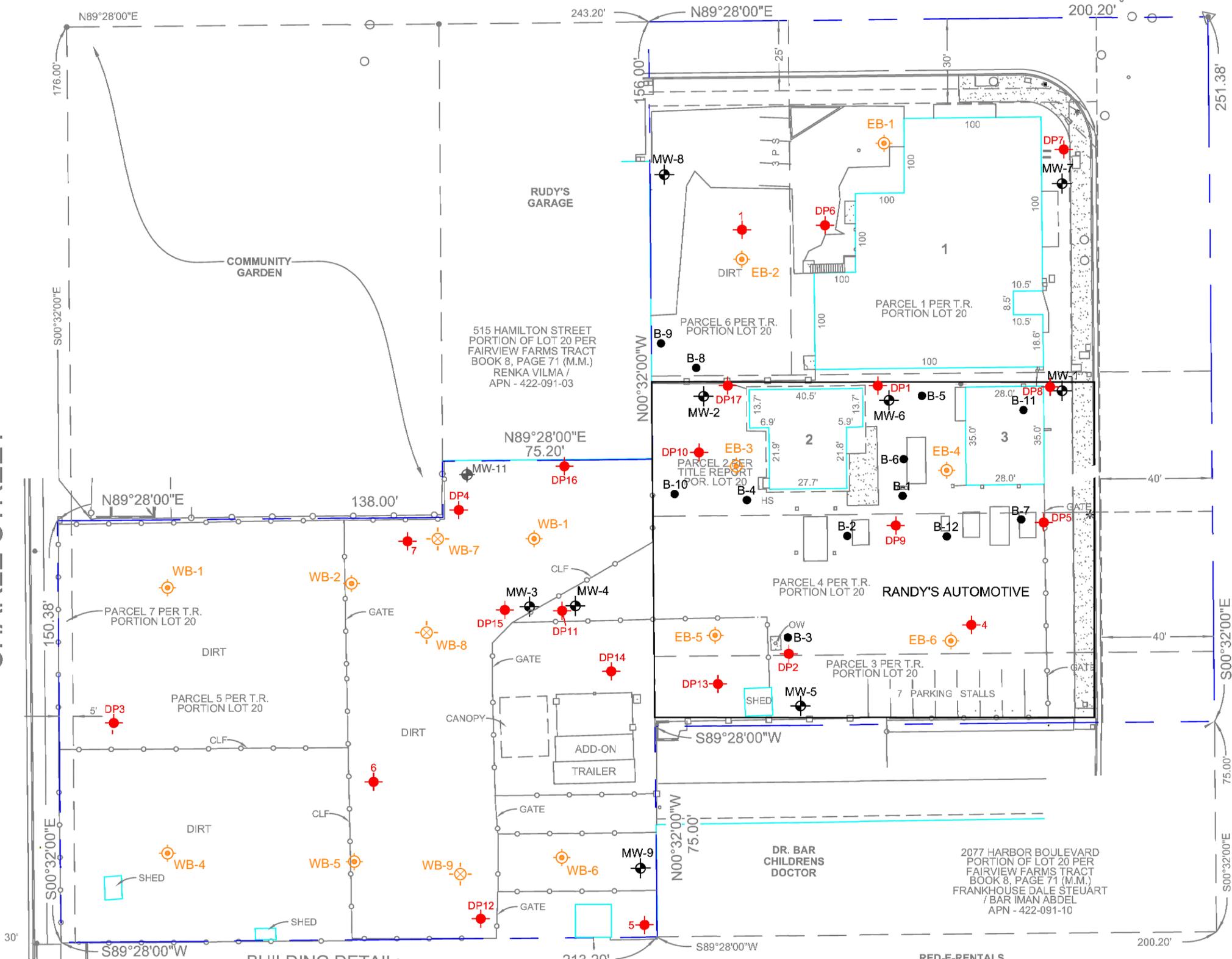
REFERENCE: USGS 7.5 MINUTE QUADRANGLE; NEWPORT BEACH QUADRANGLE, CALIFORNIA; REVISION DATE 1981

 <b>SECOR</b> 11085 KNOTT, AVENUE, SUITE B CYPRESS, CALIFORNIA 90630 PHONE: (714)379-3366/FAX: (714)379-3375	PREPARED FOR:  <b>RED MOUNTAIN RETAIL GROUP          RANDY'S AUTOMOTIVE          2089 HARBOR BOULEVARD          COSTA MESA, CALIFORNIA</b>		<b>SITE LOCATION MAP</b>		FIGURE:  <b>1</b>
	JOB NUMBER: 140T.08560.01.0003	DRAWN BY: G. KAYA	CHECKED BY: B. BEESLEY	APPROVED BY: K. BROWN	DATE: MARCH 2006

# HAMILTON STREET

CHARLE STREET

HARBOR BOULEVARD

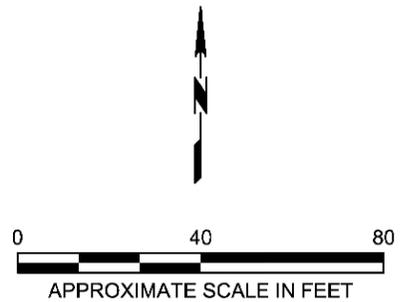


### LEGEND:

- MW-8 GROUNDWATER MONITORING WELL (S&S)
- DP1 SOIL BORING LOCATION (S&S)
- B-11 SOIL BORING LOCATION (SECOR)
- CHAIN LINK FENCE
- BUILDING LOCATION
- APN ASSESSORS PARCEL NUMBER
- APPROXIMATE SOIL VAPOR LOCATIONS
- APPROXIMATE SOIL BORING LOCATIONS

### NOTE:

ALL BUILDINGS HAVE BEEN DEMOLISHED EXCEPT FOR BUILDING 1. SITE PLAN ADAPTED FROM SITE PLAN IN SECOR'S APRIL 3, 2006 FINAL REMEDIAL ACTION PLAN.



### BUILDING DETAIL:

- |  |  |
|--|--|
| 1 — (GROUND AREA = 5,909 SQUARE FEET)<br>1 STORY WOOD FRAME/ STUCCO<br>(HEIGHT = 20'±) | 3 — (GROUND AREA = 980 SQUARE FEET)<br>1 STORY WOOD FRAME/ STUCCO<br>(HEIGHT = 14'±) |
| 2 — (GROUND AREA = 1,163 SQUARE FEET)<br>1 STORY WOOD FRAME/ STUCCO<br>(HEIGHT = 13'±) | BOOK 8, PAGE 71 (M.M.)<br>CITY OF COSTA MESA<br>APN - 422-091-04                     |

RED-E-RENTALS



25864-F BUSINESS CENTER DRIVE  
REDLANDS, CALIFORNIA  
PH (909) 335-6116 FAX (909) 335-6120

FOR:  
**RMG REALTY**  
FORMER RANDY'S AUTOMOTIVE PARCELS  
SEC HAMILTON ST AND CHARLE ST  
COSTA MESA, CALIFORNIA

JOB NUMBER: 185802664  
DRAWN BY: KD

**SITE MAP**

CHECKED BY: KD  
APPROVED BY: KE

FIGURE:  
**2**  
DATE:  
2/28/12

**APPENDIX A  
BORING LOGS**

PROJECT: **Former Randy's Automotive**  
 LOCATION: **2089 Harbor Blvd., Costa Mesa CA**  
 PROJECT NUMBER: **185802644**

WELL / PROBEHOLE / BOREHOLE NO:

**WB-7** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **2/17/12** COMPLETED: **2/17/12**  
 DRILLING COMPANY: **H&P**  
 DRILLING EQUIPMENT: **Strataprobe**  
 DRILLING METHOD: **Direct Push**  
 SAMPLING EQUIPMENT: **Acetate sleeves**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **19.35**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): **---**  
 LOGGED BY: **KT**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): **25.0**  
 BOREHOLE DEPTH (ft): **25.0**  
 BOREHOLE DIA. (in): **2**  
 CHECKED BY: **KD**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
0 - 5		CL	<b>SANDY CLAY</b> ; CL; 7.5YR 4/3 brown; 35-40% fine- to coarse-grained sand; non-plastic; moist; no odor or staining		718 WB7-S-5	1		0.0	5	Cement bentonite grout
5 - 10		SP	<b>SAND</b> ; SP; 10YR 4/6 dark yellowish brown; fine- to coarse-grained; some (20-25%) fines; moist; no odor or staining		722 WB7-S-10	1		0.0	10	
10 - 15		SM	<b>SILTY SAND</b> ; SM; 10YR 4/6 dark yellowish brown; fine- to medium-grained; 40-45% fines; moist; no odor or staining		728 WB7-S-15	1		7.8	15	
15 - 20		SP	<b>SAND</b> ; SP; 2.5Y 4/6 olive brown; fine- to medium-grained; very moist; no odor or staining		733 WB7-S-17	0.5		25.6	17	
20 - 25		CL	...same as above; moderate staining and hydrocarbon odor <b>CLAY</b> ; CL; 2.5Y 5/4 light olive brown; medium to high plasticity; visible staining (grayish in color); slight hydrocarbon odor						20	
25			Borehole terminated at 25 feet.						25	

PROJECT: **Former Randy's Automotive**  
 LOCATION: **2089 Harbor Blvd., Costa Mesa CA**  
 PROJECT NUMBER: **185802644**

WELL / PROBEHOLE / BOREHOLE NO:

**WB-8** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **2/17/12** COMPLETED: **2/17/12**  
 DRILLING COMPANY: **H&P**  
 DRILLING EQUIPMENT: **Strataprobe**  
 DRILLING METHOD: **Direct Push**  
 SAMPLING EQUIPMENT: **Acetate sleeves**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **18.75**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): **---**  
 LOGGED BY: **KT**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): **25.0**  
 BOREHOLE DEPTH (ft): **25.0**  
 BOREHOLE DIA. (in): **2**  
 CHECKED BY: **KD**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
0 - 5		SC	2" asphalt layer and 2" base <b>CLAYEY SAND</b> ; SC; 7.5YR 4/6 strong brown; fine- to coarse-grained; 40-45% fines; moist; no odor or staining		803 WB8-S-5	1		0.0	5	
5 - 10		SP	<b>SAND</b> ; SP; 10YR 6/6 brownish yellow; fine- to coarse-grained; few fines (5-10%); moist; no odor or staining		806 WB8-S-10	1		0.0	10	
10 - 15		SP	...same as above; brownish yellow (10YR 6/8); decreasing coarse-grained sand, increasing fines to 10-20%; moist; no odors or staining		811 WB8-S-15	1		0.0	15	
15 - 20		SP-SM	<b>SAND WITH SILT</b> ; SP-SM; 10YR 4/6 dark yellowish brown; fine- to coarse-grained; 25-30% fines; moist; no odor or staining; trace (5%) fine gravel		815 WB8-S-18	1		0.0	20	
20 - 25			Borehole terminated at 25 feet.						25	

GEO FORM 304 LOGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 3/5/12

PROJECT: **Former Randy's Automotive**  
 LOCATION: **2089 Harbor Blvd., Costa Mesa CA**  
 PROJECT NUMBER: **185802644**

WELL / PROBEHOLE / BOREHOLE NO:

**WB-9** PAGE 1 OF 1



DRILLING / INSTALLATION:  
 STARTED **2/17/12** COMPLETED: **2/17/12**  
 DRILLING COMPANY: **H&P**  
 DRILLING EQUIPMENT: **Strataprobe**  
 DRILLING METHOD: **Direct Push**  
 SAMPLING EQUIPMENT: **Acetate sleeves**

NORTHING (ft):  
 LAT:  
 GROUND ELEV (ft):  
 INITIAL DTW (ft): **20.5**  
 STATIC DTW (ft): **Not Encountered**  
 WELL CASING DIA. (in): **---**  
 LOGGED BY: **KT**

EASTING (ft):  
 LONG:  
 TOC ELEV (ft):  
 WELL DEPTH (ft): **25.0**  
 BOREHOLE DEPTH (ft): **25.0**  
 BOREHOLE DIA. (in): **2**  
 CHECKED BY: **KD**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
0 - 2.5		CL	2" asphalt layer <b>SANDY CLAY</b> ; CL; 7.5YR 4/6 strong brown; 40-45% fine- to coarse-grained sand; non-plastic; moist; no odor or staining		830 WB9-S-5	1		0.0	5	
2.5 - 10		SC	<b>CLAYEY SAND</b> ; SC; 7.5YR 4/4 brown; fine- to coarse-grained; 30-35% fines; non-plastic; moist; no odor or staining		834 WB9-S-10	1		0.0	10	
10 - 15		SP	<b>SAND</b> ; SP; 10YR 5/6 yellowish brown; fine- to coarse-grained; few (5-10%) fines; moist; no odor or staining		840 WB9-S-15	1		0.0	15	
15 - 25					844 WB9-S-18	1		0.0	20	
25			Borehole terminated at 25 feet.						25	

**APPENDIX B  
LABORATORY DATA SHEETS AND QA/QC RESULTS**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-3029-1

Client Project/Site: Olson-Costa Mesa Former Randy's Auto

For:

Stantec Consulting Corp.

25864-F Business Center Dr.

Redlands, California 92374

Attn: Kyle Emerson



Authorized for release by:

3/1/2012 5:19:51 PM

Lena Davidkova

Project Manager I

[lena.davidkova@testamericainc.com](mailto:lena.davidkova@testamericainc.com)

### LINKS

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results through  
**TotalAccess**

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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Sample Summary . . . . .	3
Client Sample Results . . . . .	4
Chronicle . . . . .	11
QC Sample Results . . . . .	12
QC Association . . . . .	33
Definitions . . . . .	35
Certification Summary . . . . .	36
Chain of Custody . . . . .	37
Receipt Checklists . . . . .	38

# Sample Summary

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-3029-4	WB7-S-17'	Solid	02/17/12 07:33	02/17/12 15:20
440-3029-8	WB8-S-18'	Solid	02/17/12 08:15	02/17/12 15:20
440-3029-12	WB9-S-18'	Solid	02/17/12 08:44	02/17/12 15:20
440-3029-13	WB9-GW	Water	02/17/12 11:05	02/17/12 15:20

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# Client Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

**Client Sample ID: WB7-S-17'**

**Lab Sample ID: 440-3029-4**

**Date Collected: 02/17/12 07:33**

**Matrix: Solid**

**Date Received: 02/17/12 15:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			02/27/12 13:30	1
1,1,1-Trichloroethane	ND		2.0		ug/Kg			02/27/12 13:30	1
1,1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			02/27/12 13:30	1
1,1,2-Trichloroethane	ND		2.0		ug/Kg			02/27/12 13:30	1
1,1-Dichloroethane	ND		2.0		ug/Kg			02/27/12 13:30	1
1,1-Dichloroethene	ND		5.0		ug/Kg			02/27/12 13:30	1
1,1-Dichloropropene	ND		2.0		ug/Kg			02/27/12 13:30	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			02/27/12 13:30	1
1,2,3-Trichloropropane	ND		9.9		ug/Kg			02/27/12 13:30	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			02/27/12 13:30	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			02/27/12 13:30	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/Kg			02/27/12 13:30	1
1,2-Dichlorobenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
1,2-Dichloroethane	ND		2.0		ug/Kg			02/27/12 13:30	1
1,2-Dichloropropane	ND		2.0		ug/Kg			02/27/12 13:30	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
1,3-Dichlorobenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
1,3-Dichloropropane	ND		2.0		ug/Kg			02/27/12 13:30	1
1,4-Dichlorobenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
2,2-Dichloropropane	ND		2.0		ug/Kg			02/27/12 13:30	1
2-Chlorotoluene	ND		5.0		ug/Kg			02/27/12 13:30	1
4-Chlorotoluene	ND		5.0		ug/Kg			02/27/12 13:30	1
Benzene	ND		2.0		ug/Kg			02/27/12 13:30	1
Bromobenzene	ND		5.0		ug/Kg			02/27/12 13:30	1
Bromochloromethane	ND		5.0		ug/Kg			02/27/12 13:30	1
Bromodichloromethane	ND		2.0		ug/Kg			02/27/12 13:30	1
Bromoform	ND		5.0		ug/Kg			02/27/12 13:30	1
Bromomethane	ND		5.0		ug/Kg			02/27/12 13:30	1
Carbon tetrachloride	ND		5.0		ug/Kg			02/27/12 13:30	1
Chlorobenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
Chloroethane	ND		5.0		ug/Kg			02/27/12 13:30	1
Chloroform	ND		2.0		ug/Kg			02/27/12 13:30	1
Chloromethane	ND		5.0		ug/Kg			02/27/12 13:30	1
cis-1,2-Dichloroethene	ND		2.0		ug/Kg			02/27/12 13:30	1
cis-1,3-Dichloropropene	ND		2.0		ug/Kg			02/27/12 13:30	1
Dibromochloromethane	ND		2.0		ug/Kg			02/27/12 13:30	1
Dibromomethane	ND		2.0		ug/Kg			02/27/12 13:30	1
Dichlorodifluoromethane	ND		5.0		ug/Kg			02/27/12 13:30	1
Ethylbenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
Hexachlorobutadiene	ND		5.0		ug/Kg			02/27/12 13:30	1
Isopropylbenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
m,p-Xylene	ND		2.0		ug/Kg			02/27/12 13:30	1
Methylene Chloride	ND		20		ug/Kg			02/27/12 13:30	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0		ug/Kg			02/27/12 13:30	1
Naphthalene	ND		5.0		ug/Kg			02/27/12 13:30	1
n-Butylbenzene	ND		5.0		ug/Kg			02/27/12 13:30	1
N-Propylbenzene	ND		2.0		ug/Kg			02/27/12 13:30	1
o-Xylene	ND		2.0		ug/Kg			02/27/12 13:30	1
sec-Butylbenzene	ND		5.0		ug/Kg			02/27/12 13:30	1
Styrene	ND		2.0		ug/Kg			02/27/12 13:30	1

# Client Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

**Client Sample ID: WB7-S-17'**

**Lab Sample ID: 440-3029-4**

Date Collected: 02/17/12 07:33

Matrix: Solid

Date Received: 02/17/12 15:20

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/Kg			02/27/12 13:30	1
tert-Butylbenzene	ND		5.0		ug/Kg			02/27/12 13:30	1
Tetrachloroethene	ND		2.0		ug/Kg			02/27/12 13:30	1
Toluene	ND		2.0		ug/Kg			02/27/12 13:30	1
trans-1,2-Dichloroethene	ND		2.0		ug/Kg			02/27/12 13:30	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			02/27/12 13:30	1
Trichloroethene	ND		2.0		ug/Kg			02/27/12 13:30	1
Trichlorofluoromethane	ND		5.0		ug/Kg			02/27/12 13:30	1
Vinyl chloride	ND		5.0		ug/Kg			02/27/12 13:30	1
Xylenes, Total	ND		4.0		ug/Kg			02/27/12 13:30	1
Isopropyl Ether (DIPE)	ND		5.0		ug/Kg			02/27/12 13:30	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/Kg			02/27/12 13:30	1
tert-Butyl alcohol (TBA)	ND		99		ug/Kg			02/27/12 13:30	1
p-Isopropyltoluene	ND		2.0		ug/Kg			02/27/12 13:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		02/27/12 13:30	1
4-Bromofluorobenzene (Surr)	103		80 - 120		02/27/12 13:30	1
Dibromofluoromethane (Surr)	85		80 - 125		02/27/12 13:30	1

**Method: 8015B - Gasoline Range Organics - (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		370		ug/Kg			02/28/12 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		65 - 140		02/28/12 18:04	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		02/20/12 09:48	02/21/12 00:10	1
C23-C40	ND		5.0		mg/Kg		02/20/12 09:48	02/21/12 00:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	74		40 - 140	02/20/12 09:48	02/21/12 00:10	1

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0		mg/Kg		02/20/12 13:48	02/24/12 14:59	5

**Client Sample ID: WB8-S-18'**

**Lab Sample ID: 440-3029-8**

Date Collected: 02/17/12 08:15

Matrix: Solid

Date Received: 02/17/12 15:20

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			02/21/12 02:47	1
1,1,1-Trichloroethane	ND		2.0		ug/Kg			02/21/12 02:47	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			02/21/12 02:47	1
1,1,2-Trichloroethane	ND		2.0		ug/Kg			02/21/12 02:47	1
1,1-Dichloroethane	ND		2.0		ug/Kg			02/21/12 02:47	1
1,1-Dichloroethene	ND		5.0		ug/Kg			02/21/12 02:47	1
1,1-Dichloropropene	ND		2.0		ug/Kg			02/21/12 02:47	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			02/21/12 02:47	1

# Client Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

**Client Sample ID: WB8-S-18'**

**Lab Sample ID: 440-3029-8**

**Date Collected: 02/17/12 08:15**

**Matrix: Solid**

**Date Received: 02/17/12 15:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		9.9		ug/Kg			02/21/12 02:47	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			02/21/12 02:47	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			02/21/12 02:47	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/Kg			02/21/12 02:47	1
1,2-Dichlorobenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
1,2-Dichloroethane	ND		2.0		ug/Kg			02/21/12 02:47	1
1,2-Dichloropropane	ND		2.0		ug/Kg			02/21/12 02:47	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
1,3-Dichlorobenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
1,3-Dichloropropane	ND		2.0		ug/Kg			02/21/12 02:47	1
1,4-Dichlorobenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
2,2-Dichloropropane	ND		2.0		ug/Kg			02/21/12 02:47	1
2-Chlorotoluene	ND		5.0		ug/Kg			02/21/12 02:47	1
4-Chlorotoluene	ND		5.0		ug/Kg			02/21/12 02:47	1
Benzene	ND		2.0		ug/Kg			02/21/12 02:47	1
Bromobenzene	ND		5.0		ug/Kg			02/21/12 02:47	1
Bromochloromethane	ND		5.0		ug/Kg			02/21/12 02:47	1
Bromodichloromethane	ND		2.0		ug/Kg			02/21/12 02:47	1
Bromoform	ND		5.0		ug/Kg			02/21/12 02:47	1
Bromomethane	ND		5.0		ug/Kg			02/21/12 02:47	1
Carbon tetrachloride	ND		5.0		ug/Kg			02/21/12 02:47	1
Chlorobenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
Chloroethane	ND		5.0		ug/Kg			02/21/12 02:47	1
Chloroform	ND		2.0		ug/Kg			02/21/12 02:47	1
Chloromethane	ND		5.0		ug/Kg			02/21/12 02:47	1
cis-1,2-Dichloroethene	ND		2.0		ug/Kg			02/21/12 02:47	1
cis-1,3-Dichloropropene	ND		2.0		ug/Kg			02/21/12 02:47	1
Dibromochloromethane	ND		2.0		ug/Kg			02/21/12 02:47	1
Dibromomethane	ND		2.0		ug/Kg			02/21/12 02:47	1
Dichlorodifluoromethane	ND		5.0		ug/Kg			02/21/12 02:47	1
Ethylbenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
Hexachlorobutadiene	ND		5.0		ug/Kg			02/21/12 02:47	1
Isopropylbenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
m,p-Xylene	ND		2.0		ug/Kg			02/21/12 02:47	1
Methylene Chloride	ND		20		ug/Kg			02/21/12 02:47	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0		ug/Kg			02/21/12 02:47	1
Naphthalene	ND		5.0		ug/Kg			02/21/12 02:47	1
n-Butylbenzene	ND		5.0		ug/Kg			02/21/12 02:47	1
N-Propylbenzene	ND		2.0		ug/Kg			02/21/12 02:47	1
o-Xylene	ND		2.0		ug/Kg			02/21/12 02:47	1
sec-Butylbenzene	ND		5.0		ug/Kg			02/21/12 02:47	1
Styrene	ND		2.0		ug/Kg			02/21/12 02:47	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/Kg			02/21/12 02:47	1
tert-Butylbenzene	ND		5.0		ug/Kg			02/21/12 02:47	1
Tetrachloroethene	ND		2.0		ug/Kg			02/21/12 02:47	1
Toluene	ND		2.0		ug/Kg			02/21/12 02:47	1
trans-1,2-Dichloroethene	ND		2.0		ug/Kg			02/21/12 02:47	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			02/21/12 02:47	1
Trichloroethene	ND		2.0		ug/Kg			02/21/12 02:47	1
Trichlorofluoromethane	ND		5.0		ug/Kg			02/21/12 02:47	1

# Client Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

**Client Sample ID: WB8-S-18'**

**Lab Sample ID: 440-3029-8**

**Date Collected: 02/17/12 08:15**

**Matrix: Solid**

**Date Received: 02/17/12 15:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		5.0		ug/Kg			02/21/12 02:47	1
Xylenes, Total	ND		4.0		ug/Kg			02/21/12 02:47	1
Isopropyl Ether (DIPE)	ND		5.0		ug/Kg			02/21/12 02:47	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/Kg			02/21/12 02:47	1
tert-Butyl alcohol (TBA)	ND		99		ug/Kg			02/21/12 02:47	1
p-Isopropyltoluene	ND		2.0		ug/Kg			02/21/12 02:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120		02/21/12 02:47	1
4-Bromofluorobenzene (Surr)	99		80 - 120		02/21/12 02:47	1
Dibromofluoromethane (Surr)	86		80 - 125		02/21/12 02:47	1

**Method: 8015B - Gasoline Range Organics - (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		390		ug/Kg			02/28/12 18:32	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	79		65 - 140		02/28/12 18:32	1			

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		02/20/12 09:48	02/21/12 00:32	1
C23-C40	ND		5.0		mg/Kg		02/20/12 09:48	02/21/12 00:32	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
n-Octacosane	75		40 - 140	02/20/12 09:48	02/21/12 00:32	1			

**Client Sample ID: WB9-S-18'**

**Lab Sample ID: 440-3029-12**

**Date Collected: 02/17/12 08:44**

**Matrix: Solid**

**Date Received: 02/17/12 15:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			02/21/12 03:15	1
1,1,1-Trichloroethane	ND		2.0		ug/Kg			02/21/12 03:15	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			02/21/12 03:15	1
1,1,2-Trichloroethane	ND		2.0		ug/Kg			02/21/12 03:15	1
1,1-Dichloroethane	ND		2.0		ug/Kg			02/21/12 03:15	1
1,1-Dichloroethene	ND		5.0		ug/Kg			02/21/12 03:15	1
1,1-Dichloropropene	ND		2.0		ug/Kg			02/21/12 03:15	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			02/21/12 03:15	1
1,2,3-Trichloropropane	ND		10		ug/Kg			02/21/12 03:15	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			02/21/12 03:15	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			02/21/12 03:15	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/Kg			02/21/12 03:15	1
1,2-Dichlorobenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
1,2-Dichloroethane	ND		2.0		ug/Kg			02/21/12 03:15	1
1,2-Dichloropropane	ND		2.0		ug/Kg			02/21/12 03:15	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
1,3-Dichlorobenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
1,3-Dichloropropane	ND		2.0		ug/Kg			02/21/12 03:15	1

# Client Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

**Client Sample ID: WB9-S-18'**

**Lab Sample ID: 440-3029-12**

**Date Collected: 02/17/12 08:44**

**Matrix: Solid**

**Date Received: 02/17/12 15:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
2,2-Dichloropropane	ND		2.0		ug/Kg			02/21/12 03:15	1
2-Chlorotoluene	ND		5.0		ug/Kg			02/21/12 03:15	1
4-Chlorotoluene	ND		5.0		ug/Kg			02/21/12 03:15	1
Benzene	ND		2.0		ug/Kg			02/21/12 03:15	1
Bromobenzene	ND		5.0		ug/Kg			02/21/12 03:15	1
Bromochloromethane	ND		5.0		ug/Kg			02/21/12 03:15	1
Bromodichloromethane	ND		2.0		ug/Kg			02/21/12 03:15	1
Bromoform	ND		5.0		ug/Kg			02/21/12 03:15	1
Bromomethane	ND		5.0		ug/Kg			02/21/12 03:15	1
Carbon tetrachloride	ND		5.0		ug/Kg			02/21/12 03:15	1
Chlorobenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
Chloroethane	ND		5.0		ug/Kg			02/21/12 03:15	1
Chloroform	ND		2.0		ug/Kg			02/21/12 03:15	1
Chloromethane	ND		5.0		ug/Kg			02/21/12 03:15	1
cis-1,2-Dichloroethene	ND		2.0		ug/Kg			02/21/12 03:15	1
cis-1,3-Dichloropropene	ND		2.0		ug/Kg			02/21/12 03:15	1
Dibromochloromethane	ND		2.0		ug/Kg			02/21/12 03:15	1
Dibromomethane	ND		2.0		ug/Kg			02/21/12 03:15	1
Dichlorodifluoromethane	ND		5.0		ug/Kg			02/21/12 03:15	1
Ethylbenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
Hexachlorobutadiene	ND		5.0		ug/Kg			02/21/12 03:15	1
Isopropylbenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
m,p-Xylene	ND		2.0		ug/Kg			02/21/12 03:15	1
Methylene Chloride	ND		20		ug/Kg			02/21/12 03:15	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0		ug/Kg			02/21/12 03:15	1
Naphthalene	ND		5.0		ug/Kg			02/21/12 03:15	1
n-Butylbenzene	ND		5.0		ug/Kg			02/21/12 03:15	1
N-Propylbenzene	ND		2.0		ug/Kg			02/21/12 03:15	1
o-Xylene	ND		2.0		ug/Kg			02/21/12 03:15	1
sec-Butylbenzene	ND		5.0		ug/Kg			02/21/12 03:15	1
Styrene	ND		2.0		ug/Kg			02/21/12 03:15	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/Kg			02/21/12 03:15	1
tert-Butylbenzene	ND		5.0		ug/Kg			02/21/12 03:15	1
Tetrachloroethene	ND		2.0		ug/Kg			02/21/12 03:15	1
Toluene	ND		2.0		ug/Kg			02/21/12 03:15	1
trans-1,2-Dichloroethene	ND		2.0		ug/Kg			02/21/12 03:15	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			02/21/12 03:15	1
Trichloroethene	ND		2.0		ug/Kg			02/21/12 03:15	1
Trichlorofluoromethane	ND		5.0		ug/Kg			02/21/12 03:15	1
Vinyl chloride	ND		5.0		ug/Kg			02/21/12 03:15	1
Xylenes, Total	ND		4.0		ug/Kg			02/21/12 03:15	1
Isopropyl Ether (DIPE)	ND		5.0		ug/Kg			02/21/12 03:15	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/Kg			02/21/12 03:15	1
tert-Butyl alcohol (TBA)	ND		100		ug/Kg			02/21/12 03:15	1
p-Isopropyltoluene	ND		2.0		ug/Kg			02/21/12 03:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		02/21/12 03:15	1
4-Bromofluorobenzene (Surr)	99		80 - 120		02/21/12 03:15	1
Dibromofluoromethane (Surr)	83		80 - 125		02/21/12 03:15	1

# Client Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

**Client Sample ID: WB9-S-18'**

**Lab Sample ID: 440-3029-12**

Date Collected: 02/17/12 08:44

Matrix: Solid

Date Received: 02/17/12 15:20

**Method: 8015B - Gasoline Range Organics - (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		380		ug/Kg			02/28/12 19:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		65 - 140					02/28/12 19:00	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		02/20/12 09:48	02/21/12 00:54	1
C23-C40	ND		5.0		mg/Kg		02/20/12 09:48	02/21/12 00:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	80		40 - 140				02/20/12 09:48	02/21/12 00:54	1

**Client Sample ID: WB9-GW**

**Lab Sample ID: 440-3029-13**

Date Collected: 02/17/12 11:05

Matrix: Water

Date Received: 02/17/12 15:20

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			02/24/12 18:14	1
1,1,1-Trichloroethane	ND		2.0		ug/L			02/24/12 18:14	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			02/24/12 18:14	1
1,1,2-Trichloroethane	ND		2.0		ug/L			02/24/12 18:14	1
1,1-Dichloroethane	ND		2.0		ug/L			02/24/12 18:14	1
1,1-Dichloroethene	ND		5.0		ug/L			02/24/12 18:14	1
1,1-Dichloropropene	ND		2.0		ug/L			02/24/12 18:14	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			02/24/12 18:14	1
1,2,3-Trichloropropane	ND		10		ug/L			02/24/12 18:14	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			02/24/12 18:14	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			02/24/12 18:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/24/12 18:14	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			02/24/12 18:14	1
1,2-Dichlorobenzene	ND		2.0		ug/L			02/24/12 18:14	1
1,2-Dichloroethane	ND		2.0		ug/L			02/24/12 18:14	1
1,2-Dichloropropane	ND		2.0		ug/L			02/24/12 18:14	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			02/24/12 18:14	1
1,3-Dichlorobenzene	ND		2.0		ug/L			02/24/12 18:14	1
1,3-Dichloropropane	ND		2.0		ug/L			02/24/12 18:14	1
1,4-Dichlorobenzene	ND		2.0		ug/L			02/24/12 18:14	1
2,2-Dichloropropane	ND		2.0		ug/L			02/24/12 18:14	1
2-Chlorotoluene	ND		5.0		ug/L			02/24/12 18:14	1
4-Chlorotoluene	ND		5.0		ug/L			02/24/12 18:14	1
Benzene	ND		2.0		ug/L			02/24/12 18:14	1
Bromobenzene	ND		5.0		ug/L			02/24/12 18:14	1
Bromochloromethane	ND		5.0		ug/L			02/24/12 18:14	1
Bromodichloromethane	ND		2.0		ug/L			02/24/12 18:14	1
Bromoform	ND		5.0		ug/L			02/24/12 18:14	1
Bromomethane	ND		5.0		ug/L			02/24/12 18:14	1
Carbon tetrachloride	ND		5.0		ug/L			02/24/12 18:14	1
Chlorobenzene	ND		2.0		ug/L			02/24/12 18:14	1
Chloroethane	ND		5.0		ug/L			02/24/12 18:14	1
Chloroform	ND		2.0		ug/L			02/24/12 18:14	1

# Client Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

**Client Sample ID: WB9-GW**

**Lab Sample ID: 440-3029-13**

**Date Collected: 02/17/12 11:05**

**Matrix: Water**

**Date Received: 02/17/12 15:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0		ug/L			02/24/12 18:14	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			02/24/12 18:14	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			02/24/12 18:14	1
Dibromochloromethane	ND		2.0		ug/L			02/24/12 18:14	1
Dibromomethane	ND		2.0		ug/L			02/24/12 18:14	1
Dichlorodifluoromethane	ND		5.0		ug/L			02/24/12 18:14	1
Ethylbenzene	ND		2.0		ug/L			02/24/12 18:14	1
Hexachlorobutadiene	ND		5.0		ug/L			02/24/12 18:14	1
Isopropylbenzene	ND		2.0		ug/L			02/24/12 18:14	1
m,p-Xylene	ND		2.0		ug/L			02/24/12 18:14	1
Methylene Chloride	ND		5.0		ug/L			02/24/12 18:14	1
<b>Methyl-t-Butyl Ether (MTBE)</b>	<b>20</b>		1.0		ug/L			02/24/12 18:14	1
Naphthalene	ND		5.0		ug/L			02/24/12 18:14	1
n-Butylbenzene	ND		5.0		ug/L			02/24/12 18:14	1
N-Propylbenzene	ND		2.0		ug/L			02/24/12 18:14	1
o-Xylene	ND		2.0		ug/L			02/24/12 18:14	1
sec-Butylbenzene	ND		5.0		ug/L			02/24/12 18:14	1
Styrene	ND		2.0		ug/L			02/24/12 18:14	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/L			02/24/12 18:14	1
tert-Butylbenzene	ND		5.0		ug/L			02/24/12 18:14	1
Tetrachloroethene	ND		2.0		ug/L			02/24/12 18:14	1
Toluene	ND		2.0		ug/L			02/24/12 18:14	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			02/24/12 18:14	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			02/24/12 18:14	1
Trichloroethene	ND		2.0		ug/L			02/24/12 18:14	1
Trichlorofluoromethane	ND		5.0		ug/L			02/24/12 18:14	1
Vinyl chloride	ND		5.0		ug/L			02/24/12 18:14	1
Xylenes, Total	ND		2.0		ug/L			02/24/12 18:14	1
Isopropyl Ether (DIPE)	ND		5.0		ug/L			02/24/12 18:14	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/L			02/24/12 18:14	1
<b>tert-Butyl alcohol (TBA)</b>	<b>120</b>		10		ug/L			02/24/12 18:14	1
p-Isopropyltoluene	ND		2.0		ug/L			02/24/12 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		80 - 120		02/24/12 18:14	1
4-Bromofluorobenzene (Surr)	108		80 - 120		02/24/12 18:14	1
Dibromofluoromethane (Surr)	108		80 - 120		02/24/12 18:14	1

# Lab Chronicle

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Client Sample ID: WB7-S-17'

Lab Sample ID: 440-3029-4

Date Collected: 02/17/12 07:33

Matrix: Solid

Date Received: 02/17/12 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.04 g	10 mL	9649	02/27/12 13:30	HR	TAL IRV
Total/NA	Analysis	8015B		1	5.44 g	10 mL	9903	02/28/12 18:04	VS	TAL IRV
Total/NA	Prep	CA LUFT			30.01 g	1 mL	8290	02/20/12 09:48		TAL IRV
Total/NA	Analysis	8015B		1			8456	02/21/12 00:10	ES	TAL IRV
Total/NA	Prep	3050B			1.97 g	50 mL	8342	02/20/12 13:48	CH	TAL IRV
Total/NA	Analysis	6010B		5			9453	02/24/12 14:59	DP	TAL IRV

## Client Sample ID: WB8-S-18'

Lab Sample ID: 440-3029-8

Date Collected: 02/17/12 08:15

Matrix: Solid

Date Received: 02/17/12 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.03 g	10 mL	8387	02/21/12 02:47	JP	TAL IRV
Total/NA	Analysis	8015B		1	5.11 g	10 mL	9903	02/28/12 18:32	VS	TAL IRV
Total/NA	Prep	CA LUFT			30.03 g	1 mL	8290	02/20/12 09:48		TAL IRV
Total/NA	Analysis	8015B		1			8456	02/21/12 00:32	ES	TAL IRV

## Client Sample ID: WB9-S-18'

Lab Sample ID: 440-3029-12

Date Collected: 02/17/12 08:44

Matrix: Solid

Date Received: 02/17/12 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	4.97 g	10 mL	8387	02/21/12 03:15	JP	TAL IRV
Total/NA	Analysis	8015B		1	5.28 g	10 mL	9903	02/28/12 19:00	VS	TAL IRV
Total/NA	Prep	CA LUFT			30.04 g	1 mL	8290	02/20/12 09:48		TAL IRV
Total/NA	Analysis	8015B		1			8456	02/21/12 00:54	ES	TAL IRV

## Client Sample ID: WB9-GW

Lab Sample ID: 440-3029-13

Date Collected: 02/17/12 11:05

Matrix: Water

Date Received: 02/17/12 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	9275	02/24/12 18:14	WC	TAL IRV

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# QC Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-8387/5**

**Matrix: Solid**

**Analysis Batch: 8387**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			02/20/12 19:12	1
1,1,1-Trichloroethane	ND		2.0		ug/Kg			02/20/12 19:12	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			02/20/12 19:12	1
1,1,2-Trichloroethane	ND		2.0		ug/Kg			02/20/12 19:12	1
1,1-Dichloroethane	ND		2.0		ug/Kg			02/20/12 19:12	1
1,1-Dichloroethene	ND		5.0		ug/Kg			02/20/12 19:12	1
1,1-Dichloropropene	ND		2.0		ug/Kg			02/20/12 19:12	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			02/20/12 19:12	1
1,2,3-Trichloropropane	ND		10		ug/Kg			02/20/12 19:12	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			02/20/12 19:12	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			02/20/12 19:12	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/Kg			02/20/12 19:12	1
1,2-Dichlorobenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
1,2-Dichloroethane	ND		2.0		ug/Kg			02/20/12 19:12	1
1,2-Dichloropropane	ND		2.0		ug/Kg			02/20/12 19:12	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
1,3-Dichlorobenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
1,3-Dichloropropane	ND		2.0		ug/Kg			02/20/12 19:12	1
1,4-Dichlorobenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
2,2-Dichloropropane	ND		2.0		ug/Kg			02/20/12 19:12	1
2-Chlorotoluene	ND		5.0		ug/Kg			02/20/12 19:12	1
4-Chlorotoluene	ND		5.0		ug/Kg			02/20/12 19:12	1
Benzene	ND		2.0		ug/Kg			02/20/12 19:12	1
Bromobenzene	ND		5.0		ug/Kg			02/20/12 19:12	1
Bromochloromethane	ND		5.0		ug/Kg			02/20/12 19:12	1
Bromodichloromethane	ND		2.0		ug/Kg			02/20/12 19:12	1
Bromoform	ND		5.0		ug/Kg			02/20/12 19:12	1
Bromomethane	ND		5.0		ug/Kg			02/20/12 19:12	1
Carbon tetrachloride	ND		5.0		ug/Kg			02/20/12 19:12	1
Chlorobenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
Chloroethane	ND		5.0		ug/Kg			02/20/12 19:12	1
Chloroform	ND		2.0		ug/Kg			02/20/12 19:12	1
Chloromethane	ND		5.0		ug/Kg			02/20/12 19:12	1
cis-1,2-Dichloroethene	ND		2.0		ug/Kg			02/20/12 19:12	1
cis-1,3-Dichloropropene	ND		2.0		ug/Kg			02/20/12 19:12	1
Dibromochloromethane	ND		2.0		ug/Kg			02/20/12 19:12	1
Dibromomethane	ND		2.0		ug/Kg			02/20/12 19:12	1
Dichlorodifluoromethane	ND		5.0		ug/Kg			02/20/12 19:12	1
Ethylbenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
Hexachlorobutadiene	ND		5.0		ug/Kg			02/20/12 19:12	1
Isopropylbenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
m,p-Xylene	ND		2.0		ug/Kg			02/20/12 19:12	1
Methylene Chloride	ND		20		ug/Kg			02/20/12 19:12	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0		ug/Kg			02/20/12 19:12	1
Naphthalene	ND		5.0		ug/Kg			02/20/12 19:12	1
n-Butylbenzene	ND		5.0		ug/Kg			02/20/12 19:12	1
N-Propylbenzene	ND		2.0		ug/Kg			02/20/12 19:12	1
o-Xylene	ND		2.0		ug/Kg			02/20/12 19:12	1

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-8387/5**

**Matrix: Solid**

**Analysis Batch: 8387**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0		ug/Kg			02/20/12 19:12	1
Styrene	ND		2.0		ug/Kg			02/20/12 19:12	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/Kg			02/20/12 19:12	1
tert-Butylbenzene	ND		5.0		ug/Kg			02/20/12 19:12	1
Tetrachloroethene	ND		2.0		ug/Kg			02/20/12 19:12	1
Toluene	ND		2.0		ug/Kg			02/20/12 19:12	1
trans-1,2-Dichloroethene	ND		2.0		ug/Kg			02/20/12 19:12	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			02/20/12 19:12	1
Trichloroethene	ND		2.0		ug/Kg			02/20/12 19:12	1
Trichlorofluoromethane	ND		5.0		ug/Kg			02/20/12 19:12	1
Vinyl chloride	ND		5.0		ug/Kg			02/20/12 19:12	1
Xylenes, Total	ND		4.0		ug/Kg			02/20/12 19:12	1
Isopropyl Ether (DIPE)	ND		5.0		ug/Kg			02/20/12 19:12	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/Kg			02/20/12 19:12	1
tert-Butyl alcohol (TBA)	ND		100		ug/Kg			02/20/12 19:12	1
p-Isopropyltoluene	ND		2.0		ug/Kg			02/20/12 19:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		02/20/12 19:12	1
4-Bromofluorobenzene (Surr)	103		80 - 120		02/20/12 19:12	1
Dibromofluoromethane (Surr)	91		80 - 125		02/20/12 19:12	1

**Lab Sample ID: LCS 440-8387/6**

**Matrix: Solid**

**Analysis Batch: 8387**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/Kg		103	70 - 130
1,1,1-Trichloroethane	50.0	45.2		ug/Kg		90	65 - 135
1,1,2,2-Tetrachloroethane	50.0	48.4		ug/Kg		97	55 - 140
1,1,2-Trichloroethane	50.0	45.4		ug/Kg		91	65 - 135
1,1-Dichloroethane	50.0	49.0		ug/Kg		98	70 - 130
1,1-Dichloroethene	50.0	44.4		ug/Kg		89	70 - 125
1,1-Dichloropropene	50.0	47.4		ug/Kg		95	70 - 130
1,2,3-Trichlorobenzene	50.0	47.2		ug/Kg		94	60 - 130
1,2,3-Trichloropropane	50.0	45.8		ug/Kg		92	60 - 135
1,2,4-Trichlorobenzene	50.0	50.8		ug/Kg		102	70 - 135
1,2,4-Trimethylbenzene	50.0	52.4		ug/Kg		105	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	40.6		ug/Kg		81	50 - 135
1,2-Dibromoethane (EDB)	50.0	51.4		ug/Kg		103	70 - 130
1,2-Dichlorobenzene	50.0	48.4		ug/Kg		97	75 - 120
1,2-Dichloroethane	50.0	47.4		ug/Kg		95	60 - 140
1,2-Dichloropropane	50.0	47.0		ug/Kg		94	70 - 130
1,3,5-Trimethylbenzene	50.0	52.0		ug/Kg		104	70 - 125
1,3-Dichlorobenzene	50.0	49.4		ug/Kg		99	75 - 125
1,3-Dichloropropane	50.0	49.2		ug/Kg		98	70 - 125
1,4-Dichlorobenzene	50.0	48.8		ug/Kg		98	75 - 120
2,2-Dichloropropane	50.0	56.4		ug/Kg		113	60 - 145
2-Chlorotoluene	50.0	48.8		ug/Kg		98	70 - 125

# QC Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-8387/6**

**Matrix: Solid**

**Analysis Batch: 8387**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	50.0	50.0		ug/Kg		100	75 - 125
Benzene	50.0	46.2		ug/Kg		92	65 - 120
Bromobenzene	50.0	48.6		ug/Kg		97	75 - 120
Bromochloromethane	50.0	45.2		ug/Kg		90	70 - 135
Bromodichloromethane	50.0	49.4		ug/Kg		99	70 - 135
Bromoform	50.0	46.2		ug/Kg		92	55 - 135
Bromomethane	50.0	41.8		ug/Kg		84	60 - 145
Carbon tetrachloride	50.0	45.0		ug/Kg		90	65 - 140
Chlorobenzene	50.0	47.0		ug/Kg		94	75 - 120
Chloroethane	50.0	42.2		ug/Kg		84	60 - 140
Chloroform	50.0	45.6		ug/Kg		91	70 - 130
Chloromethane	50.0	34.6		ug/Kg		69	45 - 145
cis-1,2-Dichloroethene	50.0	48.2		ug/Kg		96	70 - 125
cis-1,3-Dichloropropene	50.0	51.6		ug/Kg		103	75 - 125
Dibromochloromethane	50.0	51.4		ug/Kg		103	65 - 140
Dibromomethane	50.0	46.2		ug/Kg		92	70 - 130
Dichlorodifluoromethane	50.0	26.2		ug/Kg		52	35 - 160
Ethylbenzene	50.0	48.4		ug/Kg		97	70 - 125
Hexachlorobutadiene	50.0	46.0		ug/Kg		92	60 - 135
Isopropylbenzene	50.0	46.4		ug/Kg		93	75 - 130
m,p-Xylene	100	98.0		ug/Kg		98	70 - 125
Methylene Chloride	50.0	47.2		ug/Kg		94	55 - 135
Methyl-t-Butyl Ether (MTBE)	50.0	45.4		ug/Kg		91	60 - 140
Naphthalene	50.0	53.2		ug/Kg		106	55 - 135
n-Butylbenzene	50.0	56.6		ug/Kg		113	70 - 130
N-Propylbenzene	50.0	49.4		ug/Kg		99	70 - 130
o-Xylene	50.0	53.0		ug/Kg		106	70 - 125
sec-Butylbenzene	50.0	51.2		ug/Kg		102	70 - 125
Styrene	50.0	53.6		ug/Kg		107	75 - 130
Tert-amyl-methyl ether (TAME)	50.0	49.2		ug/Kg		98	60 - 145
tert-Butylbenzene	50.0	50.0		ug/Kg		100	70 - 125
Tetrachloroethene	50.0	47.4		ug/Kg		95	70 - 125
Toluene	50.0	47.2		ug/Kg		94	70 - 125
trans-1,2-Dichloroethene	50.0	46.6		ug/Kg		93	70 - 125
trans-1,3-Dichloropropene	50.0	51.0		ug/Kg		102	70 - 135
Trichloroethene	50.0	45.8		ug/Kg		92	70 - 125
Trichlorofluoromethane	50.0	42.8		ug/Kg		86	60 - 145
Vinyl chloride	50.0	37.4		ug/Kg		75	55 - 135
Isopropyl Ether (DIPE)	50.0	47.8		ug/Kg		96	60 - 140
Ethyl-t-butyl ether (ETBE)	50.0	46.4		ug/Kg		93	60 - 140
tert-Butyl alcohol (TBA)	250	237		ug/Kg		95	70 - 135
p-Isopropyltoluene	50.0	51.0		ug/Kg		102	75 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	94		80 - 125

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-2954-A-1 MS**

**Matrix: Solid**

**Analysis Batch: 8387**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Result			Result						
1,1,1,2-Tetrachloroethane	ND		50.3	47.7		ug/Kg		95	65 - 145	
1,1,1-Trichloroethane	ND		50.3	44.5		ug/Kg		88	65 - 145	
1,1,2,2-Tetrachloroethane	ND		50.3	42.9		ug/Kg		85	40 - 160	
1,1,2-Trichloroethane	ND		50.3	45.7		ug/Kg		91	65 - 140	
1,1-Dichloroethane	ND		50.3	47.7		ug/Kg		95	65 - 135	
1,1-Dichloroethene	ND		50.3	44.5		ug/Kg		88	65 - 135	
1,1-Dichloropropene	ND		50.3	46.5		ug/Kg		92	65 - 135	
1,2,3-Trichlorobenzene	ND		50.3	48.3		ug/Kg		96	45 - 145	
1,2,3-Trichloropropane	ND		50.3	44.5		ug/Kg		88	50 - 150	
1,2,4-Trichlorobenzene	ND		50.3	52.5		ug/Kg		104	50 - 140	
1,2,4-Trimethylbenzene	ND		50.3	51.9		ug/Kg		103	65 - 140	
1,2-Dibromo-3-Chloropropane	ND		50.3	38.0		ug/Kg		76	40 - 150	
1,2-Dibromoethane (EDB)	ND		50.3	47.3		ug/Kg		94	65 - 140	
1,2-Dichlorobenzene	ND		50.3	46.1		ug/Kg		92	70 - 130	
1,2-Dichloroethane	ND		50.3	47.5		ug/Kg		94	60 - 150	
1,2-Dichloropropane	ND		50.3	48.7		ug/Kg		97	65 - 130	
1,3,5-Trimethylbenzene	ND		50.3	50.9		ug/Kg		101	65 - 135	
1,3-Dichlorobenzene	ND		50.3	48.7		ug/Kg		97	70 - 130	
1,3-Dichloropropane	ND		50.3	47.1		ug/Kg		94	65 - 140	
1,4-Dichlorobenzene	ND		50.3	47.9		ug/Kg		95	70 - 130	
2,2-Dichloropropane	ND		50.3	52.5		ug/Kg		104	65 - 150	
2-Chlorotoluene	ND		50.3	47.9		ug/Kg		95	60 - 135	
4-Chlorotoluene	ND		50.3	49.1		ug/Kg		98	65 - 135	
Benzene	ND		50.3	47.1		ug/Kg		94	65 - 130	
Bromobenzene	ND		50.3	46.5		ug/Kg		92	65 - 140	
Bromochloromethane	ND		50.3	43.5		ug/Kg		86	65 - 145	
Bromodichloromethane	ND		50.3	48.1		ug/Kg		96	65 - 145	
Bromoform	ND		50.3	43.5		ug/Kg		86	50 - 145	
Bromomethane	ND		50.3	40.0		ug/Kg		80	60 - 155	
Carbon tetrachloride	ND		50.3	43.1		ug/Kg		86	60 - 145	
Chlorobenzene	ND		50.3	45.1		ug/Kg		90	70 - 130	
Chloroethane	ND		50.3	41.2		ug/Kg		82	60 - 150	
Chloroform	ND		50.3	43.9		ug/Kg		87	65 - 135	
Chloromethane	ND		50.3	34.4		ug/Kg		68	40 - 145	
cis-1,2-Dichloroethene	ND		50.3	46.7		ug/Kg		93	65 - 135	
cis-1,3-Dichloropropene	ND		50.3	50.7		ug/Kg		101	70 - 135	
Dibromochloromethane	ND		50.3	46.7		ug/Kg		93	60 - 145	
Dibromomethane	ND		50.3	45.9		ug/Kg		91	65 - 140	
Dichlorodifluoromethane	ND		50.3	25.8		ug/Kg		51	30 - 160	
Ethylbenzene	ND		50.3	46.9		ug/Kg		93	70 - 135	
Hexachlorobutadiene	ND		50.3	44.7		ug/Kg		89	50 - 145	
Isopropylbenzene	ND		50.3	45.1		ug/Kg		90	70 - 145	
m,p-Xylene	ND		101	96.4		ug/Kg		96	70 - 130	
Methylene Chloride	ND		50.3	44.5		ug/Kg		88	55 - 145	
Methyl-t-Butyl Ether (MTBE)	ND		50.3	45.9		ug/Kg		91	55 - 155	
Naphthalene	ND		50.3	51.9		ug/Kg		103	40 - 150	
n-Butylbenzene	ND		50.3	55.3		ug/Kg		110	55 - 145	
N-Propylbenzene	ND		50.3	49.5		ug/Kg		98	65 - 140	
o-Xylene	ND		50.3	51.9		ug/Kg		103	65 - 130	

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-2954-A-1 MS**

**Matrix: Solid**

**Analysis Batch: 8387**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
sec-Butylbenzene	ND		50.3	49.5		ug/Kg		98	60 - 135	
Styrene	ND		50.3	52.3		ug/Kg		104	70 - 140	
Tert-amyl-methyl ether (TAME)	ND		50.3	47.9		ug/Kg		95	60 - 150	
tert-Butylbenzene	ND		50.3	48.9		ug/Kg		97	60 - 140	
Tetrachloroethene	ND		50.3	45.5		ug/Kg		90	65 - 135	
Toluene	ND		50.3	48.1		ug/Kg		96	70 - 130	
trans-1,2-Dichloroethene	ND		50.3	45.1		ug/Kg		90	70 - 135	
trans-1,3-Dichloropropene	ND		50.3	49.1		ug/Kg		98	60 - 145	
Trichloroethene	ND		50.3	50.9		ug/Kg		101	65 - 140	
Trichlorofluoromethane	ND		50.3	41.4		ug/Kg		82	55 - 155	
Vinyl chloride	ND		50.3	36.2		ug/Kg		72	55 - 140	
Isopropyl Ether (DIPE)	ND		50.3	47.7		ug/Kg		95	60 - 150	
Ethyl-t-butyl ether (ETBE)	ND		50.3	45.5		ug/Kg		90	60 - 145	
tert-Butyl alcohol (TBA)	ND		252	234		ug/Kg		93	65 - 145	
p-Isopropyltoluene	ND		50.3	50.7		ug/Kg		101	60 - 140	

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	106		80 - 120
Dibromofluoromethane (Surr)	90		80 - 125

**Lab Sample ID: 440-2954-A-1 MSD**

**Matrix: Solid**

**Analysis Batch: 8387**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		50.3	50.3		ug/Kg		100	65 - 145	5	20	
1,1,1,1-Trichloroethane	ND		50.3	44.7		ug/Kg		89	65 - 145	0	20	
1,1,1,2-Tetrachloroethane	ND		50.3	40.6		ug/Kg		81	40 - 160	5	30	
1,1,1,2-Trichloroethane	ND		50.3	47.9		ug/Kg		95	65 - 140	5	30	
1,1-Dichloroethane	ND		50.3	48.9		ug/Kg		97	65 - 135	3	25	
1,1-Dichloroethene	ND		50.3	45.5		ug/Kg		90	65 - 135	2	25	
1,1-Dichloropropene	ND		50.3	47.1		ug/Kg		94	65 - 135	1	20	
1,2,3-Trichlorobenzene	ND		50.3	48.5		ug/Kg		96	45 - 145	0	30	
1,2,3-Trichloropropane	ND		50.3	44.9		ug/Kg		89	50 - 150	1	30	
1,2,4-Trichlorobenzene	ND		50.3	54.1		ug/Kg		108	50 - 140	3	30	
1,2,4-Trimethylbenzene	ND		50.3	52.5		ug/Kg		104	65 - 140	1	25	
1,2-Dibromo-3-Chloropropane	ND		50.3	39.0		ug/Kg		78	40 - 150	3	30	
1,2-Dibromoethane (EDB)	ND		50.3	50.9		ug/Kg		101	65 - 140	7	25	
1,2-Dichlorobenzene	ND		50.3	48.7		ug/Kg		97	70 - 130	6	25	
1,2-Dichloroethane	ND		50.3	46.3		ug/Kg		92	60 - 150	3	25	
1,2-Dichloropropane	ND		50.3	47.5		ug/Kg		94	65 - 130	3	20	
1,3,5-Trimethylbenzene	ND		50.3	50.9		ug/Kg		101	65 - 135	0	25	
1,3-Dichlorobenzene	ND		50.3	49.3		ug/Kg		98	70 - 130	1	25	
1,3-Dichloropropane	ND		50.3	50.1		ug/Kg		100	65 - 140	6	25	
1,4-Dichlorobenzene	ND		50.3	48.1		ug/Kg		96	70 - 130	0	25	
2,2-Dichloropropane	ND		50.3	52.3		ug/Kg		104	65 - 150	0	25	
2-Chlorotoluene	ND		50.3	47.7		ug/Kg		95	60 - 135	0	25	
4-Chlorotoluene	ND		50.3	49.3		ug/Kg		98	65 - 135	0	25	

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-2954-A-1 MSD

Matrix: Solid

Analysis Batch: 8387

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Benzene	ND		50.3	46.1		ug/Kg		92	65 - 130	2	20	
Bromobenzene	ND		50.3	46.5		ug/Kg		92	65 - 140	0	25	
Bromochloromethane	ND		50.3	45.7		ug/Kg		91	65 - 145	5	25	
Bromodichloromethane	ND		50.3	48.7		ug/Kg		97	65 - 145	1	20	
Bromoform	ND		50.3	46.9		ug/Kg		93	50 - 145	8	30	
Bromomethane	ND		50.3	39.6		ug/Kg		79	60 - 155	1	25	
Carbon tetrachloride	ND		50.3	43.3		ug/Kg		86	60 - 145	0	25	
Chlorobenzene	ND		50.3	46.5		ug/Kg		92	70 - 130	3	25	
Chloroethane	ND		50.3	40.0		ug/Kg		80	60 - 150	3	25	
Chloroform	ND		50.3	46.1		ug/Kg		92	65 - 135	5	20	
Chloromethane	ND		50.3	33.8		ug/Kg		67	40 - 145	2	25	
cis-1,2-Dichloroethene	ND		50.3	48.3		ug/Kg		96	65 - 135	3	25	
cis-1,3-Dichloropropene	ND		50.3	50.1		ug/Kg		100	70 - 135	1	25	
Dibromochloromethane	ND		50.3	49.7		ug/Kg		99	60 - 145	6	25	
Dibromomethane	ND		50.3	45.5		ug/Kg		90	65 - 140	1	25	
Dichlorodifluoromethane	ND		50.3	25.8		ug/Kg		51	30 - 160	0	35	
Ethylbenzene	ND		50.3	49.5		ug/Kg		98	70 - 135	5	25	
Hexachlorobutadiene	ND		50.3	45.5		ug/Kg		90	50 - 145	2	35	
Isopropylbenzene	ND		50.3	45.1		ug/Kg		90	70 - 145	0	25	
m,p-Xylene	ND		101	99.0		ug/Kg		98	70 - 130	3	25	
Methylene Chloride	ND		50.3	44.7		ug/Kg		89	55 - 145	0	25	
Methyl-t-Butyl Ether (MTBE)	ND		50.3	46.3		ug/Kg		92	55 - 155	1	35	
Naphthalene	ND		50.3	55.3		ug/Kg		110	40 - 150	6	40	
n-Butylbenzene	ND		50.3	54.7		ug/Kg		109	55 - 145	1	30	
N-Propylbenzene	ND		50.3	49.1		ug/Kg		98	65 - 140	1	25	
o-Xylene	ND		50.3	52.7		ug/Kg		105	65 - 130	2	25	
sec-Butylbenzene	ND		50.3	50.1		ug/Kg		100	60 - 135	1	25	
Styrene	ND		50.3	52.9		ug/Kg		105	70 - 140	1	25	
Tert-amyl-methyl ether (TAME)	ND		50.3	49.5		ug/Kg		98	60 - 150	3	25	
tert-Butylbenzene	ND		50.3	48.3		ug/Kg		96	60 - 140	1	25	
Tetrachloroethene	ND		50.3	47.5		ug/Kg		94	65 - 135	4	25	
Toluene	ND		50.3	47.9		ug/Kg		95	70 - 130	0	20	
trans-1,2-Dichloroethene	ND		50.3	47.7		ug/Kg		95	70 - 135	6	25	
trans-1,3-Dichloropropene	ND		50.3	50.9		ug/Kg		101	60 - 145	4	25	
Trichloroethene	ND		50.3	50.3		ug/Kg		100	65 - 140	1	25	
Trichlorofluoromethane	ND		50.3	42.1		ug/Kg		84	55 - 155	1	25	
Vinyl chloride	ND		50.3	36.2		ug/Kg		72	55 - 140	0	30	
Isopropyl Ether (DIPE)	ND		50.3	48.7		ug/Kg		97	60 - 150	2	25	
Ethyl-t-butyl ether (ETBE)	ND		50.3	46.5		ug/Kg		92	60 - 145	2	30	
tert-Butyl alcohol (TBA)	ND		252	220		ug/Kg		88	65 - 145	6	30	
p-Isopropyltoluene	ND		50.3	50.1		ug/Kg		100	60 - 140	1	25	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	92		80 - 125

# QC Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-9275/4**

**Matrix: Water**

**Analysis Batch: 9275**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			02/24/12 08:42	1
1,1,1-Trichloroethane	ND		2.0		ug/L			02/24/12 08:42	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			02/24/12 08:42	1
1,1,2-Trichloroethane	ND		2.0		ug/L			02/24/12 08:42	1
1,1-Dichloroethane	ND		2.0		ug/L			02/24/12 08:42	1
1,1-Dichloroethene	ND		5.0		ug/L			02/24/12 08:42	1
1,1-Dichloropropene	ND		2.0		ug/L			02/24/12 08:42	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			02/24/12 08:42	1
1,2,3-Trichloropropane	ND		10		ug/L			02/24/12 08:42	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			02/24/12 08:42	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			02/24/12 08:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/24/12 08:42	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			02/24/12 08:42	1
1,2-Dichlorobenzene	ND		2.0		ug/L			02/24/12 08:42	1
1,2-Dichloroethane	ND		2.0		ug/L			02/24/12 08:42	1
1,2-Dichloropropane	ND		2.0		ug/L			02/24/12 08:42	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			02/24/12 08:42	1
1,3-Dichlorobenzene	ND		2.0		ug/L			02/24/12 08:42	1
1,3-Dichloropropane	ND		2.0		ug/L			02/24/12 08:42	1
1,4-Dichlorobenzene	ND		2.0		ug/L			02/24/12 08:42	1
2,2-Dichloropropane	ND		2.0		ug/L			02/24/12 08:42	1
2-Chlorotoluene	ND		5.0		ug/L			02/24/12 08:42	1
4-Chlorotoluene	ND		5.0		ug/L			02/24/12 08:42	1
Benzene	ND		2.0		ug/L			02/24/12 08:42	1
Bromobenzene	ND		5.0		ug/L			02/24/12 08:42	1
Bromochloromethane	ND		5.0		ug/L			02/24/12 08:42	1
Bromodichloromethane	ND		2.0		ug/L			02/24/12 08:42	1
Bromoform	ND		5.0		ug/L			02/24/12 08:42	1
Bromomethane	ND		5.0		ug/L			02/24/12 08:42	1
Carbon tetrachloride	ND		5.0		ug/L			02/24/12 08:42	1
Chlorobenzene	ND		2.0		ug/L			02/24/12 08:42	1
Chloroethane	ND		5.0		ug/L			02/24/12 08:42	1
Chloroform	ND		2.0		ug/L			02/24/12 08:42	1
Chloromethane	ND		5.0		ug/L			02/24/12 08:42	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			02/24/12 08:42	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			02/24/12 08:42	1
Dibromochloromethane	ND		2.0		ug/L			02/24/12 08:42	1
Dibromomethane	ND		2.0		ug/L			02/24/12 08:42	1
Dichlorodifluoromethane	ND		5.0		ug/L			02/24/12 08:42	1
Ethylbenzene	ND		2.0		ug/L			02/24/12 08:42	1
Hexachlorobutadiene	ND		5.0		ug/L			02/24/12 08:42	1
Isopropylbenzene	ND		2.0		ug/L			02/24/12 08:42	1
m,p-Xylene	ND		2.0		ug/L			02/24/12 08:42	1
Methylene Chloride	ND		5.0		ug/L			02/24/12 08:42	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			02/24/12 08:42	1
Naphthalene	ND		5.0		ug/L			02/24/12 08:42	1
n-Butylbenzene	ND		5.0		ug/L			02/24/12 08:42	1
N-Propylbenzene	ND		2.0		ug/L			02/24/12 08:42	1
o-Xylene	ND		2.0		ug/L			02/24/12 08:42	1

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-9275/4**

**Matrix: Water**

**Analysis Batch: 9275**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
sec-Butylbenzene	ND		5.0		ug/L			02/24/12 08:42	1
Styrene	ND		2.0		ug/L			02/24/12 08:42	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/L			02/24/12 08:42	1
tert-Butylbenzene	ND		5.0		ug/L			02/24/12 08:42	1
Tetrachloroethene	ND		2.0		ug/L			02/24/12 08:42	1
Toluene	ND		2.0		ug/L			02/24/12 08:42	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			02/24/12 08:42	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			02/24/12 08:42	1
Trichloroethene	ND		2.0		ug/L			02/24/12 08:42	1
Trichlorofluoromethane	ND		5.0		ug/L			02/24/12 08:42	1
Vinyl chloride	ND		5.0		ug/L			02/24/12 08:42	1
Xylenes, Total	ND		2.0		ug/L			02/24/12 08:42	1
Isopropyl Ether (DIPE)	ND		5.0		ug/L			02/24/12 08:42	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/L			02/24/12 08:42	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			02/24/12 08:42	1
p-Isopropyltoluene	ND		2.0		ug/L			02/24/12 08:42	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	106		80 - 120		02/24/12 08:42	1
4-Bromofluorobenzene (Surr)	107		80 - 120		02/24/12 08:42	1
Dibromofluoromethane (Surr)	106		80 - 120		02/24/12 08:42	1

**Lab Sample ID: LCS 440-9275/5**

**Matrix: Water**

**Analysis Batch: 9275**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	24.8		ug/L		99	70 - 130
1,1,1-Trichloroethane	25.0	26.0		ug/L		104	65 - 135
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		100	55 - 130
1,1,2-Trichloroethane	25.0	25.7		ug/L		103	70 - 125
1,1-Dichloroethane	25.0	26.2		ug/L		105	70 - 125
1,1-Dichloroethene	25.0	25.3		ug/L		101	70 - 125
1,1-Dichloropropene	25.0	24.9		ug/L		100	75 - 130
1,2,3-Trichlorobenzene	25.0	24.9		ug/L		100	65 - 125
1,2,3-Trichloropropane	25.0	24.8		ug/L		99	60 - 130
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		100	70 - 135
1,2,4-Trimethylbenzene	25.0	27.0		ug/L		108	75 - 125
1,2-Dibromo-3-Chloropropane	25.0	23.9		ug/L		96	50 - 135
1,2-Dibromoethane (EDB)	25.0	25.3		ug/L		101	75 - 125
1,2-Dichlorobenzene	25.0	25.7		ug/L		103	75 - 120
1,2-Dichloroethane	25.0	24.9		ug/L		100	60 - 140
1,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 125
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	75 - 125
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	75 - 120
1,3-Dichloropropane	25.0	25.0		ug/L		100	70 - 120
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	75 - 120
2,2-Dichloropropane	25.0	28.7		ug/L		115	65 - 140
2-Chlorotoluene	25.0	25.3		ug/L		101	70 - 125

# QC Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-9275/5**

**Matrix: Water**

**Analysis Batch: 9275**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	25.0	26.1		ug/L		104	75 - 125
Benzene	25.0	23.6		ug/L		94	70 - 120
Bromobenzene	25.0	24.4		ug/L		98	75 - 120
Bromochloromethane	25.0	25.7		ug/L		103	70 - 130
Bromodichloromethane	25.0	25.9		ug/L		104	70 - 135
Bromoform	25.0	23.8		ug/L		95	55 - 130
Bromomethane	25.0	23.4		ug/L		94	65 - 140
Carbon tetrachloride	25.0	25.6		ug/L		102	65 - 140
Chlorobenzene	25.0	25.0		ug/L		100	75 - 120
Chloroethane	25.0	23.0		ug/L		92	60 - 140
Chloroform	25.0	25.9		ug/L		104	70 - 130
Chloromethane	25.0	19.0		ug/L		76	50 - 140
cis-1,2-Dichloroethene	25.0	27.4		ug/L		110	70 - 125
cis-1,3-Dichloropropene	25.0	26.1		ug/L		104	75 - 125
Dibromochloromethane	25.0	26.9		ug/L		108	70 - 140
Dibromomethane	25.0	25.4		ug/L		102	70 - 125
Dichlorodifluoromethane	25.0	15.6		ug/L		62	35 - 155
Ethylbenzene	25.0	24.8		ug/L		99	75 - 125
Hexachlorobutadiene	25.0	24.0		ug/L		96	65 - 135
Isopropylbenzene	25.0	22.6		ug/L		90	75 - 130
m,p-Xylene	50.0	52.3		ug/L		105	75 - 125
Methylene Chloride	25.0	22.8		ug/L		91	55 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	24.1		ug/L		96	60 - 135
Naphthalene	25.0	28.1		ug/L		112	55 - 135
n-Butylbenzene	25.0	26.0		ug/L		104	70 - 130
N-Propylbenzene	25.0	25.5		ug/L		102	75 - 130
o-Xylene	25.0	26.6		ug/L		106	75 - 125
sec-Butylbenzene	25.0	26.1		ug/L		104	70 - 125
Styrene	25.0	26.6		ug/L		106	75 - 130
Tert-amyl-methyl ether (TAME)	25.0	24.7		ug/L		99	60 - 135
tert-Butylbenzene	25.0	25.9		ug/L		104	70 - 125
Tetrachloroethene	25.0	24.5		ug/L		98	70 - 125
Toluene	25.0	24.9		ug/L		100	70 - 120
trans-1,2-Dichloroethene	25.0	26.1		ug/L		104	70 - 125
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 125
Trichloroethene	25.0	24.6		ug/L		98	70 - 125
Trichlorofluoromethane	25.0	24.2		ug/L		97	65 - 145
Vinyl chloride	25.0	21.3		ug/L		85	55 - 135
Isopropyl Ether (DIPE)	25.0	24.4		ug/L		98	60 - 135
Ethyl-t-butyl ether (ETBE)	25.0	24.5		ug/L		98	65 - 135
tert-Butyl alcohol (TBA)	125	134		ug/L		107	70 - 135
p-Isopropyltoluene	25.0	25.6		ug/L		102	75 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	112		80 - 120
Dibromofluoromethane (Surr)	105		80 - 120

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-3074-G-7 MS**

**Matrix: Water**

**Analysis Batch: 9275**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,1,1,2-Tetrachloroethane	ND		25.0	27.1		ug/L		108	65 - 140	
1,1,1-Trichloroethane	ND		25.0	27.3		ug/L		109	65 - 140	
1,1,2,2-Tetrachloroethane	ND		25.0	23.1		ug/L		92	55 - 135	
1,1,2-Trichloroethane	ND		25.0	25.9		ug/L		104	65 - 130	
1,1-Dichloroethane	ND		25.0	27.9		ug/L		112	65 - 130	
1,1-Dichloroethene	ND		25.0	25.3		ug/L		101	60 - 130	
1,1-Dichloropropene	ND		25.0	25.6		ug/L		102	70 - 135	
1,2,3-Trichlorobenzene	ND		25.0	25.8		ug/L		103	60 - 135	
1,2,3-Trichloropropane	ND		25.0	22.1		ug/L		88	55 - 135	
1,2,4-Trichlorobenzene	ND		25.0	26.9		ug/L		108	65 - 135	
1,2,4-Trimethylbenzene	ND		25.0	26.6		ug/L		106	55 - 135	
1,2-Dibromo-3-Chloropropane	ND		25.0	20.5		ug/L		82	45 - 145	
1,2-Dibromoethane (EDB)	ND		25.0	24.9		ug/L		100	70 - 130	
1,2-Dichlorobenzene	ND		25.0	27.3		ug/L		109	75 - 125	
1,2-Dichloroethane	ND		25.0	26.8		ug/L		107	60 - 140	
1,2-Dichloropropane	ND		25.0	27.0		ug/L		108	65 - 130	
1,3,5-Trimethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130	
1,3-Dichlorobenzene	ND		25.0	27.1		ug/L		108	75 - 125	
1,3-Dichloropropane	ND		25.0	25.2		ug/L		101	65 - 135	
1,4-Dichlorobenzene	ND		25.0	26.5		ug/L		106	75 - 125	
2,2-Dichloropropane	ND		25.0	30.6		ug/L		122	60 - 145	
2-Chlorotoluene	ND		25.0	26.6		ug/L		106	65 - 135	
4-Chlorotoluene	ND		25.0	27.4		ug/L		110	70 - 135	
Benzene	ND		25.0	25.0		ug/L		100	65 - 125	
Bromobenzene	ND		25.0	25.8		ug/L		103	70 - 125	
Bromochloromethane	ND		25.0	28.2		ug/L		113	65 - 135	
Bromodichloromethane	ND		25.0	28.5		ug/L		114	70 - 135	
Bromoform	ND		25.0	22.1		ug/L		88	55 - 135	
Bromomethane	ND		25.0	25.2		ug/L		101	55 - 145	
Carbon tetrachloride	ND		25.0	26.8		ug/L		107	65 - 140	
Chlorobenzene	ND		25.0	26.0		ug/L		104	75 - 125	
Chloroethane	ND		25.0	25.2		ug/L		101	55 - 140	
Chloroform	ND		25.0	27.8		ug/L		111	65 - 135	
Chloromethane	ND		25.0	23.0		ug/L		92	45 - 145	
cis-1,2-Dichloroethene	ND		25.0	30.0		ug/L		120	65 - 130	
cis-1,3-Dichloropropene	ND		25.0	27.9		ug/L		112	70 - 130	
Dibromochloromethane	ND		25.0	27.3		ug/L		109	65 - 140	
Dibromomethane	ND		25.0	26.4		ug/L		106	65 - 135	
Dichlorodifluoromethane	ND		25.0	19.8		ug/L		79	25 - 155	
Ethylbenzene	ND		25.0	25.4		ug/L		102	65 - 130	
Hexachlorobutadiene	ND		25.0	24.6		ug/L		98	60 - 135	
Isopropylbenzene	ND		25.0	23.8		ug/L		95	70 - 135	
m,p-Xylene	ND		50.0	51.3		ug/L		103	65 - 130	
Methylene Chloride	ND		25.0	25.1		ug/L		100	50 - 135	
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.1		ug/L		108	55 - 145	
Naphthalene	ND		25.0	26.4		ug/L		106	50 - 140	
n-Butylbenzene	ND		25.0	27.5		ug/L		108	65 - 135	
N-Propylbenzene	ND		25.0	26.2		ug/L		105	70 - 135	
o-Xylene	ND		25.0	27.7		ug/L		111	65 - 125	

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-3074-G-7 MS**

**Matrix: Water**

**Analysis Batch: 9275**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
sec-Butylbenzene	ND		25.0	26.6		ug/L		106	70 - 125	
Styrene	ND		25.0	24.8		ug/L		99	50 - 145	
Tert-amyl-methyl ether (TAME)	ND		25.0	29.0		ug/L		116	60 - 140	
tert-Butylbenzene	ND		25.0	26.8		ug/L		106	65 - 130	
Tetrachloroethene	ND		25.0	24.7		ug/L		99	65 - 130	
Toluene	ND		25.0	26.6		ug/L		106	70 - 125	
trans-1,2-Dichloroethene	ND		25.0	27.9		ug/L		112	65 - 130	
trans-1,3-Dichloropropene	ND		25.0	28.7		ug/L		115	65 - 135	
Trichloroethene	ND		25.0	26.0		ug/L		104	65 - 125	
Trichlorofluoromethane	ND		25.0	25.6		ug/L		102	60 - 145	
Vinyl chloride	ND		25.0	23.4		ug/L		94	45 - 140	
Isopropyl Ether (DIPE)	ND		25.0	29.0		ug/L		116	60 - 140	
Ethyl-t-butyl ether (ETBE)	ND		25.0	27.0		ug/L		108	60 - 135	
tert-Butyl alcohol (TBA)	ND		125	154		ug/L		123	65 - 140	
p-Isopropyltoluene	ND		25.0	26.3		ug/L		105	65 - 130	

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	110		80 - 120
Dibromofluoromethane (Surr)	107		80 - 120

**Lab Sample ID: 440-3074-G-7 MSD**

**Matrix: Water**

**Analysis Batch: 9275**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		25.0	26.4		ug/L		106	65 - 140	3	20	
1,1,1,1-Trichloroethane	ND		25.0	26.3		ug/L		105	65 - 140	4	20	
1,1,1,2-Tetrachloroethane	ND		25.0	24.8		ug/L		99	55 - 135	7	30	
1,1,2-Trichloroethane	ND		25.0	26.7		ug/L		107	65 - 130	3	25	
1,1-Dichloroethane	ND		25.0	27.7		ug/L		111	65 - 130	1	20	
1,1-Dichloroethene	ND		25.0	25.3		ug/L		101	60 - 130	0	20	
1,1-Dichloropropene	ND		25.0	24.6		ug/L		98	70 - 135	4	20	
1,2,3-Trichlorobenzene	ND		25.0	25.3		ug/L		101	60 - 135	2	20	
1,2,3-Trichloropropane	ND		25.0	22.7		ug/L		91	55 - 135	3	30	
1,2,4-Trichlorobenzene	ND		25.0	26.1		ug/L		104	65 - 135	3	20	
1,2,4-Trimethylbenzene	ND		25.0	25.2		ug/L		101	55 - 135	5	25	
1,2-Dibromo-3-Chloropropane	ND		25.0	21.3		ug/L		85	45 - 145	4	30	
1,2-Dibromoethane (EDB)	ND		25.0	25.3		ug/L		101	70 - 130	2	25	
1,2-Dichlorobenzene	ND		25.0	26.9		ug/L		108	75 - 125	1	20	
1,2-Dichloroethane	ND		25.0	26.3		ug/L		105	60 - 140	2	20	
1,2-Dichloropropane	ND		25.0	27.0		ug/L		108	65 - 130	0	20	
1,3,5-Trimethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130	3	20	
1,3-Dichlorobenzene	ND		25.0	26.3		ug/L		105	75 - 125	3	20	
1,3-Dichloropropane	ND		25.0	25.4		ug/L		102	65 - 135	1	25	
1,4-Dichlorobenzene	ND		25.0	25.9		ug/L		104	75 - 125	2	20	
2,2-Dichloropropane	ND		25.0	29.9		ug/L		120	60 - 145	2	25	
2-Chlorotoluene	ND		25.0	26.6		ug/L		106	65 - 135	0	20	
4-Chlorotoluene	ND		25.0	27.2		ug/L		109	70 - 135	1	20	

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-3074-G-7 MSD

Matrix: Water

Analysis Batch: 9275

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Benzene	ND		25.0	24.2		ug/L		97	65 - 125	3	20	
Bromobenzene	ND		25.0	25.8		ug/L		103	70 - 125	0	20	
Bromochloromethane	ND		25.0	28.3		ug/L		113	65 - 135	0	25	
Bromodichloromethane	ND		25.0	27.3		ug/L		109	70 - 135	4	20	
Bromoform	ND		25.0	23.2		ug/L		93	55 - 135	5	25	
Bromomethane	ND		25.0	26.5		ug/L		106	55 - 145	5	25	
Carbon tetrachloride	ND		25.0	25.2		ug/L		101	65 - 140	6	25	
Chlorobenzene	ND		25.0	25.3		ug/L		101	75 - 125	3	20	
Chloroethane	ND		25.0	24.8		ug/L		99	55 - 140	2	25	
Chloroform	ND		25.0	27.5		ug/L		110	65 - 135	1	20	
Chloromethane	ND		25.0	24.1		ug/L		96	45 - 145	5	25	
cis-1,2-Dichloroethene	ND		25.0	29.9		ug/L		120	65 - 130	0	20	
cis-1,3-Dichloropropene	ND		25.0	27.4		ug/L		110	70 - 130	2	20	
Dibromochloromethane	ND		25.0	27.3		ug/L		109	65 - 140	0	25	
Dibromomethane	ND		25.0	25.6		ug/L		102	65 - 135	3	25	
Dichlorodifluoromethane	ND		25.0	19.7		ug/L		79	25 - 155	1	30	
Ethylbenzene	ND		25.0	24.7		ug/L		99	65 - 130	3	20	
Hexachlorobutadiene	ND		25.0	23.5		ug/L		94	60 - 135	5	20	
Isopropylbenzene	ND		25.0	23.2		ug/L		93	70 - 135	3	20	
m,p-Xylene	ND		50.0	49.9		ug/L		100	65 - 130	3	25	
Methylene Chloride	ND		25.0	25.2		ug/L		101	50 - 135	0	20	
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.3		ug/L		109	55 - 145	1	25	
Naphthalene	ND		25.0	26.1		ug/L		104	50 - 140	1	30	
n-Butylbenzene	ND		25.0	26.4		ug/L		103	65 - 135	4	20	
N-Propylbenzene	ND		25.0	25.5		ug/L		102	70 - 135	3	20	
o-Xylene	ND		25.0	26.7		ug/L		107	65 - 125	4	20	
sec-Butylbenzene	ND		25.0	25.9		ug/L		104	70 - 125	3	20	
Styrene	ND		25.0	22.6		ug/L		90	50 - 145	9	30	
Tert-amyl-methyl ether (TAME)	ND		25.0	27.0		ug/L		108	60 - 140	7	30	
tert-Butylbenzene	ND		25.0	26.6		ug/L		105	65 - 130	1	20	
Tetrachloroethene	ND		25.0	24.1		ug/L		96	65 - 130	2	20	
Toluene	ND		25.0	25.6		ug/L		102	70 - 125	4	20	
trans-1,2-Dichloroethene	ND		25.0	26.5		ug/L		106	65 - 130	5	20	
trans-1,3-Dichloropropene	ND		25.0	28.1		ug/L		112	65 - 135	2	25	
Trichloroethene	ND		25.0	25.1		ug/L		100	65 - 125	4	20	
Trichlorofluoromethane	ND		25.0	24.5		ug/L		98	60 - 145	4	25	
Vinyl chloride	ND		25.0	23.7		ug/L		95	45 - 140	1	30	
Isopropyl Ether (DIPE)	ND		25.0	28.7		ug/L		115	60 - 140	1	25	
Ethyl-t-butyl ether (ETBE)	ND		25.0	27.6		ug/L		110	60 - 135	2	25	
tert-Butyl alcohol (TBA)	ND		125	144		ug/L		115	65 - 140	7	25	
p-Isopropyltoluene	ND		25.0	25.2		ug/L		101	65 - 130	4	20	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	108		80 - 120
Dibromofluoromethane (Surr)	108		80 - 120

# QC Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-9649/3**

**Matrix: Solid**

**Analysis Batch: 9649**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			02/27/12 09:15	1
1,1,1-Trichloroethane	ND		2.0		ug/Kg			02/27/12 09:15	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			02/27/12 09:15	1
1,1,2-Trichloroethane	ND		2.0		ug/Kg			02/27/12 09:15	1
1,1-Dichloroethane	ND		2.0		ug/Kg			02/27/12 09:15	1
1,1-Dichloroethene	ND		5.0		ug/Kg			02/27/12 09:15	1
1,1-Dichloropropene	ND		2.0		ug/Kg			02/27/12 09:15	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			02/27/12 09:15	1
1,2,3-Trichloropropane	ND		10		ug/Kg			02/27/12 09:15	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			02/27/12 09:15	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			02/27/12 09:15	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/Kg			02/27/12 09:15	1
1,2-Dichlorobenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
1,2-Dichloroethane	ND		2.0		ug/Kg			02/27/12 09:15	1
1,2-Dichloropropane	ND		2.0		ug/Kg			02/27/12 09:15	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
1,3-Dichlorobenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
1,3-Dichloropropane	ND		2.0		ug/Kg			02/27/12 09:15	1
1,4-Dichlorobenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
2,2-Dichloropropane	ND		2.0		ug/Kg			02/27/12 09:15	1
2-Chlorotoluene	ND		5.0		ug/Kg			02/27/12 09:15	1
4-Chlorotoluene	ND		5.0		ug/Kg			02/27/12 09:15	1
Benzene	ND		2.0		ug/Kg			02/27/12 09:15	1
Bromobenzene	ND		5.0		ug/Kg			02/27/12 09:15	1
Bromochloromethane	ND		5.0		ug/Kg			02/27/12 09:15	1
Bromodichloromethane	ND		2.0		ug/Kg			02/27/12 09:15	1
Bromoform	ND		5.0		ug/Kg			02/27/12 09:15	1
Bromomethane	ND		5.0		ug/Kg			02/27/12 09:15	1
Carbon tetrachloride	ND		5.0		ug/Kg			02/27/12 09:15	1
Chlorobenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
Chloroethane	ND		5.0		ug/Kg			02/27/12 09:15	1
Chloroform	ND		2.0		ug/Kg			02/27/12 09:15	1
Chloromethane	ND		5.0		ug/Kg			02/27/12 09:15	1
cis-1,2-Dichloroethene	ND		2.0		ug/Kg			02/27/12 09:15	1
cis-1,3-Dichloropropene	ND		2.0		ug/Kg			02/27/12 09:15	1
Dibromochloromethane	ND		2.0		ug/Kg			02/27/12 09:15	1
Dibromomethane	ND		2.0		ug/Kg			02/27/12 09:15	1
Dichlorodifluoromethane	ND		5.0		ug/Kg			02/27/12 09:15	1
Ethylbenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
Hexachlorobutadiene	ND		5.0		ug/Kg			02/27/12 09:15	1
Isopropylbenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
m,p-Xylene	ND		2.0		ug/Kg			02/27/12 09:15	1
Methylene Chloride	ND		20		ug/Kg			02/27/12 09:15	1
Methyl-t-Butyl Ether (MTBE)	ND		5.0		ug/Kg			02/27/12 09:15	1
Naphthalene	ND		5.0		ug/Kg			02/27/12 09:15	1
n-Butylbenzene	ND		5.0		ug/Kg			02/27/12 09:15	1
N-Propylbenzene	ND		2.0		ug/Kg			02/27/12 09:15	1
o-Xylene	ND		2.0		ug/Kg			02/27/12 09:15	1

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-9649/3**

**Matrix: Solid**

**Analysis Batch: 9649**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0		ug/Kg			02/27/12 09:15	1
Styrene	ND		2.0		ug/Kg			02/27/12 09:15	1
Tert-amyl-methyl ether (TAME)	ND		5.0		ug/Kg			02/27/12 09:15	1
tert-Butylbenzene	ND		5.0		ug/Kg			02/27/12 09:15	1
Tetrachloroethene	ND		2.0		ug/Kg			02/27/12 09:15	1
Toluene	ND		2.0		ug/Kg			02/27/12 09:15	1
trans-1,2-Dichloroethene	ND		2.0		ug/Kg			02/27/12 09:15	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			02/27/12 09:15	1
Trichloroethene	ND		2.0		ug/Kg			02/27/12 09:15	1
Trichlorofluoromethane	ND		5.0		ug/Kg			02/27/12 09:15	1
Vinyl chloride	ND		5.0		ug/Kg			02/27/12 09:15	1
Xylenes, Total	ND		4.0		ug/Kg			02/27/12 09:15	1
Isopropyl Ether (DIPE)	ND		5.0		ug/Kg			02/27/12 09:15	1
Ethyl-t-butyl ether (ETBE)	ND		5.0		ug/Kg			02/27/12 09:15	1
tert-Butyl alcohol (TBA)	ND		100		ug/Kg			02/27/12 09:15	1
p-Isopropyltoluene	ND		2.0		ug/Kg			02/27/12 09:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		02/27/12 09:15	1
4-Bromofluorobenzene (Surr)	103		80 - 120		02/27/12 09:15	1
Dibromofluoromethane (Surr)	93		80 - 125		02/27/12 09:15	1

**Lab Sample ID: LCS 440-9649/4**

**Matrix: Solid**

**Analysis Batch: 9649**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/Kg		93	70 - 130
1,1,1-Trichloroethane	50.0	50.0		ug/Kg		100	65 - 135
1,1,2,2-Tetrachloroethane	50.0	58.6		ug/Kg		117	55 - 140
1,1,2-Trichloroethane	50.0	49.8		ug/Kg		100	65 - 135
1,1-Dichloroethane	50.0	48.8		ug/Kg		98	70 - 130
1,1-Dichloroethene	50.0	45.6		ug/Kg		91	70 - 125
1,1-Dichloropropene	50.0	49.8		ug/Kg		100	70 - 130
1,2,3-Trichlorobenzene	50.0	52.0		ug/Kg		104	60 - 130
1,2,3-Trichloropropane	50.0	54.4		ug/Kg		109	60 - 135
1,2,4-Trichlorobenzene	50.0	52.6		ug/Kg		105	70 - 135
1,2,4-Trimethylbenzene	50.0	53.0		ug/Kg		106	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	55.2		ug/Kg		110	50 - 135
1,2-Dibromoethane (EDB)	50.0	52.2		ug/Kg		104	70 - 130
1,2-Dichlorobenzene	50.0	51.6		ug/Kg		103	75 - 120
1,2-Dichloroethane	50.0	50.6		ug/Kg		101	60 - 140
1,2-Dichloropropane	50.0	48.0		ug/Kg		96	70 - 130
1,3,5-Trimethylbenzene	50.0	53.2		ug/Kg		106	70 - 125
1,3-Dichlorobenzene	50.0	51.4		ug/Kg		103	75 - 125
1,3-Dichloropropane	50.0	50.0		ug/Kg		100	70 - 125
1,4-Dichlorobenzene	50.0	50.6		ug/Kg		101	75 - 120
2,2-Dichloropropane	50.0	66.6		ug/Kg		133	60 - 145
2-Chlorotoluene	50.0	53.2		ug/Kg		106	70 - 125

# QC Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-9649/4**

**Matrix: Solid**

**Analysis Batch: 9649**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	50.0	54.0		ug/Kg		108	75 - 125
Benzene	50.0	47.6		ug/Kg		95	65 - 120
Bromobenzene	50.0	50.6		ug/Kg		101	75 - 120
Bromochloromethane	50.0	45.0		ug/Kg		90	70 - 135
Bromodichloromethane	50.0	47.8		ug/Kg		96	70 - 135
Bromoform	50.0	50.6		ug/Kg		101	55 - 135
Bromomethane	50.0	43.6		ug/Kg		87	60 - 145
Carbon tetrachloride	50.0	53.2		ug/Kg		106	65 - 140
Chlorobenzene	50.0	50.4		ug/Kg		101	75 - 120
Chloroethane	50.0	42.4		ug/Kg		85	60 - 140
Chloroform	50.0	48.6		ug/Kg		97	70 - 130
Chloromethane	50.0	37.6		ug/Kg		75	45 - 145
cis-1,2-Dichloroethene	50.0	48.8		ug/Kg		98	70 - 125
cis-1,3-Dichloropropene	50.0	49.8		ug/Kg		100	75 - 125
Dibromochloromethane	50.0	45.2		ug/Kg		90	65 - 140
Dibromomethane	50.0	49.0		ug/Kg		98	70 - 130
Dichlorodifluoromethane	50.0	31.6		ug/Kg		63	35 - 160
Ethylbenzene	50.0	49.6		ug/Kg		99	70 - 125
Hexachlorobutadiene	50.0	52.2		ug/Kg		104	60 - 135
Isopropylbenzene	50.0	48.2		ug/Kg		96	75 - 130
m,p-Xylene	100	100		ug/Kg		100	70 - 125
Methylene Chloride	50.0	53.4		ug/Kg		107	55 - 135
Methyl-t-Butyl Ether (MTBE)	50.0	56.0		ug/Kg		112	60 - 140
Naphthalene	50.0	55.4		ug/Kg		111	55 - 135
n-Butylbenzene	50.0	54.4		ug/Kg		109	70 - 130
N-Propylbenzene	50.0	53.6		ug/Kg		107	70 - 130
o-Xylene	50.0	49.2		ug/Kg		98	70 - 125
sec-Butylbenzene	50.0	54.0		ug/Kg		108	70 - 125
Styrene	50.0	50.0		ug/Kg		100	75 - 130
Tert-amyl-methyl ether (TAME)	50.0	57.6		ug/Kg		115	60 - 145
tert-Butylbenzene	50.0	54.0		ug/Kg		108	70 - 125
Tetrachloroethene	50.0	47.8		ug/Kg		96	70 - 125
Toluene	50.0	48.2		ug/Kg		96	70 - 125
trans-1,2-Dichloroethene	50.0	47.6		ug/Kg		95	70 - 125
trans-1,3-Dichloropropene	50.0	50.8		ug/Kg		102	70 - 135
Trichloroethene	50.0	46.8		ug/Kg		94	70 - 125
Trichlorofluoromethane	50.0	47.8		ug/Kg		96	60 - 145
Vinyl chloride	50.0	39.6		ug/Kg		79	55 - 135
Isopropyl Ether (DIPE)	50.0	53.4		ug/Kg		107	60 - 140
Ethyl-t-butyl ether (ETBE)	50.0	55.4		ug/Kg		111	60 - 140
tert-Butyl alcohol (TBA)	250	287		ug/Kg		115	70 - 135
p-Isopropyltoluene	50.0	53.6		ug/Kg		107	75 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	93		80 - 125

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-3523-A-24 MS**

**Matrix: Solid**

**Analysis Batch: 9649**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Result			Result						
1,1,1,2-Tetrachloroethane	ND		50.0	49.6		ug/Kg		99		65 - 145
1,1,1-Trichloroethane	ND		50.0	51.0		ug/Kg		102		65 - 145
1,1,2,2-Tetrachloroethane	ND		50.0	62.6		ug/Kg		125		40 - 160
1,1,2-Trichloroethane	ND		50.0	51.8		ug/Kg		104		65 - 140
1,1-Dichloroethane	ND		50.0	48.4		ug/Kg		97		65 - 135
1,1-Dichloroethene	ND		50.0	45.4		ug/Kg		91		65 - 135
1,1-Dichloropropene	ND		50.0	51.4		ug/Kg		103		65 - 135
1,2,3-Trichlorobenzene	ND		50.0	45.2		ug/Kg		90		45 - 145
1,2,3-Trichloropropane	ND		50.0	59.0		ug/Kg		118		50 - 150
1,2,4-Trichlorobenzene	ND		50.0	47.2		ug/Kg		94		50 - 140
1,2,4-Trimethylbenzene	ND		50.0	55.2		ug/Kg		110		65 - 140
1,2-Dibromo-3-Chloropropane	ND		50.0	58.8		ug/Kg		118		40 - 150
1,2-Dibromoethane (EDB)	ND		50.0	55.0		ug/Kg		110		65 - 140
1,2-Dichlorobenzene	ND		50.0	51.4		ug/Kg		103		70 - 130
1,2-Dichloroethane	ND		50.0	51.8		ug/Kg		104		60 - 150
1,2-Dichloropropane	ND		50.0	50.8		ug/Kg		102		65 - 130
1,3,5-Trimethylbenzene	ND		50.0	55.8		ug/Kg		112		65 - 135
1,3-Dichlorobenzene	ND		50.0	52.0		ug/Kg		104		70 - 130
1,3-Dichloropropane	ND		50.0	53.0		ug/Kg		106		65 - 140
1,4-Dichlorobenzene	ND		50.0	51.2		ug/Kg		102		70 - 130
2,2-Dichloropropane	ND		50.0	64.4		ug/Kg		129		65 - 150
2-Chlorotoluene	ND		50.0	54.6		ug/Kg		109		60 - 135
4-Chlorotoluene	ND		50.0	55.6		ug/Kg		111		65 - 135
Benzene	ND		50.0	48.6		ug/Kg		97		65 - 130
Bromobenzene	ND		50.0	51.4		ug/Kg		103		65 - 140
Bromochloromethane	ND		50.0	45.2		ug/Kg		90		65 - 145
Bromodichloromethane	ND		50.0	49.4		ug/Kg		99		65 - 145
Bromoform	ND		50.0	53.6		ug/Kg		107		50 - 145
Bromomethane	ND		50.0	41.8		ug/Kg		84		60 - 155
Carbon tetrachloride	ND		50.0	56.2		ug/Kg		112		60 - 145
Chlorobenzene	ND		50.0	51.2		ug/Kg		102		70 - 130
Chloroethane	ND		50.0	41.2		ug/Kg		82		60 - 150
Chloroform	ND		50.0	47.8		ug/Kg		96		65 - 135
Chloromethane	ND		50.0	34.4		ug/Kg		69		40 - 145
cis-1,2-Dichloroethene	ND		50.0	47.4		ug/Kg		95		65 - 135
cis-1,3-Dichloropropene	ND		50.0	50.8		ug/Kg		102		70 - 135
Dibromochloromethane	ND		50.0	48.8		ug/Kg		98		60 - 145
Dibromomethane	ND		50.0	51.2		ug/Kg		102		65 - 140
Dichlorodifluoromethane	ND		50.0	26.0		ug/Kg		52		30 - 160
Ethylbenzene	ND		50.0	51.6		ug/Kg		103		70 - 135
Hexachlorobutadiene	ND		50.0	43.8		ug/Kg		88		50 - 145
Isopropylbenzene	ND		50.0	51.8		ug/Kg		104		70 - 145
m,p-Xylene	ND		100	104		ug/Kg		104		70 - 130
Methylene Chloride	ND		50.0	44.4		ug/Kg		89		55 - 145
Methyl-t-Butyl Ether (MTBE)	ND		50.0	50.0		ug/Kg		100		55 - 155
Naphthalene	ND		50.0	50.6		ug/Kg		101		40 - 150
n-Butylbenzene	ND		50.0	54.0		ug/Kg		108		55 - 145
N-Propylbenzene	ND		50.0	56.4		ug/Kg		113		65 - 140
o-Xylene	ND		50.0	50.8		ug/Kg		102		65 - 130

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-3523-A-24 MS**

**Matrix: Solid**

**Analysis Batch: 9649**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
sec-Butylbenzene	ND		50.0	55.4		ug/Kg		111	60 - 135	
Styrene	ND		50.0	51.0		ug/Kg		102	70 - 140	
Tert-amyl-methyl ether (TAME)	ND		50.0	51.8		ug/Kg		104	60 - 150	
tert-Butylbenzene	ND		50.0	56.6		ug/Kg		113	60 - 140	
Tetrachloroethene	ND		50.0	51.0		ug/Kg		102	65 - 135	
Toluene	ND		50.0	49.6		ug/Kg		99	70 - 130	
trans-1,2-Dichloroethene	ND		50.0	47.2		ug/Kg		94	70 - 135	
trans-1,3-Dichloropropene	ND		50.0	53.4		ug/Kg		107	60 - 145	
Trichloroethene	ND		50.0	48.8		ug/Kg		98	65 - 140	
Trichlorofluoromethane	ND		50.0	48.4		ug/Kg		97	55 - 155	
Vinyl chloride	ND		50.0	38.2		ug/Kg		76	55 - 140	
Isopropyl Ether (DIPE)	ND		50.0	47.2		ug/Kg		94	60 - 150	
Ethyl-t-butyl ether (ETBE)	ND		50.0	49.0		ug/Kg		98	60 - 145	
tert-Butyl alcohol (TBA)	ND		250	274		ug/Kg		109	65 - 145	
p-Isopropyltoluene	ND		50.0	54.8		ug/Kg		110	60 - 140	

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	90		80 - 125

**Lab Sample ID: 440-3523-A-24 MSD**

**Matrix: Solid**

**Analysis Batch: 9649**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		49.5	49.5		ug/Kg		100	65 - 145	0	20	
1,1,1-Trichloroethane	ND		49.5	50.7		ug/Kg		102	65 - 145	1	20	
1,1,1,2-Tetrachloroethane	ND		49.5	59.8		ug/Kg		121	40 - 160	5	30	
1,1,2-Trichloroethane	ND		49.5	50.7		ug/Kg		102	65 - 140	2	30	
1,1-Dichloroethane	ND		49.5	47.9		ug/Kg		97	65 - 135	1	25	
1,1-Dichloroethene	ND		49.5	45.3		ug/Kg		92	65 - 135	0	25	
1,1-Dichloropropene	ND		49.5	51.1		ug/Kg		103	65 - 135	1	20	
1,2,3-Trichlorobenzene	ND		49.5	48.3		ug/Kg		98	45 - 145	7	30	
1,2,3-Trichloropropane	ND		49.5	56.0		ug/Kg		113	50 - 150	5	30	
1,2,4-Trichlorobenzene	ND		49.5	50.1		ug/Kg		101	50 - 140	6	30	
1,2,4-Trimethylbenzene	ND		49.5	54.5		ug/Kg		110	65 - 140	1	25	
1,2-Dibromo-3-Chloropropane	ND		49.5	57.2		ug/Kg		116	40 - 150	3	30	
1,2-Dibromoethane (EDB)	ND		49.5	54.9		ug/Kg		111	65 - 140	0	25	
1,2-Dichlorobenzene	ND		49.5	51.3		ug/Kg		104	70 - 130	0	25	
1,2-Dichloroethane	ND		49.5	51.9		ug/Kg		105	60 - 150	0	25	
1,2-Dichloropropane	ND		49.5	50.3		ug/Kg		102	65 - 130	1	20	
1,3,5-Trimethylbenzene	ND		49.5	54.5		ug/Kg		110	65 - 135	2	25	
1,3-Dichlorobenzene	ND		49.5	51.7		ug/Kg		104	70 - 130	1	25	
1,3-Dichloropropane	ND		49.5	53.1		ug/Kg		107	65 - 140	0	25	
1,4-Dichlorobenzene	ND		49.5	51.1		ug/Kg		103	70 - 130	0	25	
2,2-Dichloropropane	ND		49.5	65.1		ug/Kg		132	65 - 150	1	25	
2-Chlorotoluene	ND		49.5	53.9		ug/Kg		109	60 - 135	1	25	
4-Chlorotoluene	ND		49.5	54.7		ug/Kg		110	65 - 135	2	25	

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-3523-A-24 MSD

Matrix: Solid

Analysis Batch: 9649

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Benzene	ND		49.5	47.9		ug/Kg		97	65 - 130	1	20
Bromobenzene	ND		49.5	50.5		ug/Kg		102	65 - 140	2	25
Bromochloromethane	ND		49.5	44.8		ug/Kg		90	65 - 145	1	25
Bromodichloromethane	ND		49.5	48.9		ug/Kg		99	65 - 145	1	20
Bromoform	ND		49.5	54.3		ug/Kg		110	50 - 145	1	30
Bromomethane	ND		49.5	41.2		ug/Kg		83	60 - 155	1	25
Carbon tetrachloride	ND		49.5	56.4		ug/Kg		114	60 - 145	0	25
Chlorobenzene	ND		49.5	51.3		ug/Kg		104	70 - 130	0	25
Chloroethane	ND		49.5	40.8		ug/Kg		82	60 - 150	1	25
Chloroform	ND		49.5	47.7		ug/Kg		96	65 - 135	0	20
Chloromethane	ND		49.5	33.3		ug/Kg		67	40 - 145	3	25
cis-1,2-Dichloroethene	ND		49.5	47.5		ug/Kg		96	65 - 135	0	25
cis-1,3-Dichloropropene	ND		49.5	50.9		ug/Kg		103	70 - 135	0	25
Dibromochloromethane	ND		49.5	49.1		ug/Kg		99	60 - 145	1	25
Dibromomethane	ND		49.5	50.5		ug/Kg		102	65 - 140	1	25
Dichlorodifluoromethane	ND		49.5	25.5		ug/Kg		52	30 - 160	2	35
Ethylbenzene	ND		49.5	51.7		ug/Kg		104	70 - 135	0	25
Hexachlorobutadiene	ND		49.5	48.3		ug/Kg		98	50 - 145	10	35
Isopropylbenzene	ND		49.5	50.1		ug/Kg		101	70 - 145	3	25
m,p-Xylene	ND		99.0	105		ug/Kg		106	70 - 130	1	25
Methylene Chloride	ND		49.5	44.2		ug/Kg		89	55 - 145	1	25
Methyl-t-Butyl Ether (MTBE)	ND		49.5	49.5		ug/Kg		100	55 - 155	1	35
Naphthalene	ND		49.5	52.3		ug/Kg		106	40 - 150	3	40
n-Butylbenzene	ND		49.5	55.0		ug/Kg		111	55 - 145	2	30
N-Propylbenzene	ND		49.5	54.7		ug/Kg		110	65 - 140	3	25
o-Xylene	ND		49.5	50.7		ug/Kg		102	65 - 130	0	25
sec-Butylbenzene	ND		49.5	55.0		ug/Kg		111	60 - 135	1	25
Styrene	ND		49.5	51.5		ug/Kg		104	70 - 140	1	25
Tert-amyl-methyl ether (TAME)	ND		49.5	52.3		ug/Kg		106	60 - 150	1	25
tert-Butylbenzene	ND		49.5	55.4		ug/Kg		112	60 - 140	2	25
Tetrachloroethene	ND		49.5	51.3		ug/Kg		104	65 - 135	1	25
Toluene	ND		49.5	49.7		ug/Kg		100	70 - 130	0	20
trans-1,2-Dichloroethene	ND		49.5	47.3		ug/Kg		96	70 - 135	0	25
trans-1,3-Dichloropropene	ND		49.5	53.1		ug/Kg		107	60 - 145	1	25
Trichloroethene	ND		49.5	48.9		ug/Kg		99	65 - 140	0	25
Trichlorofluoromethane	ND		49.5	47.7		ug/Kg		96	55 - 155	1	25
Vinyl chloride	ND		49.5	37.4		ug/Kg		76	55 - 140	2	30
Isopropyl Ether (DIPE)	ND		49.5	47.3		ug/Kg		96	60 - 150	0	25
Ethyl-t-butyl ether (ETBE)	ND		49.5	49.3		ug/Kg		100	60 - 145	1	30
tert-Butyl alcohol (TBA)	ND		248	265		ug/Kg		107	65 - 145	3	30
p-Isopropyltoluene	ND		49.5	55.0		ug/Kg		111	60 - 140	0	25

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	90		80 - 125

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8015B - Gasoline Range Organics - (GC)

**Lab Sample ID: MB 440-9903/4**

**Matrix: Solid**

**Analysis Batch: 9903**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			02/28/12 10:53	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		65 - 140					02/28/12 10:53	1

**Lab Sample ID: LCS 440-9903/2**

**Matrix: Solid**

**Analysis Batch: 9903**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	1600	1390		ug/Kg		87	70 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	135		65 - 140				

**Lab Sample ID: LCSD 440-9903/3**

**Matrix: Solid**

**Analysis Batch: 9903**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	1600	1390		ug/Kg		87	70 - 135	0	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	125		65 - 140						

**Lab Sample ID: 440-3070-A-3 MS**

**Matrix: Solid**

**Analysis Batch: 9903**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	ND		1430	1190		ug/Kg		83	60 - 140
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	101		65 - 140						

**Lab Sample ID: 440-3070-A-3 MSD**

**Matrix: Solid**

**Analysis Batch: 9903**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		1440	1150		ug/Kg		80	60 - 140	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	94		65 - 140								

# QC Sample Results

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 440-8290/1-A**

**Matrix: Solid**

**Analysis Batch: 8456**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 8290**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		02/20/12 09:48	02/20/12 21:12	1
C23-C40	ND		5.0		mg/Kg		02/20/12 09:48	02/20/12 21:12	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	75		40 - 140				02/20/12 09:48	02/20/12 21:12	1

**Lab Sample ID: LCS 440-8290/2-A**

**Matrix: Solid**

**Analysis Batch: 8456**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 8290**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
C10-C28	33.3	27.0		mg/Kg		81	45 - 115
Surrogate	%Recovery	LCS Qualifier	Limits				
n-Octacosane	81		40 - 140				

**Lab Sample ID: 440-3025-H-1-A MS**

**Matrix: Solid**

**Analysis Batch: 8456**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 8290**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
C10-C28	5.3		33.3	38.3		mg/Kg		99	40 - 120
Surrogate	%Recovery	MS Qualifier	Limits						
n-Octacosane	82		40 - 140						

**Lab Sample ID: 440-3025-H-1-B MSD**

**Matrix: Solid**

**Analysis Batch: 8456**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 8290**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	5.3		33.3	32.5		mg/Kg		82	40 - 120	16	30
Surrogate	%Recovery	MSD Qualifier	Limits								
n-Octacosane	82		40 - 140								

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-8342/1-A ^5**

**Matrix: Solid**

**Analysis Batch: 9453**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 8342**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0		mg/Kg		02/20/12 13:48	02/24/12 14:44	5

# QC Sample Results

Client: Stantec Consulting Corp.  
 Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 440-8342/2-A ^5**

**Matrix: Solid**

**Analysis Batch: 9453**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 8342**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Lead	50.0	50.2		mg/Kg		100	80 - 120

**Lab Sample ID: 440-2645-A-1-B MS ^5**

**Matrix: Solid**

**Analysis Batch: 9453**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 8342**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Lead	9.9		50.8	65.0		mg/Kg		109	75 - 125

**Lab Sample ID: 440-2645-A-1-C MSD ^5**

**Matrix: Solid**

**Analysis Batch: 9453**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 8342**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Lead	9.9		50.3	61.2		mg/Kg		102	75 - 125	6	20

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## GC/MS VOA

### Analysis Batch: 8387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-2954-A-1 MS	Matrix Spike	Total/NA	Solid	8260B	
440-2954-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	
440-3029-8	WB8-S-18'	Total/NA	Solid	8260B	
440-3029-12	WB9-S-18'	Total/NA	Solid	8260B	
LCS 440-8387/6	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-8387/5	Method Blank	Total/NA	Solid	8260B	

### Analysis Batch: 9275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3029-13	WB9-GW	Total/NA	Water	8260B	
440-3074-G-7 MS	Matrix Spike	Total/NA	Water	8260B	
440-3074-G-7 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 440-9275/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-9275/4	Method Blank	Total/NA	Water	8260B	

### Analysis Batch: 9649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3029-4	WB7-S-17'	Total/NA	Solid	8260B	
440-3523-A-24 MS	Matrix Spike	Total/NA	Solid	8260B	
440-3523-A-24 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	
LCS 440-9649/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-9649/3	Method Blank	Total/NA	Solid	8260B	

## GC VOA

### Analysis Batch: 9903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3029-4	WB7-S-17'	Total/NA	Solid	8015B	
440-3029-8	WB8-S-18'	Total/NA	Solid	8015B	
440-3029-12	WB9-S-18'	Total/NA	Solid	8015B	
440-3070-A-3 MS	Matrix Spike	Total/NA	Solid	8015B	
440-3070-A-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	
LCS 440-9903/2	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-9903/3	Lab Control Sample Dup	Total/NA	Solid	8015B	
MB 440-9903/4	Method Blank	Total/NA	Solid	8015B	

## GC Semi VOA

### Prep Batch: 8290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3025-H-1-A MS	Matrix Spike	Total/NA	Solid	CA LUFT	
440-3025-H-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	CA LUFT	
440-3029-4	WB7-S-17'	Total/NA	Solid	CA LUFT	
440-3029-8	WB8-S-18'	Total/NA	Solid	CA LUFT	
440-3029-12	WB9-S-18'	Total/NA	Solid	CA LUFT	
LCS 440-8290/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-8290/1-A	Method Blank	Total/NA	Solid	CA LUFT	

### Analysis Batch: 8456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3025-H-1-A MS	Matrix Spike	Total/NA	Solid	8015B	8290
440-3025-H-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	8290

# QC Association Summary

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## GC Semi VOA (Continued)

### Analysis Batch: 8456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-3029-4	WB7-S-17'	Total/NA	Solid	8015B	8290
440-3029-8	WB8-S-18'	Total/NA	Solid	8015B	8290
440-3029-12	WB9-S-18'	Total/NA	Solid	8015B	8290
LCS 440-8290/2-A	Lab Control Sample	Total/NA	Solid	8015B	8290
MB 440-8290/1-A	Method Blank	Total/NA	Solid	8015B	8290

## Metals

### Prep Batch: 8342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-2645-A-1-B MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-2645-A-1-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	
440-3029-4	WB7-S-17'	Total/NA	Solid	3050B	
LCS 440-8342/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-8342/1-A ^5	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 9453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-2645-A-1-B MS ^5	Matrix Spike	Total/NA	Solid	6010B	8342
440-2645-A-1-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	8342
440-3029-4	WB7-S-17'	Total/NA	Solid	6010B	8342
LCS 440-8342/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	8342
MB 440-8342/1-A ^5	Method Blank	Total/NA	Solid	6010B	8342

# Definitions/Glossary

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



## Certification Summary

Client: Stantec Consulting Corp.  
Project/Site: Olson-Costa Mesa Former Randy's Auto

TestAmerica Job ID: 440-3029-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 10.001r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

440-3029

# CHAIN OF CUSTODY FORM

25864-F Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120



**Stantec**

Page 1 of 1

Client Name/Address:		Project/PO Number:				Analysis Required		Special Instructions	
Stantec 25864-F Business Center Drive Redlands, CA 92374		Olson - Costa Mesa Former Randy's Automotive 185802644							
Project Manager:		Phone Number:		Fax Number:				Special Instructions	
Kyle Emerson		909-335-6116		909-335-6120					
Email Address:		Sample Matrix		Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	
kyle.emerson@stantec.com		S		5-gallon	1	2-17-12	0718	None/IC	
Sampler:		Sample Description		Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	
Kenny Toro - Kenny.toro@stantec.com		WB7 - S - 5'		5-gallon	1		0722		
		WB7 - S - 10'		5-gallon	1		0728		
		WB7 - S - 15'		5-gallon	1		0733		
		WB8 - S - 5'		5-gallon	1		0803		
		WB8 - S - 10'		5-gallon	1		0806		
		WB8 - S - 15'		5-gallon	1		0811		
		WB8 - S - 18'		5-gallon	1		0815		
		WB9 - S - 5'		5-gallon	1		0830		
		WB9 - S - 10'		5-gallon	1		0834		
		WB9 - S - 15'		5-gallon	1		0840		
		WB9 - S - 18'		5-gallon	1		0844		
		W09-GW		WDA	2		1105	HCl/IC	
Relinquished By:		Date/Time:		Received By:		Date/Time:		Turn Around Time:	
Kenny Toro		2-17-12 / 1520		[Signature]		2/17/12 15:20		RUSH 72 hours Same day 5 days 24 hours normal 48 hours on ice	
Relinquished By:		Date/Time:		Received in Lab By:		Date/Time:		Sample Integrity: (Check)	
[Signature]				[Signature]				intact <input checked="" type="checkbox"/> 6.9	

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

## Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 440-3029-1

**Login Number: 3029**

**List Source: TestAmerica Irvine**

**List Number: 1**

**Creator: Kim, Will**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





23 February 2012



Ms. Kristen Daly  
Stantec - Redlands  
25864 F. Business Center Dr.  
Redlands, CA 92374

H&P Project: ST021612-SB1  
Client Project: 185802644 / Hamilton Street

Dear Ms. Kristen Daly:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 2/16/2012 -2/17/2012 which were analyzed in accordance with the attached Chain of Custody record(s).

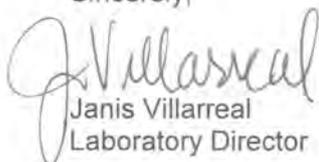
The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

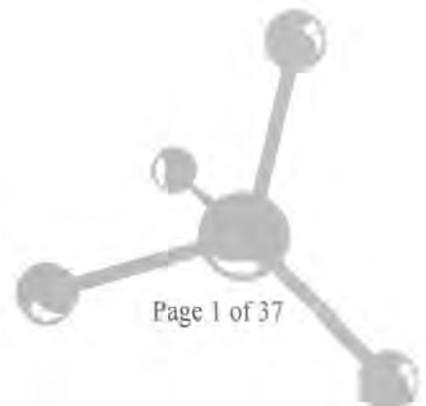
  
Janis Villarreal  
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB2-SV-5', 1PV, P111cc	E202048-01	Vapor	16-Feb-12	16-Feb-12
EB2-SV-5', 3PV, P333cc	E202048-02	Vapor	16-Feb-12	16-Feb-12
EB2-SV-5', 7PV, P777cc	E202048-03	Vapor	16-Feb-12	16-Feb-12
EB2-SV-15', P121cc	E202048-04	Vapor	16-Feb-12	16-Feb-12
EB1-SV-5', P111cc	E202048-05	Vapor	16-Feb-12	16-Feb-12
EB1-SV-5' Dup, P161cc	E202048-06	Vapor	16-Feb-12	16-Feb-12
EB1-SV-15', P121cc	E202048-07	Vapor	16-Feb-12	16-Feb-12
EB4-SV-5', P111cc	E202048-08	Vapor	16-Feb-12	16-Feb-12
EB4-SV-15', P121cc	E202048-09	Vapor	16-Feb-12	16-Feb-12
EB3-SV-5', P111cc	E202048-10	Vapor	16-Feb-12	16-Feb-12
EB3-SV-15', P121cc	E202048-11	Vapor	16-Feb-12	16-Feb-12
EB5-SV-5', P111cc	E202048-12	Vapor	16-Feb-12	16-Feb-12
EB5-SV-15', P121cc	E202048-13	Vapor	16-Feb-12	16-Feb-12
EB6-SV-5', P111cc	E202048-14	Vapor	16-Feb-12	16-Feb-12
EB6-SV-15', P121cc	E202048-15	Vapor	16-Feb-12	16-Feb-12
WB3-SV-5', P111cc	E202056-01	Vapor	17-Feb-12	17-Feb-12
WB3-SV-15', P121cc	E202056-02	Vapor	17-Feb-12	17-Feb-12
WB4-SV-5', P111cc	E202056-03	Vapor	17-Feb-12	17-Feb-12
WB4-SV-15', P121cc	E202056-04	Vapor	17-Feb-12	17-Feb-12
WB2-SV-5', P111cc	E202056-05	Vapor	17-Feb-12	17-Feb-12
WB2-SV-15', P121cc	E202056-06	Vapor	17-Feb-12	17-Feb-12
WB5-SV-5', P111cc	E202056-07	Vapor	17-Feb-12	17-Feb-12
WB5-SV-15', P121cc	E202056-08	Vapor	17-Feb-12	17-Feb-12
WB1-SV-5', P111cc	E202056-09	Vapor	17-Feb-12	17-Feb-12
WB1-SV-15', P121cc	E202056-10	Vapor	17-Feb-12	17-Feb-12
WB6-SV-5', P111cc	E202056-11	Vapor	17-Feb-12	17-Feb-12
WB6-SV-5' Dup, P161cc	E202056-12	Vapor	17-Feb-12	17-Feb-12
WB6-SV-15', P121cc	E202056-13	Vapor	17-Feb-12	17-Feb-12



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**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB2-SV-5', 1PV, P111cc (E202048-01) Vapor Sampled: 16-Feb-12 Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	120 %	75-125	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	113 %	75-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	75-125	"	"	"	"	"	"	



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**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB2-SV-5', 3PV, P333cc (E202048-02) Vapor Sampled: 16-Feb-12 Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<hr/>									
Surrogate: Dibromofluoromethane		116 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		108 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %		75-125	"	"	"	"	



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**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB2-SV-5', 7PV, P777cc (E202048-03) Vapor Sampled: 16-Feb-12 Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		121 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		122 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		110 %		75-125	"	"	"	"	



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**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB2-SV-15', P121cc (E202048-04) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		102 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		115 %		75-125	"	"	"	"	



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**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB1-SV-5', P111cc (E202048-05) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		106 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		110 %		75-125	"	"	"	"	



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**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB1-SV-5' Dup, P161cc (E202048-06) Vapor Sampled: 16-Feb-12 Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		108 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		113 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		111 %		75-125	"	"	"	"	



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB1-SV-15', P121cc (E202048-07) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
<b>Chloroform</b>	<b>0.10</b>	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<hr/>									
Surrogate: Dibromofluoromethane		102 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		104 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		117 %		75-125	"	"	"	"	



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB4-SV-5', P111cc (E202048-08) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<hr/>									
Surrogate: Dibromofluoromethane		104 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		105 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %		75-125	"	"	"	"	



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 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB4-SV-15', P121cc (E202048-09) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.2	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	2.0	"	"	"	"	"	"	
Vinyl chloride	ND	0.16	"	"	"	"	"	"	
Chloroethane	ND	2.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	2.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	2.0	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	2.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	2.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	2.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	2.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	2.0	"	"	"	"	"	"	
Chloroform	ND	0.40	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	2.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.32	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.40	"	"	"	"	"	"	
<b>Benzene</b>	<b>4.8</b>	0.40	"	"	"	"	"	"	
Trichloroethene	ND	0.40	"	"	"	"	"	"	
Toluene	ND	4.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	2.0	"	"	"	"	"	"	
Tetrachloroethene	ND	0.40	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>2.9</b>	2.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	2.0	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>2.2</b>	2.0	"	"	"	"	"	"	
o-Xylene	ND	2.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	2.0	"	"	"	"	"	"	

<i>Surrogate: Dibromofluoromethane</i>	104 %	75-125	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	121 %	75-125	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	116 %	75-125	"	"	"	"	"	"	



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Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB3-SV-5', P111cc (E202048-10) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.04	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.04	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.08	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
<b>Benzene</b>	<b>0.72</b>	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		98.0 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		122 %		75-125	"	"	"	"	



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 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB3-SV-15', P121cc (E202048-11) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	1	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	10	"	"	"	"	"	"	
Vinyl chloride	ND	0.80	"	"	"	"	"	"	
Chloroethane	ND	10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	10	"	"	"	"	"	"	
Chloroform	ND	2.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	10	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.6	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	2.0	"	"	"	"	"	"	
<b>Benzene</b>	<b>360</b>	2.0	"	"	"	"	"	"	
Trichloroethene	ND	2.0	"	"	"	"	"	"	
Toluene	ND	20	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	10	"	"	"	"	"	"	
Tetrachloroethene	ND	2.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>36</b>	10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	10	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	111 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	114 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	116 %	75-125	"	"	"	"	"	"



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB5-SV-5', P111cc (E202048-12) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.04	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.04	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.08	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
<b>Benzene</b>	<b>0.12</b>	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	

<i>Surrogate: Dibromofluoromethane</i>	<i>100 %</i>	<i>75-125</i>	<i>"</i>						
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>89.2 %</i>	<i>75-125</i>	<i>"</i>						
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>120 %</i>	<i>75-125</i>	<i>"</i>						



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Project: ST021612-SB1  
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 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB5-SV-15', P121cc (E202048-13) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12    R-05</b>									
1,1-Difluoroethane (LCC)	ND	20	ug/l	2	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	20	"	"	"	"	"	"	
Vinyl chloride	ND	1.6	"	"	"	"	"	"	
Chloroethane	ND	20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	20	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	20	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	20	"	"	"	"	"	"	
Chloroform	ND	4.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	20	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.2	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.0	"	"	"	"	"	"	
Benzene	ND	4.0	"	"	"	"	"	"	
Trichloroethene	ND	4.0	"	"	"	"	"	"	
Toluene	ND	40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	20	"	"	"	"	"	"	
Tetrachloroethene	ND	4.0	"	"	"	"	"	"	
Ethylbenzene	ND	20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	20	"	"	"	"	"	"	
m,p-Xylene	ND	20	"	"	"	"	"	"	
o-Xylene	ND	20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	20	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		89.5 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		121 %		75-125	"	"	"	"	



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Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB6-SV-5', P111cc (E202048-14) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.04	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.04	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.08	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		97.8 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		87.7 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		115 %		75-125	"	"	"	"	



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>EB6-SV-15', P121cc (E202048-15) Vapor    Sampled: 16-Feb-12    Received: 16-Feb-12    R-05</b>									
1,1-Difluoroethane (LCC)	ND	20	ug/l	2	EB21601	16-Feb-12	16-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	20	"	"	"	"	"	"	
Vinyl chloride	ND	1.6	"	"	"	"	"	"	
Chloroethane	ND	20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	20	"	"	"	"	"	"	
1,1-Dichloroethene	ND	20	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	20	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	20	"	"	"	"	"	"	
Chloroform	ND	4.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	20	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.2	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.0	"	"	"	"	"	"	
Benzene	ND	4.0	"	"	"	"	"	"	
Trichloroethene	ND	4.0	"	"	"	"	"	"	
Toluene	ND	40	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	20	"	"	"	"	"	"	
Tetrachloroethene	ND	4.0	"	"	"	"	"	"	
Ethylbenzene	ND	20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	20	"	"	"	"	"	"	
m,p-Xylene	ND	20	"	"	"	"	"	"	
o-Xylene	ND	20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	20	"	"	"	"	"	"	

<i>Surrogate: Dibromofluoromethane</i>	<i>107 %</i>	<i>75-125</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>90.0 %</i>	<i>75-125</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>121 %</i>	<i>75-125</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>



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Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB3-SV-5', P111cc (E202056-01) Vapor    Sampled: 17-Feb-12    Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<hr/>									
Surrogate: Dibromofluoromethane		112 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		106 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %		75-125	"	"	"	"	



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Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB3-SV-15', P121cc (E202056-02) Vapor Sampled: 17-Feb-12 Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		107 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		87.3 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		118 %		75-125	"	"	"	"	



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Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB4-SV-5', P111cc (E202056-03) Vapor    Sampled: 17-Feb-12    Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		109 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.1 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		109 %		75-125	"	"	"	"	



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 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB4-SV-15', P121cc (E202056-04) Vapor Sampled: 17-Feb-12 Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<hr/>									
Surrogate: Dibromofluoromethane		122 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		114 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118 %		75-125	"	"	"	"	



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Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB2-SV-5', P111cc (E202056-05) Vapor    Sampled: 17-Feb-12    Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	

<i>Surrogate: Dibromofluoromethane</i>	<i>115 %</i>	<i>75-125</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>107 %</i>	<i>75-125</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>112 %</i>	<i>75-125</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>



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**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB2-SV-15', P121cc (E202056-06) Vapor Sampled: 17-Feb-12 Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		109 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		114 %		75-125	"	"	"	"	





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Stantec - Redlands  
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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB5-SV-15', P121cc (E202056-08) Vapor Sampled: 17-Feb-12 Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<hr/>									
Surrogate: Dibromofluoromethane		111 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		104 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %		75-125	"	"	"	"	



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB1-SV-5', P111cc (E202056-09) Vapor    Sampled: 17-Feb-12    Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		116 %		75-125	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %		75-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		112 %		75-125	"	"	"	"	



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB1-SV-15', P121cc (E202056-10) Vapor Sampled: 17-Feb-12 Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	1	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	10	"	"	"	"	"	"	
Vinyl chloride	ND	0.80	"	"	"	"	"	"	
Chloroethane	ND	10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	10	"	"	"	"	"	"	
Chloroform	ND	2.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	10	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	2.0	"	"	"	"	"	"	
Benzene	ND	2.0	"	"	"	"	"	"	
Trichloroethene	ND	2.0	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	10	"	"	"	"	"	"	
Tetrachloroethene	ND	2.0	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	10	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	102 %	75-125	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	94.4 %	75-125	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	118 %	75-125	"	"	"	"	"	"



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB6-SV-5', P111cc (E202056-11) Vapor    Sampled: 17-Feb-12    Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	109 %	75-125	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4	108 %	75-125	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	106 %	75-125	"	"	"	"	"



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB6-SV-5' Dup, P161cc (E202056-12) Vapor Sampled: 17-Feb-12 Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	

Surrogate: Dibromofluoromethane	119 %	75-125	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	115 %	75-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	108 %	75-125	"	"	"	"	"	"	



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>WB6-SV-15', P121cc (E202056-13) Vapor Sampled: 17-Feb-12 Received: 17-Feb-12</b>									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.01	EB21701	17-Feb-12	17-Feb-12	EPA 8260B	
Dichlorodifluoromethane (F12)	ND	0.30	"	"	"	"	"	"	
Vinyl chloride	ND	0.01	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.30	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.02	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.02	"	"	"	"	"	"	
Benzene	ND	0.02	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.30	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.30	"	"	"	"	"	"	
o-Xylene	ND	0.30	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
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Surrogate: Dibromofluoromethane		118 %		75-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		115 %		75-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %		75-125	"	"	"	"	



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Stantec - Redlands 25864 F. Business Center Dr. Redlands, CA 92374	Project: ST021612-SB1 Project Number: 185802644 / Hamilton Street Project Manager: Ms. Kristen Daly	Reported: 23-Feb-12 13:15
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**Volatile Organic Compounds by 8260SV - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB21601 - EPA 5030**

**Blank (EB21601-BLK1)**

Prepared & Analyzed: 16-Feb-12

1,1-Difluoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane (F12)	ND	0.30	"							
Vinyl chloride	ND	0.01	"							
Chloroethane	ND	0.20	"							
Trichlorofluoromethane (F11)	ND	0.30	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.10	"							
1,1,1-Trichloroethane	ND	0.10	"							
Carbon tetrachloride	ND	0.02	"							
1,2-Dichloroethane (EDC)	ND	0.02	"							
Benzene	ND	0.02	"							
Trichloroethene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
Ethylbenzene	ND	0.30	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							
m,p-Xylene	ND	0.30	"							
o-Xylene	ND	0.30	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
<i>Surrogate: Dibromofluoromethane</i>	3.01		"	2.50		120	75-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.93		"	2.50		117	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.76		"	2.50		110	75-125			



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Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB21601 - EPA 5030**

**LCS (EB21601-BS1)**

Prepared & Analyzed: 16-Feb-12

Dichlorodifluoromethane (F12)	2.09	0.50	ug/l	2.50		83.4	70-130			
Vinyl chloride	2.01	0.05	"	2.50		80.6	70-130			
Chloroethane	2.22	0.50	"	2.50		88.8	70-130			
Trichlorofluoromethane (F11)	2.63	0.50	"	2.50		105	70-130			
1,1-Dichloroethene	2.58	0.50	"	2.50		103	70-130			
1,1,2 Trichlorotrifluoroethane (F113)	2.99	0.50	"	2.50		120	70-130			
Methylene chloride (Dichloromethane)	2.44	0.50	"	2.50		97.4	70-130			
trans-1,2-Dichloroethene	2.76	0.50	"	2.50		111	70-130			
1,1-Dichloroethane	2.46	0.50	"	2.50		98.5	70-130			
cis-1,2-Dichloroethene	2.71	0.50	"	2.50		108	70-130			
Chloroform	2.71	0.50	"	2.50		108	70-130			
1,1,1-Trichloroethane	2.48	0.50	"	2.50		99.2	70-130			
Carbon tetrachloride	2.21	0.10	"	2.50		88.3	70-130			
1,2-Dichloroethane (EDC)	2.68	0.10	"	2.50		107	70-130			
Benzene	2.40	0.10	"	2.50		96.0	70-130			
Trichloroethene	2.87	0.50	"	2.50		115	70-130			
Toluene	2.17	1.0	"	2.50		86.8	70-130			
1,1,2-Trichloroethane	2.47	0.50	"	2.50		98.8	70-130			
Tetrachloroethene	2.89	0.50	"	2.50		116	70-130			
Ethylbenzene	2.58	0.50	"	2.50		103	70-130			
1,1,1,2-Tetrachloroethane	2.34	0.50	"	2.50		93.5	70-130			
m,p-Xylene	4.90	0.50	"	5.00		98.0	70-130			
o-Xylene	2.35	0.50	"	2.50		94.0	70-130			
1,1,2,2-Tetrachloroethane	2.38	0.50	"	2.50		95.2	70-130			
<i>Surrogate: Dibromofluoromethane</i>	2.71		"	2.50		109	75-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.54		"	2.50		102	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.90		"	2.50		116	75-125			



2470 Impala Drive  
 Carlsbad, CA 92010  
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 760-804-9159 Fax

Stantec - Redlands 25864 F. Business Center Dr. Redlands, CA 92374	Project: ST021612-SB1 Project Number: 185802644 / Hamilton Street Project Manager: Ms. Kristen Daly	Reported: 23-Feb-12 13:15
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**Volatile Organic Compounds by 8260SV - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB21701 - EPA 5030**

**Blank (EB21701-BLK1)**

Prepared & Analyzed: 17-Feb-12

1,1-Difluoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane (F12)	ND	0.30	"							
Vinyl chloride	ND	0.01	"							
Chloroethane	ND	0.20	"							
Trichlorofluoromethane (F11)	ND	0.30	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.30	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.10	"							
1,1,1-Trichloroethane	ND	0.10	"							
Carbon tetrachloride	ND	0.02	"							
1,2-Dichloroethane (EDC)	ND	0.02	"							
Benzene	ND	0.02	"							
Trichloroethene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
Ethylbenzene	ND	0.30	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							
m,p-Xylene	ND	0.30	"							
o-Xylene	ND	0.30	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
<i>Surrogate: Dibromofluoromethane</i>	2.79		"	2.50		112	75-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.53		"	2.50		101	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.78		"	2.50		111	75-125			



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Stantec - Redlands  
 25864 F. Business Center Dr.  
 Redlands, CA 92374

Project: ST021612-SB1  
 Project Number: 185802644 / Hamilton Street  
 Project Manager: Ms. Kristen Daly

Reported:  
 23-Feb-12 13:15

**Volatile Organic Compounds by 8260SV - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB21701 - EPA 5030**

**LCS (EB21701-BS1)**

Prepared & Analyzed: 17-Feb-12

Dichlorodifluoromethane (F12)	2.27	0.50	ug/l	2.50		90.9	70-130			
Vinyl chloride	2.37	0.05	"	2.50		95.0	70-130			
Chloroethane	2.65	0.50	"	2.50		106	70-130			
Trichlorofluoromethane (F11)	3.20	0.50	"	2.50		128	70-130			
1,1-Dichloroethene	2.79	0.50	"	2.50		112	70-130			
1,1,2 Trichlorotrifluoroethane (F113)	2.32	0.50	"	2.50		92.7	70-130			
Methylene chloride (Dichloromethane)	2.62	0.50	"	2.50		105	70-130			
trans-1,2-Dichloroethene	2.88	0.50	"	2.50		115	70-130			
1,1-Dichloroethane	2.63	0.50	"	2.50		105	70-130			
cis-1,2-Dichloroethene	2.94	0.50	"	2.50		118	70-130			
Chloroform	3.03	0.50	"	2.50		121	70-130			
1,1,1-Trichloroethane	2.92	0.50	"	2.50		117	70-130			
Carbon tetrachloride	3.03	0.10	"	2.50		121	70-130			
1,2-Dichloroethane (EDC)	2.67	0.10	"	2.50		107	70-130			
Benzene	2.50	0.10	"	2.50		100	70-130			
Trichloroethene	3.13	0.50	"	2.50		125	70-130			
Toluene	2.30	1.0	"	2.50		92.0	70-130			
1,1,2-Trichloroethane	2.74	0.50	"	2.50		110	70-130			
Tetrachloroethene	3.04	0.10	"	2.50		122	70-130			
Ethylbenzene	2.49	0.50	"	2.50		99.7	70-130			
1,1,1,2-Tetrachloroethane	3.04	0.50	"	2.50		122	70-130			
m,p-Xylene	4.93	0.50	"	5.00		98.6	70-130			
o-Xylene	2.34	0.50	"	2.50		93.5	70-130			
1,1,2,2-Tetrachloroethane	2.74	0.50	"	2.50		109	70-130			
<i>Surrogate: Dibromofluoromethane</i>	2.90		"	2.50		116	75-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.11		"	2.50		124	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.70		"	2.50		108	75-125			



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Stantec - Redlands  
25864 F. Business Center Dr.  
Redlands, CA 92374

Project: ST021612-SB1  
Project Number: 185802644 / Hamilton Street  
Project Manager: Ms. Kristen Daly

Reported:  
23-Feb-12 13:15

### Notes and Definitions

- R-05      The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
- DET      Analyte DETECTED
- ND      Analyte NOT DETECTED at or above the reporting limit
- NR      Not Reported
- dry      Sample results reported on a dry weight basis
- RPD      Relative Percent Difference



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Redlands, CA 92374

Project: ST021612-SB1  
Project Number: 185802644 / Hamilton Street  
Project Manager: Ms. Kristen Daly

Reported:  
23-Feb-12 13:15

## Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS  
Certificate# 2742, 2745, & 2741 approved for LUFT  
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A  
Hexachlorobutadiene by EPA TO-15 & TO-14A  
1,2,4-Trimethylbenzene by EPA TO -14A  
1,2-Dichlorobenzene by EPA TO-15 & TO-14A  
1,3,5-Trimethylbenzene by EPA TO -14A  
1,4-Dichlorobenzene by EPA TO-15 & TO-14A  
Benzene by EPA TO-15 & TO-14A  
Chlorobenzene by EPA TO-15 & TO-14A  
Ethyl benzene by EPA TO-15 & TO-14A  
Styrene by EPA TO-15 & TO-14A  
Toluene by EPA TO-15 & TO-14A  
Total Xylenes by EPA TO-15 & TO-14A  
1,1,1-Trichloroethane by EPA TO-15 & TO-14A  
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A  
1,1,2-Trichloroethane by EPA TO-15 & TO-14A  
1,1-Dichloroethane by EPA TO-15 & TO-14A  
1,1-Dichloroethene by EPA TO-15 & TO-14A  
1,2-Dichloroethane by EPA TO-15 & TO-14A  
1,2-Dichloropropane by EPA TO-15 & TO-14A  
Benzyl Chloride by EPA TO-15 & TO-14A  
Bromoform by EPA TO-15  
Bromomethane by EPA TO-15 & TO-14A  
Carbon tetrachloride by EPA TO-15 & TO-14A  
Chloroethane by EPA TO-15  
Chloroform by EPA TO-15 & TO-14A  
Chloromethane by EPA TO-15 & TO-14A  
cis-1,2-Dichloroethene by EPA TO-15  
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A  
Methylene chloride by EPA TO -15 & TO-14A  
Tetrachloroethane by EPA TO-15 & TO-14A  
trans-1,2-Dichloroethene by EPA TO-15  
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A  
Trichloroethene by EPA TO-15 & TO-14A  
Vinyl chloride by EPA TO -15 & TO-14A  
2-Butanone by EPA TO-15  
4-Methyl-2-Pentanone by EPA TO-15  
Hexane by EPA TO-15  
Methyl tert-butyl ether by EPA TO-15  
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.





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# Chain of Custody Record

2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159  
 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 2-16-12  
H&P Project # ST021612-SB1  
Outside Lab: \_\_\_\_\_

Client: Stantec Collector: C. Smith Page: 2 of 2  
Address: 25804 F Business Center Drive Client Project # 185802644 Project Contact: Kristen Daly  
Redlands, CA. 92374 Location: Hamilton Stand Harbor Blvd, Costa Mesa  
Email: Kristen.Daly@stantec.com, Kenny.toru@stantec.com Phone: 909-255-8213 Fax: \_\_\_\_\_ Turn around time: Field

Geotracker EDF: Yes  No   
Global ID: \_\_\_\_\_  
Excel EDD: Yes  No   
Sample Receipt  
Intact:  Yes  No  
Seal Intact:  Yes  No  N/A  
Cold:  Yes  No  N/A  
Temperature: N/A

Special Instructions:  
  
Lab Work Order # E202048/EB21601

Total # of containers

8260B Full List	<input type="checkbox"/> BTEX/OXY	<input type="checkbox"/> TPH gas
8260B	<input type="checkbox"/> g	<input type="checkbox"/> ext
8015M TPH	<input type="checkbox"/> d	
418.1 TRPH		
VOC's: Full List	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15
VOC's: Short List/DISC	<input checked="" type="checkbox"/> 8260B	<input type="checkbox"/> TO-15
VOC's: SAM, 8260B	<input type="checkbox"/> SAM A	<input type="checkbox"/> SAM B
Naphthalene	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15
Oxygenates	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15
TPHV gas	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15
Ketones	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15
Other	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15
Leak Check Compound	<input checked="" type="checkbox"/> 1,1 DFA	<input type="checkbox"/> OTHER
Methane		
Fixed Gases	<input type="checkbox"/> CO2	<input type="checkbox"/> O2
		<input type="checkbox"/> N2

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	SOIL/GW		SOIL VAPOR/AIR ANALYSIS												
11 EB3-SV-15'		P121cc	1204	2-16-12	Vapor	Glass Syringe	1			X												
12 EB5-SV-5'		P111cc	1253				1															
13 EB5-SV-15'		P121cc	1300				1															
14 EB6-SV-5'		P111cc	1355				1															
15 EB6-SV-15'		P121cc	1400				1															

Relinquished by: (Signature)	(company) <u>Stantec</u>	Received by: (Signature)	(company) <u>H&amp;P Mobile</u>	Date: <u>2-16-12</u>	Time: <u>3:30 pm</u>
Relinquished by: (Signature) _____	(company) _____	Received by: (Signature) _____	(company) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	(company) _____	Received by: (Signature) _____	(company) _____	Date: _____	Time: _____

\*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.  
Sample disposal instruction:  Disposal  Return to client  Pickup





Mobile  
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Inc.

# Chain of Custody Record

2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159  
 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 2-17-12  
H&P Project # ST021612-SB1  
Outside Lab: \_\_\_\_\_

Client: Stantec Collector: C. Smith Page: 2 of 2  
Address: 25804 F Business Center Dr Client Project # 185802644  
Redlands, CA, 92374 Location: Hami Hn. St. + Harbor Blvd., Costa Mesa Project Contact: Kristen Daly  
Email: Kristen.Daly@stantec.com, Kenny.toro@stantec.com Phone: 909-255-8213 Fax: \_\_\_\_\_ Turn around time: Field

Geotracker EDF: Yes  No  **Sample Receipt**  
Global ID: \_\_\_\_\_ Intact:  Yes  No  
Excel EDD: Yes  No  Seal Intact:  Yes  No  N/A  
Cold:  Yes  No  N/A  
Temperature: N/A

Special Instructions: \_\_\_\_\_

Lab Work Order # E202056 / 2B21701

8260B Full List	<input type="checkbox"/> BTEX/OXY	<input type="checkbox"/> TPH gas		
8260B	<input type="checkbox"/> g	<input type="checkbox"/> d	<input type="checkbox"/> ext	
8015M TPH				
418.1 TRPH				
VOCs: Full List	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15		
VOCs: Short List/DTSC	<input checked="" type="checkbox"/> 8260B	<input type="checkbox"/> TO-15		
VOCs: SAM, 8260B	<input type="checkbox"/> SAM A	<input type="checkbox"/> SAM B		
Naphthalene	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15		
Oxygenates	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15		
TPHV gas	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15		
Ketones	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15		
Other	<input type="checkbox"/> 8260B	<input type="checkbox"/> TO-15		
Leak Check Compound	<input checked="" type="checkbox"/> 1,1 DFA <input type="checkbox"/> OTHER			
Methane				
Fixed Gases	<input type="checkbox"/> CO2	<input type="checkbox"/> O2	<input type="checkbox"/> N2	

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	SOIL/GW		SOIL VAPOR/AIR ANALYSIS	
11 WB6-SV-5'		P11/cc	1125	2-17-12	Vapor	Glass Syringe	1		X		X
12 WB6-SV-5' Dup		P16/cc	1127	↓	↓	↓	1		↓		↓
13 WB6-SV-15'		P12/cc	1201	↓	↓	↓	1		↓		↓

Relinquished by: (Signature) [Signature] (company) stantec Received by: (Signature) [Signature] (company) H&P Mobile Date: 2-17-12 Time: 1315  
Relinquished by: (Signature) \_\_\_\_\_ (company) \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_ (company) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Relinquished by: (Signature) \_\_\_\_\_ (company) \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_ (company) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

\*Signature constitutes authorization to proceed with analysis and acceptance of condition on back. Sample disposal instruction:  Disposal  Return to client  Pickup

pg 1 of 2  
pg 1 of 1



Mobile  
Geochemistry  
Inc.

### Vapor Sampling with Mobile Lab (Syringe\*)

Site Address: Hamilton St. and Harbor Blvd., Costa Mesa Date: 2/16/2012  
 Company: Stantec H&P Project #: ST021612-SB1 Arrival Time: 6:30am  
 Field Rep(s): Kenny H&P Rep(s): C. Smith, A. Sanchez, D. Petryshin Departure Time: 3:30 pm

Point ID	Probe Specifications							Sampling Information				Field Notes:	
	Syringe ID #	Sample Time	Probe Depth (ft)	Tubing Length (ft)	Tubing Dia (in.)	Sand Pack Dia (in.)	Sand Pack Ht (in.)	Purge Vol (mL)	Flow Rate (mL/min)	Shut-in Test (✓=Pass)	Probe Pressure (" Hg)		
1	EB2-SV-5', 1PV	0056	818	5	7	1/8	1.50	12	111	200	✓	⊖	
2	EB2-SV-5', 3PV	0055	829	5	7				333		✓	⊖	
3	EB2-SV-5', 7PV	4627	844	5	7				777		✓	⊖	
4	EB2-SV-15'	0056	928	15	17				121		✓	⊖	
5	EB1-SV-5'	0055	945	5	7				111		✓	⊖	
6	EB1-SV-5' Dup	004630	947	5	7				161		✓	⊖	
7	EB1-SV-15'	0055	1044	15	17				121		✓	⊖	
8	EB4-SV-5'	0056	1104	5	7				111		✓	⊖	
9	EB4-SV-15'	0055	1110	15	17				121		✓	⊖	
10	EB4-SV-15 (resample)	0029	1145	15	17				121		✓	⊖	
11	EB3-SV-5'	0053	1158	5	7				111		✓	⊖	
12	EB3-SV-15'	0027	1204	15	17				121		✓	⊖	
13	EB5-SV-5'	0055	1253	5	7				111		✓	⊖	
14	EB5-SV-15'	0056	1300	15	17				121		✓	⊖	
15	EB6-SV-5'	0029	1355	5	15	↓	↓	↓	111	↓	✓	⊖	
16	EB6-SV-15'	0046	1400	15	17	↓	↓	↓	121	↓	✓	⊖	

Purge Volume Test (PVT) Information	
PVT performed on Probe ID:	EB2-SV-5'
Tubing:	Length: 7 Diameter: 1/8 1 Volume: 7
Sand Pack (if included in purge volume calculation):	Height: 12 Diameter: 1.50 1 Volume: 104
PVT Increments:	1 PV = 111 3 PV = 333 7 PV = 777
PV Amount Selected:	1 PV Selected by: Kenny

Leak Check Information	
Leak Check Compound:	<input checked="" type="checkbox"/> 1,1-DFA <input type="checkbox"/> 1,1,1,2-TFA <input type="checkbox"/> IPA <input type="checkbox"/> Other
Procedure:	Sprayed LCC onto towel in plastic bag.

\* Sample volume in syringe is 50cc unless otherwise noted.

Overtime (hrs): \_\_\_\_\_  
 Client Signature: \_\_\_\_\_

\* Repulled EB1-SV-5' at the same time because I didn't inject sample properly

(DB)



### Vapor Sampling with Mobile Lab (Syringe\*)

Site Address: Hamilton St. and Harbor Blvd., Costa Mesa Date: 2/17/2012  
 Company: Stantec H&P Project #: ST021612-SB1 Arrival Time: 6:30am  
 Field Rep(s): Kenny H&P Rep(s): C. Smith, A. Sanchez, D. Petryshin Departure Time: \_\_\_\_\_

Point ID	Syringe ID #	Sample Time	Probe Specifications					Sampling Information				Field Notes:
			Probe Depth (ft)	Tubing Length (ft)	Tubing Dia (in.)	Sand Pack Dia (in.)	Sand Pack Ht (in.)	Purge Vol (mL)	Flow Rate (mL/min)	Shut-in Test (✓=Pass)	Probe Pressure (" Hg)	
1	WB3-SV-5'	0055 800	5	7	1/8	1.5	12	111	200	✓	0	
2	WB3-SV-15'	0056 805	15	17				121		✓	0	
3	WB3-SV-5' (Resampled)	0055 845	5	7				111		✓	0	
4	WB4-SV-5'	0056 855	5	7				111		✓	0	
5	WB4-SV-15'	0055 902	15	17				121		✓	0	
6	WB2-SV-5'	0056 930	5	7				111		✓	0	
7	WB2-SV-15'	0055 935	15	17				121		✓	0	
8	WB5-SV-5'	0056 1008	5	7				111		✓	0	
9	WB5-SV-15'	0055 1014	15	17				121		✓	0	
10	WB1-SV-5'	27430 1046	5	7				111		✓	0	
11	WB1-SV-15'	28453 1057	15	17				121		✓	0	
12	WB6-SV-5'	0055 1125	5	7				111		✓	0	
13	WB6-SV-5' Dup	0056 1127	5	7				161		✓	0	
14	WB6-SV-15'	0055 1201	15	17	↓	↓	↓	121	↓	✓	0	
15												

Purge Volume Test (PVT) Information			
PVT performed on Probe ID:			
Tubing:	Length:	Diameter:	1 Volume:
Sand Pack (if included in purge volume calculation):	Height:	Diameter:	1 Volume:
PVT Increments:	__ PV =	__ PV =	__ PV =
PV Amount Selected:	Selected by: _____		

Leak Check Information	
Leak Check Compound:	<input checked="" type="checkbox"/> 1,1-DFA <input type="checkbox"/> 1,1,1,2-TFA <input type="checkbox"/> IPA <input type="checkbox"/> Other
Procedure:	Sprayed LCC onto towel in plastic bag.

\* Sample volume in syringe is 50cc unless otherwise noted.

Overtime (hrs): \_\_\_\_\_  
 Client Signature: \_\_\_\_\_