CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: August 3, 2011

REFERENCE NO.: 240897

PROJECT NAME: 4411 Foothill Boulevard, Oakland

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

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10:41 am, Aug 04, 2011
Alameda County
Environmental Health

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QUANTITY	DESCRIPTION
1	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 call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Bill Phua, Foothill Blvd. LLC, P.O. Box 10664, Oakland, CA 94610

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

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

Re: Former Shell Service Station
4411 Foothill Boulevard
Oakland, California
SAP Code 135686
Incident No. 98995746
ACEH Case No. RO0000415

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 SAMPLING REPORT

FORMER SHELL SERVICE STATION
4411 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

SAP CODE	135686
INCIDENT NO.	98995746
AGENCY NO.	RO0000415

Prepared by:
Conestoga-Rovers & Associates

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U.S.A. 94608

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AUGUST 3, 2011
REF. NO. 240897 (16)
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EXECUTIVE SUMMARY

- On May 9, 2011, CRA sampled soil vapor probes V-1 through V-9 and V-11 for TPHg, BTEX, MTBE, and TBA.
- Soil vapor probes V-10 and V-12 could not be sampled on May 9, 2011 due to water in the sampling tubing.
- Soil vapor probes V-2 through V-6 and V-8 contained TPHg at concentrations exceeding RWQCB ESLs for commercial land use. It should be noted that RWQCB ESL guidance advises that "TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g. BTEX, polynuclear aromatic hydrocarbons, oxidizers, etc.)." In this case, BTEX, MTBE, and TBA would be the appropriate related chemicals, and of these, only benzene was detected at a concentration above ESLs as discussed below.
- No toluene, ethylbenzene, total xylenes, MTBE, or TBA was detected at concentrations exceeding RWQCB ESLs for commercial land use.
- Soil vapor probes V-2 and V-3 contained benzene at concentrations exceeding RWQCB ESLs for commercial land use.
- Soil vapor results from the May 9, 2011 sampling event are generally within historical norms. Based on results of previous sub-slab soil vapor sample results, there is no demonstrated risk of soil vapor intrusion to on-site buildings; therefore, no further soil vapor monitoring is warranted.

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 monitoring event, as requested in Alameda County Environmental Health's (ACEH's) April 4, 2011 letter.

The site is a former Shell service station located on the southern corner of the intersection of Foothill Boulevard and High Street in Oakland, California (Figure 1). The former station layout included three first-generation underground storage tanks (USTs) (1958 to 1971), three second-generation USTs (1971 to 1984), three third-generation gasoline USTs (1984 to 2002), a waste oil UST (removed 1992), and four product dispensers (removed 2002) as shown on Figure 2. Land use in the vicinity of the site is a mix of commercial and residential, with gasoline service stations occupying the northern and western corners of the intersection. The subject property is currently developed as a strip mall with a variety of commercial and retail uses.

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

2.0 SAMPLING ACTIVITIES

2.1 PERSONNEL PRESENT

CRA Staff Geologist Erin Swan sampled soil vapor probes V-1 through V-9 and V-11 under the supervision of California Professional Geologist Peter Schaefer.

2.2 SAMPLING DATE

May 9, 2011.

2.3 SOIL VAPOR SAMPLING

CRA sampled soil vapor probes V-1 through V-9 and V-11 using a lung box and Tedlar® bag. Soil vapor probes V-10 and V-12 could not be sampled on May 9, 2011 due to water in the sampling tubing. Approximately one liter of water was evacuated from each probe prior to abandoning the soil vapor sampling attempt.

Prior to sampling, CRA purged at least three tubing volumes of air from each vapor probe using a vacuum pump. Immediately after purging, a soil vapor sample was collected using a laboratory-supplied Tedlar® bag. During sampling, the Teflon® tubing for the 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. The samples were 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 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.

3.0 FINDINGS

3.1 SOIL VAPOR

The soil vapor samples collected from V-2 through V-9 and V-11 on May 9, 2011 contained up to 66,000,000 micrograms per cubic meter ($\mu g/m^3$) total petroleum hydrocarbons as gasoline (TPHg), 8,100 $\mu g/m^3$ benzene, 220 $\mu g/m^3$ ethylbenzene, and 280 $\mu g/m^3$ total xylenes. No toluene, methyl tertiary-butyl ether (MTBE), or tertiary-butyl alcohol (TBA) was detected in the soil vapor samples collected May 9, 2011.

Table 1 summarizes historical soil vapor analytical data. TPHg and benzene, toluene, ethylbenzene, and total xylenes (BTEX) results are shown on Figure 2, and the laboratory analytical report is presented in Appendix A.

3.2 LEAK TESTING

CRA performed leak testing as described above, and up to 0.0161 percent by volume (*%v*) helium was detected in the samples. As shown in the following table, the

detections are less than 10 percent of the concentration detected in the shroud, and the samples are considered valid.

Probe ID	*Helium concentration in sample (%v)*	*Minimum helium detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*
V-1	<0.0100	50	5.0
V-2	0.0161	50	5.0
V-3	<0.0100	58	5.8
V-4	<0.0100	58	5.8
V-5	<0.0100	52	5.2
V-6	<0.0100	50	5.0
V-7	<0.0100	52	5.2
V-8	<0.0100	51	5.1
V-9	<0.0100	58	5.8
V-11	<0.0100	54	5.4

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

4.0 CONCLUSIONS AND RECOMMENDATIONS

No toluene, ethylbenzene, total xylenes, MTBE, or TBA was detected at concentrations exceeding San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs) for soil gas (Table E)[1] for commercial land use. Soil vapor probes V-2 through V-6 and V-8 contained TPHg at concentrations exceeding RWQCB ESLs for commercial land use. It should be noted that RWQCB ESL guidance advises that "TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g. BTEX, polynuclear aromatic hydrocarbons, oxidizers, etc.)." In this case, BTEX, MTBE, and TBA would be the appropriate related chemicals, and of these, only benzene detections in probes V-2 and V-3 exceeded ESLs. These results are consistent with previous sampling events.

Sub-slab soil vapor concentrations in samples collected from SSV-1 and SSV-2 located in the on-site laundromat during May 2009 were below RWQCB commercial and residential ESLs. Since these results indicate no demonstrated risk of soil vapor intrusion to on- or off-site buildings, no further soil vapor monitoring is warranted.

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

11/03/08

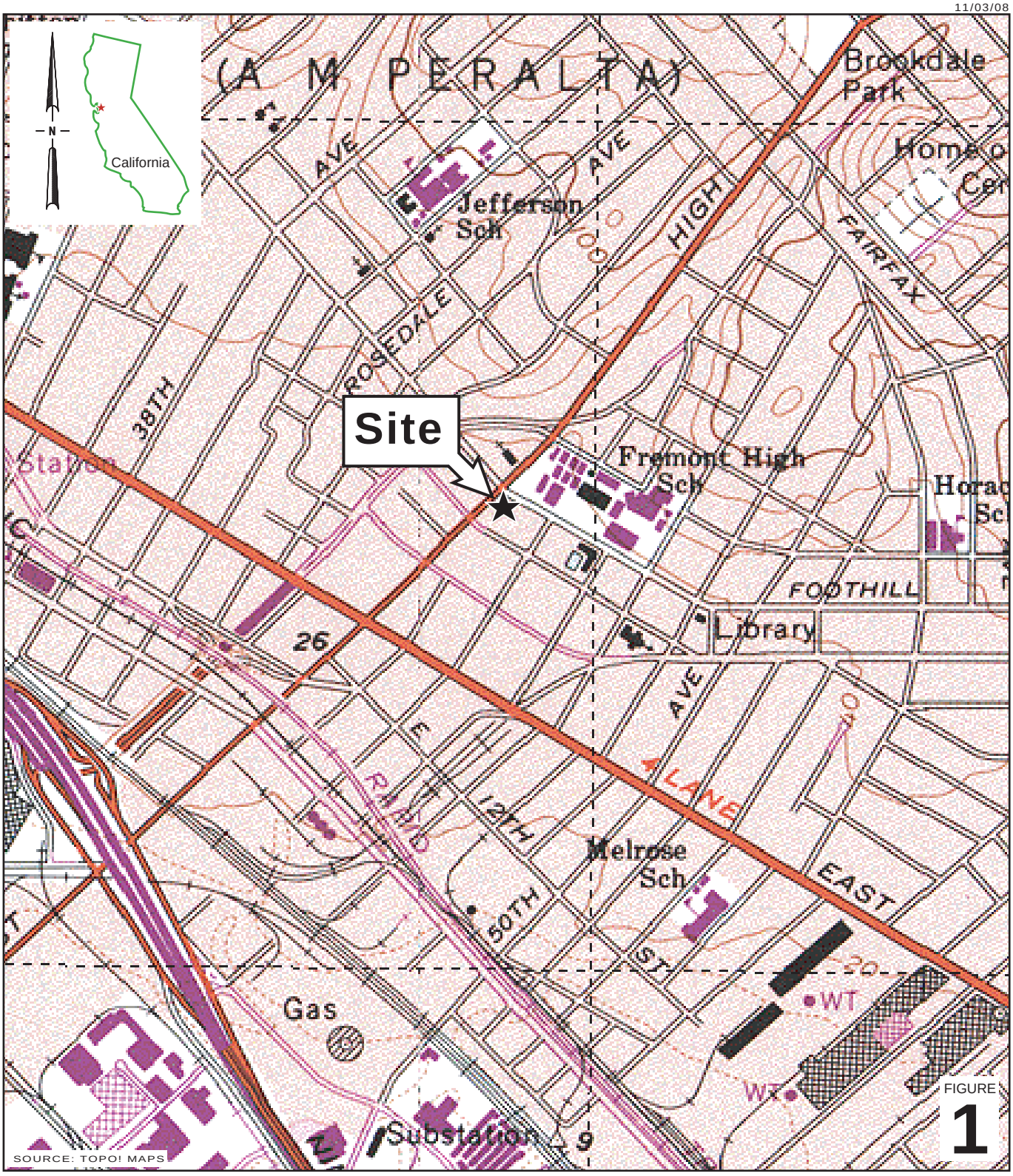

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FIGURE 1

0 1/6 1/3 1/2 1

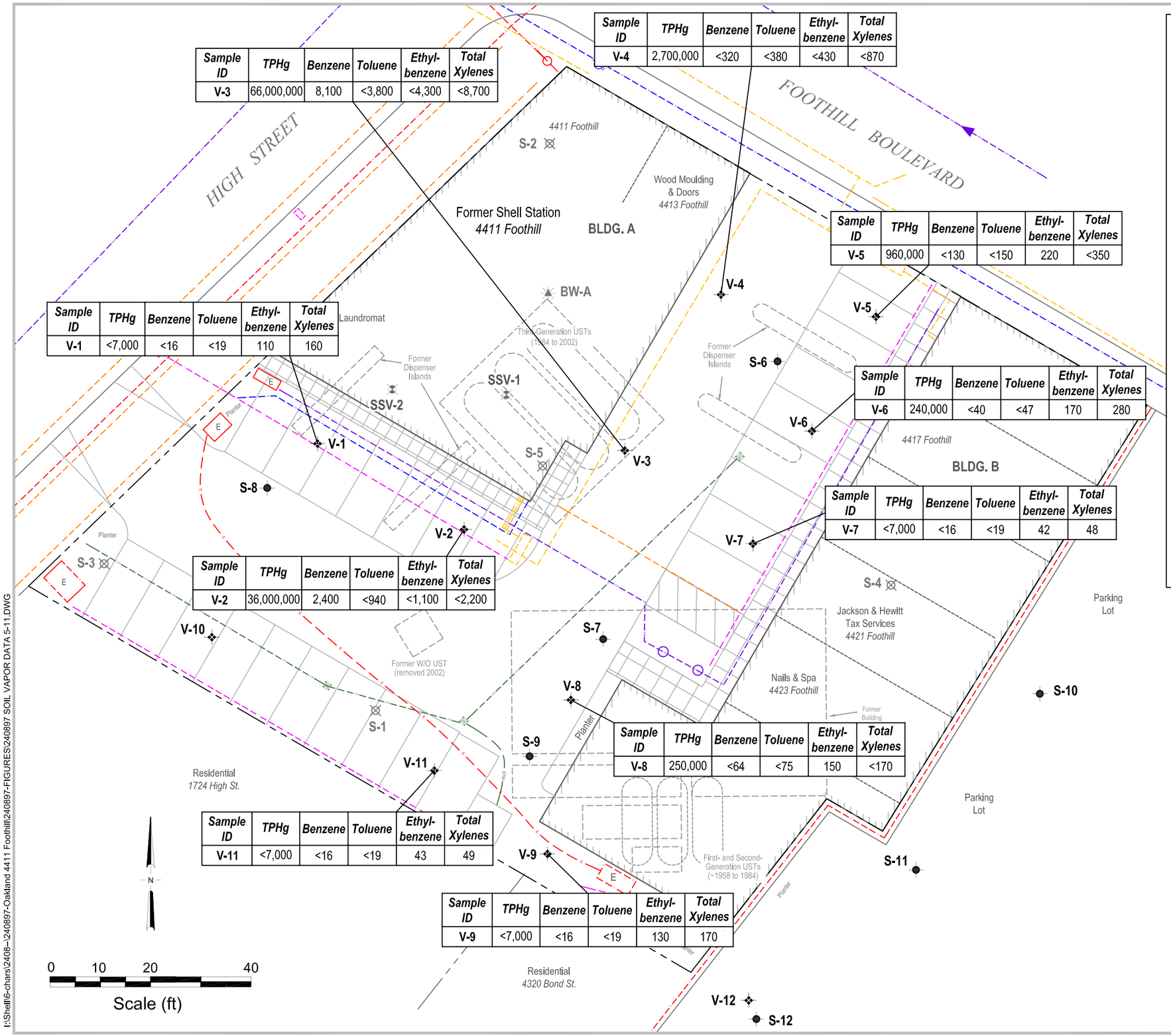
SCALE : 1" = 1/6 MILE

Former Shell Service Station
4411 Foothill Boulevard
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

07/20/2011



Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-1	<7,000	<16	<19	110	160

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-2	36,000,000	2,400	<940	<1,100	<2,200

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-3	66,000,000	8,100	<3,800	<4,300	<8,700

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-4	2,700,000	<320	<380	<430	<870

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-5	960,000	<130	<150	220	<350

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-6	240,000	<40	<47	170	280

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-7	<7,000	<16	<19	42	48

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-8	250,000	<64	<75	150	<170

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-9	<7,000	<16	<19	130	170

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-11	<7,000	<16	<19	43	49

EXPLANATION

- S-6 Monitoring well location
- V-1 Soil vapor probe location
- SSV-1 Destroyed sub-slab soil vapor probe location
- S-1 Destroyed monitoring well location
- BW-A Destroyed tank backfill well location
- Electrical line (E)
- Telecommunications line (T)
- Gas line (GAS)
- Water line (W)
- Sanitary Sewer line (SAN)
- Storm drain line (STM)
- Unknown utility line
- Fire hydrant
- Catch basin
- Manhole
- Power pole
- Flow direction

Sample ID	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
V-1	<7,000	<16	<19	110	160

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

Soil Vapor Data Map

May 9, 2011

CONESTOGA-ROVERS & ASSOCIATES

Former Shell Service Station
4411 Foothill Boulevard
Oakland, California

FIGURE
2

I:\Shell\6-chars\2408--\240897-Oakland 4411 Foothill\240897-FIGURES\240897 SOIL VAPOR DATA 5-11.DWG

TABLE

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	*Depth (fbg)*	*Date*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*TBA ($\mu g/m^3$)*	*Helium (%v)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*
V-1	4.5-4.8	1/14/2008	**16,000,000**	<1,200	<1,400	<1,700	<5,000	<5,500	<4,600	---	---	---	---
V-1	4.5-4.8	6/26/2008	**1,000,000**	<160	<190	<220	<220	<180	<610	---	---	---	---
V-1	4.5-4.8	10/22/2008	**340,000**	<45	<53	<61	<120	<51	<170	---	---	---	---
V-1	4.5-4.8	4/21/2009 b	---	58	<38	49	<170	---	---	<0.0100	---	---	---
V-1	4.5-4.8	5/9/2011 b	<7,000	<16	<19	110	160	<36	<30	<0.0100	<0.500	16.2	3.01
V-2	4.5-4.8	1/14/2008	**15,000,000**	**9,000**	<1,100	**20,000**	7,700	<4,100	<3,500	---	---	---	---
V-2	4.5-4.8	5/22/2008	**8,300,000**	**7,000**	2,400	**5,600**	<1,400	<1,200	<4,000	---	---	---	---
V-2	4.5-4.8	10/22/2008	**5,000,000 a**	**8,300**	<380	**9,800**	7,700	<360	<1,200	---	---	---	---
V-2	4.5-4.8	4/21/2009 b	---	**7,100**	2,900	3,100	<6,100	---	---	<0.0100	---	---	---
V-2	4.5-4.8	5/9/2011 b	**36,000,000**	**2,400**	<940	<1,100	<2,200	<1,800	<1,500	0.0161	<0.500	14.7	2.30
V-3	4.5-4.8	1/14/2008	**20,000,000**	**3,800**	<2,800	<3,300	<9,800	<11,000	<9,100	---	---	---	---
V-3	4.5-4.8	5/22/2008	**22,000,000**	**1,600**	1,700	<1,300	<1,300	<1,100	<3,700	---	---	---	---
V-3	4.5-4.8	10/22/2008	**51,000,000 a**	**4,200**	<4,600	<5,200	<10,000	<4,400	<15,000	---	---	---	---
V-3	4.5-4.8	4/21/2009 b	---	**25,000**	17,000	<8,700	<35,000	---	---	0.0205	---	---	---
V-3	4.5-4.8	5/9/2011 b	**66,000,000**	**8,100**	<3,800	<4,300	<8,700	<7,200	<6,100	<0.0100	4.59	13.7	2.14
V-4	4.5-4.8	1/14/2008	**1,300,000**	<150	<180	<210	<620	<680	<570	---	---	---	---
V-4	4.5-4.8	6/26/2008	**980,000**	<160	<190	<220	<220	<180	<620	---	---	---	---
V-4	4.5-4.8	10/22/2008	**4,300,000**	**270**	<240	<280	<560	<230	<780	---	---	---	---
V-4	4.5-4.8	4/21/2009 b	---	65	<75	360	520	---	---	0.0171	---	---	---
V-4	4.5-4.8	5/9/2011 b	**2,700,000**	<320	<380	<430	<870	<720	<610	<0.0100	0.964	7.98	2.18
V-5	4.5-4.8	1/14/2008	**2,500,000**	<290	<340	<400	<1,190	<1,300	<1,100	---	---	---	---
V-5	4.5-4.8	5/22/2008	**3,300,000**	<1,600	3,100	<2,200	<2,200	<1,800	<6,100	---	---	---	---
V-5	4.5-4.8	10/22/2008	**2,400,000**	<340	<400	<460	<920	<380	<1,300	---	---	---	---
V-5	4.5-4.8	4/21/2009 b	---	<64	110	350	510	---	---	1.24	---	---	---
V-5	4.5-4.8	5/9/2011 b	**960,000**	<130	<150	220	<350	<290	<240	<0.0100	<0.500	9.30	3.29
V-6	4.5-4.8	1/14/2008	**15,000,000**	**9,100**	<270	<310	<930	<1,000	<860	---	---	---	---
V-6	4.5-4.8	5/22/2008	**2,300,000**	<130	<150	<180	<180	<140	<490	---	---	---	---
V-6	4.5-4.8	10/22/2008	**5,400,000**	<970	<1,100	<1,300	<2,600	<1,100	<3,700	---	---	---	---
V-6	4.5-4.8	4/21/2009 b	---	<20	34	55	<110	---	---	<0.0100	---	---	---
V-6	4.5-4.8	5/9/2011 b	**240,000**	<40	<47	170	280	<90	<76	<0.0100	<0.500	8.67	6.92
V-7	4.5-4.8	1/14/2008	**170,000**	<19	<22	<25	<76	<84	<71	---	---	---	---
V-7	4.5-4.8	5/22/2008	790	<4.2	<5.0	<5.7	<5.7	<4.8	<16	---	---	---	---
V-7	4.5-4.8	10/22/2008	3,700	<2.6	<3.0	26	120	<2.9	<9.8	---	---	---	---
V-7	4.5-4.8	5/9/2011 b	<7,000	<16	<19	42	48	<36	<30	<0.0100	<0.500	4.95	15.2
V-8	5.0-5.2	10/23/2008	7,000	<3.8	<4.5	<5.2	<10	<4.3	<14	---	---	---	---
V-8	5.0-5.2	5/9/2011 b	**250,000**	<64	<75	150	<170	<140	<120	<0.0100	<0.500	13.9	6.39
V-9	5.0-5.2	10/23/2008	870	<3.7	<4.4	<5.0	<10	<4.2	>14	---			
V-9	5.0-5.2	5/9/2011 b	<7,000	<16	<19	130	170	<36	<30	<0.0100	<0.500	6.75	16.4
V-10	4.5-4.8	1/14/2008	Unable to sample due to water in sample tube					---	---	---	---	---	---
V-10	4.5-4.8	5/22/2008	750	<4.1	<4.9	<5.6	<5.6	<4.6	<16	---	---	---	---
V-10	4.5-4.8	10/23/2008	280	<4.2	<5.0	<5.7	<11	<4.8	<16	---	---	---	---

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	*Depth (fbg)*	*Date*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*TBA ($\mu g/m^3$)*	*Helium (%v)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*
V-10	4.5-4.8	5/9/2011	Unable to sample due to water in sample tube										
V-11	4.5-4.8	1/14/2008	**18,000**	<2.2	5	<3.0	<8.9	<9.8	<8.2	---	---	---	---
V-11	4.5-4.8	6/26/2008	<260	<4.0	<4.8	<5.5	<5.5	<4.6	<15	---	---	---	---
V-11	4.5-4.8	10/23/2008	<220	<3.5	<4.1	<4.8	<9.6	<4.0	<13	---	---	---	---
V-11	4.5-4.8	5/9/2011 b	<7,000	<16	<19	43	49	<36	<30	<0.0100	<0.500	7.76	12.6
V-12	4.2-4.3	10/1/2009	Unable to sample due to water in sample tube					---	---	---	---	---	---
V-12	4.2-4.3	11/19/2009	Unable to sample due to water in sample tube					---	---	---	---	---	---
V-12	4.2-4.3	7/29/2010 c	<5,700	<32	<38	<43	<87	<72	<61	<0.0100	---	---	---
V-12	4.2-4.3	5/9/2011 b	Unable to sample due to water in sample tube										
SSV-1	0.58	5/19/2009	---	8.8	11	4.4	<12	---	---	0.251	---	---	---
SSV-2	1	5/15/2009	---	<2.1	<2.4	<2.8	<11	---	---	0.261	---	---	---
Ambient Air	---	1/14/2008	<17,000	<2.4	4	<3.2	<9.7	<11	<9.0	---	---	---	---
RWQCB ESLs for Soil Gas[d]	**Commercial Land Use**	**29,000**	**280**	**180,000**	**3,300**	**58,000**	**31,000**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
	Residential Land Use	**10,000**	**84**	**63,000**	**980**	**21,000**	**9,400**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Notes:
fbg = Feet below grade
$\mu g/m^3$ = Micrograms per cubic meter
%v = Percent by volume
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M; before 5/9/11, analyzed by modified EPA Method TO-3 GC/FID
BTEX = Benzene, toluene, ethylbenzene and total xylenes analyzed by EPA Method 8260B (M); before 7/29/09, analyzed by modified EPA Method TO-15
MTBE = Methyl-tertiary butyl ether analyzed by EPA Method 8260B (M); before 7/29/09, analyzed by modified EPA Method TO-15
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B (M); before 7/29/09, analyzed by Modified EPA Method TO-15
Helium analyzed by ASTM D-1946 (M)
Methane, carbon dioxide, and oxygen + argon analyzed by ASTM D-1946
<x = Not detected at reporting limit x
--- = Not applicable
ESL = Environmental screening level
RWQCB = San Francisco Bay Regional Water Quality Control Board
NA = No applicable ESL
Results in **bold** exceed ESL for commercial land use
All samples were collected in Summa canisters unless otherwise noted.

a = Exceeds quality control limits, possibly due to matrix effects.
b = Samples collected in Tedlar bags.
c = Sample received by laboratory with very low volume.
d = From Table E of RWQCB ESLs. Ref: Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - Interim Final - November 2007 (Revised May 2008).

APPENDIX A

SITE HISTORY

SITE HISTORY

1958 Underground Storage Tank (UST) Piping Leak: On April 19, 1958, a gasoline shortage was discovered at the operating Shell-branded service station. It was determined that there was a piping leak into a concrete pump pit and then into the soil in the vicinity of the storage tanks. Separate phase hydrocarbons (SPHs) were found in an irrigation well located at 4320 Bond Street, adjacent to the Shell site. Shell Oil Products US (Shell) installed 22 8-inch diameter wells to depths of 15 feet below grade (fbg) along the property boundary and 1 well within the tank complex. Groundwater was pumped from the wells, and the extracted water was transported to a separator. Though the volume of the release is not known, Shell reported in a June 2, 1958 letter to Traveler's Insurance Company that they recovered 650 gallons of gasoline from the wells.

1971 UST Removal and Replacement: A Shell document dated July 15, 1971 notes plans to remove the then-existing 6,000-gallon USTs. An invoice dated September 17, 1971 indicates the delivery of one 10,000-gallon UST, one 8,000-gallon UST, and one 550-gallon underground waste oil tank.

1977 Dispenser Piping Leak: A Shell Oil Company *Oil Spill Report* dated October 19, 1977 documents the release of 2,000 gallons of gasoline from a leaking pipe that ran from the USTs to the dispenser located closest to High Street. The report noted that the damaged section of pipe was replaced and that leak detectors were installed on all systems.

1984 UST Removal and Replacement: A Shell purchase order dated October 1, 1984 indicates the removal of the then-existing USTs and installation of three 10,000-gallon fiberglass USTs.

1991 Waste Oil Tank Leak: On June 5, 1991, Shell submitted an Underground Storage Tank Unauthorized Release (Leak)/Site Contamination Report (Unauthorized Release Report) detailing a release from the 550-gallon waste oil tank at the site. The report stated that the release was caused by tank failure, that the volume of release was unknown, and that the contents of the tank had been removed.

1992 Waste Oil Tank Removal: In February 1992, Delta/Bay Builders, Inc. removed the 550-gallon waste oil tank. GeoStrategies Inc. (GeoStrategies) collected a soil sample from the bottom of the excavation at a depth of approximately 11 fbg. No total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), oil and grease, halogenated

volatile organic compounds, or cadmium were detected in the sample. The soil sample contained 79 milligrams per kilogram (mg/kg) chromium, 6.7 mg/kg lead, 180 mg/kg nickel, and 56 mg/kg zinc. Details of the waste oil tank removal and sampling activities are presented in GeoStrategies' March 26, 1992 report.

1992 Subsurface Investigation: In November 1992, GeoStrategies installed one groundwater monitoring well (S-1) in the vicinity of the waste oil UST. Soil samples collected from the well boring contained up to 390 mg/kg total petroleum hydrocarbons as motor oil (TPHmo), 180 mg/kg TPHd, 110 mg/kg TPHg, 0.45 mg/kg benzene, 0.51 mg/kg toluene, 2.2 mg/kg ethylbenzene, and 8 mg/kg total xylenes. GeoStrategies' January 19, 1993 *Monitoring Well Installation Report* provides well installation details.

1993 Subsurface Investigation: In May 1993, Hydro Environmental Technologies, Inc. (HETI) installed two groundwater monitoring wells (S-2 and S-3). Soil samples collected from the well borings contained up to 36 mg/kg TPHd, 1,300 mg/kg TPHg, 0.019 mg/kg toluene, 35 mg/kg ethylbenzene, and 200 mg/kg total xylenes. No benzene was detected in soil samples from the well borings. Well installation details are presented in HETI's July 22, 1993 report.

1995 Subsurface Investigation: In June 1995, Pacific Environmental Group (PEG) drilled eight on-site soil borings and two off-site borings. Soil samples collected from the borings contained up to 380 mg/kg TPHd, 840 mg/kg TPHg, 0.13 mg/kg benzene, 6.0 kg/kg toluene, 20 mg/kg ethylbenzene, and 98 mg/kg total xylenes. Grab groundwater samples collected from borings GP-2 and GP-10 contained up to 820 micrograms per liter (µg/L) TPHmo, 850 µg/L TPHd, 1,100 µg/L TPHg, 34 µg/L benzene, 41 µg/L ethylbenzene, and 71 µg/L total xylenes. No toluene was detected in the grab groundwater samples. PEG's September 12, 1995 *Site Investigation* report presents investigation details.

1998 Fuel System Upgrades: In November 1998, Paradiso Mechanical (Paradiso) upgraded the service station by adding secondary containment to the gasoline turbines and dispensers. Cambria Environmental Technology Inc. (Cambria) collected soil samples (D-1 through D-4) from beneath each of the dispensers. These soil samples contained up to 1,500 mg/kg TPHg, 9.2 mg/kg benzene, 4.3 mg/kg toluene, 15 mg/kg ethylbenzene, 61 mg/kg total xylenes, and 13 mg/kg methyl tertiary-butyl ether (MTBE). Details of dispenser upgrade and sampling activities are presented in Cambria's November 30, 1998 *Dispenser Soil Sampling Report.*

1999 - 2000 Oxygen Releasing Compound (ORC) Remediation: In September 1999, Cambria purged well BW-A with a vacuum truck and installed ORC socks in wells S-1, S-2, and BW-A. These activities are detailed in Cambria's October 15, 1999 *Second Quarter 1999 Monitoring Report.* According to field notes attached to Blaine Tech Services, Inc.'s (Blaine's) January 23, 2001 *Fourth Quarter 2000 Groundwater Monitoring* report, Blaine removed the ORC socks in December 2000.

1999 Site Conceptual Model (SCM) and Conduit Study: In December 1999, Cambria conducted a subsurface conduit study which identified several conduits that may provide limited preferential groundwater flow at times of shallow groundwater depth. Cambria also submitted additional data and analysis to complete the SCM for the site. Cambria's December 13, 1999 *Letter Response and Work Plan* presents the conduit study results and the additional portions of the SCM.

2000 Subsurface Investigation: In January 2000, Cambria installed one well (S-4) adjacent to the southeast corner of the station building and drilled one soil boring (SB-4) northwest of the station building. Soil samples contained up to 244 mg/kg TPHd, 786 mg/kg TPHg, 2.27 mg/kg benzene, 4.35 mg/kg toluene, 8.1 mg/kg ethylbenzene, 26.5 mg/kg total xylenes, and 0.893 mg/kg MTBE. Grab groundwater samples collected from boring SB-4 contained up to 180,000 µg/L TPHg, 31,000 µg/L benzene, 6,900 µg/L toluene, 5,900 µg/L ethylbenzene, 26,000 µg/L total xylenes, and 7,100 µg/L MTBE. Investigation details are contained in Cambria's November 17, 2000 *Site Investigation Report.*

2000 Sensitive Receptor Survey (SRS): In February 2000, Cambria conducted an SRS which identified 58 monitoring, test, or industrial wells located within a ½-mile radius of the site. No municipal, domestic, or irrigation wells were identified. The SRS is included in Cambria's November 17, 2000 *Site Investigation Report.*

2001 Mobile Dual-Phase Extraction (DPE): From April to September 2001, Cambria conducted monthly mobile DPE from wells BW-A and S-2. Mobile DPE removed approximately 18,588 gallons of groundwater containing approximately 1.05 pounds of TPHg and 0.39 pounds of MTBE. Mobile DPE results are summarized in Cambria's November 7, 2001 *Third Quarter 2001 Monitoring Report.*

2001 Preferential Pathway Analysis: In June 2001, Cambria conducted a preferential pathway analysis using a San Francisco Bay Regional Water Quality Control Board (RWQCB) dilution attenuation factor (DAF) analysis originally developed for a similar analysis at San Francisco International Airport in 1998. The analysis determined that

groundwater containing approximately 10 µg/L benzene and 218 µg/L MTBE could potentially reach San Francisco Bay (the nearest groundwater receptor). The DAF analysis is summarized in Cambria's June 26, 2001 First Quarter 2001 *Monitoring Report and Letter Response*.

2001 Corrective Action Plan (CAP): In November 2001, Cambria submitted a CAP in preparation for impending site demolition and fueling facility removal which recommended over-excavation following removal of the underground facilities, removing groundwater from the excavation, and placing ORC at the base of the excavation to enhance biological degradation of residual-impacted soil and groundwater. Cambria's November 12, 2001 CAP details these recommendations.

2002 UST Removal: In February 2002, Paradiso removed the gasoline USTs and hydraulic hoists, and over-excavated approximately 1,250 cubic yards of impacted soil around and beneath the USTs, product dispenser islands, and hydraulic hoists. Phillips Services Corporation extracted approximately 16,000 gallons of groundwater from the excavations. Cambria collected 54 soil samples and 2 grab groundwater samples from the excavation. Soil samples collected following the over-excavation contained up to 230 mg/kg hydraulic oil, 1,800 mg/kg TPHg, 9.6 mg/kg benzene, 42 mg/kg toluene, 100 mg/kg ethylbenzene, 590 mg/kg total xylenes, and 0.48 mg/kg MTBE. The grab groundwater sample collected following over-excavation contained 590 µg/L TPHg, 2.7 µg/L benzene, 2.3 µg/L toluene, 6.4 µg/L total xylenes, and 1,900 µg/L MTBE. No ethylbenzene, di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), tertiary-amyl methyl ether (TAME), tertiary butyl alcohol (TBA), or ethanol was detected in this sample. Following over-excavation, Paradiso placed 810 pounds of ORC powder on the bottom of the excavation. Details of the fuel facilities removal and corrective action are presented in Cambria's February 25, 2002 *Underground Storage Tank Closure Report*.

2002 Subsurface Investigation: In May 2002, Cambria installed one groundwater monitoring well (S-5). The well installation is described in Cambria's July 2, 2002 *Monitoring Well Installation Report*.

2005 SCM: In August 2005, Cambria submitted an SCM which recommended destroying all on-site wells and replacing them after site development was completed, defining the horizontal extent of soil and groundwater impacts southeast of well S-4 and south of the 1958 fuel release, and continued groundwater monitoring. Cambria's August 16, 2005 *Subsurface Investigation Work Plan and SCM* details these recommendations.

2005 Well Destructions: In anticipation of redevelopment of the site, Cambria properly destroyed five wells (S-1 through S-5) in July 2005. The well destructions are described in Cambria's August 19, 2005 *Well Destruction Report.*

2005 Subsurface Investigation and Over-Excavation: In August 2005, Cambria drilled two soil borings (TB-1 and TB-3) to investigate the extent of petroleum-hydrocarbon-impacted soil and groundwater from the 1958 piping leak. Soil samples from the borings contained up to 1,600 mg/kg TPHg, 2.2 mg/kg benzene, 11 mg/kg ethylbenzene, 48 mg/kg total xylenes, 0.0062 mg/kg MTBE, 0.021 mg/kg TBA, and 291 mg/kg lead. No toluene, DIPE, ETBE, TAME, 1,2-dichloroethane (1,2-DCA), or ethylene dibromide (EDB) was detected in the soil samples from the borings. Grab groundwater samples from the borings contained up to 180,000 µg/L TPHg, 22,000 µg/L benzene, 9,700 µg/L toluene, 5,200 µg/L ethylbenzene, 25,000 µg/L total xylenes, 890 µg/L MTBE, 1,600 µg/L DIPE, and 13.4 µg/L lead. No TBA, ETBE, TAME, 1,2-DCA, or EDB was detected in the samples. Because the former UST area was located within the proposed footprint of a new building to be constructed at the site, K.E. Curtis Construction excavated soil to the extent feasible in order to remove hydrocarbon-impacted soil beneath the building prior to site redevelopment. The excavation was completed to dimensions of 20 feet long by 25 feet wide by 20 feet deep. Following excavation, Cambria collected one confirmation soil sample from each sidewall and two soil samples from the excavation base. The excavation soil samples contained up to 0.050 mg/kg benzene, 0.0083 mg/kg ethylbenzene, 0.040 mg/kg xylenes, 0.029 mg/kg TBA, and 0.023 mg/kg DIPE. No TPHg, toluene, MTBE, ETBE, or TAME was detected in the excavation samples. No water was observed in the bottom of the excavation. The activities are described in their entirety in Cambria's November 16, 2005 *Subsurface Investigation and Over-Excavation Report.*

2006 Subsurface Investigation: In May 2006, Cambria drilled five soil borings (SB-5 through SB-8, and SB-12) to assess the vertical extent of soil and groundwater impacts. Soil samples collected from the borings contained up to 110 mg/kg TPHd, 3,000 mg/kg TPHg, 3.7 mg/kg benzene, 60 mg/kg toluene, 47 mg/kg ethylbenzene, 270 mg/kg total xylenes, and 0.46 mg/kg MTBE. Grab groundwater samples contained up to 2,400 µg/L TPHd, 5,900 µg/L TPHg, 3,300 µg/L benzene, 470 µg/L toluene, 260 µg/L ethylbenzene, 420 µg/L total xylenes, 880 µg/L MTBE, and 630 µg/L TBA. The vertical extent of petroleum constituents in groundwater at the site was defined by the groundwater results from boring SB-12, located down gradient of the first- and second-generation USTs. The results from the grab groundwater sample from 31 to 35 fbg in this boring indicated that the petroleum constituent concentrations attenuate by one to two orders

of magnitude with depth. The activities are described in Cambria's July 25, 2006 *Subsurface Investigation Report and Monitoring Well Installation Work Plan.*

2007 Subsurface Investigation: In February 2007, Cambria installed four replacement wells (S-6 through S-9). Soil samples collected from the well borings contained up to 62 mg/kg TPHd, 230 mg/kg TPHg, 2.6 mg/kg benzene, 2.5 mg/kg toluene, 7.1 mg/kg ethylbenzene, 24 mg/kg total xylenes, 0.28 mg/kg MTBE, 1.6 mg/kg TBA, and 12 mg/kg lead. No 1,2-DCA or EDB was detected in the soil samples. The well reinstallation activities are described in Conestoga-Rovers & Associates' (CRA's) April 19, 2007 *Site Investigation and First Quarter 2007 Groundwater Monitoring Report.*

2007 Soil Vapor Investigation: CRA installed nine on-site soil vapor probes (V-1 through V-7, V-10, and V-11) at depths of approximately 5 fbg. The probe installation details are presented in CRA's March 13, 2008 *Soil Vapor Probe Installation and Sampling Report.*

2008 Soil Vapor Monitoring: CRA conducted three rounds of soil vapor monitoring from the on-site soil vapor probes. TPHg, benzene, and ethylbenzene were detected at concentrations exceeding RWQCB environmental screening levels (ESLs) for soil gas with commercial land use. The monitoring results are presented in CRA's November 10, 2008 *Soil Vapor Probe Installation and Sampling Report.*

2009 Sub-Slab Soil Vapor Investigation: In March of 2009, CRA installed two sub-slab soil vapor probes (SSV-1 and SSV-2) into the subsurface beneath the on-site laundromat's building footprint to further assess soil vapor concentrations beneath the site. The sub-slab soil vapor probe sample collected from SSV-2 did not contain BTEX, and BTEX detections in SSV-1 were below ESLs. Details of this investigation are presented in CRA's June 22, 2009 *Sub-Slab Soil Vapor Probe Installation and Sampling Report.*

2009 Subsurface Investigation: In August and September 2009, CRA installed three off-site groundwater monitoring wells (S-10 though S-12) and one off-site soil vapor probe (V-12) and destroyed two on-site sub-slab soil vapor probes (SSV-1 and SSV-2). BTEX, fuel oxygenates, and lead scavengers were not detected in soil samples collected during this investigation. All TPHg detections in soil samples collected during this investigation were below RWQCB ESLs. Only one TPHd detection in soil exceeded ESLs (S-12-5.5'; 880 mg/kg). The laboratory noted that the TPHd reported does not match the diesel standard chromatographic pattern. The soil vapor probe could not be sampled, because water was present in the probe's Teflon® tubing. CRA's January 5, 2010 *Subsurface Investigation Report* provides investigation details.

2010 Soil Vapor Monitoring: In July 2010, CRA conducted soil vapor monitoring from off-site soil vapor probe V-12. No TPHg, BTEX, MTBE, or TBA was detected in the soil vapor sample. The monitoring results are presented in CRA's August 16, 2010 *Soil Vapor Sampling Report.*

Groundwater Monitoring Program: Groundwater has been monitored at the site since December 1992. Groundwater depths have ranged from approximately 6 to 12 fbg. The calculated groundwater gradient typically trends southwesterly.

APPENDIX B

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC. - LABORATORY REPORT

Calscience
Environmental
Laboratories, Inc.

May 17, 2011

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

Subject: **Calscience Work Order No.: 11-05-0596**
Client Reference: 4411 Foothill Blvd., Oakland, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/10/2011 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 Dang
Project Manager

Case Narrative

Work Order # 11-05-0596

Modified EPA 8260 in Air

This method is used to determine the concentration of BTEX/Oxygenates/Naphthalene having a vapor pressure greater than 10^{-1} torr at 25°C at standard pressure in an air matrix. The method is similar to EPA TO-15 and uses air standards for calibration. Method specifics are listed in the table below. A known volume of sample is directed from the container (Summa® canister or Tedlar™ bag) through a solid multi-module (glass beads, tenex, cryofocuser) concentrator. Following concentration, the VOCs are thermally desorbed onto a gas chromatographic column for separation and then detected on a mass selective detector.

Comparison of CalscienceTO-15(Modified) versus EPA 8260 (Modified) in Air

Requirement	Calscience TO-15(M)	Calscience EPA 8260(M) in Air
BFB Acceptance Criteria	SW846 Protocol	SW846 Protocol
Initial Calibration	Allowable % RSD for each Target Analyte <= 30%, 10% of analytes allowed <=40%	Allowable % RSD for each Target Analyte <= 30%, 10% of analytes allowed <= 40%
Initial Calibration Verification (ICV) - Second Source Standard (LCS)	Analytes contained in the LCS standard evaluated against historical control limits for the LCS	BTEX and MTBE only - <= 30%D
Daily Calibration Verification (CCV)	**Full List Analysis:** Allowable % Difference for each CCC analyte is <= 30%	BTEX and MTBE only - <= 30%D
	Target List Analysis: Allowable % Difference for each target analytes is <= 30%	
Daily Calibration Verification (CCV) - Internal Standard Area Response	Allowable +/- 50% (Range: 50% to 150%)	Allowable +/- 50% (Range: 50% to 150%)
Method Blank, Laboratory Control Sample and Sample - Internal Standard Area Response	Allowable +/- 50% of the mean area response of most recent Calibration Verification (Range: 50% to 150%)	Allowable +/- 50% of the mean area response of the most recent Calibration Verification (Range: 50% to 150%)
Surrogates	1,4-Bromoflurobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S	1,4-Bromoflurobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 05/10/11
Work Order No: 11-05-0596
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-1	11-05-0596-1-A	05/09/11 14:05	Air	GC 36	N/A	05/10/11 12:07	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	3.01	0.500	1	
Carbon Dioxide	16.2	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-2	11-05-0596-2-A	05/09/11 13:10	Air	GC 36	N/A	05/10/11 12:30	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	2.30	0.500	1	
Carbon Dioxide	14.7	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-3	11-05-0596-3-A	05/09/11 12:40	Air	GC 36	N/A	05/10/11 12:47	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	4.59	0.500	1		Oxygen + Argon	2.14	0.500	1	
Carbon Dioxide	13.7	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-4	11-05-0596-4-A	05/09/11 12:00	Air	GC 36	N/A	05/10/11 13:04	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	0.964	0.500	1		Oxygen + Argon	2.18	0.500	1	
Carbon Dioxide	7.98	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-5	11-05-0596-5-A	05/09/11 11:35	Air	GC 36	N/A	05/10/11 13:23	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	3.29	0.500	1	
Carbon Dioxide	9.30	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-6	11-05-0596-6-A	05/09/11 13:44	Air	GC 36	N/A	05/10/11 13:41	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	6.92	0.500	1	
Carbon Dioxide	8.67	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-7	11-05-0596-7-A	05/09/11 12:20	Air	GC 36	N/A	05/10/11 13:58	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	15.2	0.500	1	
Carbon Dioxide	4.95	0.500	1						

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: 05/10/11
Work Order No: 11-05-0596
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-8	11-05-0596-8-A	05/09/11 14:30	Air	GC 36	N/A	05/10/11 14:21	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	6.39	0.500	1	
Carbon Dioxide	13.9	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-9	11-05-0596-9-A	05/09/11 15:00	Air	GC 36	N/A	05/10/11 14:39	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	16.4	0.500	1	
Carbon Dioxide	6.75	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-11	11-05-0596-10-A	05/09/11 15:25	Air	GC 36	N/A	05/10/11 14:57	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	12.6	0.500	1	
Carbon Dioxide	7.76	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-03-002-1,298	N/A	Air	GC 36	N/A	05/10/11 10:10	110510L01

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:	05/10/11
5900 Hollis Street, Suite A	Work Order No:	11-05-0596
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA TO-3M

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-1	11-05-0596-1-A	05/09/11 14:05	Air	GC 53	N/A	05/10/11 13:36	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-2	11-05-0596-2-A	05/09/11 13:10	Air	GC 53	N/A	05/10/11 16:14	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	3600000	35000	5		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-3	11-05-0596-3-A	05/09/11 12:40	Air	GC 53	N/A	05/10/11 16:47	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	66000000	350000	50		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-4	11-05-0596-4-A	05/09/11 12:00	Air	GC 53	N/A	05/10/11 16:35	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	2700000	35000	5		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-5	11-05-0596-5-A	05/09/11 11:35	Air	GC 53	N/A	05/10/11 14:50	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	960000	7000	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-6	11-05-0596-6-A	05/09/11 13:44	Air	GC 53	N/A	05/10/11 17:30	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	240000	7000	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates		Date Received:	05/10/11
5900 Hollis Street, Suite A		Work Order No:	11-05-0596
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-7	11-05-0596-7-A	05/09/11 12:20	Air	GC 53	N/A	05/10/11 16:00	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-8	11-05-0596-8-A	05/09/11 14:30	Air	GC 53	N/A	05/10/11 19:34	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	250000	7000	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-9	11-05-0596-9-A	05/09/11 15:00	Air	GC 53	N/A	05/10/11 18:11	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-11	11-05-0596-10-A	05/09/11 15:25	Air	GC 53	N/A	05/10/11 18:27	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	098-01-005-3,110	N/A	Air	GC 53	N/A	05/10/11 10:08	110510L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	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: 05/10/11
Work Order No: 11-05-0596
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-1	11-05-0596-1-A	05/09/11 14:05	Air	GC 55	N/A	05/10/11 15:26	110510L01

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
V-2	11-05-0596-2-A	05/09/11 13:10	Air	GC 55	N/A	05/10/11 15:47	110510L01

Parameter	Result	RL	DF	Qual	Units
Helium	0.0161	0.0100	1		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-3	11-05-0596-3-A	05/09/11 12:40	Air	GC 55	N/A	05/10/11 16:08	110510L01

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
V-4	11-05-0596-4-A	05/09/11 12:00	Air	GC 55	N/A	05/10/11 16:31	110510L01

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
V-5	11-05-0596-5-A	05/09/11 11:35	Air	GC 55	N/A	05/10/11 16:53	110510L01

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
V-6	11-05-0596-6-A	05/09/11 13:44	Air	GC 55	N/A	05/10/11 17:17	110510L01

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		Date Received:	05/10/11
5900 Hollis Street, Suite A		Work Order No:	11-05-0596
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	ASTM D-1946 (M)

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-7	11-05-0596-7-A	05/09/11 12:20	Air	GC 55	N/A	05/10/11 17:48	110510L01

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
V-8	11-05-0596-8-A	05/09/11 14:30	Air	GC 55	N/A	05/10/11 18:17	110510L01

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
V-9	11-05-0596-9-A	05/09/11 15:00	Air	GC 55	N/A	05/10/11 18:55	110510L01

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
V-11	11-05-0596-10-A	05/09/11 15:25	Air	GC 55	N/A	05/10/11 19:26	110510L01

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	099-12-872-103	N/A	Air	GC 55	N/A	05/10/11 15:01	110510L01

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: 05/10/11
Work Order No: 11-05-0596
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-1	11-05-0596-1-A	05/09/11 14:05	Air	GC/MS YY	N/A	05/10/11 19:35	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	160	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	110	22	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	107	47-156			1,2-Dichloroethane-d4	93	47-156		
Toluene-d8	97	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-2	11-05-0596-2-A	05/09/11 13:10	Air	GC/MS ZZ	N/A	05/11/11 15:55	110511L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	2400	800	50		Xylenes (total)	ND	2200	50	
Toluene	ND	940	50		Methyl-t-Butyl Ether (MTBE)	ND	1800	50	
Ethylbenzene	ND	1100	50		Tert-Butyl Alcohol (TBA)	ND	1500	50	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	115	47-156			1,2-Dichloroethane-d4	99	47-156		
Toluene-d8	75	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-3	11-05-0596-3-A	05/09/11 12:40	Air	GC/MS ZZ	N/A	05/11/11 16:42	110511L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	5100	3200	200		Xylenes (total)	ND	8700	200	
Toluene	ND	3800	200		Methyl-t-Butyl Ether (MTBE)	ND	7200	200	
Ethylbenzene	ND	4300	200		Tert-Butyl Alcohol (TBA)	ND	6100	200	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	117	47-156			1,2-Dichloroethane-d4	85	47-156		
Toluene-d8	65	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-4	11-05-0596-4-A	05/09/11 12:00	Air	GC/MS ZZ	N/A	05/11/11 22:10	110511L01

Comment(s): -Reporting limit is elevated due to high levels of non-target hydrocarbons.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	320	20		Xylenes (total)	ND	870	20	
Toluene	ND	380	20		Methyl-t-Butyl Ether (MTBE)	ND	720	20	
Ethylbenzene	ND	430	20		Tert-Butyl Alcohol (TBA)	ND	610	20	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	145	47-156			1,2-Dichloroethane-d4	87	47-156		
Toluene-d8	52	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates		Date Received:	05/10/11
5900 Hollis Street, Suite A		Work Order No:	11-05-0596
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
		Units:	ug/m3
Project: 4411 Foothill Blvd., Oakland, CA			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-5	11-05-0596-5-A	05/09/11 11:35	Air	GC/MS ZZ	N/A	05/11/11 18:50	110511L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	130	8		Xylenes (total)	ND	350	8	
Toluene	ND	150	8		Methyl-t-Butyl Ether (MTBE)	ND	290	8	
Ethylbenzene	220	170	8		Tert-Butyl Alcohol (TBA)	ND	240	8	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	111	47-156			1,2-Dichloroethane-d4	91	47-156		
Toluene-d8	56	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-6	11-05-0596-6-A	05/09/11 13:44	Air	GC/MS ZZ	N/A	05/11/11 19:36	110511L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	40	2.5		Xylenes (total)	280	110	2.5	
Toluene	ND	47	2.5		Methyl-t-Butyl Ether (MTBE)	ND	90	2.5	
Ethylbenzene	170	54	2.5		Tert-Butyl Alcohol (TBA)	ND	76	2.5	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	162	47-156		2	1,2-Dichloroethane-d4	86	47-156		
Toluene-d8	53	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-7	11-05-0596-7-A	05/09/11 12:20	Air	GC/MS YY	N/A	05/11/11 01:08	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	48	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	42	22	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	108	47-156			1,2-Dichloroethane-d4	104	47-156		
Toluene-d8	108	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-8	11-05-0596-8-A	05/09/11 14:30	Air	GC/MS ZZ	N/A	05/11/11 20:21	110511L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	64	4		Xylenes (total)	ND	170	4	
Toluene	ND	75	4		Methyl-t-Butyl Ether (MTBE)	ND	140	4	
Ethylbenzene	150	87	4		Tert-Butyl Alcohol (TBA)	ND	120	4	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	144	47-156			1,2-Dichloroethane-d4	83	47-156		
Toluene-d8	57	47-156							

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: 05/10/11
Work Order No: 11-05-0596
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4411 Foothill Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-9	11-05-0596-9-A	05/09/11 15:00	Air	GC/MS YY	N/A	05/11/11 02:42	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	170	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	130	22	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	105	47-156			1,2-Dichloroethane-d4	106	47-156		
Toluene-d8	98	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
V-11	11-05-0596-10-A	05/09/11 15:25	Air	GC/MS YY	N/A	05/11/11 03:32	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	49	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	43	22	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	108	47-156			1,2-Dichloroethane-d4	109	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	099-13-041-477	N/A	Air	GC/MS YY	N/A	05/10/11 14:20	110510L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	104	47-156			1,2-Dichloroethane-d4	111	47-156		
Toluene-d8	100	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-13-041-478	N/A	Air	GC/MS ZZ	N/A	05/11/11 14:22	110511L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1		Tert-Butyl Alcohol (TBA)	ND	30	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	112	47-156			1,2-Dichloroethane-d4	123	47-156		
Toluene-d8	103	47-156							

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

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

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

Date Received: 05/10/11
Work Order No: 11-05-0596
Preparation: N/A
Method: EPA TO-3M

Project: 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
V-6	Air	GC 53	N/A	05/10/11	110510D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
TPH as Gasoline	242400	240400	1	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: 11-05-0596
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946

Project: 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,298	Air	GC 36	N/A	05/10/11	110510L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	96	95	80-120	1	0-30	
Carbon Dioxide	106	106	80-120	1	0-30	
Carbon Monoxide	103	102	80-120	1	0-30	
Oxygen + Argon	93	95	80-120	2	0-30	
Nitrogen	99	102	80-120	3	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: 11-05-0596
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946 (M)

Project: 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-103	Air	GC 55	N/A	05/10/11	110510L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Helium	95	94	80-120	1	0-30	
Hydrogen	109	109	80-120	0	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: 11-05-0596
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 8260B (M)

Project: 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-477	Air	GC/MS YY	N/A	05/10/11	110510L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	104	104	60-156	0	0-40	
Toluene	106	105	56-146	1	0-43	
Ethylbenzene	110	110	52-154	0	0-38	
Xylenes (total)	116	116	52-148	0	0-38	

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: 11-05-0596
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 8260B (M)

Project: 4411 Foothill Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-478	Air	GC/MS ZZ	N/A	05/11/11	110511L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	99	99	60-156	0	0-40	
Toluene	97	94	56-146	3	0-43	
Ethylbenzene	96	95	52-154	1	0-38	
Xylenes (total)	97	96	52-148	1	0-38	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-05-0596

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.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. 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.
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. All QC results are reported on a wet weight basis.

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
INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 4 6 ☐ CHECK IF NO INCIDENT # APPLIES
PO #:
SAP #: 1 3 5 6 8 6
DATE: 5/9/11
PAGE: 1 of 2

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
E-MAIL: pschaefer@craworld.com

SITE ADDRESS: Street and City: 4411 Foothill Blvd, Oakland
State: CA
GLOBAL ID NO: T0600101065
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: 240897
SAMPLER NAME(S) (Print): Erin Swan
LAB USE ONLY: 11-05-0596

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 :
Must be analyzed within 72 hours.
Please report results in µg/m3 for EPA TO-3 & 8260, and in % by volume for ASTM D 1946 & 1946(M).

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ 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.	TPHg, BTEX, MTBE, & TBA by EPA Method (8260)	Oxygen, Carbon Dioxide, & Methane by ASTMd 1946	He by ATSM d 1946 (M)	Container PID Readings or Laboratory Notes
1	V-1	5/9/11	2:05	VAPOR						1	X	X	X	
2	V-2		1:10	VAPOR						1	X	X	X	
3	V-3		12:40	VAPOR						1	X	X	X	
4	V-4		12:00	VAPOR						1	X	X	X	
5	V-5		11:35	VAPOR						1	X	X	X	
6	V-6		1:44	VAPOR						1	X	X	X	
7	V-7		12:20	VAPOR						1	X	X	X	
8	V-8		2:30	VAPOR						1	X	X	X	
9	V-9		3:00	VAPOR						1	X	X	X	
	[redacted]	[redacted]								1	[redacted]			

TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature) Erin Swan	Received by: (Signature) CEL	Date: 5/9/11	Time: 1635
Relinquished by: (Signature) 10680 5/9/11 1730	Received by: (Signature)	Date: 5/10/11	Time: 10:30
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

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
INCIDENT # (ENV SERVICES): 98995746 ☐ CHECK IF NO INCIDENT # APPLIES
DATE: 5/9/11
PO #:
SAP #: 136866
PAGE: 2 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates
LOG CODE: CRAW
SITE ADDRESS: Street and City: 4411 Foothill Blvd, Oakland
State: CA
GLOBAL ID NO: T0600101065
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: 240897
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer
TELEPHONE: 510-420-3319
FAX: 510-420-9170
E-MAIL: pschaefer@craworld.com
SAMPLER NAME(S) (Print): Erin Swan
LAB USE ONLY: 11-05-0596

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 :
Must be analyzed within 72 hours.

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

Please report results in µg/m3 for EPA TO-3 & 8260, and in % by volume for ASTM D 1946 & 1946(M).

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPHg, BTEX, MTBE, & TBA by EPA Method (8260)	Oxygen, Carbon Dioxide, & Methane by ASTMd 1946	He by ATSM d 1946 (M)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
10	V-11	5/9/11	3:25	VAPOR						1	X	X	X	
	[redacted]													

Relinquished by: (Signature) Erin Swan	Received by: (Signature) CFL	Date: 5/9/11	Time: 1635
Relinquished by: (Signature) to GSO 5/9/11 1730	Received by: (Signature)	Date: 5/10/11	Time: 10:30
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

0596

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:
CRA, CARDNO, ERI

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 516536055

NPS

ORC

D

GARDEN GROVE

D92843A

90947641

Print Date : 05/09/11 16:45 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 #: 11-05-0596

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: CRA

DATE: 05/10/11

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 **Initial:** RS

CUSTODY SEALS INTACT:

☑ Box ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** RS

☐ 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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen 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 ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_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:** MC

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:** _____