CONESTOGA-ROVERS & ASSOCIATES

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Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

# TRANSMITTAL

**DATE:** October 27, 2010

**REFERENCE NO.:** 240781

**PROJECT NAME:** 2703 Martin Luther King Jr. Way, Oakland

**TO:** Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**RECEIVED**
8:56 am, Oct 29, 2010
Alameda County Environmental Health

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| 1 | Soil Vapor Probe Installation and Soil Vapor Sampling Report |
| | |

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

**COMMENTS:**
If you have any questions regarding the contents of this document, please contact Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Rodney & Janet Kwan, Auto Tech West, 2703 Martin Luther King Jr. Way, Oakland, CA 94612
Scott Merillat, 664 27th Street, Oakland, CA 94612
Monique Oatis, 670 27th Street, Oakland, CA 94612
Jack Chang, 559 9th Avenue, San Francisco, CA 94118-3716

Completed by: Peter Schaefer Signed: Peter Schaefer

**Filing:** **Correspondence File**

**Denis L. Brown**
**Shell Oil Products US**
HSE – Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

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

Re: Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California
SAP Code 129449
Incident No. 97093397
ACEH Case No. RO0000145

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Senior Program Manager

# SOIL VAPOR PROBE INSTALLATION AND SOIL VAPOR SAMPLING REPORT

## FORMER SHELL SERVICE STATION
## 2703 MARTIN LUTHER KING JR. WAY
## OAKLAND, CALIFORNIA

| | |
|---|---|
| SAP CODE | 129449 |
| INCIDENT NO. | 97093397 |
| AGENCY NO. | RO0000145 |

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

5900 Hollis Street, Suite A
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OCTOBER 27, 2010
REF. NO. 240781 (13)
This report is printed on recycled paper.

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(Following Text)



## LIST OF APPENDICES

## EXECUTIVE SUMMARY

- One soil vapor probe (VP-10) was installed.
- The soil vapor sample from VP-10 contained 35 $\mu g/m^3$ toluene. No other constituents of concern were detected. The toluene detection is below the ESL.
- Based on this soil vapor result and historical soil vapor data, CRA recommends no further soil vapor investigation.

## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent soil vapor probe installation and sampling. The purpose of the investigation was to assess the potential for benzene detected in groundwater in a shallow grab groundwater sample from boring CPT-10 to migrate to soil vapor and affect indoor air. CRA followed the scope of work and procedures presented in our November 13, 2007 *Monitoring Well and Vapor Point Installation Work Plan,* which was approved in Alameda County Environmental Health's December 5, 2007 letter.

The subject site is a former service station located on the northwest corner of Martin Luther King Jr. Way and 27th Street in a mixed commercial and residential area of Oakland, California (Figure 1). Currently, the site is occupied by Auto Tech West and is used as an automotive repair shop (Figure 2).

A summary of previous work performed at the site and additional background information is contained in Appendix A.

## 2.0 SOIL VAPOR PROBE INSTALLATION AND SAMPLING

### 2.1 PERMIT

CRA obtained a drilling permit from Alameda County Public Works Agency (Appendix B).

### 2.2 FIELD DATES

August 9, 2010 (soil vapor probe installation) and September 1, 2010 (soil vapor probe sampling).

### 2.3 DRILING COMPANY

PeneCore Drilling.

## 2.4 PERSONNEL PRESENT

Geologist David Grunat directed the probe installation working under the supervision of California Professional Geologist Peter Schaefer.

## 2.5 DRILLING METHOD

Air-knife.

## 2.6 NUMBER OF PROBES

CRA installed one soil vapor probe (VP-10). The probe specifications and soil types encountered are described on the boring log contained in Appendix C. The probe location is shown on Figure 2.

## 2.7 VAPOR PROBE MATERIALS

CRA constructed the vapor probe using ¼-inch diameter Teflon® tubing attached to a 1-inch length plastic screen interval, and #2/12 Monterey sand filter pack. A probe diagram is provided with the boring log in Appendix C.

## 2.8 SCREENED INTERVAL

4.8 to 4.9 feet below grade.

## 2.9 SOIL VAPOR SAMPLING PROCEDURE

Prior to sampling, CRA purged at least three tubing volumes of air from the vapor probe using a vacuum pump. Immediately after purging, CRA collected a soil vapor sample using a laboratory-supplied Tedlar® bag. During sampling, CRA connected the Teflon® tubing for the vapor probe to a lung box containing the Tedlar® bag, and the lung box chamber was connected to the vacuum pump. CRA then drew the sample into the Tedlar® bag by reducing the pressure in the lung box with the vacuum pump. The sample was labeled, documented on a chain-of-custody, and submitted to Calscience Environmental Laboratories, Inc. of Garden Grove, California for analysis within 72 hours.

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe purging, CRA introduced helium into the containment unit to obtain a minimum 50 percent helium content level. CRA confirmed the helium content within the containment unit using a helium meter. The helium meter reading is presented in Section 3.2. The sample was analyzed by the laboratory for helium, and CRA presents the results in Section 3.2 and on Table 1.

### 2.10 SOIL VAPOR SAMPLING ANALYSES

The soil vapor sample was analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3M; benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260B (M); oxygen and argon, carbon dioxide, and methane by ASTM D-1946; and for helium by ASTM D-1946 (M).

### 2.11 WASTE DISPOSAL

Soil and sludge generated during field activities were stored on site in 55-gallon drums, sampled, and profiled for disposal. On August 27, 2010, the sludge was transported to Crosby & Overton's facility in Long Beach, California, and the soil was transported to Keller Canyon Landfill in Pittsburg, California for disposal. The laboratory analytical report is presented in Appendix D, and the waste disposal manifests are provided in Appendix E.

## 3.0 FINDINGS

### 3.1 SOIL VAPOR

The soil vapor chemical analytical data are summarized in Table 1, and TPHg and BTEX analytical results are presented on Figure 2. The laboratory analytical report is presented in Appendix D.

### 3.2 LEAK TESTING

CRA performed leak testing as described above, and helium was not detected in the sample. The reporting limit for helium (0.0100 percent by volume [%*v*]) is less than

10 percent of the concentration of 65%*v* detected in the shroud, and the sample is considered valid. The laboratory analytical report for helium is presented in Appendix D, and CRA includes the results on Table 1.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

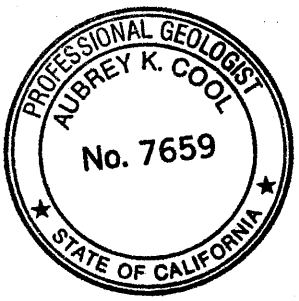
One soil vapor probe (VP-10) was installed. The soil vapor sample from VP-10 contained 35 micrograms per cubic meter toluene. No other constituents of concern were detected. The toluene detection is below the San Francisco Bay Regional Water Quality Control Board's environmental screening level for shallow soil gas[1]. This data demonstrates that the benzene detected in a shallow grab groundwater sample from boring CPT-10 does not pose a risk for migration to indoor air. Based on this soil vapor result and historical soil vapor data, CRA recommends no further soil vapor investigation.

1 *Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]

All of which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG



# FIGURES

09/16/10

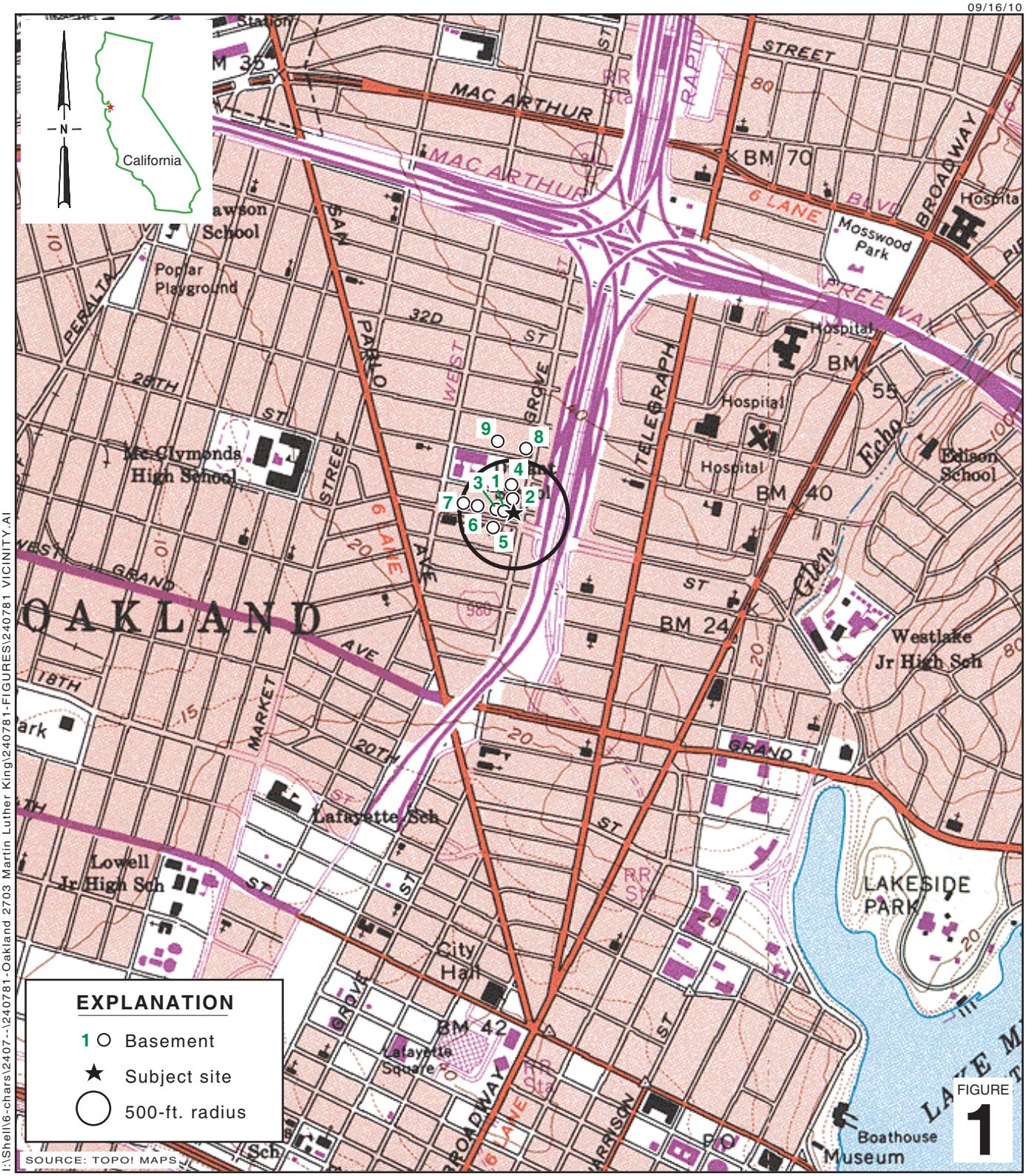



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FIGURE 1

**Former Shell Service Station**
2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

**Vicinity Map**

10/19/2010

# Site Plan

Oakland Public Schools Foster
*2850 West St.*

School Access Gate, ~345'; on South Side of 29th St.

28TH STREET

Grass Playing Field

MW-10

Asphalt Surface

MW-11

MW-9

VP-10

CPT-10

| ID | Date | Depth | TPHg | Benzene | Toluene | Ethylbenzene | Total Xylenes |
|---|---|---|---|---|---|---|---|
| VP-10 | 09/01/2010 | 5 | <5,700 | <19 | 35 | <26 | <52 |

Residential
685 28th St.

Residential
683 28th St.

Residential
679 28th St.

Residential
673 28th St.

Residential
669 28th St.

Residential
663 28th St.

MW-12

Vacant Lot
2727-29 Martin Luther King

Residential
665 28th St.

Residential
2719-23 Martin Luther King

Carport

Residential
672 27th St.

MW-14

VP-7

Residential
670 27th St.

Residential
668 27th St.

Residential
664 27th St.

HA-14 HA-13 HA-12 HA-11 HA-10 HA-9 VP-9 HA-15 HA-17 HA-18 HA-16 HA-4 HA-5 HA-3 HA-2 HA-1 HA-7 HA-8 HA-6

Former W/O AST

B-24 VP-6 MW-7 MW-8 Anods Former Vent Lines B-25 B-26 VP-1 Trench VP-5 VP-8 CPT-3 MW-5 B-27 B-30 B-29 B-28 VP-4 VP-2 CPT-2 B-40 B-31 B-33 B-34 MW-6 B-41 B-39 CPT-4 B-32 CPT-5 B-35 B-42 B-38 B-37 B-36 MW-4 B-43 VP-3 B-44 CPT-1 B-45 B-46 B-48 B-47

Building

Wooden Carport

Former USTs

Former Dispensers

Former Dispensers

Former Dispensers

Former Shell Station
2703 Martin Luther King

MW-1

MW-3

MW-2

Gate

Driveway

Gate

Driveway

MARTIN LUTHER KING JR. WAY

27TH STREET

CPT-7

Median

CPT-6

Basemap from Virgil Chavez Land Surveying and Alameda County Assessors Parcel Map

N

0 15 30 60

Scale (ft)

## EXPLANATION

- B-24 Proposed soil boring location
- HA-9 Proposed hand auger location
- CPT-1 CPT boring location
- MW-1 Monitoring well location
- HA-1 Hand auger boring location
- VP-1 Vapor probe location
- Electrical line (E)
- Telecommunication line (T)
- Gas line (G)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)

| ID | Date | Depth | TPHg | Benzene | Toluene | Ethylbenzene | Total Xylenes |
|---|---|---|---|---|---|---|---|
| VP-10 | 09/01/2010 | 5 | <5,700 | <19 | 35 | <26 | <52 |

**Notes:**
Soil vapor sample ID, date, depth in feet below grade (fbg), and concentrations in micrograms per cubic meter (µg/m³)
**TPHg =** Total petroleum hydrocarbons as gasoline
**<X =** Not detected at reporting limit X

FIGURE
**2**

**Former Shell Service Station**
2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 SITE PLAN (SOIL VAPOR 2010-9, 30').DWG

TABLE

# TABLE 1

## HISTORICAL SOIL VAPOR ANALYTICAL DATA
## FORMER SHELL SERVICE STATION
## 2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

| *Sample ID* | *Date* | *Depth (fbg)* | *TPHg* | *Benzene* | *Toluene* | *Ethyl-benzene* | *Total Xylenes* | *Isobutane* | *Butane* | *Propane* | *Methane (%v)* | *Carbon Dioxide (%v)* | *Oxygen & Argon (%v)* | *Helium (%v)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-1-3 | 5/30/2007 | 3 | **5,500,000** | <510 | 690 | <690 | <2,090 | --- | --- | --- | --- | --- | --- | --- |
| VP-1-5 | 5/30/2007 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-2-3 | 5/30/2007 | 3 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-2-5 | 5/30/2007 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-3-3 | 5/30/2007 | 3 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-3-5 | 5/30/2007 | 5 | **31,000,000** | **760** | <75 | <86 | <256 | --- | --- | --- | --- | --- | --- | --- |
| VP-4-3 | 5/30/2007 | 3 | **800,000** | <79 | 240 | <110 | <320 | --- | --- | --- | --- | --- | --- | --- |
| VP-4-5 | 5/30/2007 | 5 | **680,000** | <66 | 170 | <90 | <270 | --- | --- | --- | --- | --- | --- | --- |
| VP-5-3 | 5/30/2007 | 3 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-5-5 | 5/30/2007 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-6-3 | 5/30/2007 | 3 | **3,500,000** | 110 | 320 | <55 | 160 | --- | --- | --- | --- | --- | --- | --- |
| VP-6-3 | 4/17/2008 | 3 | <17,000 | <2.3 | <2.8 | <3.2 | <9.6 | ND | ND | ND | --- | --- | --- | --- |
| VP-6-3 | 3/31/2009 | 3 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-6-3' | 11/19/2009 | 3 | --- | <1.6 | <19 | <2.2 | <8.7 | --- | --- | --- | --- | --- | --- | <0.0100 |
| VP-6-5 | 5/30/2007 | 5 | **1,900,000** | <100 | 410 | <140 | <420 | --- | --- | --- | --- | --- | --- | --- |
| VP-6-5 | 4/17/2008 | 5 | **14,000,000** | 3.6 | <2.6 | <3.0 | <9.0 | 66.8 | ND | ND | --- | --- | --- | --- |
| Ambient (near VP-6) | 5/30/2007 | | <19,000 | 16 | 16 | <3.1 | <9.2 | --- | --- | --- | --- | --- | --- | --- |
| VP-6-5 | 3/31/2009 | 5 | Unable to sample; water in probe | | | | | | | | | | | |

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

| *Sample ID* | *Date* | *Depth (fbg)* | *TPHg* | *Benzene* | *Toluene* | *Ethyl-benzene* | *Total Xylenes* | *Isobutane* | *Butane* | *Propane* | *Methane (%v)* | *Carbon Dioxide (%v)* | *Oxygen & Argon (%v)* | *Helium (%v)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-6-5' | 11/19/2009 | 5 | --- | <1.6 | <19 | <2.2 | <8.7 | --- | --- | --- | --- | --- | --- | <0.0100 |
| VP-7-3 | 6/12/2007 | 3 | <21,000 | 23 | 7,000 | 110 | 241 | --- | --- | --- | --- | --- | --- | --- |
| VP-7-3 | 10/30/2007 | 3 | <19,000 | <2.7 | 9.6 | <3.6 | <17.6 | 657.3 | 16.6 | ND | --- | --- | --- | --- |
| VP-7-3 | 1/18/2008 | 3 | 23,000 | 4.3 | 23 | 3.4 | 13.8 | ND | ND | ND | --- | --- | --- | --- |
| VP-7-3 | 4/17/2008 | 3 | <16,000 | <2.2 | 6.1 | <3.0 | <9.1 | 648.95 | ND | ND | --- | --- | --- | --- |
| VP-7-3-DUP | 4/17/2008 | 3 | <16,000 | <2.2 | 7.1 | <3.0 | <9.0 | 144.53 | ND | ND | --- | --- | --- | --- |
| VP-7-3 | 7/24/2008 | 3 | <19,000 | <2.7 | 51 | <3.6 | <10.8 | 601.17 | 10.93 | ND | --- | --- | --- | --- |
| Ambient (near VP-7) | 7/24/2008 | | <16,000 | <2.3 | <2.7 | <3.1 | <9.2 | ND | ND | ND | --- | --- | --- | --- |
| VP-7-3 | 3/31/2009 | 3 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-7-3' | 11/19/2009 | 3 | --- | 2.8 | 31 | 3.8 | 18 | --- | --- | --- | --- | --- | --- | 0.0100 |
| VP-7-5 | 6/12/2007 | 5 | <21,000 | 23 | 2,100 | 110 | 230 | --- | --- | --- | --- | --- | --- | --- |
| VP-7-5 | 10/30/2007 | 5 | <18,000 | <2.5 | 15 | <3.4 | <16.4 | 402.4 | ND | ND | --- | --- | --- | --- |
| VP-7-5 | 1/18/2008 | 5 | <20,000 | <2.8 | 7.9 | <3.8 | <11.3 | 105.5 | ND | ND | --- | --- | --- | --- |
| VP-7-5-DUP | 1/18/2008 | 5 | <19,000 | <2.6 | 7.6 | <3.6 | <10.8 | 66.6 | ND | ND | --- | --- | --- | --- |
| VP-7-5 | 4/17/2008 | 5 | <15,000 | <2.2 | 7.8 | <2.9 | <8.8 | 220.83 | 25.2 | ND | --- | --- | --- | --- |
| VP-7-5 | 7/24/2008 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-7-5 | 3/31/2009 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-7-5' | 11/19/2009 | 5 | --- | <1.6 | <19 | <2.2 | <8.7 | --- | --- | --- | --- | --- | --- | <0.0100 |
| VP-8-3 | 6/12/2007 | 3 | <23,000 | 20 | 9,300 | 120 | 267 | --- | --- | --- | --- | --- | --- | --- |
| VP-8-3 | 10/30/2007 | 3 | <24,000 | <3.4 | 34 | <4.6 | <22.6 | 395.1 | 7.8 | ND | --- | --- | --- | --- |
| VP-8-3-DUP | 10/30/2007 | 3 | <18,000 | <2.6 | 6.5 | <3.5 | <17.5 | 366.6 | ND | ND | --- | --- | --- | --- |
| VP-8-3 | 1/18/2008 | 3 | <18,000 | <2.6 | 7.2 | <3.5 | <10.4 | 128.6 | ND | ND | --- | --- | --- | --- |
| VP-8-3 | 4/17/2008 | 3 | <16,000 | <2.3 | 7.1 | <3.1 | <9.3 | 666.54 | 57.29 | ND | --- | --- | --- | --- |
| VP-8-3 | 7/24/2008 | 3 | <18,000 | <2.5 | 290 | 14 | 38 | ND | ND | ND | --- | --- | --- | --- |
| VP-8-3-DUP | 7/24/2008 | 3 | <19,000 | <2.6 | 210 | 11 | 28.9 | 6.42 | ND | ND | --- | --- | --- | --- |
| VP-8-3' | 3/31/2009 | 3 | <9,100 | <2.5 | 5.2 | <3.5 | <14 | <19 | <19 | <43 | --- | --- | --- | --- |
| VP-8-3' DUP | 3/31/2009 | 3 | <8,100 | <2.3 | <2.7 | <3.1 | <12 | <17 | <17 | <38 | --- | --- | --- | --- |

**TABLE 1**

**HISTORICAL SOIL VAPOR ANALYTICAL DATA**
**FORMER SHELL SERVICE STATION**
**2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA**

| *Sample ID* | *Date* | *Depth (fbg)* | *TPHg* | *Benzene* | *Toluene* | *Ethyl-benzene* | *Total Xylenes* | *Isobutane* | *Butane* | *Propane* | *Methane (%v)* | *Carbon Dioxide (%v)* | *Oxygen & Argon (%v)* | *Helium (%v)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ambient (near VP-8) | 3/31/2009 | | <13,000 | <3.7 | 17 | <5.0 | <20 | <27 | <27 | <62 | --- | --- | --- | --- |
| VP-8-3' | 11/19/2009 | 3 | --- | <1.6 | <19 | <2.2 | <8.7 | --- | --- | --- | --- | --- | --- | <0.0100 |
| VP-8-5 | 6/12/2007 | 5 | <22,000 | 33 | 11,000 | 120 | 278 | --- | --- | --- | --- | --- | --- | --- |
| VP-8-5 | 10/30/2007 | 5 | <19,000 | <2.6 | 8.5 | <3.6 | <17.6 | 468.3 | 5.9 | ND | --- | --- | --- | --- |
| VP-8-5 | 1/18/2008 | 5 | <19,000 | <2.6 | 5.7 | <3.5 | <10.5 | ND | ND | ND | --- | --- | --- | --- |
| VP-8-5 | 4/17/2008 | 5 | <17,000 | 11 | <1.9 | <3.2 | <9.6 | 59.43 | 9.98 | ND | --- | --- | --- | --- |
| VP-8-5 | 7/24/2008 | 5 | <17,000 | <2.4 | 630 | 29 | 76 | 10.22 | 7.84 | ND | --- | --- | --- | --- |
| VP-8-5 | 3/31/2009 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-8-5' | 11/19/2009 | 5 | --- | <1.6 | <19 | <2.2 | <8.7 | --- | --- | --- | --- | --- | --- | <0.0100 |
| VP-9-5 | 8/8/2008 | 5 | 280 | <3.9 | 17 | <5.2 | <10.4 | ND | ND | ND | --- | --- | --- | --- |
| Ambient (near VP-9) | 8/8/2008 | | 280 | <3.2 | <3.8 | <4.4 | <8.8 | ND | ND | ND | --- | --- | --- | --- |
| VP-9-5 | 12/31/2008 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-9-5 | 3/31/2009 | 5 | Unable to sample; water in probe | | | | | | | | | | | |
| VP-9-5' | 11/19/2009 | 5 | --- | <1.6 | <19 | <2.2 | <8.7 | --- | --- | --- | --- | --- | --- | <0.0100 |
| VP-10 | 9/1/2010 | 5 | <5,700 | <19 [a] | 35 [a] | <26 [a] | <52 [a] | --- | --- | --- | <0.500 | 5.02 | 8.96 | <0.0100 |
| *ESLs* [b] | | *Commercial* | *29,000* | *280* | *180,000* | *3,300* | *58,000* | *NA* | *NA* | *NA* | *NA* | *NA* | *NA* | *NA* |
| | | *Residential* | *10,000* | *84* | *63,000* | *980* | *21,000* | *NA* | *NA* | *NA* | *NA* | *NA* | *NA* | *NA* |

Notes:

All results in micrograms per cubic meter ($\mu g/m^3$) unless otherwise indicated.
fbg = Feet below grade
TPHg = Total petroleum hydrocarbons as gasoline; analyzed by Modified EPA Method TO-3M GC/FID
Benzene, toluene, ethylbenzene, and xylenes by Modified EPA Method TO-15, unless otherwise noted
Isobutane, butane, and propane by EPA Method TO-15
Methane, carbon dioxide, and oxygen and argon analyzed by ASTM Method D-1946

**TABLE 1**

**HISTORICAL SOIL VAPOR ANALYTICAL DATA**
**FORMER SHELL SERVICE STATION**
**2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA**

| *Sample ID* | *Date* | *Depth (fbg)* | *TPHg* | *Benzene* | *Toluene* | *Ethyl-benzene* | *Total Xylenes* | *Isobutane* | *Butane* | *Propane* | *Methane (%v)* | *Carbon Dioxide (%v)* | *Oxygen & Argon (%v)* | *Helium (%v)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Helium analyzed by ASTM Method D-1946 (M)
%v = Percent by volume
<x = Not detected at reporting limit x
ND = Not detected
--- = Not analyzed
ESL = Environmental screening level
NA = No applicable ESL
Results in **bold** exceed commercial environmental screening level

a = Analyzed by EPA 8260B (M)
b = San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns from *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, SFBRWQCB, Interim Final - November 2007 (Revised May 2008).

# APPENDIX A

# SITE HISTORY

## SITE HISTORY

*1979 Underground Storage Tank (UST) Removal:* Prior to vacating the property in 1979, Shell Oil Products US (Shell) reportedly removed three fuel USTs and a waste oil storage tank.

*1994 UST Removal:* On October 11, 1994, KTW & Associates removed a 2,000-gallon UST on behalf of Auto Tech West (ATW). Two soil samples (TP-1-N and TP-2-S) collected from beneath the tank contained up to 18,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 100 mg/kg benzene.

*1995 Phase I Environmental Site Assessment (ESA):* In August and September 1995, Enviros Inc. (Enviros) performed a Phase I ESA for this site. The Phase I ESA indicated that the site was occupied by housing prior to approximately 1959.

During a site survey conducted in conjunction with the Phase I ESA, an excavation was observed near the southwest corner of the service building. The excavation's location was consistent with the location of 2,000-gallon UST removed in 1994 by ATW, with a large concrete slab observed in aerial photographs taken in 1971 and 1973, and with a smaller concrete slab observed in aerial photographs taken in 1981 and 1985. The concrete slabs observed in the aerial photographs were likely covering the USTs operated by Shell from 1959 to 1979, and after 1979 by Acme Ambulance Company (Acme).

*1995 Phase II ESA:* On May 23, 1995, ACC Environmental Consultants (ACC) drilled nine soil borings (B-1 through B-9) using a pneumatic sampling tool in the vicinity of the UST excavation and the product dispenser islands. Soil samples contained up to 830 mg/kg TPHg and 1.8 mg/kg benzene. Separate phase hydrocarbons (SPHs) were identified in water samples collected from four of the soil borings (B-1, B-5, B-6, and B-9). Grab groundwater samples collected from borings without SPH contained up to 89,000 micrograms per liter (µg/l) TPHg and 21,000 µg/l benzene. Results of the investigation are presented in ACC's June 1995 *Phase II- Environmental Site Investigation* report.

*1996 Over-Excavation:* On March 19, 1996, Acme's former UST excavation was over-excavated and backfilled. The excavation, originally left open to 9 feet below grade (fbg), was over-excavated to approximately 11 fbg. Two soil samples (TP-3-W and TP-4-E) were collected after over-excavation was completed. The soil samples contained up to 2,700 mg/kg TPHg and 3.1 mg/kg benzene. Soil sampling and backfilling are documented in Enviros' May 10, 1996 correspondence.

*1996 Subsurface Investigation:* On July 17 and 19, 1996, Enviros drilled six exploratory borings (B-10, B-11, B-12, B-13, V-1, and V-2). Borings B-11 and B-12 were completed as groundwater monitoring wells MW-1 and MW-2, and borings V-1 and V-2 were completed as soil vapor extraction wells V-1 and V-2. TPHg and benzene were not detected in soil samples collected from MW-1, MW-2, and B-13. Soil samples collected from B-10 and V-2 contained up to 110 mg/kg TPHg and 0.29 mg/kg benzene. Grab groundwater samples collected from borings B-10, MW-2, and B-13 contained up to 290,000 µg/l TPHg and 34,000 µg/l benzene. The investigation results are presented in Enviros' October 30, 1996 *Soil Boring and Well Installation Report.*

*1997 Modified Phase I ESA:* In February 1997, Enviros performed a modified Phase I ESA for the subject facility. A review of aerial photographs (1952 to 1994), city directories (1967 to 1993) and Sanborn maps (1912 to 1970) did not reveal evidence of an off-site source of petroleum hydrocarbons, which would have impacted groundwater on site. The properties located north and west of the subject facility appear to have been occupied by residential houses from at least 1912 to the present. The nearest gasoline stations identified in the vicinity of the subject facility were a former Chevron station (740 27th Street at West Street) approximately 450 feet to the west, a former station (26th Street and Martin Luther King Jr. Way) approximately 300 feet to the south, and a former Mobil station (554 27th Street) approximately 950 feet to the east.

*2000 Sensitive Receptor Survey (SRS):* In 2000, Cambria Environmental Technology, Inc. (Cambria) performed a SRS to identify wells and underground utility conduits. Cambria identified the local sanitary and storm sewer systems as the only utility conduits which may act as preferential pathways for groundwater and soil vapor migration. Conduits identified in the area are located at depths of approximately 3.5 to 9 fbg. Therefore, the potential does exist for groundwater to flow within these conduit trenches since groundwater depth on site historically ranges from approximately 4.5 to 10 fbg. However, since the typical groundwater flow direction on site has generally been to the south, it is likely that any contaminant migration within the utility conduits would be limited, since the utility conduits located to the south of the site are the shallowest of all the conduits identified adjacent to the site at depths of 3.5 to 5.5 fbg.

Cambria also obtained well installation and destruction records from the California Department of Water Resources (DWR) in order to identify any active water-producing wells in the vicinity of the site, which may be at risk to petroleum hydrocarbon impact due to contaminant migration from the subsurface of the site. DWR records did not identify any existing wells within a ½-mile radius of the site. The SRS results are presented in Cambria's May 16, 2001 *Subsurface Investigation Report.*

***2000 Subsurface Investigation:*** On November 21 and 22, 2000, Cambria drilled three soil borings (B-17, B-18, and B-19) and installed three groundwater monitoring wells (MW-3, MW-4, and MW-5). Soil samples contained up to 2,100 mg/kg TPHg and 3.3 mg/kg benzene. Methyl tertiary-butyl ether (MTBE) was detected in one soil sample at a concentration of 0.0070 mg/kg. Tertiary-butyl alcohol (TBA) was detected in two soil samples at concentrations up to 0.0079 mg/kg. No SPHs were observed during the investigation. Grab groundwater samples were collected from borings B-17 through B-19 contained up to 190,000 µg/l TPHg, 13,000 µg/l benzene, and 300 µg/l MTBE. TBA was detected at a concentration of 240 µg/l in B-19. Results from this investigation are presented in Cambria's May 16, 2001 *Subsurface Investigation Report.*

***2001 Oxygen Releasing Compound (ORC) Installation:*** On May 2, 2001, Blaine Tech Services, Inc. (Blaine) installed ORC socks in wells V-1 and V-2. The ORC socks were removed during the fourth quarter 2001 monitoring event. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the second through the fourth quarter of 2001.

***2002 Subsurface Investigation:*** In April 2002, Cambria drilled borings B-20 through B-22. MTBE was not detected in any of the soil or grab groundwater samples. Soil samples contained up to 380 mg/kg TPHg and 0.17 mg/kg benzene. Grab groundwater samples contained up to 160,000 µg/l TPHg and 18,000 µg/l benzene. Results of the investigation are presented in Cambria's June 21, 2002 *Site Investigation Report.*

***2003 - 2005 ORC Installation:*** Blaine installed ORC socks in wells MW-5 and V-2 during first quarter of 2003. The ORCs were replaced on a semiannual basis. The use of ORC was discontinued during the first quarter 2005. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the first quarter 2003 through the first quarter of 2005.

***2005 Soil Vapor Investigation:*** On August 28 through 31, 2005, Cambria drilled ten soil borings (GP-1 through GP-10). Soil samples contained up to 3,300 mg/kg TPHg and 15 mg/kg benzene. Grab groundwater samples contained up to 140,000 µg/l TPHg and 17,000 µg/l benzene. Soil vapor samples contained up to 71,000,000 micrograms per cubic meter (µg/m$^3$) TPHg and 170,000 µg/m$^3$ benzene. Details of these activities are included in Cambria's November 15, 2005 *Site Investigation Report.*

***2005 Door to Door Survey:*** Cambria conducted a door to door survey within 300 feet of the subject site for wells, basements, and foundation type to identify building construction and potential vapor receptors. Questionnaires were sent to 110 properties and responses for 25 properties were received as of January 13, 2006. Of the 25 responses received, none of the properties had basements. Three properties were denoted as vacant; nine properties contained buildings constructed with slab-on-grade

foundations; three contained buildings constructed with perimeter foundations. Tabulated data and a list of properties included in the survey were included in Cambria's January 15, 2006 *Door to Door Survey Report, Access Agreement Update, and Status/Schedule Update.*

***2006 Subsurface Investigation:*** On January 3 and 4, 2006, Cambria installed three monitoring wells (MW-6 through MW-8), drilled one soil boring (B-23), and installed six soil vapor probes (VP-1 through VP-6). Soil samples contained up to 3,800 mg/kg TPHg and 33 mg/kg benzene. Investigation results were presented in Cambria's April 14, 2006 *Site Investigation Report, and First Quarter 2006 - Groundwater Monitoring Report.*

***2006 Dual-Phase Extraction (DPE) Pilot Test:*** Between January 16 and January 20, 2006, Cambria conducted a 5-day DPE pilot test on wells V-1, V-2, MW-6, MW-7, MW-4, MW-5, and MW-8 and a constant vacuum DPE test on well MW-6. The report concluded **1)** the absence of vapor phase concentrations (and groundwater concentrations) from well V-1 indicates that the former UST excavation does not contain residual source material; **2)** high sustained and increasing vapor concentrations suggest source material is present in the vicinity of wells V-2, MW-5, and MW-8; **3)** variability in extraction flow rates across the site may reflect heterogeneities in subsurface soils or may suggest preferential pathways; and **4)** the extremely high effective radius of influence calculated for wells MW-5 and MW-8 during DPE testing on well MW-7 supports the presence of a preferential pathway in the vicinity of these wells. The data from the DPE pilot test suggests that DPE is feasible at this site. The groundwater table was effectively drawn down by DPE and moderate vapor extraction flow rates were yielded from some of the extraction points. Although DPE is deemed feasible, Cambria did not recommend implementing DPE at this site. The extraction points that yielded the highest vapor concentrations did not yield an effective vapor extraction flow rate. Conversely, low vapor concentrations were yielded from the extraction point that did yield an effective vapor extraction flow rate. Therefore, DPE is not considered feasible in the target areas at this site. The pilot test details and results are presented in Cambria's March 14, 2006 *Pilot Test Report.*

***2006 Subsurface Investigation:*** On February 28, 2006, Cambria installed two monitoring wells (MW-12 and MW-14) on off-site properties. TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected in soil samples from well boring MW-12. Soil samples from MW-14 contained up to 970 mg/kg TPHg and 2.3 mg/kg benzene. These activities are documented in Cambria's May 25, 2006 *Subsurface Investigation Report.*

***2006 Site Visit:*** During the site visit on April 19, 2006, Cambria identified two bathrooms inside the former station building. A floor drain was observed in the northern-most bathroom. Standing liquid was present in the floor drain and automotive parts and cleaners were stored in this area. A water sample from the floor drain contained carbon disulfide (3.69 µg/l), ethylbenzene (0.610 µg/l), and toluene (0.770 µg/l). This information is reported in Cambria's May 25, 2006 *Subsurface Investigation Report.*

***2006 Geophysical Survey:*** On May 22, 2006, Norcal Geophysical Consultants, Inc. (Norcal) conducted a geophysical survey to determine if waste oil UST was present in the northwest portion of the property and to evaluate the presence of subsurface utilities in this area that could act as preferential pathways, including the mapping of the sewer line from the floor drain found inside the northwest corner of the building during the April 19, 2006 site inspection. Norcal did not locate a UST in the northwest corner of the site, but did find a vent line located behind the northeast corner of the station building. A subsurface electric line was traced from the station building to the western property boundary, and an unidentified subsurface utility was traced from the northwest corner of the station building to the southwest, near MW-5 and toward MW-6. The presence of the unknown utility line in the northwest corner confirms the observations of a possible preferential pathway in this area based on the DPE pilot test performed in January 2006. Based on a ground-penetrating radar (GPR) survey that was performed to try to locate a non-metallic sewer line, Norcal concluded that the sewer line from the bathroom could be more than 4 fbg since the GPR was unable to identify the line. This information is presented in Cambria's July 25, 2006 *Status Update, Report of Geophysical Survey, and Request for Agency Meeting.*

***2006 Subsurface Investigation and Vapor Probe Installation:*** On October 16 through 18 and 20, 2006, Cambria drilled cone-penetrometer test (CPT) borings CPT-1 through CPT-5 and installed soil vapor probes VP-1 through VP-6. Due to a lack of adequate groundwater recharge, many of the grab groundwater sampling attempts between 15 and 29 fbg failed. Grab groundwater sample results from between 31-37 fbg confirmed that significant attenuation of contaminants of at least one order of magnitude from the interval monitored by the site wells (5-20 fbg), and therefore no further vertical delineation was warranted. Comparison of data from 1995, 2000, and 2006 in similar locations (B-6, B-9, B-19, and CPT-5) demonstrated attenuation of contaminant concentrations over time was occurring. A site inspection at the neighboring property was performed and revealed that due to significant ventilation and air exchange with outdoor ambient air, vapor sampling within the aboveground basement was no longer warranted. These activities are documented in Cambria's January 31, 2007 *CPT Investigation and Vapor Probe Installation Report.*

***2007 Subsurface Investigation and Vapor Probe Installation:*** In May and June 2007, Conestoga-Rovers & Associates (CRA) drilled two CPT borings (CPT-6 and CPT-7) within 27th Street southwest of the site, one CPT boring (CPT-10) on the Marcus-Foster school property northwest of the site, and installed two soil vapor probes (VP-7 and VP-8) on private properties west-northwest of the site. Soil vapor samples collected from off-site vapor probe pairs VP-7 and VP-8, located on residential property, indicated that the soil gas concentrations immediately adjacent to the subject site and three parcels down gradient do no exceed the residential ESLs. Results of the investigation are presented in CRA's August 27, 2007 *Plume Delineation and Soil Vapor Sampling Report.*

***2008 Site Conceptual Model (SCM) and Feasibility Study/Corrective Action Plan (FS/CAP):*** CRA submitted a February 2, 2008 SCM and FS/CAP for the site. Excavation of source material followed by installation of a bio-sparge curtain to assist biodegradation was the recommended remedial action for the site. CRA's May 28, 2008 *Remedial Action Plan* details plans for conducting the excavation and installing the bio-sparge system.

***2009 Subsurface Investigation:*** In April 2009, CRA drilled eight hand auger borings (HA-1 through HA-8) behind the former station building to assess the extent hydrocarbon and lead concentrations in the vicinity of a former waste oil aboveground storage tank located behind the former station building. Up to 1,060 mg/kg lead, 4,500 mg/kg total petroleum hydrocarbons as diesel, and 11,000 mg/kg total petroleum hydrocarbons as motor oil were detected in soil samples from the hand auger borings. Maximum concentrations were all detected in samples from less than 2 fbg. Results of the investigation are presented in CRA's May 12, 2009 *Subsurface Investigation Report.*

***2010 Door to Door Survey Addendum:*** CRA conducted a door to door survey of four properties near the site, which did not respond to the previous door to door surveys for wells, basements, or sumps. Questionnaires were sent to the four properties, and CRA received responses for three of the properties. Of the three responses received, two of the properties had basements. None reported wells or sumps. CRA's September 22, 2010 *Door to Door Survey Report Addendum* provides details of the survey responses.

***Groundwater Monitoring:*** Groundwater monitoring has been conducted since August 1996. Fuel oxygenates are not a significant component of the groundwater plume, although di-isopropyl ether and TBA have been detected sporadically. Generally, groundwater flow direction is to the west, with some components to the northwest and southwest. Historically, monitoring wells MW-1, MW-2, MW-3, and MW-12 have shown little or no impact from petroleum hydrocarbons.

***Vapor Monitoring:*** Vapor monitoring was conducted between May 2007 and November 2009. BTEX concentrations in off-site soil vapor samples were consistently below residential screening levels.

# APPENDIX B

# PERMIT

# Alameda County Public Works Agency - Water Resources Well Permit

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

**Application Approved on: 07/20/2010 By jamesy**

**Permit Numbers: W2010-0548 to W2010-0551**
**Permits Valid from 08/06/2010 to 08/12/2010**

**Application Id:** 1279564665306
**City of Project Site:** Oakland
**Site Location:** 2850 West St, Oakland, CA 94608
**Project Start Date:** 08/06/2010
**Completion Date:** 08/12/2010
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**Applicant:** Conestoga-Rovers And Associates - David Grunat
5900 Hollis St, Ste A, Emeryville, CA 94808
**Phone:** 510-420-0700

**Property Owner:** Oakland Unified School District
2850 West St, Oakland, CA 94608
**Phone:** 510-879-8223

**Client:** Shell Oil Products US
20945 S Wilmington, Carlson, CA 90815
**Phone:** --

**Total Due:** $1456.00
**Receipt Number: WR2010-0258** **Total Amount Paid:** $1456.00
**Payer Name : Conestoga Rovers and Associates** Paid By: CHECK
**PAID IN FULL**

**Works Requesting Permits:**

Well Construction-Monitoring-Monitoring - 3 Wells
Driller: PeneCore Drilling - Lic #: 906899 - Method: other
**Work Total: $1191.00**

**Specifications**

| Permit # | Issued Date | Expire Date | Owner Well Id | Hole Diam. | Casing Diam. | Seal Depth | Max. Depth |
|---|---|---|---|---|---|---|---|
| W2010-0548 | 07/20/2010 | 11/04/2010 | MW10 | 10.25 in. | 4.00 in. | 2.00 ft | 20.00 ft |
| W2010-0549 | 07/20/2010 | 11/04/2010 | MW11 | 10.25 in. | 4.00 in. | 2.00 ft | 20.00 ft |
| W2010-0550 | 07/20/2010 | 11/04/2010 | MW9 | 10.25 in. | 4.00 in. | 2.00 ft | 20.00 ft |

**Specific Work Permit Conditions**

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

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

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

permits and requirements have been approved or obtained.

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

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

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

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

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

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

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

---

Remediation Well Construction-Vapor Remediation Well - 1 Wells
Driller: PeneCore Drilling - Lic #: 906899 - Method: other **Work Total: $265.00**

**Specifications**

| Permit # | Issued Date | Expire Date | Owner Well Id | Hole Diam. | Casing Diam. | Seal Depth | Max. Depth |
|---|---|---|---|---|---|---|---|
| W2010-0551 | 07/20/2010 | 11/04/2010 | VP10 | 4.00 in. | 0.25 in. | 4.00 ft | 5.50 ft |

**Specific Work Permit Conditions**

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

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

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and

mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

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

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

6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).

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

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

9. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

# APPENDIX C

# BORING LOG

# Boring/Well Log Legend

## KEY TO SYMBOLS/ABBREVIATIONS

- First encountered groundwater
- Static groundwater
- Soils logged by hand-auger or air-knife cuttings
- Soils logged by drill cuttings or disturbed sample
- Undisturbed soil sample interval
- Soil sample retained for submittal to analytical laboratory
- No recovery within interval
- Hydropunch or vapor sample screen interval

PID = Photo-ionization detector or organic vapor meter reading in parts per million (ppm)

fbg = Feet below grade

Blow Counts = Number of blows required to drive a California-modified split-spoon sampler using a 140-pound hammer falling freely 30 inches, recorded per 6-inch interval of a total 18-inch sample interval

(10YR 4/4) = Soil color according to Munsell Soil Color Charts

msl = Mean sea level

Soils logged according to the USCS.

## UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

| Major Divisions | | | Graphic | Group Symbol | Typical Description |
|---|---|---|---|---|---|
| Coarse-Grained Soils (>50% Sands and/or Gravels) | Gravel and Gravelly Soils | Clean Gravels (≤5% fines) | | GW | Well-graded gravels, gravel-sand mixtures, little or no fines |
| | | | | GP | Poorly-graded gravels, gravel-sand mixtures, little or no fines |
| | | Gravels with Fines (≥15% fines) | | GM | Silty gravels, gravel-sand-silt mixtures |
| | | | | GC | Clayey gravels, gravel-sand-clay mixtures |
| | Sand and Sandy Soils | Clean Sands (≤5% fines) | | SW | Well-graded sands, gravelly sands, little or no fines |
| | | | | SP | Poorly-graded sands, gravelly sand, little or no fines |
| | | Sands with Fines (≥15% fines) | | SM | Silty sands, sand-silt mixtures |
| | | | | SC | Clayey sands, sand-clay mixtures |
| Fine-Grained Soils (>50% Silts and/or Clays) | Silts and Clays | | | ML | Inorganic silts, very fine sands, silty or clayey fine sands, clayey silts with slight plasticity |
| | | | | CL | Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays |
| | | | | OL | Organic silts and organic silty clays of low plasticity |
| | Silts and Clays | | | MH | Inorganic silts, micaceous or diatomaceous fine sand or silty soils |
| | | | | CH | Inorganic clays of high plasticity |
| | | | | OH | Organic clays of medium to high plasticity, organic silts |
| Highly Organic Soils | | | | PT | Peat, humus, swamp soils with high organic contents |

M:\Templates & Forms\Boring Logs\Boring Log Legend

CONESTOGA-ROVERS & ASSOCIATES

Conestoga - Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

# BORING / WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Shell Oil Products US | **BORING/WELL NAME** | VP-10 |
| **JOB/SITE NAME** | Former Shell Service Station | **DRILLING STARTED** | 09-Aug-10 |
| **LOCATION** | 2703 Martin Luther King Jr. Way, Oakland, CA | **DRILLING COMPLETED** | 09-Aug-10 |
| **PROJECT NUMBER** | 240781 | **WELL DEVELOPMENT DATE (YIELD)** | NA |
| **DRILLER** | Penecore | **GROUND SURFACE ELEVATION** | NA |
| **DRILLING METHOD** | Airknife | **TOP OF CASING ELEVATION** | NA |
| **BORING DIAMETER** | 4" | **SCREENED INTERVALS** | 4.8 to 4.9 fbg |
| **LOGGED BY** | D. Grunat | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | P. Schaefer | **DEPTH TO WATER (Static)** | NA |
| **REMARKS** | Located at 2850 West St. | | |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (fbg) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **ASPHALT** | 0.5 | 1/4-diameter Tephlon tubing |
| | | | | | | | **FILL** | 1.5 | |
| | | | | | MH | | **SILT (MH)**; black (10YR 3/1); dry; 15% clay, 75% silt, 10% fine grained sand; high plasticity. | | Bentonite Seal |
| | | | | 5 | | | | 5.0 | Monterey Sand #2/12 1" length stainless steel screen |
| | | | | | | | | | Bottom of Boring @ 5 fbg |

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240781-OAKLAND 2703 MARTIN LUTHER KING\240781-GINT\240781.GPJ DEFAULT.GDT 10/20/10

# APPENDIX D

# CERTIFIED ANALYTICAL REPORTS

Calscience
Environmental
Laboratories, Inc.

September 10, 2010

Peter Schaefer
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Subject: **Calscience Work Order No.: 10-09-0114**
**Client Reference: 2703 Martin Luther King Jr. Way, Oakland, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/2/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Xuan H. Dang
Project Manager

Calscience Environmental Laboratories, Inc.

# Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 09/02/10
Work Order No: 10-09-0114
Preparation: N/A
Method: EPA TO-3M

Project: 2703 Martin Luther King Jr. Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| VP-10 | 10-09-0114-1-A | 09/01/10 14:20 | Air | GC 13 | N/A | 09/02/10 13:17 | 100902L01 |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| TPH as Gasoline | ND | 5700 | 1 | | ug/m3 |

| Method Blank | 098-01-005-2,578 | N/A | Air | GC 13 | N/A | 09/02/10 09:19 | 100902L01 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| TPH as Gasoline | ND | 5700 | 1 | | ug/m3 |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

| | |
|---|---|
| Date Received: | 09/02/10 |
| Work Order No: | 10-09-0114 |
| Preparation: | N/A |
| Method: | ASTM D-1946 |
| Units: | %v |

Project: 2703 Martin Luther King Jr. Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| VP-10 | 10-09-0114-1-A | 09/01/10 14:20 | Air | GC 36 | N/A | 09/02/10 14:12 | 100902L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Methane | ND | 0.500 | 1 | | Oxygen + Argon | 8.96 | 0.500 | 1 | |
| Carbon Dioxide | 5.02 | 0.500 | 1 | | | | | | |

| Method Blank | 099-03-002-1,133 | N/A | Air | GC 36 | N/A | 09/02/10 09:21 | 100902L01 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Methane | ND | 0.500 | 1 | | Oxygen + Argon | ND | 0.500 | 1 | |
| Carbon Dioxide | ND | 0.500 | 1 | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

| | | |
|---|---|---|
| Conestoga-Rovers & Associates | Date Received: | 09/02/10 |
| 5900 Hollis Street, Suite A | Work Order No: | 10-09-0114 |
| Emeryville, CA 94608-2008 | Preparation: | N/A |
| | Method: | ASTM D-1946 (M) |

Project: 2703 Martin Luther King Jr. Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| VP-10 | 10-09-0114-1-A | 09/01/10 14:20 | Air | GC 55 | N/A | 09/02/10 00:00 | 100902L01 |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Helium | ND | 0.0100 | 1 | | %v |

| Method Blank | 099-12-872-50 | N/A | Air | GC 55 | N/A | 09/02/10 00:00 | 100902L01 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Helium | ND | 0.0100 | 1 | | %v |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 09/02/10
Work Order No: 10-09-0114
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 2703 Martin Luther King Jr. Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| VP-10 | 10-09-0114-1-A | 09/01/10 14:20 | Air | GC/MS HH | N/A | 09/02/10 15:20 | 100902L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 19 | 1.19 | | Ethylbenzene | ND | 26 | 1.19 | |
| Toluene | 35 | 22 | 1.19 | | Xylenes (total) | ND | 52 | 1.19 | |
| Surrogates: | REC (%) | Control Limits | | Qual | Surrogates: | REC (%) | Control Limits | | Qual |
| 1,4-Bromofluorobenzene | 99 | 47-156 | | | 1,2-Dichloroethane-d4 | 94 | 47-156 | | |
| Toluene-d8 | 103 | 47-156 | | | | | | | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| Method Blank | 099-13-041-159 | N/A | Air | GC/MS HH | N/A | 09/02/10 13:31 | 100902L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 16 | 1 | | Ethylbenzene | ND | 22 | 1 | |
| Toluene | ND | 19 | 1 | | Xylenes (total) | ND | 43 | 1 | |
| Surrogates: | REC (%) | Control Limits | | Qual | Surrogates: | REC (%) | Control Limits | | Qual |
| 1,4-Bromofluorobenzene | 98 | 47-156 | | | 1,2-Dichloroethane-d4 | 96 | 47-156 | | |
| Toluene-d8 | 101 | 47-156 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Duplicate

| | |
|---|---|
| Conestoga-Rovers & Associates | Date Received: 09/02/10 |
| 5900 Hollis Street, Suite A | Work Order No: 10-09-0114 |
| Emeryville, CA 94608-2008 | Preparation: N/A |
| | Method: EPA TO-3M |

Project: 2703 Martin Luther King Jr. Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared: | Date Analyzed: | Duplicate Batch Number |
|---|---|---|---|---|---|
| 10-09-0118-5 | Air | GC 13 | N/A | 09/02/10 | 100902D01 |

| Parameter | Sample Conc | DUP Conc | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|
| TPH as Gasoline | 4800000 | 4400000 | 9 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Conestoga-Rovers & Associates | Date Received: | N/A |
| 5900 Hollis Street, Suite A | Work Order No: | 10-09-0114 |
| Emeryville, CA 94608-2008 | Preparation: | N/A |
| | Method: | ASTM D-1946 |

Project: 2703 Martin Luther King Jr. Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 099-03-002-1,133 | Air | GC 36 | N/A | 09/02/10 | 100902L01 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Carbon Dioxide | 93 | 93 | 80-120 | 0 | 0-30 | |
| Oxygen + Argon | 87 | 87 | 80-120 | 0 | 0-30 | |
| Nitrogen | 88 | 88 | 80-120 | 0 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: N/A
Work Order No: 10-09-0114
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 2703 Martin Luther King Jr. Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 099-12-872-50 | Air | GC 55 | N/A | 09/02/10 | 100902L01 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Helium | 96 | 94 | 80-120 | 2 | 0-30 | |
| Hydrogen | 102 | 100 | 80-120 | 1 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Conestoga-Rovers & Associates | | Date Received: | N/A |
| 5900 Hollis Street, Suite A | | Work Order No: | 10-09-0114 |
| Emeryville, CA 94608-2008 | | Preparation: | N/A |
| | | Method: | EPA 8260B (M) |

Project: 2703 Martin Luther King Jr. Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 099-13-041-159 | Air | GC/MS HH | N/A | 09/02/10 | 100902L01 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 108 | 103 | 60-156 | 4 | 0-40 | |
| Toluene | 106 | 102 | 56-146 | 4 | 0-43 | |
| Ethylbenzene | 109 | 105 | 52-154 | 4 | 0-38 | |
| Xylenes (total) | 107 | 102 | 52-148 | 4 | 0-38 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 10-09-0114

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| E | Concentration exceeds the calibration range. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |
| | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. |

# Shell Oil Products Chain Of Custody Record

**LAB (LOCATION)**
- ☑ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (_____)
- ☐ OTHER (_____)

**Please Check Appropriate Box:**
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☑ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Peter Schaefer
PO #:
INCIDENT # (ENV SERVICES): 97093937
SAP #: 129446
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 9/1/2010
PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates
LOG CODE: CRAW
ADDRESS: 5900 Hollis St., Suite A, Emeryville, CA
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer
TELEPHONE: 510-420-3319 FAX: 510-385-0646 E-MAIL: pschaefer@craworld.com

SITE ADDRESS: Street and City: 2703 Martin Luther King Jr. Way, Oakland
State: CA
GLOBAL ID NO.: T0600101876
EDF DELIVERABLE TO (Name, Company, Office Location): Brena Carter, CRA, Emeryville
PHONE NO.: 510-420-3343
E-MAIL: shelledf@craworld.com
CONSULTANT PROJECT NO: 240781
SAMPLER NAME(S) (Print): Erin Swan
LAB USE ONLY: 10-09-0114

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

**SPECIAL INSTRUCTIONS OR NOTES :**

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED

Please report results 8260 in µg/m3 and ASTM D1946 in % volume

**REQUESTED ANALYSIS**

| LAB USE ONLY | Field Sample Identification | SAMPLING DATE | SAMPLING TIME | MATRIX | PRESERVATIVE HCL | HNO3 | H2SO4 | NONE | OTHER | NO. OF CONT. | TPHg (8260) report in µg/m3 | BTEX (8260) report in µg/m3 | helium, methane, oxygen, & carbon dioxide by (ASTM D1946) report in % volume | TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | VP-10 | 9/1/10 | 12:30 | Vapor | | | | | | 1 | X | X | X | ~~Container I.D. No.:~~ |
| | | | | | | | | | | | | | | ~~Container I.D. No.:~~ |
| | | | | | | | | | | | | | | ~~Container I.D. No.:~~ |
| | | | | | | | | | | | | | | ~~Container I.D. No.:~~ |
| | | | | | | | | | | | | | | ~~Container I.D. No.:~~ |
| | | | | | | | | | | | | | | ~~Container I.D. No.:~~ |
| | | | | | | | | | | | | | | ~~Container I.D. No.:~~ |

| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |
|---|---|---|---|
| Erin Swan | CEL | 9/1/10 | 4:25 |
| CEL | Wcbath CEL | 9/02/10 | 1200 |
| | | | |

05/2/06 Revision

GSO

**WebShip**

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
WPI, CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 514870989

NPS

ORC

D

GARDEN GROVE

D92843A

84362486

Print Date : 09/01/10 16:27 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-09-0 1 1 4

# SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: _____ DATE: 09/02/10

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature ____.__ °C + 0.5 °C (CF) = ____.__ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter ☐ Metals Only ☐ PCBs Only **Initial:** WB

**CUSTODY SEALS INTACT:**

☐ Cooler ☑ VBOX ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** WB

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present **Initial:** RS

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☐ | ☑ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Residual Chlorine / Dissolved Sulfide received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☑ | ☐ | ☐ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na** ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☑Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** RS

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** YC

**Preservative:** h: HCL n: $HNO_3$ na$_2$: $Na_2S_2O_3$ na: NaOH p: $H_3PO_4$ s: $H_2SO_4$ znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** _____

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-09-0117

# SAMPLE ANOMALY FORM

## SAMPLES - CONTAINERS & LABELS:

**Comments:**

- ☐ **Sample(s)/Container(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC** * VP-10 RECEIVED IN LOW VOL.
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
  - ☐ **Without Label(s)**
- ☑ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - * ☑ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

## HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**Comments:** _____

*Transferred at Client's request.

Initial / Date: ps 09/02/10

Calscience
Environmental
Laboratories, Inc.

August 17, 2010

Peter Schaefer
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Subject: **Calscience Work Order No.: 10-08-0975**
**Client Reference: 2703 Martin Luther King Way, Oakland, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/12/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Xuan H. Dang
Project Manager

Calscience Environmental Laboratories, Inc.

# Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 3550B
Method: EPA 8015B

Project: 2703 Martin Luther King Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| COMP (WASTE-1) | 10-08-0975-5-A | 08/10/10 00:00 | Solid | GC 46 | 08/13/10 | 08/13/10 17:27 | 100813B08 |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Diesel Range Organics | ND | 5.0 | 1 | | mg/kg |

| Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|
| Decachlorobiphenyl | 116 | 61-145 | |

| Method Blank | 099-12-025-1,327 | N/A | Solid | GC 46 | 08/13/10 | 08/13/10 14:29 | 100813B08 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Diesel Range Organics | ND | 5.0 | 1 | | mg/kg |

| Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|
| Decachlorobiphenyl | 109 | 61-145 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: 2703 Martin Luther King Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| COMP (WASTE-1) | 10-08-0975-5-A | 08/10/10 00:00 | Solid | GC 46 | 08/13/10 | 08/13/10 17:27 | 100813B09 |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| TPH as Motor Oil | ND | 25 | 1 | | mg/kg |

| Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|
| Decachlorobiphenyl | 116 | 61-145 | |

| Method Blank | 099-12-254-1,427 | N/A | Solid | GC 46 | 08/13/10 | 08/13/10 14:29 | 100813B09 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| TPH as Motor Oil | ND | 25 | 1 | | mg/kg |

| Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|
| Decachlorobiphenyl | 109 | 61-145 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B
Units: mg/kg

Project: 2703 Martin Luther King Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| COMP (WASTE-1) | 10-08-0975-5-A | 08/10/10 00:00 | Solid | GC/MS W | 08/12/10 | 08/13/10 16:27 | 100813L02 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.50 | 100 | | Xylenes (total) | 2.0 | 0.50 | 100 | |
| Ethylbenzene | 0.76 | 0.50 | 100 | | TPPH | 83 | 50 | 100 | |
| Toluene | ND | 0.50 | 100 | | | | | | |
| Surrogates: | REC (%) | Control Limits | | Qual | Surrogates: | REC (%) | Control Limits | | Qual |
| Dibromofluoromethane | 104 | 63-141 | | | 1,2-Dichloroethane-d4 | 108 | 62-146 | | |
| Toluene-d8 | 103 | 80-120 | | | 1,4-Bromofluorobenzene | 95 | 60-132 | | |
| Toluene-d8-TPPH | 104 | 87-111 | | | | | | | |

| Method Blank | 099-12-798-1,153 | N/A | Solid | GC/MS W | 08/13/10 | 08/13/10 14:00 | 100813L02 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.50 | 100 | | Xylenes (total) | ND | 0.50 | 100 | |
| Ethylbenzene | ND | 0.50 | 100 | | TPPH | ND | 50 | 100 | |
| Toluene | ND | 0.50 | 100 | | | | | | |
| Surrogates: | REC (%) | Control Limits | | Qual | Surrogates: | REC (%) | Control Limits | | Qual |
| Dibromofluoromethane | 105 | 63-141 | | | 1,2-Dichloroethane-d4 | 114 | 62-146 | | |
| Toluene-d8 | 103 | 80-120 | | | 1,4-Bromofluorobenzene | 87 | 60-132 | | |
| Toluene-d8-TPPH | 102 | 87-111 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Analytical Report

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: 2703 Martin Luther King Way, Oakland, CA



| Client Sample Number | Lab Sample Number | Date /Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| COMP (WASTE-1) | 10-08-0975-5-A | 08/10/10 00:00 | Solid | ICP 5300 | 08/16/10 | 08/16/10 14:08 | 100816L01 |

Comment(s): -Mercury analysis was performed on 08/16/10 18:57 with batch 100813L08.

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 0.750 | 1 | | Mercury | ND | 0.0835 | 1 | |
| Arsenic | 4.35 | 0.750 | 1 | | Molybdenum | ND | 0.250 | 1 | |
| Barium | 200 | 0.500 | 1 | | Nickel | 72.9 | 0.250 | 1 | |
| Beryllium | 0.386 | 0.250 | 1 | | Selenium | ND | 0.750 | 1 | |
| Cadmium | ND | 0.500 | 1 | | Silver | ND | 0.250 | 1 | |
| Chromium | 47.8 | 0.250 | 1 | | Thallium | ND | 0.750 | 1 | |
| Cobalt | 13.3 | 0.250 | 1 | | Vanadium | 34.5 | 0.250 | 1 | |
| Copper | 20.2 | 0.500 | 1 | | Zinc | 58.7 | 1.00 | 1 | |
| Lead | 6.57 | 0.500 | 1 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Blank | 099-04-007-7,341 | N/A | Solid | Mercury | 08/13/10 | 08/13/10 18:34 | 100813L08 |

Comment(s): -Preparation/analysis for Mercury was performed by EPA 7471A.

| Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|
| Mercury | ND | 0.0835 | 1 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Blank | 097-01-002-13,913 | N/A | Solid | ICP 5300 | 08/16/10 | 08/16/10 12:33 | 100816L01 |

| Parameter | Result | RL | DF | Qual | Parameter | Result | RL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 0.750 | 1 | | Lead | ND | 0.500 | 1 | |
| Arsenic | ND | 0.750 | 1 | | Molybdenum | ND | 0.250 | 1 | |
| Barium | ND | 0.500 | 1 | | Nickel | ND | 0.250 | 1 | |
| Beryllium | ND | 0.250 | 1 | | Selenium | ND | 0.750 | 1 | |
| Cadmium | ND | 0.500 | 1 | | Silver | ND | 0.250 | 1 | |
| Chromium | ND | 0.250 | 1 | | Thallium | ND | 0.750 | 1 | |
| Cobalt | ND | 0.250 | 1 | | Vanadium | ND | 0.250 | 1 | |
| Copper | ND | 0.500 | 1 | | Zinc | ND | 1.00 | 1 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 3050B
Method: EPA 6010B

Project 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| 10-08-1095-1 | Solid | ICP 5300 | 08/16/10 | 08/16/10 | 100816S01 |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | 90 | 90 | 50-115 | 0 | 0-20 | |
| Arsenic | 105 | 103 | 75-125 | 2 | 0-20 | |
| Barium | 4X | 4X | 75-125 | 4X | 0-20 | Q |
| Beryllium | 106 | 103 | 75-125 | 3 | 0-20 | |
| Cadmium | 108 | 105 | 75-125 | 3 | 0-20 | |
| Chromium | 108 | 104 | 75-125 | 3 | 0-20 | |
| Cobalt | 115 | 113 | 75-125 | 2 | 0-20 | |
| Copper | 111 | 102 | 75-125 | 2 | 0-20 | |
| Lead | 109 | 107 | 75-125 | 2 | 0-20 | |
| Molybdenum | 105 | 103 | 75-125 | 2 | 0-20 | |
| Nickel | 113 | 110 | 75-125 | 2 | 0-20 | |
| Selenium | 105 | 100 | 75-125 | 5 | 0-20 | |
| Silver | 106 | 104 | 75-125 | 2 | 0-20 | |
| Thallium | 104 | 103 | 75-125 | 1 | 0-20 | |
| Vanadium | 108 | 105 | 75-125 | 3 | 0-20 | |
| Zinc | 4X | 4X | 75-125 | 4X | 0-20 | Q |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 3050B
Method: EPA 6010B

Project: 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| 10-08-1095-1 | Solid | ICP 5300 | 08/16/10 | 08/16/10 | 100816S01 |

Analysis Comment: * - Analyzed 8/16/2010 2:26:00 PM

| Parameter | PDS %REC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | 96 | 96 | 75-125 | 1 | 0-20 | |
| Arsenic | 96 | 95 | 75-125 | 0 | 0-20 | |
| Barium | 4X | 4X | 75-125 | 4X | 0-20 | Q |
| Beryllium | 96 | 95 | 75-125 | 1 | 0-20 | |
| Cadmium | 98 | 96 | 75-125 | 2 | 0-20 | |
| Chromium | 97 | 96 | 75-125 | 1 | 0-20 | |
| Cobalt | 105 | 102 | 75-125 | 3 | 0-20 | |
| Copper | 106 | 104 | 75-125 | 1 | 0-20 | |
| Lead | 101 | 98 | 75-125 | 2 | 0-20 | |
| Molybdenum | 100 | 97 | 75-125 | 3 | 0-20 | |
| Nickel | 103 | 101 | 75-125 | 1 | 0-20 | |
| Selenium | 93 | 93 | 75-125 | 0 | 0-20 | |
| Silver | 90 | 89 | 75-125 | 1 | 0-20 | |
| Thallium | 98 | 97 | 75-125 | 2 | 0-20 | |
| Vanadium | 98 | 97 | 75-125 | 1 | 0-20 | |
| Zinc | 4X | 4X | 75-125 | 4X | 0-20 | Q |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 3550B
Method: EPA 8015B

Project 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| COMP (WASTE-1) | Solid | GC 46 | 08/13/10 | 08/13/10 | 100813S08 |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Diesel Range Organics | 117 | 109 | 64-130 | 7 | 0-15 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

| | |
|---|---|
| Conestoga-Rovers & Associates | Date Received: 08/12/10 |
| 5900 Hollis Street, Suite A | Work Order No: 10-08-0975 |
| Emeryville, CA 94608-2008 | Preparation: EPA 3550B |
| | Method: EPA 8015B (M) |

Project 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| COMP (WASTE-1) | Solid | GC 46 | 08/13/10 | 08/13/10 | 100813S09 |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| TPH as Motor Oil | 100 | 95 | 64-130 | 6 | 0-15 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 7471A Total
Method: EPA 7471A

Project 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| 10-08-1009-1 | Solid | Mercury | 08/13/10 | 08/13/10 | 100813S08 |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | 84 | 94 | 71-137 | 9 | 0-14 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: 08/12/10
Work Order No: 10-08-0975
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| 10-08-0976-1 | Solid | GC/MS W | 08/12/10 | 08/13/10 | 100813S01 |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 96 | 93 | 61-127 | 2 | 0-20 | |
| Ethylbenzene | 91 | 90 | 57-129 | 1 | 0-22 | |
| Toluene | 94 | 92 | 63-123 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

# Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Date Received: N/A
Work Order No: 10-08-0975
Preparation: EPA 3050B
Method: EPA 6010B

Project: 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 097-01-002-13,913 | Solid | ICP 5300 | 08/16/10 | 08/16/10 | 100816L01 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | 97 | 100 | 80-120 | 73-127 | 3 | 0-20 | |
| Arsenic | 95 | 97 | 80-120 | 73-127 | 2 | 0-20 | |
| Barium | 105 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| Beryllium | 94 | 91 | 80-120 | 73-127 | 3 | 0-20 | |
| Cadmium | 97 | 95 | 80-120 | 73-127 | 1 | 0-20 | |
| Chromium | 98 | 97 | 80-120 | 73-127 | 1 | 0-20 | |
| Cobalt | 106 | 105 | 80-120 | 73-127 | 0 | 0-20 | |
| Copper | 103 | 102 | 80-120 | 73-127 | 1 | 0-20 | |
| Lead | 100 | 103 | 80-120 | 73-127 | 3 | 0-20 | |
| Molybdenum | 95 | 98 | 80-120 | 73-127 | 3 | 0-20 | |
| Nickel | 104 | 103 | 80-120 | 73-127 | 1 | 0-20 | |
| Selenium | 90 | 92 | 80-120 | 73-127 | 3 | 0-20 | |
| Silver | 99 | 98 | 80-120 | 73-127 | 1 | 0-20 | |
| Thallium | 100 | 102 | 80-120 | 73-127 | 3 | 0-20 | |
| Vanadium | 98 | 97 | 80-120 | 73-127 | 1 | 0-20 | |
| Zinc | 100 | 99 | 80-120 | 73-127 | 1 | 0-20 | |

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Conestoga-Rovers & Associates | Date Received: | N/A |
| 5900 Hollis Street, Suite A | Work Order No: | 10-08-0975 |
| Emeryville, CA 94608-2008 | Preparation: | EPA 3550B |
| | Method: | EPA 8015B |

Project: 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 099-12-025-1,327 | Solid | GC 46 | 08/13/10 | 08/13/10 | 100813B08 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Diesel Range Organics | 110 | 111 | 75-123 | 1 | 0-12 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Conestoga-Rovers & Associates | | Date Received: | N/A |
| 5900 Hollis Street, Suite A | | Work Order No: | 10-08-0975 |
| Emeryville, CA 94608-2008 | | Preparation: | EPA 3550B |
| | | Method: | EPA 8015B (M) |

Project: 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 099-12-254-1,427 | Solid | GC 46 | 08/13/10 | 08/13/10 | 100813B09 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| TPH as Motor Oil | 88 | 87 | 75-123 | 1 | 0-12 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | |
|---|---|
| Conestoga-Rovers & Associates | Date Received: N/A |
| 5900 Hollis Street, Suite A | Work Order No: 10-08-0975 |
| Emeryville, CA 94608-2008 | Preparation: EPA 7471A Total |
| | Method: EPA 7471A |

Project: 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 099-04-007-7,341 | Solid | Mercury | 08/13/10 | 08/13/10 | 100813L08 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | 107 | 106 | 85-121 | 0 | 0-10 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | |
|---|---|
| Conestoga-Rovers & Associates | Date Received: N/A |
| 5900 Hollis Street, Suite A | Work Order No: 10-08-0975 |
| Emeryville, CA 94608-2008 | Preparation: EPA 5030B |
| | Method: LUFT GC/MS / EPA 8260B |

Project: 2703 Martin Luther King Way, Oakland, CA

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 099-12-798-1,153 | Solid | GC/MS W | 08/13/10 | 08/13/10 | 100813L02 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 104 | 103 | 78-120 | 0 | 0-20 | |
| Ethylbenzene | 106 | 107 | 76-120 | 1 | 0-20 | |
| Toluene | 105 | 104 | 77-120 | 1 | 0-20 | |
| TPPH | 94 | 94 | 65-135 | 0 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 10-08-0975

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| E | Concentration exceeds the calibration range. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |
| | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. |

# Shell Oil Products Chain Of Custody Record

**LAB (LOCATION)**
- [x] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [ ] OTHER (_____)

**Please Check Appropriate Box:**
- [ ] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [x] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER _____

Print Bill To Contact Name: Aubrey Cool 060332

PO #:

INCIDENT # (ENV SERVICES): 97093397

SAP #: 1294499

[ ] CHECK IF NO INCIDENT # APPLIES

DATE: _____

PAGE: _____ of _____

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 2703 Martin Luther King Way, Oakland

State: CA

GLOBAL ID NO: T0600101876

ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608

EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville

PHONE NO: 510-420-3343

E-MAIL: shell.em.edf@craworld.com

CONSULTANT PROJECT NO: 240781-95-10.12

PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer

TELEPHONE: 510-420-0070

FAX: 510-420-9170

E-MAIL: pschaefer@craworld.com

SAMPLER NAME(S) (Print): David Grunat

LAB USE ONLY: 10-08-0975

TURNAROUND TIME (CALENDAR DAYS):
- [x] STANDARD (14 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

**SPECIAL INSTRUCTIONS OR NOTES:**
FOLLOW ATTACHED CONTINGENT ANALYSIS
Copy of final report to Shell.Lab.Billing@craworld.com
cc: KARI DUPLER - kdupler@craworld.com

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] RECEIPT VERIFICATION REQUESTED

**REQUESTED ANALYSIS**

| LAB USE ONLY | Field Sample Identification | SAMPLING DATE | SAMPLING TIME | MATRIX | PRESERVATIVE HCL | HNO3 | H2SO4 | NONE | OTHER | NO. OF CONT. | TPH -GRO, Purgeable (8260B) | TPH -DRO, Extractable (8015M) | TPHg (8015M) | BTEX (5260B) | BTEX + MTBE (8260B) | BTEX + MTBE + TBA (8260B) | BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B | Full VOC list (8260B) | Single Compound: _____ (8260B) | 1,2-DCA (8260B) | EDB (8260B) | Ethanol (8260B) | Methanol (8015M) | Total lead | TPHmo (8015M) | CAM 17 metals - total (6010) | | | TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | WASTE-1 | 8/10 | 1330 | Soil | | | | X | | 4 | X | X | | X | | | | | | | | | | | | X | X | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |
|---|---|---|---|
| | Secure office location | 8/10/10 | 745PM |
| Kari Dupler | CFL | 8-11-10 | 1235 |
| GSO 8-11-10 1730 | | 8/12/10 | 1030 |

05/2/06 Revision

0975

## Contingent analyses

- Organic lead required if TTLC lead ≥ 13 mg/kg
- Aquatic bioassay required if **any** TPH (gasoline, diesel, or motor oil) ≥ 5,000 mg/kg
- TCLP benzene required if benzene ≥ 10 mg/kg
- TCLP and STLC required for metals per table below

| Metal | Trigger level TTLC (mg/kg) | Requirement |
|---|---|---|
| Antimony | 150 | STLC required if TTLC ≥ 150 mg/kg |
| Arsenic | 50/100 | STLC required if TTLC ≥ 50 mg/kg;<br>STLC and TCLP required if TTLC ≥ 100 mg/kg |
| Barium | 1,000/2,000 | STLC required if TTLC ≥ 1,000 mg/kg;<br>STLC and TCLP required if TTLC ≥ 2,000 mg/kg |
| Beryllium | 7.5 | STLC required if TTLC ≥ 7.5 mg/kg |
| Cadmium | 10/20 | STLC required if TTLC ≥ 10 mg/kg;<br>STLC and TCLP required if TTLC ≥ 20 mg/kg |
| Chromium | 50/100 | STLC required if TTLC ≥ 50 mg/kg;<br>STLC and TCLP required if TTLC ≥ 100 mg/kg |
| Cobalt | 800 | STLC required if TTLC ≥ 800 mg/kg |
| Copper | 250 | STLC required if TTLC ≥ 250 mg/kg |
| Lead | 50/100 | STLC required if TTLC ≥ 50 mg/kg;<br>STLC and TCLP required if TTLC ≥ 100 mg/kg |
| Mercury | 2/4 | STLC required if TTLC ≥ 2 mg/kg;<br>STLC and TCLP required if TTLC ≥ 4 mg/kg |
| Molybdenum | 350 | STLC required if TTLC ≥ 350 mg/kg |
| Nickel | 200 | STLC required if TTLC ≥ 200 mg/kg |
| Selenium | 10/20 | STLC required if TTLC ≥ 10 mg/kg;<br>STLC and TCLP required if TTLC ≥ 20 mg/kg |
| Silver | 50/100 | STLC required if TTLC ≥ 50 mg/kg;<br>STLC and TCLP required if TTLC ≥ 100 mg/kg |
| Thallium | 70 | STLC required if TTLC ≥ 70 mg/kg |
| Vanadium | 240 | STLC required if TTLC ≥ 240 mg/kg |
| Zinc | 2,500 | STLC required if TTLC ≥ 2,500 mg/kg |

GSO

**WebShip**

800-322-5555 www.gso.com

0975

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

**COD:**
$0.00

**Reference:**
CRA, ERI

**Delivery Instructions:**

**Signature Type:**
SIGNATURE REQUIRED

Tracking #: 514727342

**NPS**

**ORC**

**D**

**GARDEN GROVE**

**D92843A**

83833111

Print Date : 08/11/10 13:53 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-08-0975

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA DATE: 08/12/10

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.9 °C + 0.5 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter ☐ Metals Only ☐ PCBs Only Initial: JF

**CUSTODY SEALS INTACT:**

| | | | | | |
|---|---|---|---|---|---|
| ☑ Cooler | ☐_____ | ☐ No (Not Intact) | ☐ Not Present | ☐ N/A | Initial: JF |
| ☐ Sample | ☐_____ | ☐ No (Not Intact) | ☑ Not Present | | Initial: WSC |

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Residual Chlorine / Dissolved Sulfide received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☑Sleeve (5) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOAh ☐VOA$na_2$ ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGB$na_2$ ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJ$na_2$ ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** WSC

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** JF

**Preservative:** h: HCL n: $HNO_3$ $na_2$:$Na_2S_2O_3$ na: NaOH p: $H_3PO_4$ s: $H_2SO_4$ znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** WSC

# APPENDIX E

# WASTE DISPOSAL MANIFESTS

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | NOT REQUIRED | 1 | 800-424-9300 | 215574 |

5. Generator's Name and Mailing Address
Shell Oil Products US
One Shell Plaza, 910 Louisiana, Room #673, Houston, TX 77002
Generator's Phone

Generator's Site Address (if different than mailing address)
2703 Martin Luther King
Oakland, CA 94612

6. Transporter 1 Company Name: American Integrated Services, Inc.
U.S. EPA ID Number: CAR000148338

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 16th Street
Long Beach, CA 90813 562-432-5445
Facility's Phone:
U.S. EPA ID Number: CAD028409019

| 9a. | 9b. U.S. DOT Description (including Proper Shipping Name) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous Waste Liquid (Sludge) | 3 | DM | 105 | G | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information
Wear protective equipment while handling. Weights or volumes are approximate. 24 hour emergency number (800) 424-9300 Chemtrec.

RIPR#: 85214
SAP#: 129449
Incident#: 97093397
Profile#: 27578
Project #: 30038-01

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: AIS on behalf of SOPUS - J Sherman
Signature
Month 10 Day 27 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgement of Receipt of Materials

Transporter 1 Printed/Typed Name: Rigo Valencia
Signature
Month 10 Day 27 Year 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy

17a Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | NOT REQUIRED | 1 | 800-424-9300 | 215573 |

5. Generator's Name and Mailing Address
Shell Oil Products US
One Shell Plaza, 910 Louisiana, Room #673, Houston, TX 77002
Generator's Phone

Generator's Site Address (if different than mailing address)
2703 Martin Luther King
Oakland, CA 94612

6. Transporter 1 Company Name: American Integrated Services, Inc.
U.S. EPA ID Number: CAR000148338

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Keller Canyon Landfill
901 Bailey Road
Facility's Phone: Pittsburg, CA 94565 925-458-9800
U.S. EPA ID Number: Not Required

| 9a. | 9b. U.S. DOT Description (including Proper Shipping Name) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous Waste Solid (Soil) | 9 | DM | 4500 | P | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information
Wear protective equipment while handling. Weights or volumes are approximate. 24 hour emergency number (800) 424-9300 Chemtrec.

RIPR#: 85213
SAP#: 120449
Incident#: 97093397
Profile#: 4212107702
Project #: 30038-81

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: AIS on behalf of SOPUS - J Sherman
Signature
Month 08 Day 27 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgement of Receipt of Materials

Transporter 1 Printed/Typed Name: Rigo Valencia
Signature
Month 08 Day 27 Year 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy

17a Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

GENERATOR / INT'L / TRANSPORTER / DESIGNED FACILITY