



**CONESTOGA-ROVERS
& ASSOCIATES**

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: September 29, 2009 REFERENCE NO.: 240472
 PROJECT NAME: 105 Fifth Street, Oakland
 TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Please find enclosed: Draft Final
 Originals Other
 Prints
 Sent via: Mail Same Day Courier
 Overnight Courier Other GeoTracker and ACEH FTP uploads

QUANTITY	DESCRIPTION
1	Soil Vapor Probe Installation and Sampling Report

As Requested For Review and Comment
 For Your Use _____

COMMENTS:

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

Copy to: Denis Brown, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810
Arthur R. and Mary A. Hansen, 820 Loyola Drive, Los Altos, CA 94024

Completed by: Peter Schaefer Signed: *Peter Schaefer*

Filing: **Correspondence File**



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

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

Re: Shell-branded Service Station
105 Fifth Street
Oakland, California
SAP Code 135700
Incident No. 98995757
ACEH Case No. RO0000487

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,

A handwritten signature in black ink, appearing to read "Denis L. Brown", is written over a horizontal line.

Denis L. Brown
Project Manager



SOIL VAPOR PROBE INSTALLATION AND SAMPLING REPORT

**SHELL-BRANDED SERVICE STATION
105 FIFTH STREET
OAKLAND, CALIFORNIA**

**SAP CODE 135700
INCIDENT NO. 98995757
AGENCY NO. RO0000487**

**SEPTEMBER 29, 2009
REF. NO. 240472 (6)**

This report is printed on recycled paper.

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

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to present the recent soil vapor probe installation details and soil vapor sampling results. CRA followed the scope of work presented in our March 25, 2009 work plan, which was approved by Alameda County Environmental Health (ACEH) in their May 1, 2009 letter.

CRA installed soil vapor probes SVP-1 through SVP-5 on August 5 and 7, 2009, and sampled the soil vapor probes on August 25, 2009. Due to interference with underground utilities, one of the proposed soil vapor probes (SVP-1) could not be safely installed. Proposed probe SVP-6 was renumbered as SVP-1.

The site is an active Shell-branded service station located on the western corner of Fifth Street and Oak Street in Oakland, California (Figure 1). Currently, the site layout consists of a kiosk, four underground storage tanks (USTs), and two dispenser islands (Figure 2). The area surrounding the site is of mixed commercial and residential use.

A summary of previous work performed at the site and additional background information is contained in CRA's March 25, 2009 *Soil Vapor Probe Installation and Soil Vapor Sampling Work Plan* and is not repeated herein.

2.0 SOIL VAPOR PROBE INSTALLATION AND SAMPLING

2.1 PERMIT

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

2.2 FIELD DATES

August 5 and 7, 2009.

2.3 DRILING COMPANY

Gregg Drilling & Testing, Inc.

2.4 PERSONNEL PRESENT

Geologist Erin Reinhart-Koylu directed the probe installation working under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHOD

Air- and water-knife.

2.6 NUMBER OF PROBES

CRA installed five soil vapor probes (SVP-1 through SVP-5). Due to interference with underground utilities, one of the proposed soil vapor probes (SVP-1) could not be safely installed. Proposed probe SVP-6 was renumbered as SVP-1. The probe specifications and soil types encountered are described on the boring logs contained in Appendix B. The probe locations are shown on Figure 2.

2.7 VAPOR POINT MATERIALS

The vapor probes were constructed using ¼-inch diameter Teflon tubing attached to 1-inch length plastic screen intervals, and #2/12 Monterey sand filter pack. Probe diagrams are provided with boring logs in Appendix B.

2.8 SCREENED INTERVALS

4.66 to 4.75 feet below grade (fbg).

2.9 SOIL VAPOR SAMPLING

Prior to sampling, CRA purged at least three tubing volumes of air from each vapor probe using a vacuum pump. Immediately after purging, soil vapor samples were collected using a laboratory-supplied Tedlar® bag. During sampling, the Teflon® tubing for each vapor probe was connected to a lung box containing the Tedlar® bag, and the lung box chamber was connected to the vacuum pump. The sample was then drawn into the Tedlar® bag by reducing the pressure in the lung box with the vacuum pump.

Each 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, a containment unit (or shroud) was placed to cover the soil gas probe surface casing and sampling manifold. Prior to soil gas probe purging, helium was introduced into the containment unit to obtain a minimum 50 percent helium content level. The helium content within the containment unit was confirmed using a helium meter. The helium meter readings are presented in Section 3.1. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.1 and on Table 1.

CRA sampled soil vapor probes SVP-1 through SVP-5 on August 25, 2009.

2.10 SOIL VAPOR SAMPLING ANALYSIS

Soil vapor samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by modified EPA Method TO-15M and for helium by ASTM D Method 1946 (M).

2.11 WASTE DISPOSAL

Soil and water-knife sludge generated during field activities were stored on site in 55-gallon drums, sampled, and profiled for disposal. Analytical results are presented in Appendix C. Waste disposal confirmation documentation is pending and will be provided by CRA upon request.

3.0 SOIL VAPOR PROBE SAMPLING RESULTS

Soil vapor samples collected on August 25, 2009 contained up to 20,000 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) benzene (SVP-3), 1,200 $\mu\text{g}/\text{m}^3$ toluene (SVP-3), 61,000 $\mu\text{g}/\text{m}^3$ ethylbenzene (SVP-3), and 35 $\mu\text{g}/\text{m}^3$ xylenes (SVP-5).

Table 1 summarizes the soil vapor analytical data. BTEX results are shown on Figure 2, and the laboratory analytical reports are presented in Appendix C.

3.1 LEAK TESTING

Leak testing was performed as described above, and helium was not detected in any of the samples. As seen in the following table, the concentration of helium (>0.0100 percent by volume [%v]) detected in the samples is below 10 percent of the concentration detected in the shroud. A concentration of greater than 10 percent of the concentration in the shroud would invalidate a sample.

<i>Probe ID</i>	<i>Helium detected in sample (%v)</i>	<i>Helium detected in shroud (%v)</i>	<i>Maximum acceptable helium concentration in sample (%v)</i>
SVP-1	<0.0100	58	5.8
SVP-2	<0.0100	66	6.6
SVP-3	<0.0100	58	5.8
SVP-4	<0.0100	60	6.0
SVP-5	<0.0100	62	6.2

The laboratory analytical reports for helium are presented in Appendix C, and CRA includes the results on Table 1.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Benzene and ethylbenzene concentrations in soil vapor samples from probes SVP-1 and SVP-3 exceeded San Francisco Bay Regional Water Quality Control Board¹ (RWQCB) environmental screening levels (ESLs) for commercial land use.

All soil vapor sample detections for toluene and xylenes are below the commercial land use ESLs, and no soil vapor detections from soil vapor probes SVP-2, SVP-4, and SVP-5 exceed ESLs.

Based on the results from SVP-1 and SVP-3, CRA recommends re-sampling to confirm the initial results. If re-sampling confirms the initial results, CRA recommends installing and sampling a sub-slab soil vapor probe between SVP-3 and the kiosk to evaluate the potential for benzene and ethylbenzene in soil vapor to impact indoor air.

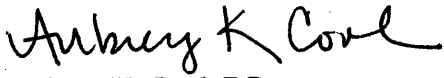
Soil vapor samples will be collected in Tedlar® bags and analyzed for BTEX by EPA Method TO-15M and for helium by ASTM D Method 1946 (M).

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

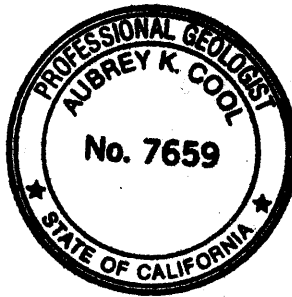
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES



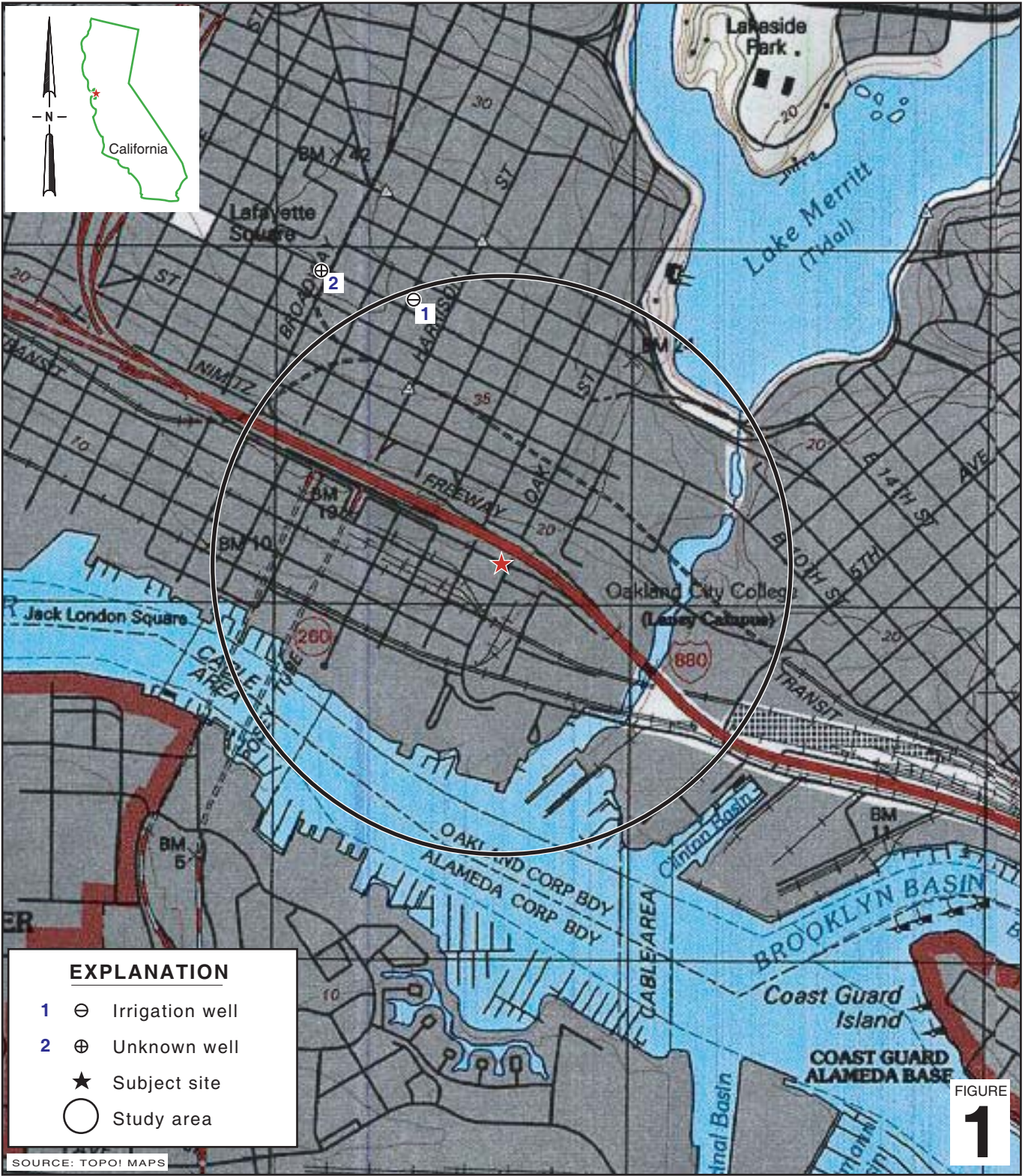
Peter Schaefer, CEG, CHG



Aubrey K. Cool, PG



FIGURES



I:\Shell\6-chara\2404--1\240472-Oakland 105 Fifth\240472-FIGURES\240472 VICINITY.A1

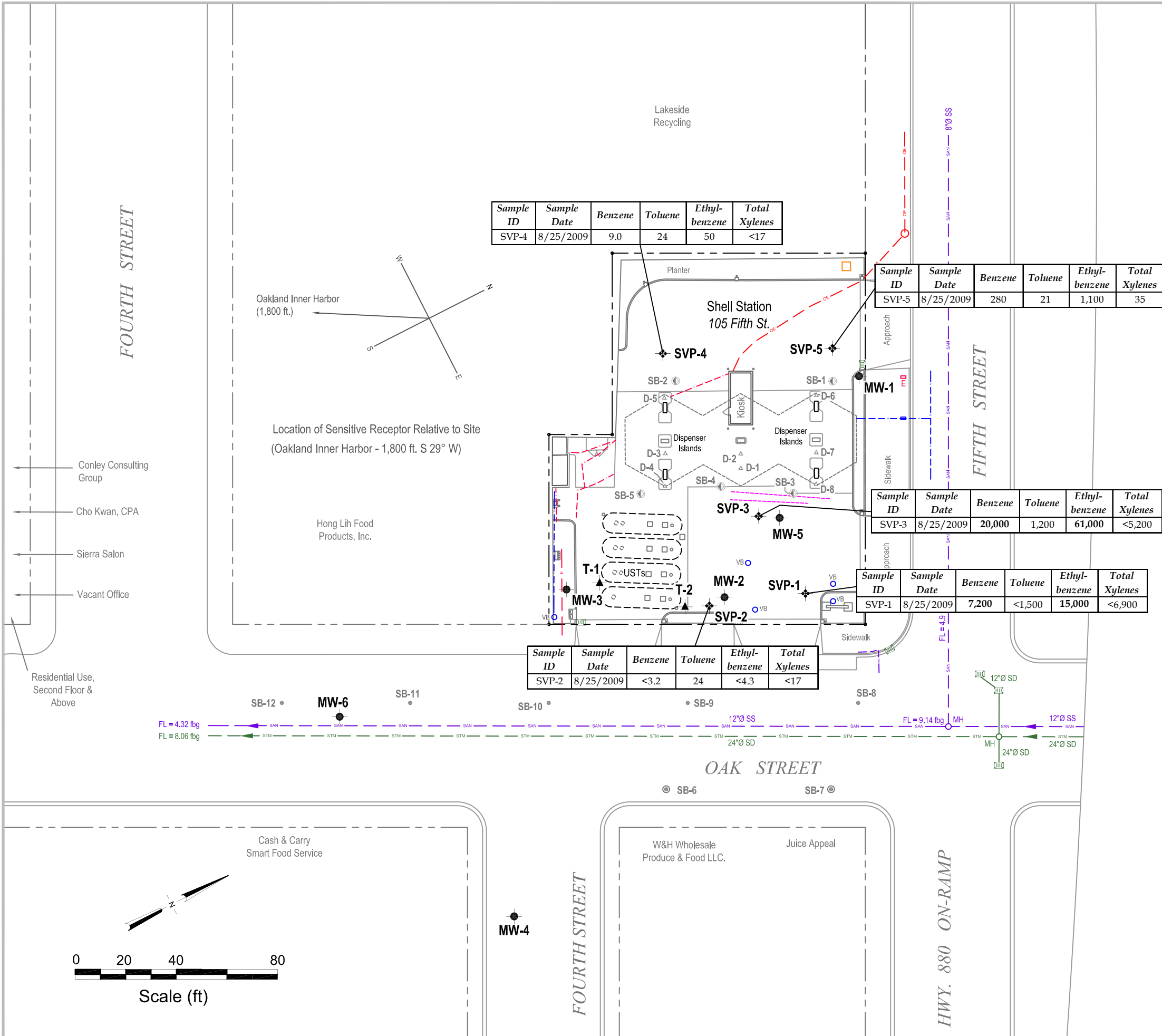
Shell-branded Service Station
 105 Fifth Street
 Oakland, California



**CONESTOGA-ROVERS
 & ASSOCIATES**

Vicinity Map

I:\Shell\6-chars\2404-1240472-Oakland 105 Fifth\2404-72-FIGURES\240472 SOIL VAPOR DATA 8-25-09.DWG



Sample ID	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SVP-4	8/25/2009	9.0	24	50	<17

Sample ID	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SVP-5	8/25/2009	280	21	1,100	35

Sample ID	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SVP-3	8/25/2009	20,000	1,200	61,000	<5,200

Sample ID	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SVP-1	8/25/2009	7,200	<1,500	15,000	<6,900

Sample ID	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SVP-2	8/25/2009	<3.2	24	<4.3	<17

EXPLANATION

- SVP-1 ◆ Soil vapor probe location (8/09)
- MW-1 ● Monitoring well location
- T-1 ▲ Tank backfill well location
- SB-8 ● Soil boring location (3/02)
- SB-6 ● Soil boring location (2/01)
- SB-1 ● Soil boring location (7/98)
- D-1 ▲ Soil sample location

- OE — Overhead electrical line (OE)
- E — Electrical line (E)
- T — Telecommunication line (T)
- Unknown utility line
- W — Water line (W)
- STM — Storm drain line (STM)
- SAN — Sanitary sewer line (SAN)

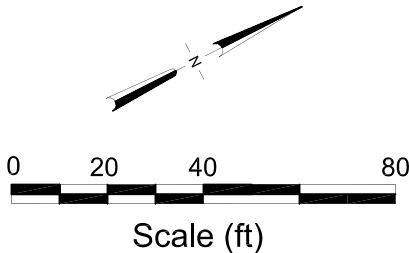
- ▲ Flow direction
- MH ○ Manhole
- VB ○ Vault Box
- Storm drain inlet
- fbg Feet below grade

Note: All utility locations are approximate

Sample ID	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes
SVP-1	8/25/2009	7,200	<1,500	15,000	<6,900

Soil vapor sample ID and concentrations, in micrograms per cubic meter

Note: <X = Not detected at laboratory reporting limit X



Soil Vapor Sampling Data

August 25, 2009



Shell-branded Service Station
105 Fifth Street
Oakland, California

FIGURE
2

TABLE

TABLE 1

SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
105 5TH STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Helium (%v)
SVP-1	8/25/2009	7,200	<1,500	15,000	<6,900	<0.0100
SVP-2	8/25/2009	<3.2	24	<4.3	<17	<0.0100
SVP-3	8/25/2009	20,000	1,200	61,000	<5,200	<0.0100
SVP-4	8/25/2009	9.0	24	50	<17	<0.0100
SVP-5	8/25/2009	280	21	1,100	35	<0.0100
ESLs ^a		280	180,000	3,300	58,000	---

Notes:

All results in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) unless otherwise indicated.
Benzene, toluene, ethylbenzene, and xylenes by Modified EPA Method TO-15M
Helium analyzed by ASTM D-1946 (M)

v% = Percentage by volume

<x = Not detected at reporting limit x

ESL = Environmental screening level

--- = No applicable ESL

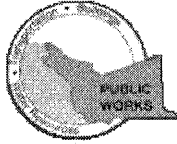
Results in **bold** exceed environmental screening level

a = San Francisco Bay Regional Water Quality Control Board (RWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns - commercial/ industrial land use from RWQCB's *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 (Revised May 2008).

APPENDIX A

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: 07/01/2009 By jamesy

Permit Numbers: W2009-0612
Permits Valid from 07/20/2009 to 09/20/2009

Application Id: 1245362143820
Site Location: Shell Service Station
105 Fifth Street,

City of Project Site:Oakland

Project Start Date: 07/20/2009
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Completion Date:09/20/2009

Applicant: Conestoga-Rovers & Associates - Erin Reinhart-Koylu
5900 Hollis St, Suite A, Emeryville, CA 94608

Phone: 510-420-0700

Property Owner: Shell Shell Oil Products US
20945 S Wilmington Ave., Carson, CA 90810

Phone: --

Client: Shell Shell Oil Products US
20945 S Wilmington Ave., Carson, CA 90810

Phone: --

Contact: Erin Reinhart-Koylu

Phone: 510-420-3372
Cell: 510-385-0074

	Total Due:	\$230.00
Receipt Number: WR2009-0236	Total Amount Paid:	\$230.00
Payer Name : Conestoga-Rovers & Associates		PAID IN FULL
		Paid By: CHECK

Works Requesting Permits:

Remediation Well Construction-Vapor Remediation Well - 6 Wells
Driller: Gregg Drilling & Testing - Lic #: 485165 - Method: air

Work Total: \$230.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0612	07/01/2009	10/18/2009	SVP-1	6.00 in.	0.25 in.	2.00 ft	5.00 ft
W2009-0612	07/01/2009	10/18/2009	SVP-2	6.00 in.	0.25 in.	2.00 ft	5.00 ft
W2009-0612	07/01/2009	10/18/2009	SVP-3	6.00 in.	0.25 in.	2.00 ft	5.00 ft
W2009-0612	07/01/2009	10/18/2009	SVP-4	6.00 in.	0.25 in.	2.00 ft	5.00 ft
W2009-0612	07/01/2009	10/18/2009	SVP-5	6.00 in.	0.25 in.	2.00 ft	5.00 ft
W2009-0612	07/01/2009	10/18/2009	SVP-6	6.00 in.	0.25 in.	2.00 ft	5.00 ft

Specific Work Permit Conditions

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

Alameda County Public Works Agency - Water Resources Well Permit

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 B

BORING LOGS



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	SVP-1
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	05-Aug-09
LOCATION	105 Fifth Street, Oakland, California	DRILLING COMPLETED	05-Aug-09
PROJECT NUMBER	240472	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	4.66 to 4.75 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.5			ASPHALT	0.5	<p>Flush-grade 5" well box 1/4" teflon sample tubing Portland Type I/II Bentonite Seal Monterey Sand #2/12 1" Polyethylene vapor screen Bottom of Boring @ 5 fbg</p>
				5	SM		Silty SAND (SM) ; very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	5.0	

WELL LOG (PID) I:\SHELL16-CHARS\2404-1240472-GINT.GPJ DEFAULT.GDT 9/1/09



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 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	SVP-2
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	05-Aug-09
LOCATION	105 Fifth Street, Oakland, California	DRILLING COMPLETED	05-Aug-09
PROJECT NUMBER	240472	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	4.66 to 4.75 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS			

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	<ul style="list-style-type: none"> Flush-grade 5" well box 1/4" teflon sample tubing Portland Type I/II Bentonite Seal Monterey Sand #2/12 1" Polyethylene vapor screen
				5	ML		Clayey Silt (ML) ; very dark brown (10YR 2/2); dry; 40% clay, 60% silt.	5.0	
									Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2404-1240472-12437FE-1240472-GINT.GPJ DEFAULT GDT 9/1/09



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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-3
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	05-Aug-09
LOCATION	105 Fifth Street, Oakland, California	DRILLING COMPLETED	05-Aug-09
PROJECT NUMBER	240472	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	4.66 to 4.75 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA

REMARKS

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	<p>Flush-grade 5" well box 1/4" teflon sample tubing Portland Type I/II Bentonite Seal Monterey Sand #2/12 1" Polyethylene vapor screen Bottom of Boring @ 5 fbg</p>
				5	SM	Silty SAND (SM); very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	5.0		

WELL LOG (PID) I:\SHELL16-CHARS\2404-1240472-12437FE-1240472-GINT.GPJ DEFAULT.GDT 9/1/09



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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-4
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	07-Aug-09
LOCATION	105 Fifth Street, Oakland, California	DRILLING COMPLETED	07-Aug-09
PROJECT NUMBER	240472	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	4.66 to 4.75 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS			

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	<p> Flush-grade 5" well box 1/4" teflon sample tubing Portland Type I/II Bentonite Seal Monterey Sand #2/12 1" Polyethylene vapor screen Bottom of Boring @ 5 fbg </p>
				5	SM	Silty SAND (SM); very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	5.0		

WELL LOG (PID) I:\SHELL\6-CHARS\2404-240472-12437FE-1240472-GINT.GPJ DEFAULT.GDT 9/1/09



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

BORING / WELL LOG

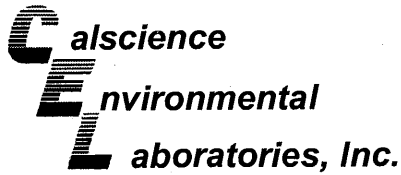
CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-5
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	07-Aug-09
LOCATION	105 Fifth Street, Oakland, California	DRILLING COMPLETED	07-Aug-09
PROJECT NUMBER	240472	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	4.66 to 4.75 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS			

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	<p>Flush-grade 5" well box 1/4" teflon sample tubing Portland Type I/II Bentonite Seal Monterey Sand #2/12 1" Polyethylene vapor screen Bottom of Boring @ 5 fbg</p>
				5	SM		Silty SAND (SM) ; very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	5.0	

WELL LOG (PID) I:\SHELL\6-CHARS\2404-1240472-12437FE-1240472-GINT.GPJ_DEFAULT.GDT 9/1/09

APPENDIX C

CERTIFIED ANALYTICAL REPORTS



August 31, 2009

The original report has been revised/corrected.

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

Subject: **Calscience Work Order No.: 09-08-2081**
Client Reference: **105 Fifth Street, Oakland, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/26/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. 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,

A handwritten signature in cursive script that reads "Jessie Lee".

Calscience Environmental
Laboratories, Inc.
Jessie Lee
Project Manager

A handwritten signature in cursive script, likely belonging to a representative of Calscience Environmental Laboratories, Inc.

Analytical Report



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

Date Received: 08/26/09
 Work Order No: 09-08-2081
 Preparation: N/A
 Method: EPA TO-15M
 Units: ug/m3

Project: 105 Fifth Street, Oakland, CA

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	09-08-2081-1-A	08/25/09 11:22	Air	GC/MS K	N/A	08/26/09 19:11	090826L01

Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	7200	1300	800		Ethylbenzene	15000	1700	800	
Toluene	ND	1500	800		Xylenes (total)	ND	6900	800	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	113	57-129			1,2-Dichloroethane-d4	101	47-137		
Toluene-d8	101	78-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	09-08-2081-2-A	08/25/09 10:47	Air	GC/MS K	N/A	08/26/09 21:32	090826L01

Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	3.2	2		Ethylbenzene	ND	4.3	2	
Toluene	24	3.8	2		Xylenes (total)	ND	17	2	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	104	57-129			1,2-Dichloroethane-d4	101	47-137		
Toluene-d8	99	78-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	09-08-2081-3-A	08/25/09 11:50	Air	GC/MS K	N/A	08/26/09 18:24	090826L01

Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

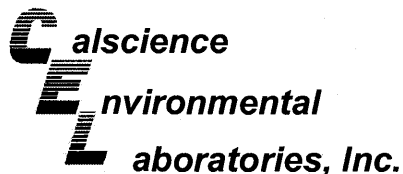
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	20000	960	600		Ethylbenzene	61000	1300	600	
Toluene	1200	1100	600		Xylenes (total)	ND	5200	600	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	110	57-129			1,2-Dichloroethane-d4	103	47-137		
Toluene-d8	105	78-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	09-08-2081-4-A	08/25/09 12:16	Air	GC/MS K	N/A	08/26/09 23:54	090826L01

Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	9.0	3.2	2		Ethylbenzene	50	4.3	2	
Toluene	24	3.8	2		Xylenes (total)	ND	17	2	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	103	57-129			1,2-Dichloroethane-d4	96	47-137		
Toluene-d8	99	78-156							

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



Analytical Report



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

Date Received: 08/26/09
Work Order No: 09-08-2081
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: 105 Fifth Street, Oakland, CA

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	09-08-2081-5-A	08/25/09 12:00	Air	GC/MS K	N/A	08/26/09 23:07	090826L01

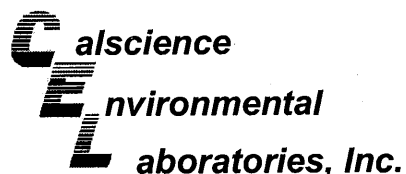
Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	280	6.4	4		Ethylbenzene	1100	35	16	
Toluene	21	7.5	4		Xylenes (total)	35	35	4	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	115	57-129			1,2-Dichloroethane-d4	99	47-137		
Toluene-d8	98	78-156							

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-09-002-8,953	N/A	Air	GC/MS K	N/A	08/26/09 11:51	090826L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1		Ethylbenzene	ND	2.2	1	
Toluene	ND	1.9	1		Xylenes (total)	ND	8.7	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	104	57-129			1,2-Dichloroethane-d4	111	47-137		
Toluene-d8	102	78-156							

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



Analytical Report



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

Date Received: 08/26/09
Work Order No: 09-08-2081
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 105 Fifth Street, Oakland, CA

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1	09-08-2081-1-A	08/25/09 11:22	Air	GC 55	N/A	08/26/09 00:00	090826L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	09-08-2081-2-A	08/25/09 10:47	Air	GC 55	N/A	08/26/09 00:00	090826L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	09-08-2081-3-A	08/25/09 11:50	Air	GC 55	N/A	08/26/09 00:00	090826L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	09-08-2081-4-A	08/25/09 12:16	Air	GC 55	N/A	08/26/09 00:00	090826L01

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

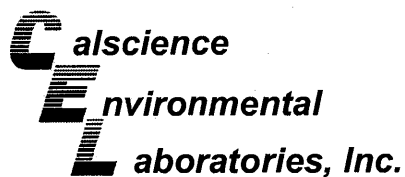
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	09-08-2081-5-A	08/25/09 12:00	Air	GC 55	N/A	08/26/09 00:00	090826L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-872-13	N/A	Air	GC 55	N/A	08/26/09 00:00	090826L01

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

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



Quality Control - LCS/LCS Duplicate



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

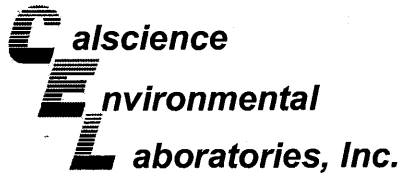
Date Received: N/A
 Work Order No: 09-08-2081
 Preparation: N/A
 Method: EPA TO-15M

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-09-002-8,953	Air	GC/MS K	N/A	08/26/09	090826L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	115	110	60-156	4	0-40	
Toluene	120	111	56-146	8	0-43	
Ethylbenzene	128	116	52-154	10	0-38	
p/m-Xylene	129	116	42-156	11	0-41	
o-Xylene	129	115	52-148	11	0-38	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
 Work Order No: 09-08-2081
 Preparation: N/A
 Method: ASTM D-1946 (M)

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-13	Air	GC 55	N/A	08/26/09	090826L01

Parameter	LCS Conc	LCSD Conc	RPD	RPD CL	Qualifiers
Helium	0.9663	0.9600	1	0-30	
Hydrogen	0.9918	0.9845	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 09-08-2081

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
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 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 with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
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.
N	Nontarget Analyte.
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.
U	Undetected at the laboratory method detection limit.
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.

LAB (LOCATION)

- CALSCIENCE (_____)
- SPL (_____)
- XENCO (_____)
- TEST AMERICA (_____)
- OTHER (_____)



Shell Oil Products Chain Of Custody Record

Please Check Appropriate Box:

<input checked="" type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SDA&M	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER _____	

Print Bill To Contact Name: **Peter Schaefer**

INCIDENT # (ENV SERVICES): **9 8 9 9 5 7 5 7** CHECK IF NO INCIDENT # APPLIES

PO #: _____ SAP #: _____

DATE: 8/25/2009

PAGE: 1 of 1

SAMPLING COMPANY: **Conestoga-Rovers & Associates**

LOG CODE: **CRAW**

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

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

TELEPHONE: **510-420-3319** FAX: **510-420-9170** EMAIL: **pschaefer@crawworld.com**

SITE ADDRESS: Street and City: **150 Fifth St., Oakland** State: **CA** GLOBAL ID NO: **TO600102116**

EDF DELIVERABLE TO (Name, Company, Office Location): **Brenda Carter, CRA, Emeryville** PHONE NO: **510-420-3343** EMAIL: **shelledf@crawworld.com** CONSULTANT PROJECT NO: **60119**

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:

SAMPLER NAME(S) (Print): **Erin Reinhart-Koylu**

LAB USE ONLY: **09-08-2081**

SPECIAL INSTRUCTIONS OR NOTES:

Must be analysis within 72 hours.

SHELL CONTRACT RATE APPLIES

STATE REIMBURSEMENT RATE APPLIES

EDD NOT NEEDED

RECEIPT VERIFICATION REQUESTED

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	TPH - Purgeable (8260B)	TPHg (8260B)	BTEX (8260B)	Hellum (ASTM D 1946 M)	TEMPERATURE ON RECEIPT °C	Container PID Readings or Laboratory Notes
		DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER							
1	SVP-1	8/25/09	11:22	Vapor					X	1		X	X			
2	SVP-2	8/25/09	10:47	Vapor					X	1		X	X			
3	SVP-3	8/25/09	11:50	Vapor					X	1		X	X			
4	SVP-4	8/25/09	12:16	Vapor					X	1		X	X			
5	SVP-5	8/25/09	12:00	Vapor					X	1		X	X			

Relinquished by: (Signature) <i>Erin Reinhart-Koylu</i>	Received by: (Signature) <i>[Signature]</i> CEL	Date: 8/25/09	Time: 13:45
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature) # 512513629	Received by: (Signature) <i>Priscilla R. Carter</i>	Date: 8/26/09	Time: 10:30

SAMPLE RECEIPT FORM

Box
Cooler 1 of 1

CLIENT: CRA

DATE: 08/26/09

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature _____ °C - 0.2°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: PS

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: PS

Sample _____ No (Not Intact) Not Present Initial: PS

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® _____

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

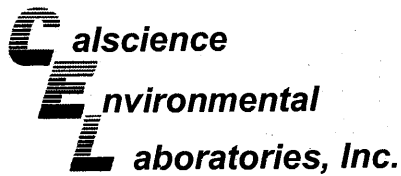
500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBz_{nna} 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® _____ **Other:** _____ **Checked/Labeled by:** PS

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

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ Na: NaOH p: H₃PO₄ s: H₂SO₄ z_{nna}: ZnAc₂+NaOH f: Field-filtered **Scanned by:** PS



August 28, 2009

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

Subject: **Calscience Work Order No.: 09-08-0924**
Client Reference: 105 Fifth Street, Oakland, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/11/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. 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.

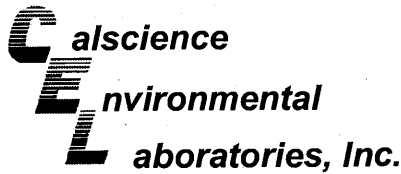
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jessie Lee", is positioned above the typed name.

Calscience Environmental
Laboratories, Inc.
Jessie Lee
Project Manager

A handwritten signature in cursive script, appearing to read "Jessie Lee", is located at the bottom left of the page.



Analytical Report



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

Date Received: 08/11/09
Work Order No: 09-08-0924
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: 105 Fifth Street, Oakland, CA

Page 1 of 1

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-1	09-08-0924-1-A	08/05/09 11:30	Solid	ICP 5300	08/17/09	08/18/09 23:36	090817L02

Comment(s): -Mercury was analyzed on 8/17/2009 3:57:49 PM with batch 090817L04

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Mercury	0.0865	0.0835	1	
Arsenic	5.50	0.750	1		Molybdenum	0.625	0.250	1	
Barium	124	0.500	1		Nickel	41.1	0.250	1	
Beryllium	ND	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	34.9	0.250	1		Thallium	ND	0.750	1	
Cobalt	8.55	0.250	1		Vanadium	21.9	0.250	1	
Copper	22.4	0.500	1		Zinc	302	1.00	1	
Lead	35.5	0.500	1						

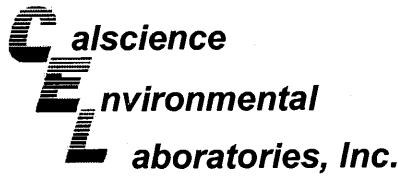
Method Blank	099-04-007-6,483	N/A	Solid	Mercury	08/17/09	08/17/09 15:37	090817L04
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Parameter	Result	RL	DF	Qual
Mercury	ND	0.0835	1	

Method Blank	097-01-002-12,632	N/A	Solid	ICP 5300	08/17/09	08/18/09 10:16	090817L02
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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



Analytical Report



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

Date Received: 08/11/09
 Work Order No: 09-08-0924
 Preparation: EPA 3550B
 Method: EPA 8015B

Project: 105 Fifth Street, Oakland, CA

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-1	09-08-0924-1-A	08/05/09 11:30	Solid	GC 47	08/11/09	08/12/09 09:54	090811B06

Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics	270	25	5		mg/kg

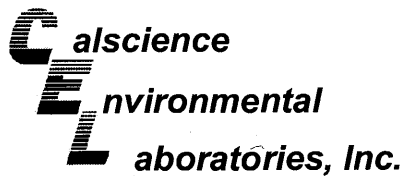
Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	113	61-145	

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-025-805	N/A	Solid	GC 47	08/11/09	08/11/09 20:55	090811B06

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

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	104	61-145	

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



Analytical Report



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

Date Received: 08/11/09
Work Order No: 09-08-0924
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: 105 Fifth Street, Oakland, CA

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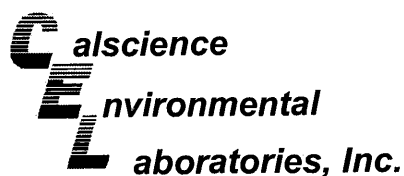
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-1	09-08-0924-1-A	08/05/09 11:30	Solid	GC 47	08/11/09	08/12/09 09:54	090811B07

Parameter	Result	RL	DF	Qual	Units
TPH as Motor Oil	1800	120	5		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	113	61-145			

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-254-837	N/A	Solid	GC 47	08/11/09	08/11/09 20:55	090811B07

Parameter	Result	RL	DF	Qual	Units
TPH as Motor Oil	ND	25	1		mg/kg
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	104	61-145			

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



Analytical Report



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

Date Received: 08/11/09
Work Order No: 09-08-0924
Preparation: DHS LUFT
Method: DHS LUFT

Project: 105 Fifth Street, Oakland, CA

Page 1 of 1

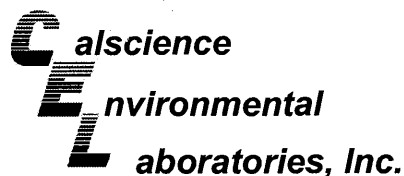
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-1	09-08-0924-1-A	08/05/09 11:30	Solid	FLAA2	08/20/09	08/20/09 18:37	090820L01

Parameter	Result	RL	DF	Qual	Units
Organic Lead	ND	1.00	1		mg/kg

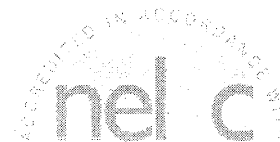
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-020-1,238	N/A	Solid	FLAA2	08/20/09	08/20/09 18:37	090820L01

Parameter	Result	RL	DF	Qual	Units
Organic Lead	ND	1.00	1		mg/kg

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



Analytical Report



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

Date Received: 08/11/09
Work Order No: 09-08-0924
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B
Units: mg/kg

Project: 105 Fifth Street, Oakland, CA

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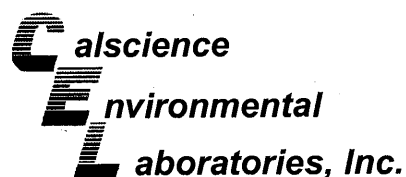
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-1	09-08-0924-1-A	08/05/09 11:30	Solid	GC/MS UU	08/11/09	08/11/09 16:59	090811L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Xylenes (total)	0.026	0.0050	1	
Ethylbenzene	ND	0.0050	1		TPPH	ND	0.50	1	
Toluene	ND	0.0050	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	99	73-139			1,2-Dichloroethane-d4	100	73-145		
Toluene-d8	101	90-108			1,4-Bromofluorobenzene	95	71-113		
Toluene-d8-TPPH	101	88-112							

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-798-577	N/A	Solid	GC/MS UU	08/11/09	08/11/09 13:49	090811L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Xylenes (total)	ND	0.0050	1	
Ethylbenzene	ND	0.0050	1		TPPH	ND	0.50	1	
Toluene	ND	0.0050	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	94	73-139			1,2-Dichloroethane-d4	96	73-145		
Toluene-d8	97	90-108			1,4-Bromofluorobenzene	93	71-113		
Toluene-d8-TPPH	97	88-112							

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



Quality Control - Spike/Spike Duplicate



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

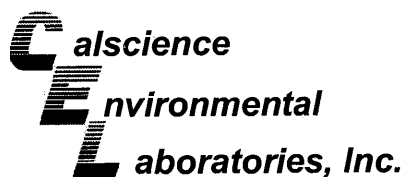
Date Received: 08/11/09
Work Order No: 09-08-0924
Preparation: EPA 3050B
Method: EPA 6010B

Project 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-1209-1	Solid	ICP 5300	08/17/09	08/18/09	090817S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	35	35	50-115	0	0-20	3
Arsenic	110	110	75-125	0	0-20	
Barium	4X	4X	75-125	4X	0-20	Q
Beryllium	115	113	75-125	1	0-20	
Cadmium	108	107	75-125	1	0-20	
Chromium	107	109	75-125	1	0-20	
Cobalt	109	113	75-125	2	0-20	
Copper	119	123	75-125	1	0-20	
Lead	103	140	75-125	13	0-20	3
Molybdenum	100	103	75-125	2	0-20	
Nickel	107	109	75-125	1	0-20	
Selenium	104	101	75-125	3	0-20	
Silver	113	113	75-125	0	0-20	
Thallium	88	87	75-125	1	0-20	
Vanadium	112	115	75-125	1	0-20	
Zinc	4X	4X	75-125	4X	0-20	Q

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - Spike/Spike Duplicate



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

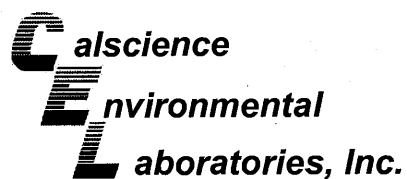
Date Received: 08/11/09
 Work Order No: 09-08-0924
 Preparation: EPA 3550B
 Method: EPA 8015B

Project 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
CRA-1	Solid	GC 47	08/11/09	08/11/09	090811S06

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Diesel Range Organics	88	97	64-130	6	0-15	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - Spike/Spike Duplicate



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 Emeryville, CA 94608-2008

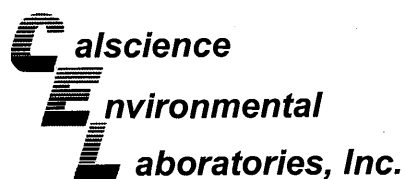
Date Received: 08/11/09
 Work Order No: 09-08-0924
 Preparation: EPA 3550B
 Method: EPA 8015B (M)

Project 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
CRA-1	Solid	GC 47	08/11/09	08/11/09	090811S07

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	81	149	64-130	12	0-15	3

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - Spike/Spike Duplicate



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 Emeryville, CA 94608-2008

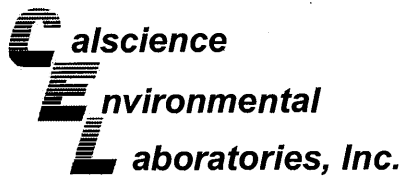
Date Received: 08/11/09
 Work Order No: 09-08-0924
 Preparation: DHS LUFT
 Method: DHS LUFT

Project 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
CRA-1	Solid	FLAA2	08/20/09	08/20/09	090820S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Organic Lead	104	111	22-148	7	0-18	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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 Emeryville, CA 94608-2008

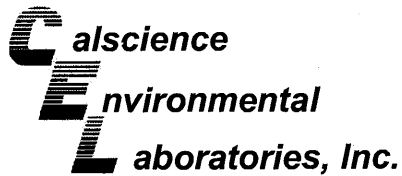
Date Received: 08/11/09
 Work Order No: 09-08-0924
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-1072-1	Solid	Mercury	08/17/09	08/17/09	090817S04

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	112	114	71-137	2	0-14	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



Conestoga-Rovers & Associates
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Emeryville, CA 94608-2008

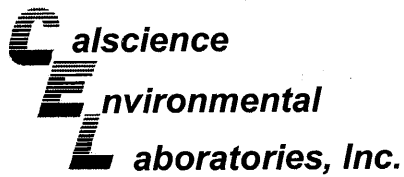
Date Received: 08/11/09
Work Order No: 09-08-0924
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0760-11	Solid	GC/MS UU	08/11/09	08/11/09	090811S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	97	97	79-115	0	0-13	
Carbon Tetrachloride	102	100	55-139	2	0-15	
Chlorobenzene	91	91	79-115	0	0-17	
1,2-Dibromoethane	97	101	70-130	3	0-30	
1,2-Dichlorobenzene	93	91	63-123	2	0-23	
1,1-Dichloroethene	92	92	69-123	1	0-16	
Ethylbenzene	101	99	70-130	2	0-30	
Toluene	95	94	79-115	2	0-15	
Trichloroethene	95	89	66-144	6	0-14	
Vinyl Chloride	93	90	60-126	3	0-14	
Methyl-t-Butyl Ether (MTBE)	94	92	68-128	2	0-14	
Tert-Butyl Alcohol (TBA)	97	96	44-134	1	0-37	
Diisopropyl Ether (DIPE)	91	89	75-123	2	0-12	
Ethyl-t-Butyl Ether (ETBE)	89	90	75-117	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	95	95	79-115	0	0-12	
Ethanol	96	87	42-138	9	0-28	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 09-08-0924
Preparation: EPA 3050B
Method: EPA 6010B

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
097-01-002-12,632	Solid	ICP 5300	08/17/09	08/18/09	090817L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	98	99	80-120	73-127	1	0-20	
Arsenic	105	106	80-120	73-127	1	0-20	
Barium	111	111	80-120	73-127	1	0-20	
Beryllium	103	103	80-120	73-127	1	0-20	
Cadmium	107	107	80-120	73-127	0	0-20	
Chromium	102	102	80-120	73-127	0	0-20	
Cobalt	113	113	80-120	73-127	0	0-20	
Copper	108	107	80-120	73-127	0	0-20	
Lead	109	109	80-120	73-127	0	0-20	
Molybdenum	107	107	80-120	73-127	0	0-20	
Nickel	107	107	80-120	73-127	0	0-20	
Selenium	102	102	80-120	73-127	0	0-20	
Silver	109	109	80-120	73-127	0	0-20	
Thallium	106	106	80-120	73-127	0	0-20	
Vanadium	104	104	80-120	73-127	0	0-20	
Zinc	108	108	80-120	73-127	0	0-20	

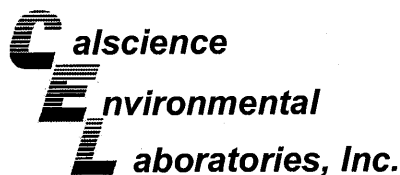
Total number of LCS compounds : 16

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



Quality Control - LCS/LCS Duplicate



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

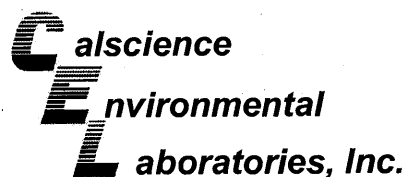
Date Received: N/A
 Work Order No: 09-08-0924
 Preparation: EPA 3550B
 Method: EPA 8015B

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-025-805	Solid	GC 47	08/11/09	08/11/09	090811B06

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Diesel Range Organics	95	96	75-123	1	0-12	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
 Work Order No: 09-08-0924
 Preparation: EPA 3550B
 Method: EPA 8015B (M)

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-254-837	Solid	GC 47	08/11/09	08/11/09	090811B07

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	108	106	75-123	1	0-12	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Laboratory Control Sample



Conestoga-Rovers & Associates
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 Emeryville, CA 94608-2008

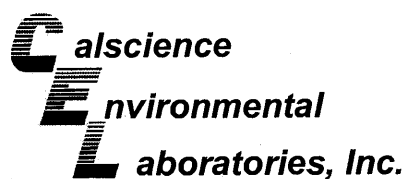
Date Received: N/A
 Work Order No: 09-08-0924
 Preparation: DHS LUFT
 Method: DHS LUFT

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-10-020-1,238	Solid	FLAA2	08/20/09	NONE	090820L01

Parameter	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Organic Lead	25.0	24.6	99	72-126	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

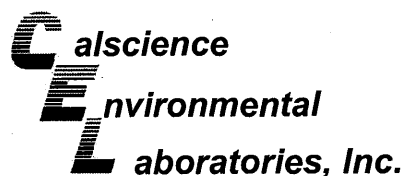
Date Received: N/A
 Work Order No: 09-08-0924
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-007-6,483	Solid	Mercury	08/17/09	08/17/09	090817L04

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	104	105	85-121	1	0-10	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 09-08-0924
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project: 105 Fifth Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-798-577	Solid	GC/MS UU	08/11/09	08/11/09	090811L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	97	95	84-114	79-119	2	0-7	
Carbon Tetrachloride	100	96	66-132	55-143	4	0-12	
Chlorobenzene	92	94	87-111	83-115	2	0-7	
1,2-Dibromoethane	95	99	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	94	97	79-115	73-121	3	0-8	
1,1-Dichloroethene	95	91	73-121	65-129	5	0-12	
Ethylbenzene	101	101	80-120	73-127	1	0-20	
Toluene	95	94	78-114	72-120	2	0-7	
Trichloroethene	92	89	84-114	79-119	3	0-8	
Vinyl Chloride	84	88	63-129	52-140	5	0-15	
Methyl-t-Butyl Ether (MTBE)	96	93	77-125	69-133	2	0-11	
Tert-Butyl Alcohol (TBA)	94	94	47-137	32-152	0	0-27	
Diisopropyl Ether (DIPE)	100	97	76-130	67-139	3	0-8	
Ethyl-t-Butyl Ether (ETBE)	92	100	76-124	68-132	8	0-12	
Tert-Amyl-Methyl Ether (TAME)	94	95	82-118	76-124	0	0-11	
Ethanol	92	98	59-131	47-143	6	0-21	
TPPH	91	75	65-135	53-147	19	0-30	

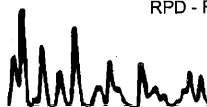
Total number of LCS compounds : 17

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





Work Order Number: 09-08-0924

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
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 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 with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
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.
N	Nontarget Analyte.
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.
U	Undetected at the laboratory method detection limit.
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.

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Contingent analyses

- Organic lead required if TTLC lead ≥ 13 mg/kg
- Aquatic bioassay required if any TPH (gasoline, diesel, or motor oil) $\geq 5,000$ 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; STLC and TCLP required if TTLC ≥ 100 mg/kg
Barium	1,000/2,000	STLC required if TTLC $\geq 1,000$ mg/kg; STLC and TCLP required if TTLC $\geq 2,000$ mg/kg
Beryllium	7.5	STLC required if TTLC ≥ 7.5 mg/kg
Cadmium	10/20	STLC required if TTLC ≥ 10 mg/kg; STLC and TCLP required if TTLC ≥ 20 mg/kg
Chromium	50/100	STLC required if TTLC ≥ 50 mg/kg; 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; STLC and TCLP required if TTLC ≥ 100 mg/kg
Mercury	2/4	STLC required if TTLC ≥ 2 mg/kg; 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; STLC and TCLP required if TTLC ≥ 20 mg/kg
Silver	50/100	STLC required if TTLC ≥ 50 mg/kg; 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 $\geq 2,500$ mg/kg

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: ERA

DATE: 08 / 11 / 09

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.9 °C - 0.2°C (CF) = 2.7 °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: PS

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A

Initial: PS

Sample _____ No (Not Intact) Not Present

Initial: WSC

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® _____

Water: VOA VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_p 1AGB 1AGB_{na2} 1AGB_s
 500AGB 500AGJ 500AGJ_s 250AGB 250CGB 250CGB_s 1PB 500PB 500PB_{na}
 250PB 250PB_n 125PB 125PB_{znna} 100PJ 100PJ_{na2} _____ _____ _____

Air: Tedlar® Summa® _____ Other: _____ Checked/Labeled by: WSC

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: D.L.

Preservative: h: HCL n: HNO3 na2:Na2S2O3 Na: NaOH p: H3PO4 s: H2SO4 znna: ZnAc2+NaOH f: Field-filtered Scanned by: WSC