CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: November 13, 2013

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

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
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QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

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

COMMENTS:
If you have any questions regarding the contents of this document, please call the CRA project manager Peter Schaefer at (510) 420-3319 or the Shell program manager Perry Pineda at (425) 413-1164.

Copy to: Perry Pineda, Shell Oil Products US (electronic copy)
Laura Wong, Phua Management (property owner representative) (electronic copy)

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Shell Oil Products US
Soil and Groundwater Focus Delivery Group
20945 S. Wilmington Avenue
Carson, CA 90810
Tel (425) 413 1164
Fax (425) 413 0988
Email perry.pineda@shell.com
Internet http://www.shell.com

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

Re: 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.

As always, please feel free to contact me directly at (425) 413-1164 with any questions or concerns.

Sincerely,
Shell Oil Products US

Perry Pineda
Senior Environmental Program Manager

SUBSURFACE INVESTIGATION 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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NOVEMBER 13, 2013
REF. NO. 240897 (23)
This report is printed on recycled paper.

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EXECUTIVE SUMMARY

- Two on-site groundwater monitoring wells (S-13 and S-14) were installed to further assess gasoline constituent concentrations in soil and groundwater in the west portion of the site.
- All TPHg, BTEX, and fuel oxygenate concentrations in soil samples collected from the well borings were below RWQCB ESLs, with the exception of 6.0 mg/kg ethylbenzene and 26 mg/kg total xylenes in a soil sample from well boring S-13 at 12 fbg.
- The new wells were developed on September 6, 2013 and sampled on September 19, 2013. CRA will submit a groundwater monitoring report under separate cover by November 15, 2013.
- CRA will add wells S-13 and S-14 to the groundwater monitoring program for this site, and they will be monitored quarterly for at least one hydrologic cycle (one year).
- One sub-slab soil vapor probe (SSV-8) was installed inside the on-site building adjacent to near sub-slab soil vapor probe SSV-3.
- TPHg, BTEX, and naphthalene concentrations in the soil vapor sample collected from SSV-8 were below RWQCB ESLs.
- No additional on-site soil vapor investigations are warranted.
- CRA sent survey questionnaires to property owners and occupants of properties located directly down-gradient from the site on June 7, 2013. To date, no questionnaires have been returned to CRA. CRA requests that ACEH help obtain the cooperation of the down-gradient property owners in providing information about wells and basements on their properties.

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 investigation at the referenced site. The purpose of the investigation was to further assess soil, groundwater, and soil vapor conditions on site. CRA followed the scope of work presented in our April 22, 2013 *Soil Vapor Sampling Report and Subsurface Investigation Work Plan*, which was conditionally approved in Alameda County Environmental Health's (ACEH's) May 6, 2013 letter. ACEH's September 4, 2013 electronic correspondence extended the due date for this report to November 15, 2013.

ACEH's May 6, 2013 letter also conditionally approved conducting a door-to-door survey of properties located directly down-gradient from the site to identify any domestic or irrigation wells and requested that we also obtain information on the depth of any basements, how the basements are used, the type of floor in the basements, and whether any sumps are present in the basements. CRA sent survey questionnaires to three property owners and four occupants on June 7, 2013. To date, no questionnaires have been returned to CRA.

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 presented in CRA's April 22, 2013 *Soil Vapor Sampling Report and Subsurface Investigation Work Plan* and is not repeated herein.

2.0 INVESTIGATION RESULTS

2.1 PERMIT

CRA obtained a drilling permit for the wells from Alameda County Public Works Agency (ACPWA), which are included in Appendix A. ACPWA does not require a permit for sub-slab soil vapor probe installation.

2.2 FIELD DATES

August 19 and 20, 2013 (well and probe installations) and September 4, 2013 (sub-slab soil vapor probe sampling).

2.3 DRILLING COMPANY

Vapor Tech Services.

2.4 CRA PERSONNEL

Geologist Patrick O'Connell directed the drilling and probe installation activities under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHODS

Wells: direct push and hollow-stem auger. Sub-slab soil vapor probe: hammer drill.

2.6 NUMBER OF BORINGS AND PROBES

Two soil borings were drilled and converted to groundwater monitoring wells (S-13 and S-14). CRA installed one sub-slab soil vapor probe (SSV-8) as described below.

The boring and well specifications and soil types encountered are described on the boring logs, presented as Appendix B. No boring log was created for the sub-slab soil vapor probe. The well and vapor probe locations are shown on Figure 2.

2.7 VAPOR PROBE MATERIALS

CRA cut stainless steel tubing to a length that allows the probe to float within the floor thickness to avoid obstruction of the probe with base material. The tubing was approximately 1/4-inch diameter with stainless steel compression fittings. The sub-slab soil vapor probe was placed in the borehole so that the top of the probe is flush with the floor. The top of the probe has a recessed stainless steel plug.

2.8 BORING AND PROBE DEPTHS

Wells: 20 feet below grade (fbg). Sub-slab soil vapor probe: 0.5 fbg.

2.9 GROUNDWATER DEPTHS

Groundwater was first encountered in the well borings at 9 fbg.

2.10 WASTE DISPOSAL

Soil, water, and sludge generated during field activities were stored on site in 55-gallon drums, sampled, and profiled for disposal. The laboratory analytical report is presented in Appendix C. Disposal documentation is pending and will be provided upon request.

2.11 SAMPLING PROCEDURES

2.11.1 SOIL SAMPLING PROCEDURES

Soil samples for chemical analyses were retained in stainless steel sample tubes. The tubes were covered on both ends with Teflon® sheets and plastic end caps. Soil samples were labeled, entered onto a chain-of-custody record, placed into a cooler with ice and submitted to TestAmerica Laboratories, Inc. of Irvine, California for analyses.

2.11.2 SOIL VAPOR SAMPLING PROCEDURES

On September 4, 2013, CRA sampled soil vapor probe SSV-8. The soil vapor sample was collected using a lung box and Tedlar® bag.

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

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe purging, CRA introduced helium into the containment unit to obtain a minimum 50 percent by volume (*%v*) helium content level. CRA confirmed the helium content within the containment unit using a helium meter. The helium meter reading is presented in Section 3.2. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.2.1 and on Table 1.

2.12 SAMPLING ANALYSES

Soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), di-isopropyl ether, ethyl tertiary-butyl ether, and tertiary-amyl methyl ether by EPA Method 8260B.

The soil vapor sample was analyzed for TPHg by EPA Method TO-3 (M); for BTEX, MTBE, and TBA by EPA Method 8260B (M); for oxygen and argon, carbon dioxide, and methane by ASTM D-1946; and for helium by ASTM D-1946 (M).

3.0 FINDINGS

3.1 SOIL ANALYTICAL RESULTS

The soil chemical analytical data from the borings are summarized in Table 2, and the TPHg and BTEX analytical results are presented on Figure 2. The laboratory analytical reports are presented in Appendix C.

3.2 SOIL VAPOR

3.2.1 LEAK TESTING

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe purging, CRA introduced helium into the containment unit to obtain a minimum 50 percent (%) helium content level. CRA confirmed the helium content within the containment unit using a helium meter. 0.516%*v* helium was detected in the sample. As shown in the following table, the detection from SSV-8 is less than 5% of the concentration detected in the shroud, and that sample is considered valid.

Probe ID	*Date*	*Minimum helium concentration detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*	*Helium concentration in sample (%v)*
SSV-8	9/4/13	51.9	2.60	0.516

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

3.2.2 SOIL VAPOR ANALYTICAL RESULTS

The soil vapor chemical analytical data are summarized in Table 1, and TPHg, benzene, and naphthalene analytical results are presented on Figure 3. The laboratory analytical report is presented in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Two on-site groundwater monitoring wells (S-13 and S-14) were installed during this investigation. All TPHg, BTEX, and fuel oxygenate concentrations in soil samples collected from the borings were below San Francisco Bay Regional Water Quality Control Board's environmental screening levels (ESLs) for commercial land use[1], with the exception of 6.0 milligrams per kilogram (mg/kg) ethylbenzene and 26 mg/kg total xylenes in a soil sample from well boring S-13 at 12 fbg.

---

1 *Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater,* California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008] - Updated May 2013

The new wells were developed on September 6, 2013 and sampled on September 19, 2013. CRA will submit a groundwater monitoring report under separate cover by November 15, 2013. CRA will add wells S-13 and S-14 to the groundwater monitoring program for this site, and they will be monitored quarterly for at least one hydrologic cycle (one year).

One sub-slab soil vapor probe (SSV-8) was installed inside the on-site building adjacent to near sub-slab soil vapor probe SSV-3. TPHg, BTEX, and naphthalene concentrations in the soil vapor sample collected from SSV-8 were below ESLs. No additional on-site soil vapor investigations are warranted.

On behalf of Shell, CRA requests that ACEH help obtain the cooperation of the down-gradient property owners in providing information about wells and basements on their properties. A list of property owners and occupants will be provided to ACEH upon request.

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

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

11/03/08

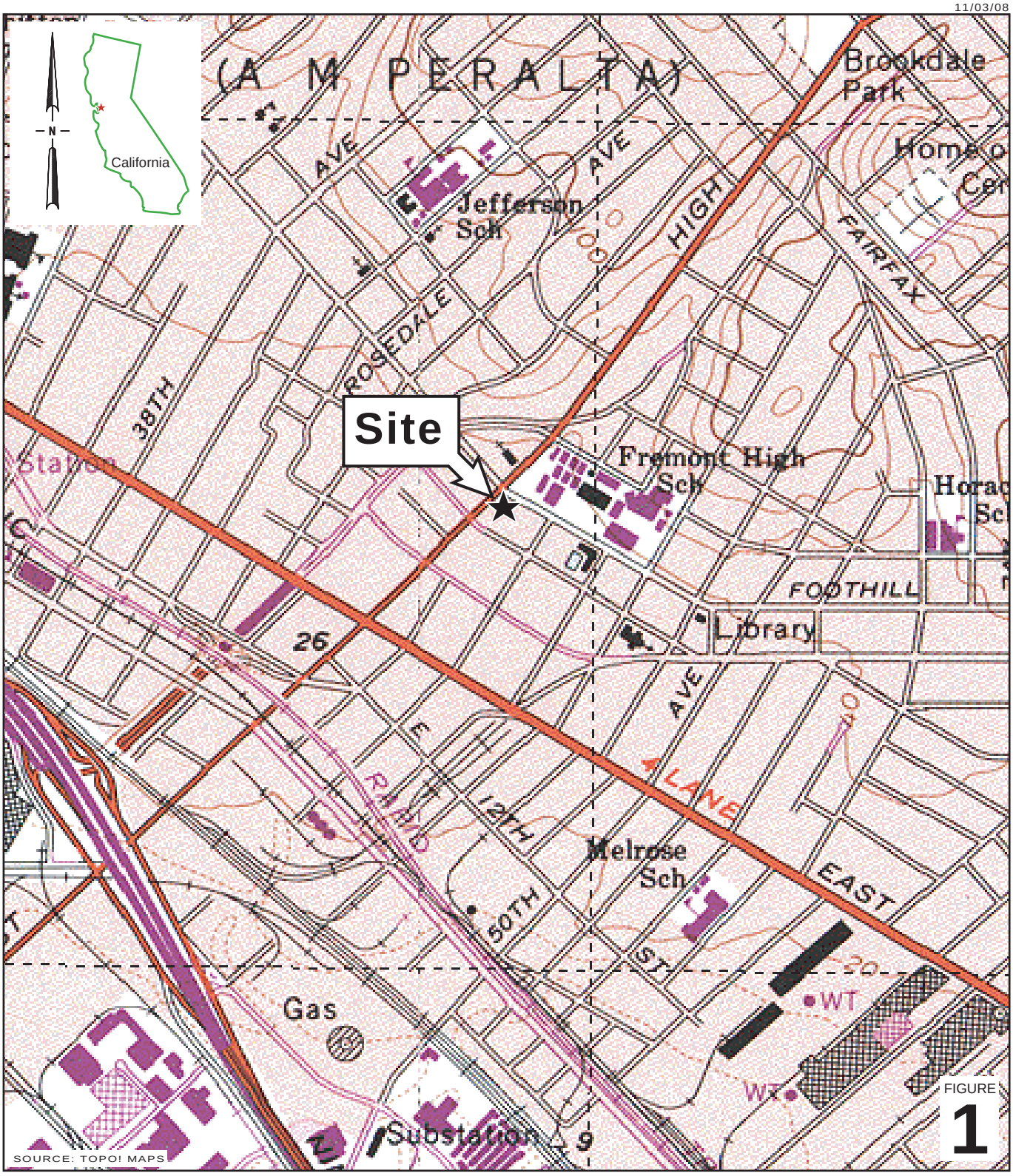

FIGURE 1

0 1/6 1/3 1/2 1

SCALE : 1" = 1/6 MILE

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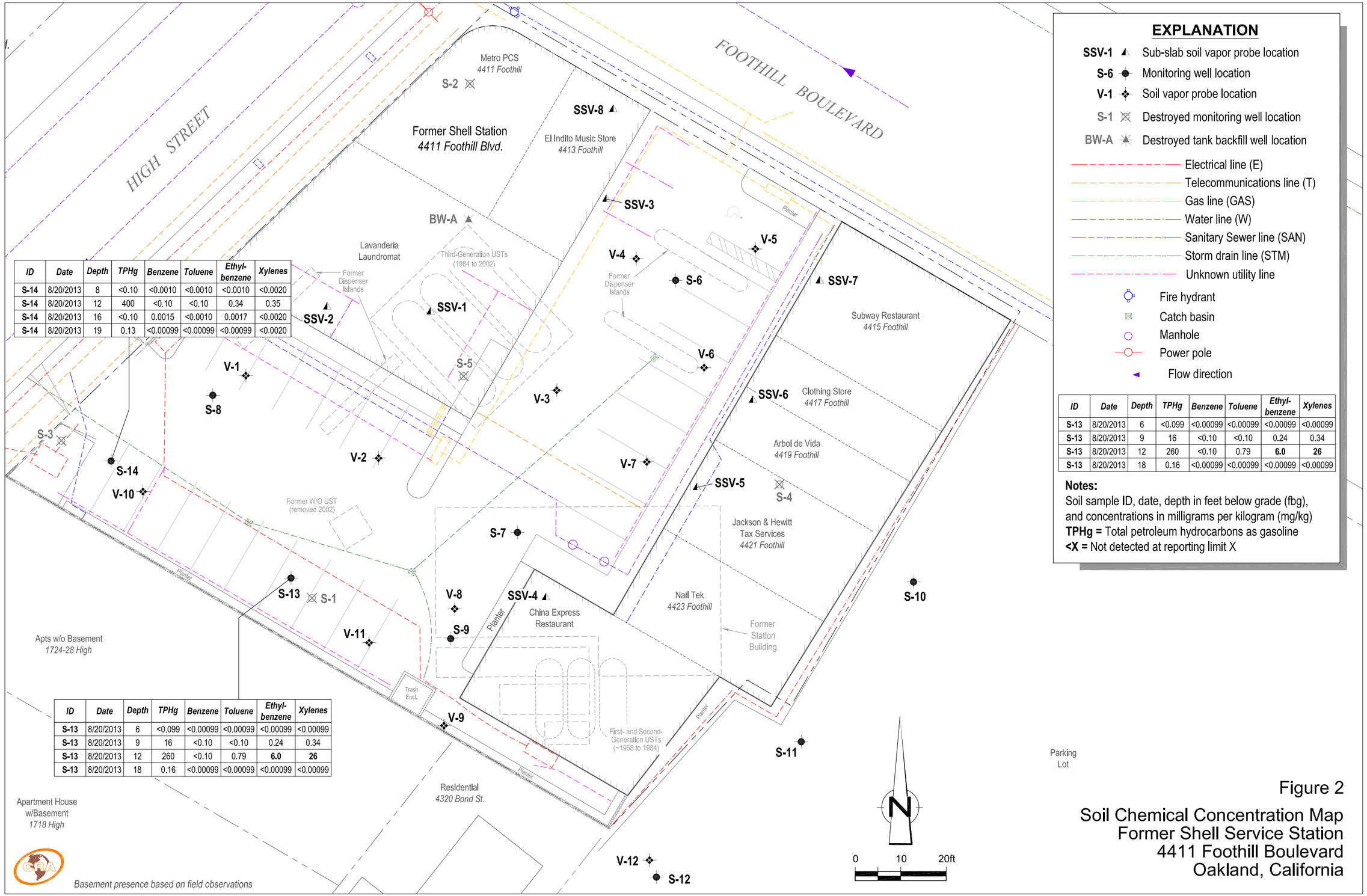
Former Shell Service Station
4411 Foothill Boulevard
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes
S-14	8/20/2013	8	<0.10	<0.0010	<0.0010	<0.0010	<0.0020
S-14	8/20/2013	12	400	<0.10	<0.10	0.34	0.35
S-14	8/20/2013	16	<0.10	0.0015	<0.0010	0.0017	<0.0020
S-14	8/20/2013	19	0.13	<0.00099	<0.00099	<0.00099	<0.0020

ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes
S-13	8/20/2013	6	<0.099	<0.00099	<0.00099	<0.00099	<0.00099
S-13	8/20/2013	9	16	<0.10	<0.10	0.24	0.34
S-13	8/20/2013	12	260	<0.10	0.79	**6.0**	**26**
S-13	8/20/2013	18	0.16	<0.00099	<0.00099	<0.00099	<0.00099

EXPLANATION

- SSV-1 Sub-slab soil vapor probe location
- S-6 Monitoring well location
- V-1 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

ID	Date	Depth	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes
S-13	8/20/2013	6	<0.099	<0.00099	<0.00099	<0.00099	<0.00099
S-13	8/20/2013	9	16	<0.10	<0.10	0.24	0.34
S-13	8/20/2013	12	260	<0.10	0.79	**6.0**	**26**
S-13	8/20/2013	18	0.16	<0.00099	<0.00099	<0.00099	<0.00099

Notes:
Soil sample ID, date, depth in feet below grade (fbg), and concentrations in milligrams per kilogram (mg/kg)
TPHg = Total petroleum hydrocarbons as gasoline
<X = Not detected at reporting limit X

Basement presence based on field observations

Figure 2

Soil Chemical Concentration Map
Former Shell Service Station
4411 Foothill Boulevard
Oakland, California

I:\Shell\6-chars\2408--\240897-Oakland 4411 Foothill\240897-FIGURES\240897 SITE PLAN.DWG (11/08/2013)

ID	Date	Depth	TPHg	Benzene	Naph-thalene
SSV-8	09/04/2013	0.5	5,900	<16	<52

FOOTHILL BOULEVARD

HIGH STREET

Metro PCS
4411 Foothill

Former Shell Station
4411 Foothill Blvd.

El Indito Music Store
4413 Foothill

Lavanderia
Laundromat

Third-Generation USTs
(1984 to 2002)

Former
Dispenser
Islands

Former
Dispenser
Islands

Subway Restaurant
4415 Foothill

Clothing Store
4417 Foothill

Arbol de Vida
4419 Foothill

Jackson & Hewitt
Tax Services
4421 Foothill

Nail Tek
4423 Foothill

China Express
Restaurant

Former
Station
Building

Former W/O UST
(removed 2002)

Trash
Encl.

Planter

Apts w/o Basement
1724-28 High

Apartment House
w/Basement
1718 High

Residential
4320 Bond St.

Parking
Lot

First- and Second-
Generation USTs
(~1958 to 1984)

S-2 S-3 S-4 S-5 S-6 S-7 S-8 S-9 S-10 S-11 S-12 S-13 S-14 S-1

SSV-1 SSV-2 SSV-3 SSV-4 SSV-5 SSV-6 SSV-7 SSV-8

V-1 V-2 V-3 V-4 V-5 V-6 V-7 V-8 V-9 V-10 V-11 V-12

BW-A

Basement presence based on field observations

0 10 20ft

EXPLANATION

- SSV-1 Sub-slab soil vapor probe location
- S-6 Monitoring well location
- V-1 Soil vapor probe location
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- Unknown utility line
- Fire hydrant
- Catch basin
- Manhole
- Power pole
- Flow direction

ID	Date	Depth	TPHg	Benzene	Naph-thalene
SSV-8	09/04/2013	0.5	5,900	<16	<52

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

Figure 3

Soil Vapor Chemical Concentration Map
Former Shell Service Station
4411 Foothill Boulevard
Oakland, California

I:\Shell\6-chars\2408--\240897-Oakland 4411 Foothill\240897-FIGURES\240897 SITE PLAN.DWG (11/13/2013)

TABLES

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 ($\mu g/m^3$)*	*Naphthalene ($\mu g/m^3$)*	*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

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 ($\mu g/m^3$)*	*Naphthalene ($\mu g/m^3$)*	*Helium (%v)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*
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-9	5.0-5.2	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	<0.0100	<0.500	6.18	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	---	---	---	---	---
V-10	4.5-4.8	5/9/2011	Unable to sample due to water in sample tube					---	---	---	---	---	---	---
V-10	4.5-4.8	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	0.0726	<0.500	7.09	13.3
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	<7,000	<16	<19	43	49	<36	<30	---	<0.0100	<0.500	7.76	12.6
V-11	4.5-4.8	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	<0.0100	<0.500	6.40	14.5

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 ($\mu g/m^3$)*	*Naphthalene ($\mu g/m^3$)*	*Helium (%v)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*
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	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-1	0.5	10/23/2012 b	<3,800	<16	<19	26	<43	<36	63	---	0.0339	<0.500	<0.500	15.6
SSV-1	0.5	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	0.0150	<0.500	<0.500	17.6
SSV-2	1	5/15/2009	---	<2.1	<2.4	<2.8	<11	---	---	---	0.261	---	---	---
SSV-2	1	10/23/2012 b	<3,800	<16	<19	<22	<43	<36	<30	---	<0.0100	<0.500	<0.500	21.1
SSV-2	1	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	<0.0100	<0.500	<0.500	20.8
SSV-3	0.67	10/23/2012 b	<3,800	<16	<19	<22	<43	<36	<30	---	<0.0100	<0.500	<0.500	19.8
SSV-3	0.67	2/20/2013	**3,400,000**	<400	<470	<540	<1,100	<900	<760	<1,300	0.0192	0.883	5.52	2.81
SSV-4	0.5	10/23/2012 b	<3,800	<16	<19	<22	<43	<36	<30	---	0.0621	<0.500	<0.500	21.3
SSV-4	0.5	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	<0.0100	<0.500	<0.500	21.0
SSV-5	0.5	10/23/2012 b	<3,800	<16	<19	30	<43	<36	37	---	0.235	<0.500	<0.500	21.8
SSV-5	0.5	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	0.200	<0.500	<0.500	21.3
SSV-6	0.5	10/23/2012 b	<3,800	<16	<19	<22	<43	<36	<30	---	0.107	<0.500	<0.500	20.3
SSV-6	0.5	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	<0.0100	<0.500	<0.500	20.3
SSV-7	0.5	10/23/2012 b	<3,800	<16	<19	25	<43	<36	44	---	<0.0100	<0.500	<0.500	21.4
SSV-7	0.5	2/20/2013	<3,800	<16	<19	<22	<43	<36	<30	<52	0.0416	<0.500	<0.500	21.2
SSV-8	0.5	9/4/2013	5,900	<16	26	<22	<22	---	---	<52	0.516	<0.500	<0.500	19.6
Ambient Air	---	1/14/2008	<17,000	<2.4	4	<3.2	<9.7	<11	<9.0	---	---	---	---	---

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 ($\mu g/m^3$)*	*Naphthalene ($\mu g/m^3$)*	*Helium (%v)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*
RWQCB ESLs for Soil Gas [d]		*Commercial Land Use*	***1,200,000***	***420***	***1,300,000***	***4,900***	***440,000***	***47,000***	*NA*	***360***	*NA*	*NA*	*NA*	*NA*
		Residential Land Use	***150,000***	***42***	***160,000***	***490***	***52,000***	***4,700***	*NA*	***36***	*NA*	*NA*	*NA*	*NA*

Notes:
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.
Naphthalene analyzed by EPA Method 8260B (M)
Helium analyzed by ASTM D-1946 (M)
Methane, carbon dioxide, and oxygen + argon analyzed by ASTM D-1946
fbg = Feet below grade
$\mu g/m^3$ = Micrograms per cubic meter
%v = Percent by volume
<x = Not detected at reporting limit x
--- = Not analyzed
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) - Updated May 2013.

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
SW-1	2/5/1992	11.0	---	---	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---
S-1-6.0	11/24/1992	6.0	<1.0	---	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---
S-1-11.0	11/24/1992	11.0	390	---	180	110	0.45	<0.005	2.2	8	---	---	---	---	---	---	---	---
S-1-16.0	11/24/1992	16.0	<1.0	---	<1.0	2.8	<0.050	0.51	0.097	0.50	---	---	---	---	---	---	---	---
S-1-21.0	11/24/1992	21.0	<1.0	---	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---
S-1-26.0	11/24/1992	26.0	<1.0	---	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---
S-2-6.0	5/21/1993	6.0	---	---	<10	<0.5	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---
S-2-10.5	5/21/1993	10.5	---	---	<10	95	<0.005	<0.005	0.52	0.56	---	---	---	---	---	---	---	---
S-2-15.0	5/21/1993	15.0	---	---	<10	<0.5	<0.005	<0.005	<0.005	0.013	---	---	---	---	---	---	---	---
S-3-6.5	5/21/1993	6.5	---	---	<10	<0.5	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---	---
S-3-11.0	5/21/1993	11.0	---	---	36	1,300	<0.005	<0.005	**35**	**200**	---	---	---	---	---	---	---	---
S-3-15.0	5/21/1993	15.0	---	---	<10	<0.5	<0.005	0.019	0.020	0.11	---	---	---	---	---	---	---	---
GP-3-8.0	6/28/1995	8.0	---	---	2.0	ND	0.006	ND	ND	ND	---	---	---	---	---	---	---	---
GP-3-12.0	6/28/1995	12.0	---	---	3.7	8.4	0.13	0.029	0.14	0.36	---	---	---	---	---	---	---	---
GP-4-8.0	6/28/1995	8.0	---	---	2.9	7.2	0.098	0.009	0.054	0.13	---	---	---	---	---	---	---	---
GP-4-12.0	6/28/1995	12.0	---	---	3.7	280	ND	3.1	3.9	**25**	---	---	---	---	---	---	---	---
GP-5-8.0	6/28/1995	8.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---
GP-5-12.0	6/28/1995	12.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---
GP-6-8.0	6/27/1995	8.0	---	---	ND	87	**1.3**	2.2	**6.6**	7.3	---	---	---	---	---	---	---	---
GP-6-12.0	6/27/1995	12.0	---	---	ND	39	ND	0.14	0.29	5.4	---	---	---	---	---	---	---	---
GP-7-8.0	6/27/1995	8.0	---	---	ND	ND	ND	0.15	0.017	**180**	---	---	---	---	---	---	---	---
GP-7-12.0	6/27/1995	12.0	---	---	ND	840	**6.0**	**20**	**98**	**43**	---	---	---	---	---	---	---	---
GP-8-8.0	6/28/1995	8.0	---	---	ND	ND	ND	ND	ND	ND	---	---	---	---	---	---	---	---
GP-8-12.0	6/28/1995	12.0	---	---	ND	86	ND	1.0	2.0	**15**	---	---	---	---	---	---	---	---

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
GP-9-8.0	6/28/1995	8.0	---	---	ND	190	ND	3.6	**13**	**380**	---	---	---	---	---	---	---	---
GP-9-12.0	6/28/1995	12.0	---	---	ND	760	0.71	**17**	**76**	**41**	---	---	---	---	---	---	---	---
D-1(2.0)	8/26/1998	2.0	---	---	---	**1,100**	**9.2**	4.1	**15**	**61**	13 a/2.5	---	---	---	---	---	---	---
D-2(2.0)	8/26/1998	2.0	---	---	---	**1,500**	**3.6**	4.3	**7.1**	**21**	<6.2	---	---	---	---	---	---	---
D-3(2.0)	8/26/1998	2.0	---	---	---	160	**1.3**	0.61	2.9	2.0	1.4 a	---	---	---	---	---	---	---
D-4(2.0)	8/26/1998	2.0	---	---	---	180	0.29	0.17	0.10	0.43	0.83	---	---	---	---	---	---	---
SB-4-5.5	1/7/2000	5.5	---	---	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---
SB-4-9.0	1/7/2000	9.0	---	---	244	**786**	**2.27**	1.68	**8.1**	**26.5**	<1.25	---	---	---	---	---	---	---
SB-4-16.0	1/7/2000	16.0	---	---	209	294	**1.5**	4.35	3.88	**15.7**	0.893	---	---	---	---	---	---	---
SB-4-19.5	1/7/2000	19.5	---	---	<1.0	2.08	0.212	0.0168	0.0168	0.0167	<0.025	---	---	---	---	---	---	---
SB-4-24.5	1/7/2000	24.5	---	---	<1.0	<1.0	0.00724	<0.005	<0.005	<0.005	<0.025	---	---	---	---	---	---	---
SB-4B-5.5	1/7/2000	5.5	---	---	27.2	28.2	0.0176	<0.01	0.0408	0.0738	0.0603 a/0.0345	---	---	---	---	---	---	---
SB-4B-10.5	1/7/2000	10.5	---	---	<5.0	6.19	0.0696	<0.025	0.0915	<0.025	<0.125	---	---	---	---	---	---	---
SB-4B-19.0	1/7/2000	19.0	---	---	<5.0	<1.0	0.0445	<0.005	<0.005	<0.005	0.233 a/0.0549	---	---	---	---	---	---	---
T1W-8.5' (A1)	12/1/2001	8.5	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	0.034	---	---	---	---	---	---	---
T1E-9' (A1)	12/1/2001	9.0	---	---	---	5.0	<0.005	<0.005	0.049	0.04	0.14	---	---	---	---	---	---	---
T2W-8.5' (A1)	12/1/2001	8.5	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	0.12	---	---	---	---	---	---	---
T2E-9' (A1)	12/1/2001	9.0	---	---	---	<1.0	<0.005	0.015	<0.005	0.020	0.012	---	---	---	---	---	---	---
T3W-8.5' (A1)	12/1/2001	8.5	---	---	---	1.8	<0.005	<0.005	<0.005	0.015	0.21	---	---	---	---	---	---	---
T3E-9' (A1)	12/1/2001	9.0	---	---	---	1.2	<0.005	<0.005	<0.005	<0.005	0.32	---	---	---	---	---	---	---
D1-4.5' (B)	12/1/2001	4.5	---	---	---	**1,000**	**1.4**	0.20	**15**	5.1	0.35	---	---	---	---	---	---	---

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
D2-4' (B)	12/1/2001	4.0	---	---	---	270	0.18	<0.050	0.11	0.094	1.4	---	---	---	---	---	---	---
D3-4.5' (A1)	12/1/2001	4.5	---	---	---	6.3	0.097	0.007	0.036	0.024	0.058	---	---	---	---	---	---	---
D4-4.5' (A1)	12/1/2001	4.5	---	---	---	4.9	0.12	<0.005	0.033	0.067	0.021	---	---	---	---	---	---	---
P1-4' (A1)	12/1/2001	4.0	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	0.009	---	---	---	---	---	---	---
P2-4.5' (A1)	12/1/2001	4.5	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	0.061	---	---	---	---	---	---	---
P3-4.5' (A1)	12/1/2001	4.5	---	---	---	4.1	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
P4-4.5' (A1)	12/1/2001	4.5	---	---	---	11	0.035	<0.005	0.035	0.012	0.13	---	---	---	---	---	---	---
P5-4.5' (A1)	12/1/2001	4.5	---	---	---	51	<0.005	<0.005	<0.005	0.34	0.14	---	---	---	---	---	---	---
E-1-8.0 (A2)	1/2/2002	8.0	---	---	---	9.5	0.19	0.09	0.94	5.2	<0.02	---	---	---	---	---	---	---
E-2-8.0 (A2)	1/2/2002	8.0	---	---	---	7.5	0.23	0.04	0.91	2.0	0.23	---	---	---	---	---	---	---
E-3-8.0 (A2)	1/2/2002	8.0	---	---	---	3.7	0.46	0.06	3.9	0.52	0.54	---	---	---	---	---	---	---
E-4-8.0 (A2)	1/2/2002	8.0	---	---	---	1.5	0.093	0.005	0.005	0.006	0.041	---	---	---	---	---	---	---
E-5-12.0 (A2)	1/2/2002	12.0	---	---	---	54	0.71	0.46	2.6	**16**	<0.02	---	---	---	---	---	---	---
E-6-11.0 (A2)	1/2/2002	11.0	---	---	---	75	**2.9**	3.6	**12**	**54**	<0.02	---	---	---	---	---	---	---
E-7-14.0 (A2)	1/2/2002	14.0	---	---	---	41	1.0	0.53	2.2	**11**	<0.02	---	---	---	---	---	---	---
E-8-11.0 (A2)	1/2/2002	11.0	---	---	---	310	**2.0**	1.8	**14**	**77**	<0.02	---	---	---	---	---	---	---
E-9-9.0 (A2)	1/2/2002	9.0	---	---	---	55	0.06	0.03	0.05	0.08	0.03	---	---	---	---	---	---	---

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
E-10-9.0 (A2)	1/3/2002	9.0	---	---	---	<0.20	0.002	0.004	<0.002	0.007	0.082	---	---	---	---	---	---	---
E-11-9.0 (A2)	1/3/2002	9.0	---	---	---	<0.20	0.007	<0.002	<0.002	<0.002	0.010	---	---	---	---	---	---	---
E-12-11.0 (A2)	1/3/2002	11.0	---	---	---	23	1.1	0.12	2.0	**12**	0.48	---	---	---	---	---	---	---
E-13-9.0 (A2)	1/3/2002	9.0	---	---	---	<0.20	<0.002	<0.002	<0.002	<0.002	0.012	---	---	---	---	---	---	---
E-14-9.0 (A2)	1/3/2002	9.0	---	---	---	2.7	0.005	<0.002	0.19	0.23	0.024	---	---	---	---	---	---	---
E-15-11.0 (A2)	1/4/2002	11.0	---	---	---	1,800	**9.6**	**42**	**100**	**590**	0.33	---	---	---	---	---	---	---
E-16-11.0 (A2)	1/4/2002	11.0	---	---	---	770	**3.8**	2.8	**37**	**210**	<0.02	---	---	---	---	---	---	---
E-17-13.0 (A2)	1/4/2002	13.0	---	---	---	31	0.65	0.19	2.5	8.3	0.04	---	---	---	---	---	---	---
E-18-13.0 (A2)	1/4/2002	13.0	---	---	---	17	**1.2**	2.8	1.0	2.2	<0.02	---	---	---	---	---	---	---
E-19-9.0 (A2)	1/4/2002	9.0	---	---	---	0.54	0.002	<0.002	0.004	0.027	0.014	---	---	---	---	---	---	---
C-1-8.0 (B)	1/7/2002	8.0	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---	---	---
C-2-8.0 (B)	1/7/2002	8.0	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.010	<0.5	---	---	---	---	---	---	---
C-3-3.5 (B)	1/7/2002	3.5	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---	---	---
C-4-8.0 (B)	1/7/2002	8.0	---	---	---	290	0.15	<0.050	**4.9**	8.9	<0.5	---	---	---	---	---	---	---
C-5-8.0 (B)	1/7/2002	8.0	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---	---	---
C-6-4.0 (B)	1/7/2002	4.0	---	---	---	6.5	<0.005	<0.005	<0.005	<0.010	<0.5	---	---	---	---	---	---	---
C-7-8.0 (B)	1/7/2002	8.0	---	---	---	87	<0.025	<0.025	0.43	<0.050	<0.5	---	---	---	---	---	---	---

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
C-8-4.0 (B)	1/7/2002	8.0	---	---	---	81	0.026	<0.025	0.038	<0.050	<0.5	---	---	---	---	---	---	---
C-9-9.0 (B)	1/7/2002	9.0	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	0.65	---	---	---	---	---	---	---
C-10-9.0 (B)	1/7/2002	9.0	---	---	---	84	0.039	<0.025	0.61	0.27	<0.5	---	---	---	---	---	---	---
C-11-9.0 (B)	1/7/2002	9.0	---	---	---	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---	---	---
C-12-9.0 (B)	1/7/2002	9.0	---	---	---	6.6	<0.010	<0.010	0.013	<0.025	<0.5	---	---	---	---	---	---	---
C-13-4.0 (B)	1/7/2002	4.0	---	---	---	2.7	<0.005	<0.005	<0.005	<0.005	<0.5	---	---	---	---	---	---	---
C-14-4.0 (B)	1/7/2002	4.0	---	---	---	11	<0.050	<0.050	<0.050	<0.10	<0.5	---	---	---	---	---	---	---
C-15-8.0 (B)	1/7/2002	8.0	---	---	---	250	<0.050	<0.050	4.4	4.7	<0.5	---	---	---	---	---	---	---
H-1-9.0 (B)	1/17/2002	9.0	---	14,000	---	120	0.094	<0.025	0.047	0.18	<0.5	---	---	---	---	---	---	---
H-1-11.0 (B)	1/17/2002	11.0	---	230	---	210	0.2	0.071	2.2	10	<0.5	---	---	---	---	---	---	---
H-2-9.0 (B)	1/17/2002	9.0	---	<10	---	32	0.015	<0.005	0.048	0.053	<0.5	---	---	---	---	---	---	---
H-2-11.0 (B)	1/17/2002	11.0	---	78	---	400	0.54	0.1	**7.3**	**24**	<0.5	---	---	---	---	---	---	---
H-3-11.0 (B)	1/17/2002	11.0	---	<10	---	250	0.21	0.52	3.1	**14**	<0.5	---	---	---	---	---	---	---
TB-1-7.0	8/29/2005	7.0	---	---	---	2.2 b	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	21.2
TB-1-10.5	8/29/2005	10.5	---	---	---	1,600	<0.50	<0.50	1.5	0.84	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	10.9
TB-1-12.0	8/29/2005	12.0	---	---	---	570	**1.5**	<0.50	3.3	1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	291
TB-1-15.0	8/29/2005	15.0	---	---	---	<50	0.86	<0.50	0.79	2.3	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	4.00
TB-1-18.0	8/29/2005	18.0	---	---	---	<50	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	3.81
TB-1-19.5	8/29/2005	19.5	---	---	---	<50	0.56	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	4.38

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
TB-3-3.0	8/29/2005	3.0	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	2.22
TB-3-6.0	8/29/2005	6.0	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	0.021	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	16.3
TB-3-9.0	8/29/2005	9.0	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	4.20
TB-3-12.0	8/29/2005	12.0	---	---	---	1,100	<0.50	<0.50	**11**	**48**	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	10.2
TB-3-15.0	8/29/2005	15.0	---	---	---	<50	**2.2**	<0.50	<0.50	1.8	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	5.60
TB-3-18.0	8/29/2005	18.0	---	---	---	<50	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	3.85
TB-3-21.0	8/29/2005	21.0	---	---	---	<1.0	0.0070	<0.0050	<0.0050	0.009	0.0062	0.0062	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	3.20
TP-1-20.0	9/20/2005	20.0	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.023	<0.0050	<0.0050	---	---	---
TP-2-20.0	9/20/2005	20.0	---	---	---	<1.0	0.044	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0053	<0.0050	<0.0050	---	---	---
TP-3-20.0	9/20/2005	20.0	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.018	<0.0050	<0.0050	---	---	---
TP-4-20.0	9/20/2005	20.0	---	---	---	<1.0	0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0066	<0.0050	<0.0050	---	---	---
TP-5-20.0	9/20/2005	20.0	---	---	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.013	<0.0050	<0.0050	---	---	---
TP-6-20.0	9/20/2005	20.0	---	---	---	<1.0	0.0080	<0.0050	0.0083	0.040	<0.0050	<0.0050	0.012	<0.0050	<0.0050	---	---	---
SB-5-5	5/17/2006	5	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-5-10	5/17/2006	10	---	---	23	2.2	<0.0050	<0.0050	0.020	0.017	<0.0050	<0.050	---	---	---	---	---	---
SB-5-15	5/17/2006	15	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-5-20	5/17/2006	20	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-5-23.5	5/17/2006	23.5	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-6-5	5/16/2006	5	---	---	3.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-6-10	5/16/2006	10	---	---	5.8	390	<0.025	<0.025	<0.025	<0.050	<0.025	<0.25	---	---	---	---	---	---
SB-6-15	5/16/2006	15	---	---	<2.0	<5.0 c	<0.0050	0.010	0.068	0.20	<0.0050	<0.050	---	---	---	---	---	---
SB-6-20	5/16/2006	20	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-6-25	5/16/2006	25	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-7-5	5/17/2006	5	---	---	2.5	<50 c	0.011	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-7-10	5/17/2006	10	---	---	20	290 c	<0.50 c	<0.50 c	3.2 c	3.0 c	<0.50 c	<5.0 c	---	---	---	---	---	---
SB-7-15	5/17/2006	15	---	---	110	**3,000 c**	**3.7**	**60 c**	**47 c**	**270 c**	<0.50	<5.0	---	---	---	---	---	---
SB-7-20	5/17/2006	20	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	0.034	0.46	---	---	---	---	---	---
SB-7-25	5/17/2006	25	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-8-5 [d]	5/15/2006	5	---	---	3.1	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
SB-8-10 [d]	5/15/2006	10	---	---	3.1	<1.0 c	<0.0050 c	<0.0050 c	<0.0050 c	<0.010 c	<0.0050 c	<0.50 c	---	---	---	---	---	---
SB-12-5	5/16/2006	5	---	---	2.1	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-12-10	5/16/2006	10	---	---	19	230	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	---	---	---	---	---	---
SB-12-15	5/16/2006	15	---	---	<2.0	<1.0	0.014	0.0062	0.0084	0.014	<0.0050	<0.050	---	---	---	---	---	---
SB-12-20	5/16/2006	20	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
SB-12-25	5/16/2006	25	---	---	4.0	<1.0	0.0074	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	---	---	---
S-6-5.5	2/7/2007	5.5	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	5.6
S-6-10	2/7/2007	10	---	---	9.6	230	**1.8**	0.17	**6.1**	2.4	<0.12	<1.2	---	---	---	<0.12	<0.12	3.4
S-6-15	2/7/2007	15	---	---	2.7	<25	0.046	<0.0050	0.093	0.16	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	5.0
S-6-19.5	2/7/2007	19.5	---	---	62	69	**2.6**	0.28	**5.4**	5.9	0.14	<1.2	---	---	---	<0.12	<0.12	12
S-7-5.5	2/8/2007	5.5	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	5.6
S-7-10	2/8/2007	10	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	5.4
S-7-15	2/8/2007	15	---	---	9.6	30	0.099	0.15	0.31	2.3	<0.025	<0.25	---	---	---	<0.025	<0.025	4.3
S-7-19.5	2/8/2007	19.5	---	---	<2.0	<1.0	0.23	0.019	0.032	0.056	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	5.0
S-8-5.5	2/7/2007	5.5	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	4.5
S-8-10	2/7/2007	10	---	---	15	220	0.056	0.07	3.8	**17**	<0.025	<0.25	---	---	---	<0.025	<0.025	5.3
S-8-15	2/7/2007	15	---	---	<2.0	37	**2.3**	2.5	7.1	**24**	<0.12	<1.2	---	---	---	<0.12	<0.12	7.1
S-8-19.5	2/7/2007	19.5	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	0.013	0.28	1.6	---	---	---	<0.0050	<0.0050	4.6
S-9-5.5	2/8/2007	5.5	---	---	2.8	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	5.4
S-9-10	2/8/2007	10	---	---	16	23	<0.025	<0.025	<0.025	<0.050	<0.025	<0.25	---	---	---	<0.025	<0.025	4.9
S-9-13.5	2/8/2007	13.5	---	---	26	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	9.9
S-9-19.5	2/8/2007	19.5	---	---	<2.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	---	---	---	<0.0050	<0.0050	4.7
V-1-5	12/14/2007	5	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-2-5	12/14/2007	5	---	---	<5.0 e	13 f	<0.0050	<0.0050	0.021	0.022	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-3-5	12/14/2007	5	---	---	<5.0 e	0.85 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---

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4411 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
V-4-5	12/14/2007	5	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-5-5	12/14/2007	5	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-6-5	12/14/2007	5	---	---	<5.0 e	11 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-7-5	12/14/2007	5	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-10-5	12/14/2007	5	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-11-5	12/14/2007	5	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
V-12-5	8/27/2009	5	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-10-5.5	8/28/2009	5.5	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-10-10	8/28/2009	10	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-10-15	8/28/2009	15	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-10-19.5	8/28/2009	19.5	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-11-6	8/28/2009	6	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-11-10	8/28/2009	10	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-11-15	8/28/2009	15	---	---	<5.0 e	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-11-19.5	8/28/2009	19.5	---	---	32 e,g	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-12-5.5'	8/31/2009	5.5	---	---	**880 e,g**	<0.50 f	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-12-10'	8/31/2009	10	---	---	8.6 e	45 f,g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-12-15'	8/31/2009	15	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-12-20'	8/31/2009	20	---	---	<5.0 e	<0.50 f	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	---
S-13-6'	8/20/2013	6	---	---	---	<0.099	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.050	<0.0020	<0.0020	<0.0020	---	---	---
S-13-9'	8/20/2013	9	---	---	---	16	<0.10	<0.10	0.24	0.34	<0.25	<5.0	<0.25	<0.25	<0.25	---	---	---
S-13-12'	8/20/2013	12	---	---	---	260	<0.10	0.79	**6.0**	**26**	<0.25	<5.0	<0.25	<0.25	<0.25	---	---	---
S-13-18'	8/20/2013	18	---	---	---	0.16	<0.00099	<0.00099	0.014	<0.0020	<0.0020	<0.050	<0.0020	<0.0020	<0.0020	---	---	---

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*
S-14-8'	8/20/2013	8	---	---	---	<0.10	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.050	<0.0020	<0.0020	<0.0020	---	---	---
S-14-12'	8/20/2013	12	---	---	---	400	<0.10	<0.10	0.34	0.35	<0.25	<5.0	<0.25	<0.25	<0.25	---	---	---
S-14-16'	8/20/2013	16	---	---	---	<0.10	0.0015	<0.0010	0.0017	<0.0020	<0.0020	<0.050	<0.0020	<0.0020	<0.0020	---	---	---
S-14-19'	8/20/2013	19	---	---	---	0.13	<0.00099	<0.00099	<0.00099	<0.0020	0.0021	<0.050	<0.0020	<0.0020	<0.0020	---	---	---
Shallow Soil (≤10 fbg) ESL[h]:			NA	NA	500	500	1.2	9.3	4.7	11	8.4	110	NA	NA	NA	0.91	0.51	320
Deep Soil (>10 fbg) ESL[h]:			NA	NA	1,100	2,400	1.2	9.3	4.7	11	8.4	110	NA	NA	NA	0.91	0.51	320

Notes:
TPHmo = Total petroleum hydrocarbons as motor oil analyzed by EPA Method 8015 (Modified)
Hydraulic oil analyzed by EPA Method 8260B
TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015 (Modified)
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before August 29, 2005, analyzed by EPA Method 8015 (Modified) unless otherwise noted.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B;before August 29, 2005, analyzed by EPA Method 8020 (Modified).
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B unless otherwise noted.
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane, analyzed by modified EPA Method 8260B.
EDB = Ethylene dibromide analyzed by modified EPA Method 8260B.
Lead analyzed by EPA Method 7421
fbg = Feet below grade
mg/kg = Milligrams per kilogram
<x = Not detected at reporting limit x
--- = Not analyzed
ND = Concentration below reporting limit; reporting limit unknown.
ESL = Environmental screening level
NA = No applicable ESL
Results in **bold** equal or exceed applicable ESL

a = Analyzed by EPA Method 8020
b = Quantity of unknown hydrocarbon(s) in sample based on gasoline
c = Analysis performed past the recommended hold time
d = Soil samples in boring S-8 were not collected below 10 fbg because the water table in this boring was encountered at approximately 9.5 fbg.
e = The sample extract was subjected to silica gel treatment prior to analysis
f = Analyzed by Modified EPA Method 8015B
g = 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.

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*Hydraulic Oil (mg/kg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Lead (mg/kg)*

h = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is not a source of drinking water (Tables B and D of Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]) - Updated May 2013.

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: 06/18/2013 By jamesy

Permit Numbers: W2013-0463 to W2013-0464
Permits Valid from 06/26/2013 to 07/28/2014

Application Id: 1371062592752 **City of Project Site:** Oakland
Site Location: 4411 Foothill Blvd, Oakland, CA
Former Shell-branded Service Station
Project Start Date: 06/26/2013 **Completion Date:** 07/28/2014
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: Conestoga Rovers and Associates - Cristina Arganbright **Phone:** 916-889-8915
10969 Trade Center Drive, Suite 107, Rancho Cordova, CA 95670
Property Owner: Walter and Jeanette Watters Revocable Trust **Phone:** --
101 Jasmine Creek Drive, Corona Del Mar, CA 92625
Client: Shell Oil Products US **Phone:** --
20945 S. Wilmington Ave, Carson, CA 90815
Contact: Patrick O'Connell **Phone:** 510-420-3324 **Cell:** 501-681-6142

Total Due: $794.00
Receipt Number: WR2013-0215 **Total Amount Paid:** $794.00
Payer Name : Conestoga Rovers and Associates Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 2 Wells
Driller: Vapor Tech Services - Lic #: 916085 - Method: hstem **Work Total: $794.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2013-0463	06/18/2013	09/24/2013	S-13	10.00 in.	4.00 in.	5.00 ft	20.00 ft
W2013-0464	06/18/2013	09/24/2013	S-14	10.00 in.	4.00 in.	5.00 ft	20.00 ft

Specific Work Permit Conditions

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

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

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

or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

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

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

6. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

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

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

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

APPENDIX B

BORING LOGS

Boring/Well Log Legend

KEY TO SYMBOLS/ABBREVIATIONS

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

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

fbg = Feet below grade

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

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

msl = Mean sea level

Soils logged according to the USCS.

UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

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

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

CONESTOGA-ROVERS & ASSOCIATES

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510.420.0700
Fax: 510.420.9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	S-13
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	20-Aug-13
LOCATION	4411 Foothill Blvd, Oakland, California	**DRILLING COMPLETED**	20-Aug-13
PROJECT NUMBER	240897	**WELL DEVELOPMENT DATE (YIELD)**	06-Sep-13 (30.1 gallons)
DRILLER	Vapor Tech Services C-57, #916085	**GROUND SURFACE ELEVATION**	37.55 ft above msl
DRILLING METHOD	Hollow-stem auger/Direct-push	**TOP OF CASING ELEVATION**	37.19 ft above msl
BORING DIAMETER	10"	**SCREENED INTERVALS**	4 to 19 fbg
LOGGED BY	P. O'Connell	**DEPTH TO WATER (First Encountered)**	9.00 fbg (20-Aug-13) ▽
REVIEWED BY	P. Schaefer, PG 5612	**DEPTH TO WATER (Static)**	9.33 fbg (19-Sep-13) ▼
REMARKS	Direct-push (2.25" OD) to 20 fbg, HSA to 19 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE	0.5	Flush-grade 12" well box
					SM		**Silty SAND with Gravel [SM]:** Strong brown (7.5YR 4/6); 5% clay, 15% silt, 60% fine-to-coarse sand, 20% fine-to-coarse gravel; moist.	1.5	Portland Type I/II
					SM		@ 1.5 fbg: 5% clay, 15% silt, 45% fine-to-coarse sand, 35% medium-to-coarse gravel (cobbles up to 9" diameter).	2.5	Bentonite Seal
					ML		**Gravelly SILT with Sand [ML]:** Black (5YR 2.5/1); 10% clay, 45% silt, 20% fine-to-coarse sand, 25% fine gravel; moist; medium plasticity.	4.5	Monterey Sand #2/12
				5	ML		@ 4.5 fbg: Grayish brown (10YR 5/2), mottled yellowish brown (10YR 5/6); 15% fine-to-coarse sand, 30% fine gravel.	5.0	
0.0		S-13-6'			ML		**SILT with Gravel [ML]:** Dark gray (2.5Y 4/1); 5% clay, 70% silt, 10% fine-to-coarse sand, 15% medium gravel; moist; low plasticity.	8.0	
332.4		S-13-9'		10	SM		**Silty SAND with Gravel [SM]:** Dark greenish gray (4/10 GY), mottled yellowish brown (10YR 5/6); 5% clay, 20% silt, 60% fine-to-coarse sand, 15% fine gravel; moist. ▽▼ @ 9 fbg: Wet.	9.0	
562.3		S-13-12'			SM				4"-diam., 0.020" Slotted Schedule 40 PVC
					SM		@ 13 fbg: Grayish brown (2.5Y 4/2).	13.0	
				15					
								17.0	
605.6		S-13-18'			SM		**Silty SAND [SM]:** Dark gray (2.5Y 4/2); 5% clay, 25% silt, 70% fine-to-coarse sand; wet.	19.0	
				20	ML		**SILT with Sand [ML]:** Light yellowish brown (2.5Y 6/3); 5% clay, 70% silt, 25% fine sand; wet; low plasticity.	20.0	Bottom of Boring @ 20 fbg

WELL LOG (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\0897.GPJ DEFAULT.GDT 11/7/13

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**	S-14
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	20-Aug-13
LOCATION	4411 Foothill Blvd, Oakland, California	**DRILLING COMPLETED**	20-Aug-13
PROJECT NUMBER	240897	**WELL DEVELOPMENT DATE (YIELD)**	06-Sep-13 (27.3 gallons)
DRILLER	Vapor Tech Services C-57, #916085	**GROUND SURFACE ELEVATION**	37.50 ft above msl
DRILLING METHOD	Hollow-stem auger/Direct-push	**TOP OF CASING ELEVATION**	37.14 ft above msl
BORING DIAMETER	10"	**SCREENED INTERVALS**	4 to 19 fbg
LOGGED BY	P. O'Connell	**DEPTH TO WATER (First Encountered)**	9.00 fbg (20-Aug-13) ▽
REVIEWED BY	P. Schaefer, PG 5612	**DEPTH TO WATER (Static)**	9.41 fbg (19-Sep-13) ▼
REMARKS	Direct-push (2.25" OD) to 20 fbg, HSA to 19 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
					CONCRETE	0.5
				SM	**Silty SAND with Gravel [SM]:** Strong brown (7.5YR 4/6); 5% clay, 15% silt, 60% fine-to-coarse sand, 20% fine-to-coarse gravel; moist.	1.0
				ML	**Gravelly SILT with Sand [ML]:**Black (5YR 2.5/1); 10% clay, 45% silt, 15% fine-to-coarse sand, 30% fine-to-coarse gravel; moist; medium plasticity.	
					@ 3.5 fbg: Grayish brown (10YR 5/2), mottled yellowish brown (10YR 5/6).	3.5
			5	ML		
						6.0
				SM	**SAND with Silt and Gravel [SM]:** Yellowish brown (10YR 5/6); 10% silt, 75% fine-to-medium sand, 15% fine gravel; moist.	
0.5		S-14-8'				8.0
				SM	**Silty SAND with Gravel [SM]:** Dark greenish gray (4/10 GY), mottled yellowish brown (10 YR 5/6); 5% clay, 20% silt, 60% fine-to-coarse sand, 15% fine gravel. ▽▼	9.0
					@ 9 fbg: Wet.	10.0
			10	GM	**GRAVEL [GM]:** Dark greenish gray (4/10 GY), mottled yellowish brown (10YR 5/6); 5% silt, 10% fine-to-coarse sand; 85% fine-to-coarse gravel; wet.	10.5
527.0		S-14-12'		SM	**Silty SAND with Gravel [SM]:** Dark greenish gray (4/10 GY), mottled yellowish brown (10YR 5/6); 5% clay, 20% silt, 60% fine-to-coarse sand, 15% medium gravel; wet.	
					@ 14 fbg: Gray (2.5Y 6/1), mottled reddish yellow (7.5YR 6/8).	14.0
			15			
354.6		S-14-16'		SM		17.0
				ML	**SILT with Sand [ML]:** Grayish brown (2.5Y 5/2); 5% clay, 70% silt, 25% fine sand; wet; low plasticity.	
3.6		S-14-19'				19.5
			20	ML	**SILT [ML]:** Light yellowish brown (2.5Y 6/3); 20% clay, 80% silt; high plasticity.	20.0

WELL DIAGRAM

- Flush-grade 12" well box
- Portland Type I/II
- Bentonite Seal
- Monterey Sand #2/12
- 4"-diam., 0.020" Slotted Schedule 40 PVC

Bottom of Boring @ 20 fbg

WELL LOG (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\0897.GPJ DEFAULT.GDT 11/7/13

APPENDIX C

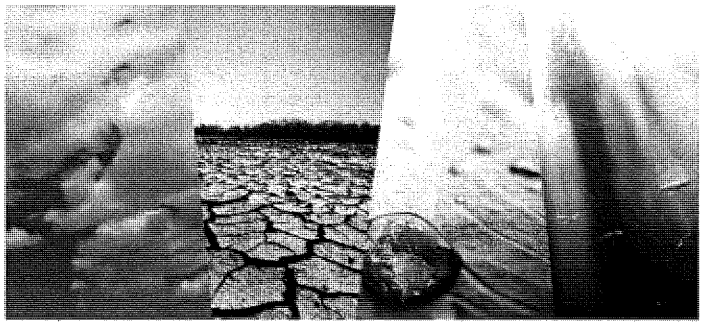
ANALYTICAL REPORTS

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-09-0217

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 4411 Foothill Blvd., Oakland, CA

Attention: Peter Schaefer
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Approved for release on 09/17/2013 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

ACCREDITED IN ACCORDANCE WITH nelac

Calscience Environmental Laboratories, Inc. (Calscience) 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 analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: 4411 Foothill Blvd., Oakland, CA
Work Order Number: 13-09-0217

Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-09-0217

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 09/05/13. They were assigned to Work Order 13-09-0217.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Calscience Environmental Laboratories, Inc.

Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	13-09-0217
		Project Name:	4411 Foothill Blvd., Oakland, CA
		PO Number:	
		Date/Time Received:	09/05/13 10:00
		Number of Containers:	1
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SSV-8	13-09-0217-1	09/04/13 11:45	1	Air

Calscience Environmental Laboratories, Inc.

Case Narrative

Work Order: 13-09-0217

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 a 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 Calscience TO-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 <= 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 analytes 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 Calilbration 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.

Detections Summary

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

Work Order: 13-09-0217
Project Name: 4411 Foothill Blvd., Oakland, CA
Received: 09/05/13

Attn: Peter Schaefer

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SSV-8 (13-09-0217-1)						
Oxygen + Argon	19.6		0.500	%v	ASTM D-1946	N/A
Helium	0.516		0.0100	%v	ASTM D-1946 (M)	N/A
Toluene	26		19	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	5900		3800	ug/m3	EPA TO-3M	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/05/13
Work Order: 13-09-0217
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
SSV-8	**13-09-0217-1-A**	**09/04/13 11:45**	**Air**	**GC 65**	**N/A**	**09/05/13 16:59**	**130905L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	19.6	0.500	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-03-002-1889**	**N/A**	**Air**	**GC 65**	**N/A**	**09/05/13 11:06**	**130905L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	ND	0.500	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received:	09/05/13
Work Order:	13-09-0217
Preparation:	N/A
Method:	ASTM D-1946 (M)
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
SSV-8	**13-09-0217-1-A**	**09/04/13 11:45**	**Air**	**GC 55**	**N/A**	**09/05/13 19:36**	**130905L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.516	0.0100	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-496**	**N/A**	**Air**	**GC 55**	**N/A**	**09/05/13 15:11**	**130905L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/05/13
Work Order: 13-09-0217
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
SSV-8	**13-09-0217-1-A**	**09/04/13 11:45**	**Air**	**GC/MS KKK**	**N/A**	**09/06/13 00:33**	**130905L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	26	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	47-156	
1,2-Dichloroethane-d4	84	47-156	
Toluene-d8	97	47-156	

Method Blank	099-13-041-1455	N/A	Air	GC/MS KKK	N/A	09/05/13 16:44	130905L01

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	88	47-156	
1,2-Dichloroethane-d4	86	47-156	
Toluene-d8	98	47-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/05/13
Work Order: 13-09-0217
Preparation: N/A
Method: EPA TO-3M
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
SSV-8	**13-09-0217-1-A**	**09/04/13 11:45**	**Air**	**GC 38**	**N/A**	**09/05/13 15:04**	**130905L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	5900	3800	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-431-195**	**N/A**	**Air**	**GC 38**	**N/A**	**09/05/13 11:13**	**130905L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	ND	3800	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

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

Project: 4411 Foothill Blvd., Oakland, CA

Date Received: 09/05/13
Work Order: 13-09-0217
Preparation: N/A
Method: EPA TO-3M
Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
SSV-8	**Air**	**GC 38**	**N/A**	**09/05/13 15:47**	**130905D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	5856	6096	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Date Received: 09/05/13
Work Order: 13-09-0217
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
099-03-002-1889	Air	GC 65	N/A	09/05/13 10:26	130905L01

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.353	97	4.360	97	80-120	0	0-30	
Carbon Dioxide	15.00	14.69	98	15.02	100	80-120	2	0-30	
Carbon Monoxide	6.990	7.116	102	7.113	102	80-120	0	0-30	
Oxygen + Argon	4.010	3.986	99	3.991	100	80-120	0	0-30	
Nitrogen	69.50	67.81	98	67.81	98	80-120	0	0-30	

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4411 Foothill Blvd., Oakland, CA

Date Received: 09/05/13
Work Order: 13-09-0217
Preparation: N/A
Method: ASTM D-1946 (M)
Page 2 of 4

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-496	**Air**	**GC 55**	**N/A**	**09/05/13 14:21**	**130905L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	1.003	100	1.041	104	80-120	4	0-30	
Hydrogen	1.000	0.9516	95	0.9878	99	80-120	4	0-30	

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4411 Foothill Blvd., Oakland, CA

Date Received: 09/05/13
Work Order: 13-09-0217
Preparation: N/A
Method: EPA 8260B (M)
Page 3 of 4

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1455	Air	GC/MS KKK	N/A	09/05/13 14:46	130905L01

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	82.58	103	79.87	100	60-156	44-172	3	0-40	
Toluene	94.21	94.61	100	96.02	102	56-146	41-161	1	0-43	
Ethylbenzene	108.6	105.9	98	106.5	98	52-154	35-171	1	0-38	
p/m-Xylene	217.1	230.2	106	232.4	107	42-156	23-175	1	0-41	
o-Xylene	108.6	104.3	96	105.6	97	52-148	36-164	1	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	82.81	92	80.54	89	45-147	28-164	3	0-25	
Tert-Butyl Alcohol (TBA)	151.6	148.9	98	147.0	97	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	111.0	106	108.3	104	60-140	47-153	2	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	95.74	92	94.45	90	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	91.65	88	89.22	85	60-140	47-153	3	0-35	
Naphthalene	131.1	142.6	109	145.8	111	60-140	47-153	2	0-30	
Ethanol	188.4	174.7	93	169.4	90	47-137	32-152	3	0-35	
1,1-Difluoroethane	67.54	67.56	100	64.88	96	78-156	65-169	4	0-35	
Isopropanol	61.45	64.69	105	62.14	101	78-156	65-169	4	0-35	

Total number of LCS compounds: 14
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 Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Conestoga-Rovers & Associates	Date Received:	09/05/13
5900 Hollis Street, Suite A	Work Order:	13-09-0217
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA TO-3M
Project: 4411 Foothill Blvd., Oakland, CA		Page 4 of 4

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-431-195	**Air**	**GC 38**	**09/05/13 10:32**	**130905L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	386500	101	80-120	

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-09-0217

Qualifiers	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
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 Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer - 240897

PO #:

INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 4 6 [ ] CHECK IF NO INCIDENT # APPLIES

SAP #: 1 3 5 6 8 6

DATE: 9/4/2013

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 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.: 240897-2013-04

SAMPLER NAME(S) (Print): Patrick O'Connell

LAB USE ONLY: 13-09-0217

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

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

SPECIAL INSTRUCTIONS OR NOTES :

Copy of final report to Shell.Lab.Billing@craworld.com

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	TPHg (TO-3M)	BTEX + Naphthalene 8260B (M)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound:_____(8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	CH4, CO2 (ASTM D 1946)	O2, Argon (ASTM D 1946)	Helium (ASTM D 1946 (M))				TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes
1	SSV-8	9/4/13	1145	VAPOR				X		1				X	X										X	X	X					

Relinquished by: (Signature) — 9/4/13 1315

Received by: (Signature) — CEL

Date: 9/4/13 Time: 1320

Relinquished by: (Signature) — 9/4/13 1730

Received by: (Signature) — 1.42

Date: 9/5/13 Time: 10:00

Relinquished by: (Signature)

Received by: (Signature)

Date: Time:

05/2/06 Revision

(217)

GSO
GOLDEN STATE OVERNIGHT

WebShip >>>>>
800-322-5555 www.gso.com

Ship From:
JOHN ARBRUN
WENTE VINEYARDS
37995 ELM AVENUE
GREENFIELD, CA 93927

Ship To:
SAMPLE CONTROL
CAL SCIENCE
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:

Delivery Instructions:

Signature Type:
ADULT SIGNATURE REQUIRED

Tracking #: 522657520

PDS

ORC

A

GARDEN GROVE

D92841A

15663814

Print Date : 09/04/13 09:03 AM

Package 2 of 2

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 #: 13-09-0217

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA DATE: 09/05/13

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

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 Initial: JS

CUSTODY SEALS INTACT:

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JS

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

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	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
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® ☐_____

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

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

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

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** C

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-55037-1
Client Project/Site: 4411 Foothill Blvd., Oakland

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Authorized for release by:
9/4/2013 3:19:26 PM

Philip Sanelle, Project Manager I
philip.sanelle@testamericainc.com

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-55037-1	S-14-8'	Solid	08/20/13 08:00	08/21/13 09:45
440-55037-2	S-14-12'	Solid	08/20/13 08:05	08/21/13 09:45
440-55037-3	S-14-16'	Solid	08/20/13 08:10	08/21/13 09:45
440-55037-4	S-14-19'	Solid	08/20/13 08:15	08/21/13 09:45
440-55037-5	S-13-6'	Solid	08/20/13 09:55	08/21/13 09:45
440-55037-6	S-13-9'	Solid	08/20/13 10:00	08/21/13 09:45
440-55037-7	S-13-12'	Solid	08/20/13 10:05	08/21/13 09:45
440-55037-8	S-13-18'	Solid	08/20/13 10:20	08/21/13 09:45

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-1

Job ID: 440-55037-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-55037-1

Comments
No additional comments.

Receipt
The samples were received on 8/21/2013 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2° C.

GC/MS VOA
Method(s) 8260B/CA_LUFTMS: Surrogate recovery for the following sample(s) was outside the upper control limit: S-13-6' (440-55037-5). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B/CA_LUFTMS: Internal standard (ISTD) response for 1,4Dichlorobenzene-d4 for the following sample(s) was outside acceptance criteria: S-13-6' (440-55037-5), S-14-19' (440-55037-4). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside the upper control limit: S-13-6' (440-55037-5). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Internal standard (ISTD) response for1,4-Dichlorobenzene-d4 for the following sample(s) was outside acceptance criteria: S-14-19' (440-55037-4). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

No other analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample ID: S-14-8'

Lab Sample ID: 440-55037-1

Date Collected: 08/20/13 08:00
Date Received: 08/21/13 09:45

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			08/27/13 12:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*80 - 125*		*08/27/13 12:02*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/27/13 12:02*	*1*
Toluene-d8 (Surr)	*111*		*80 - 120*		*08/27/13 12:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			08/27/13 12:02	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/27/13 12:02	1
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/27/13 12:02	1
Ethylbenzene	ND		0.0010		mg/Kg			08/27/13 12:02	1
Methyl-t-Butyl Ether (MTBE)	ND		0.0020		mg/Kg			08/27/13 12:02	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/27/13 12:02	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/27/13 12:02	1
Toluene	ND		0.0010		mg/Kg			08/27/13 12:02	1
Xylenes, Total	ND		0.0020		mg/Kg			08/27/13 12:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/27/13 12:02*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 125*		*08/27/13 12:02*	*1*
Toluene-d8 (Surr)	*111*		*80 - 120*		*08/27/13 12:02*	*1*

Client Sample ID: S-14-12'

Lab Sample ID: 440-55037-2

Date Collected: 08/20/13 08:05
Date Received: 08/21/13 09:45

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	400		10		mg/Kg		08/26/13 14:48	08/28/13 15:55	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*93*		*55 - 140*	*08/26/13 14:48*	*08/28/13 15:55*	*100*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*	*08/26/13 14:48*	*08/28/13 15:55*	*100*
Toluene-d8 (Surr)	*104*		*60 - 140*	*08/26/13 14:48*	*08/28/13 15:55*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
Isopropyl Ether (DIPE)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
Ethyl-t-butyl ether (ETBE)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
Ethylbenzene	**0.34**		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
Methyl-t-Butyl Ether (MTBE)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
Tert-amyl-methyl ether (TAME)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
tert-Butyl alcohol (TBA)	ND		5.0		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
Toluene	ND		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:55	100
Xylenes, Total	**0.35**		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:55	100

Client Sample ID: S-14-12'

Lab Sample ID: 440-55037-2
Matrix: Solid

Date Collected: 08/20/13 08:05
Date Received: 08/21/13 09:45

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*	*08/26/13 14:48*	*08/28/13 15:55*	*100*
Dibromofluoromethane (Surr)	*93*		*55 - 140*	*08/26/13 14:48*	*08/28/13 15:55*	*100*
Toluene-d8 (Surr)	*104*		*60 - 140*	*08/26/13 14:48*	*08/28/13 15:55*	*100*

Client Sample ID: S-14-16'

Lab Sample ID: 440-55037-3
Matrix: Solid

Date Collected: 08/20/13 08:10
Date Received: 08/21/13 09:45

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			08/27/13 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*80 - 125*		*08/27/13 18:46*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*08/27/13 18:46*	*1*
Toluene-d8 (Surr)	*116*		*80 - 120*		*08/27/13 18:46*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0015**		0.0010		mg/Kg			08/27/13 18:46	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/27/13 18:46	1
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/27/13 18:46	1
Ethylbenzene	**0.0017**		0.0010		mg/Kg			08/27/13 18:46	1
Methyl-t-Butyl Ether (MTBE)	ND		0.0020		mg/Kg			08/27/13 18:46	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/27/13 18:46	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/27/13 18:46	1
Toluene	ND		0.0010		mg/Kg			08/27/13 18:46	1
Xylenes, Total	ND		0.0020		mg/Kg			08/27/13 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*08/27/13 18:46*	*1*
Dibromofluoromethane (Surr)	*115*		*80 - 125*		*08/27/13 18:46*	*1*
Toluene-d8 (Surr)	*116*		*80 - 120*		*08/27/13 18:46*	*1*

Client Sample ID: S-14-19'

Lab Sample ID: 440-55037-4
Matrix: Solid

Date Collected: 08/20/13 08:15
Date Received: 08/21/13 09:45

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**0.13**		0.099		mg/Kg			08/28/13 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*123*		*80 - 125*		*08/28/13 06:10*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*08/28/13 06:10*	*1*
Toluene-d8 (Surr)	*113*		*80 - 120*		*08/28/13 06:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00099		mg/Kg			08/28/13 06:10	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/28/13 06:10	1

Client Sample ID: S-14-19'

Lab Sample ID: 440-55037-4

Date Collected: 08/20/13 08:15
Date Received: 08/21/13 09:45

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/28/13 06:10	1
Ethylbenzene	ND		0.00099		mg/Kg			08/28/13 06:10	1
Methyl-t-Butyl Ether (MTBE)	**0.0021**		0.0020		mg/Kg			08/28/13 06:10	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/28/13 06:10	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/28/13 06:10	1
Toluene	ND		0.00099		mg/Kg			08/28/13 06:10	1
Xylenes, Total	ND		0.0020		mg/Kg			08/28/13 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*08/28/13 06:10*	*1*
Dibromofluoromethane (Surr)	*123*		*80 - 125*		*08/28/13 06:10*	*1*
Toluene-d8 (Surr)	*113*		*80 - 120*		*08/28/13 06:10*	*1*

Client Sample ID: S-13-6'

Lab Sample ID: 440-55037-5

Date Collected: 08/20/13 09:55
Date Received: 08/21/13 09:45

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.099		mg/Kg			08/28/13 06:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*133*	*X*	*80 - 125*		*08/28/13 06:39*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*08/28/13 06:39*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*08/28/13 06:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00099		mg/Kg			08/28/13 06:39	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/28/13 06:39	1
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/28/13 06:39	1
Ethylbenzene	ND		0.00099		mg/Kg			08/28/13 06:39	1
Methyl-t-Butyl Ether (MTBE)	ND		0.0020		mg/Kg			08/28/13 06:39	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/28/13 06:39	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/28/13 06:39	1
Toluene	ND		0.00099		mg/Kg			08/28/13 06:39	1
Xylenes, Total	ND		0.0020		mg/Kg			08/28/13 06:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*08/28/13 06:39*	*1*
Dibromofluoromethane (Surr)	*133*	*X*	*80 - 125*		*08/28/13 06:39*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*08/28/13 06:39*	*1*

Client Sample ID: S-13-9'

Lab Sample ID: 440-55037-6

Date Collected: 08/20/13 10:00
Date Received: 08/21/13 09:45

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**16**		10		mg/Kg		08/26/13 14:48	08/29/13 16:05	100

Client Sample ID: S-13-9'

Lab Sample ID: 440-55037-6

Date Collected: 08/20/13 10:00
Date Received: 08/21/13 09:45

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*93*		*55 - 140*	*08/26/13 14:48*	*08/29/13 16:05*	*100*
4-Bromofluorobenzene (Surr)	*97*		*65 - 140*	*08/26/13 14:48*	*08/29/13 16:05*	*100*
Toluene-d8 (Surr)	*108*		*60 - 140*	*08/26/13 14:48*	*08/29/13 16:05*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
Isopropyl Ether (DIPE)	ND		0.25		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
Ethyl-t-butyl ether (ETBE)	ND		0.25		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
Ethylbenzene	**0.24**		0.10		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
Methyl-t-Butyl Ether (MTBE)	ND		0.25		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
Tert-amyl-methyl ether (TAME)	ND		0.25		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
tert-Butyl alcohol (TBA)	ND		5.0		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
Toluene	ND		0.10		mg/Kg		08/26/13 14:48	08/29/13 16:05	100
Xylenes, Total	**0.34**		0.10		mg/Kg		08/26/13 14:48	08/29/13 16:05	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*65 - 140*	*08/26/13 14:48*	*08/29/13 16:05*	*100*
Dibromofluoromethane (Surr)	*93*		*55 - 140*	*08/26/13 14:48*	*08/29/13 16:05*	*100*
Toluene-d8 (Surr)	*108*		*60 - 140*	*08/26/13 14:48*	*08/29/13 16:05*	*100*

Client Sample ID: S-13-12'

Lab Sample ID: 440-55037-7

Date Collected: 08/20/13 10:05
Date Received: 08/21/13 09:45

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**260**		10		mg/Kg		08/26/13 14:48	08/28/13 17:22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*55 - 140*	*08/26/13 14:48*	*08/28/13 17:22*	*100*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*	*08/26/13 14:48*	*08/28/13 17:22*	*100*
Toluene-d8 (Surr)	*106*		*60 - 140*	*08/26/13 14:48*	*08/28/13 17:22*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
Isopropyl Ether (DIPE)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
Ethyl-t-butyl ether (ETBE)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
Ethylbenzene	**6.0**		0.10		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
Methyl-t-Butyl Ether (MTBE)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
Tert-amyl-methyl ether (TAME)	ND		0.25		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
tert-Butyl alcohol (TBA)	ND		5.0		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
Toluene	**0.79**		0.10		mg/Kg		08/26/13 14:48	08/28/13 17:22	100
Xylenes, Total	**26**		0.10		mg/Kg		08/26/13 14:48	08/28/13 17:22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*	*08/26/13 14:48*	*08/28/13 17:22*	*100*
Dibromofluoromethane (Surr)	*97*		*55 - 140*	*08/26/13 14:48*	*08/28/13 17:22*	*100*
Toluene-d8 (Surr)	*106*		*60 - 140*	*08/26/13 14:48*	*08/28/13 17:22*	*100*

Client Sample ID: S-13-18'
Date Collected: 08/20/13 10:20
Date Received: 08/21/13 09:45

Lab Sample ID: 440-55037-8
Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	0.16		0.099		mg/Kg			08/31/13 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*88*		*80 - 125*		*08/31/13 16:41*	*1*
4-Bromofluorobenzene (Surr)	*86*		*80 - 120*		*08/31/13 16:41*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/31/13 16:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00099		mg/Kg			08/31/13 16:41	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/31/13 16:41	1
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/31/13 16:41	1
Ethylbenzene	0.014		0.00099		mg/Kg			08/31/13 16:41	1
Methyl-t-Butyl Ether (MTBE)	ND		0.0020		mg/Kg			08/31/13 16:41	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/31/13 16:41	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/31/13 16:41	1
Toluene	ND		0.00099		mg/Kg			08/31/13 16:41	1
Xylenes, Total	ND		0.0020		mg/Kg			08/31/13 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*80 - 120*		*08/31/13 16:41*	*1*
Dibromofluoromethane (Surr)	*88*		*80 - 125*		*08/31/13 16:41*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/31/13 16:41*	*1*

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-1

Client Sample ID: S-14-8'

Lab Sample ID: 440-55037-1
Matrix: Solid

Date Collected: 08/20/13 08:00
Date Received: 08/21/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	10 mL	127262	08/27/13 12:02	MP	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5 g	10 mL	127263	08/27/13 12:02	MP	TAL IRV

Client Sample ID: S-14-12'

Lab Sample ID: 440-55037-2
Matrix: Solid

Date Collected: 08/20/13 08:05
Date Received: 08/21/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100			127551	08/28/13 15:55	AL	TAL IRV
Total/NA	Prep	5030B			10.00 g	10 mL	127061	08/26/13 14:48	HR	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		100			127552	08/28/13 15:55	TN	TAL IRV

Client Sample ID: S-14-16'

Lab Sample ID: 440-55037-3
Matrix: Solid

Date Collected: 08/20/13 08:10
Date Received: 08/21/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 g	10 mL	127262	08/27/13 18:46	MP	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5 g	10 mL	127263	08/27/13 18:46	MP	TAL IRV

Client Sample ID: S-14-19'

Lab Sample ID: 440-55037-4
Matrix: Solid

Date Collected: 08/20/13 08:15
Date Received: 08/21/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.05 g	10 mL	127479	08/28/13 06:10	MP	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.05 g	10 mL	127480	08/28/13 06:10	MP	TAL IRV

Client Sample ID: S-13-6'

Lab Sample ID: 440-55037-5
Matrix: Solid

Date Collected: 08/20/13 09:55
Date Received: 08/21/13 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.03 g	10 mL	127479	08/28/13 06:39	MP	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.03 g	10 mL	127480	08/28/13 06:39	MP	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-1

Client Sample ID: S-13-9'

Date Collected: 08/20/13 10:00
Date Received: 08/21/13 09:45

Lab Sample ID: 440-55037-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100			127850	08/29/13 16:05	AL	TAL IRV
Total/NA	Prep	5030B			10.00 g	10 mL	127061	08/26/13 14:48	HR	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		100			127851	08/29/13 16:05	AL	TAL IRV

Client Sample ID: S-13-12'

Date Collected: 08/20/13 10:05
Date Received: 08/21/13 09:45

Lab Sample ID: 440-55037-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100			127551	08/28/13 17:22	AL	TAL IRV
Total/NA	Prep	5030B			10.02 g	10 mL	127061	08/26/13 14:48	HR	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		100			127552	08/28/13 17:22	TN	TAL IRV

Client Sample ID: S-13-18'

Date Collected: 08/20/13 10:20
Date Received: 08/21/13 09:45

Lab Sample ID: 440-55037-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.03 g	10 mL	128470	08/31/13 16:41	MR	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.03 g	10 mL	128471	08/31/13 16:41	MR	TAL IRV

Laboratory References:

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

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

Lab Sample ID: MB 440-127262/5
Matrix: Solid
Analysis Batch: 127262

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			08/27/13 10:20	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/27/13 10:20	1
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/27/13 10:20	1
Ethylbenzene	ND		0.0010		mg/Kg			08/27/13 10:20	1
Methyl-t-Butyl Ether (MTBE)	ND		0.0020		mg/Kg			08/27/13 10:20	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/27/13 10:20	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/27/13 10:20	1
Toluene	ND		0.0010		mg/Kg			08/27/13 10:20	1
Xylenes, Total	ND		0.0020		mg/Kg			08/27/13 10:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*08/27/13 10:20*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 125*		*08/27/13 10:20*	*1*
Toluene-d8 (Surr)	*110*		*80 - 120*		*08/27/13 10:20*	*1*

Lab Sample ID: LCS 440-127262/6
Matrix: Solid
Analysis Batch: 127262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0521		mg/Kg		104	65 - 120
Isopropyl Ether (DIPE)	0.0500	0.0568		mg/Kg		114	60 - 140
Ethyl-t-butyl ether (ETBE)	0.0500	0.0559		mg/Kg		112	60 - 140
Ethylbenzene	0.0500	0.0539		mg/Kg		108	70 - 125
m,p-Xylene	0.100	0.109		mg/Kg		109	70 - 125
Methyl-t-Butyl Ether (MTBE)	0.0500	0.0579		mg/Kg		116	60 - 140
o-Xylene	0.0500	0.0576		mg/Kg		115	70 - 125
Tert-amyl-methyl ether (TAME)	0.0500	0.0564		mg/Kg		113	60 - 145
tert-Butyl alcohol (TBA)	0.250	0.262		mg/Kg		105	70 - 135
Toluene	0.0500	0.0540		mg/Kg		108	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*80 - 120*
Dibromofluoromethane (Surr)	*115*		*80 - 125*
Toluene-d8 (Surr)	*116*		*80 - 120*

Lab Sample ID: 440-55037-1 MS
Matrix: Solid
Analysis Batch: 127262

Client Sample ID: S-14-8'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0498	0.0546		mg/Kg		110	65 - 130
Isopropyl Ether (DIPE)	ND		0.0498	0.0563		mg/Kg		113	60 - 150
Ethyl-t-butyl ether (ETBE)	ND		0.0498	0.0551		mg/Kg		111	60 - 145
Ethylbenzene	ND		0.0498	0.0576		mg/Kg		116	70 - 135
m,p-Xylene	ND		0.0996	0.116		mg/Kg		116	70 - 130
Methyl-t-Butyl Ether (MTBE)	ND		0.0498	0.0593		mg/Kg		119	55 - 155

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

Lab Sample ID: 440-55037-1 MS
Matrix: Solid
Analysis Batch: 127262

Client Sample ID: S-14-8'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	ND		0.0498	0.0611		mg/Kg		123	65 - 130
Tert-amyl-methyl ether (TAME)	ND		0.0498	0.0578		mg/Kg		116	60 - 150
tert-Butyl alcohol (TBA)	ND		0.249	0.315		mg/Kg		127	65 - 145
Toluene	ND		0.0498	0.0565		mg/Kg		113	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 125*
Toluene-d8 (Surr)	*109*		*80 - 120*

Lab Sample ID: 440-55037-1 MSD
Matrix: Solid
Analysis Batch: 127262

Client Sample ID: S-14-8'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0499	0.0558		mg/Kg		112	65 - 130	2	20
Isopropyl Ether (DIPE)	ND		0.0499	0.0550		mg/Kg		110	60 - 150	2	25
Ethyl-t-butyl ether (ETBE)	ND		0.0499	0.0551		mg/Kg		111	60 - 145	0	30
Ethylbenzene	ND		0.0499	0.0567		mg/Kg		114	70 - 135	2	25
m,p-Xylene	ND		0.0998	0.114		mg/Kg		114	70 - 130	2	25
Methyl-t-Butyl Ether (MTBE)	ND		0.0499	0.0551		mg/Kg		111	55 - 155	7	35
o-Xylene	ND		0.0499	0.0568		mg/Kg		114	65 - 130	7	25
Tert-amyl-methyl ether (TAME)	ND		0.0499	0.0524		mg/Kg		105	60 - 150	10	25
tert-Butyl alcohol (TBA)	ND		0.250	0.276		mg/Kg		111	65 - 145	13	30
Toluene	ND		0.0499	0.0580		mg/Kg		116	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 125*
Toluene-d8 (Surr)	*116*		*80 - 120*

Lab Sample ID: MB 440-127479/8
Matrix: Solid
Analysis Batch: 127479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			08/27/13 21:55	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/27/13 21:55	1
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/27/13 21:55	1
Ethylbenzene	ND		0.0010		mg/Kg			08/27/13 21:55	1
Methyl-t-Butyl Ether (MTBE)	ND		0.0020		mg/Kg			08/27/13 21:55	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/27/13 21:55	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/27/13 21:55	1
Toluene	ND		0.0010		mg/Kg			08/27/13 21:55	1
Xylenes, Total	ND		0.0020		mg/Kg			08/27/13 21:55	1

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

Lab Sample ID: MB 440-127479/8
Matrix: Solid
Analysis Batch: 127479

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		80 - 120		08/27/13 21:55	1
Dibromofluoromethane (Surr)	107		80 - 125		08/27/13 21:55	1
Toluene-d8 (Surr)	117		80 - 120		08/27/13 21:55	1

Lab Sample ID: LCS 440-127479/5
Matrix: Solid
Analysis Batch: 127479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0555		mg/Kg		111	65 - 120
Isopropyl Ether (DIPE)	0.0500	0.0598		mg/Kg		120	60 - 140
Ethyl-t-butyl ether (ETBE)	0.0500	0.0591		mg/Kg		118	60 - 140
Ethylbenzene	0.0500	0.0566		mg/Kg		113	70 - 125
m,p-Xylene	0.100	0.119		mg/Kg		119	70 - 125
Methyl-t-Butyl Ether (MTBE)	0.0500	0.0592		mg/Kg		118	60 - 140
o-Xylene	0.0500	0.0620		mg/Kg		124	70 - 125
Tert-amyl-methyl ether (TAME)	0.0500	0.0605		mg/Kg		121	60 - 145
tert-Butyl alcohol (TBA)	0.250	0.279		mg/Kg		112	70 - 135
Toluene	0.0500	0.0547		mg/Kg		109	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		80 - 120
Dibromofluoromethane (Surr)	115		80 - 125
Toluene-d8 (Surr)	114		80 - 120

Lab Sample ID: 440-55221-A-1 MS
Matrix: Solid
Analysis Batch: 127479

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0479	0.0519		mg/Kg		108	65 - 130
Isopropyl Ether (DIPE)	ND		0.0479	0.0601		mg/Kg		125	60 - 150
Ethyl-t-butyl ether (ETBE)	ND		0.0479	0.0625		mg/Kg		130	60 - 145
Ethylbenzene	ND		0.0479	0.0541		mg/Kg		113	70 - 135
m,p-Xylene	ND		0.0958	0.111		mg/Kg		116	70 - 130
Methyl-t-Butyl Ether (MTBE)	ND		0.0479	0.0611		mg/Kg		128	55 - 155
o-Xylene	ND		0.0479	0.0550		mg/Kg		115	65 - 130
Tert-amyl-methyl ether (TAME)	ND		0.0479	0.0624		mg/Kg		130	60 - 150
tert-Butyl alcohol (TBA)	ND		0.239	0.261		mg/Kg		109	65 - 145
Toluene	ND		0.0479	0.0558		mg/Kg		117	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		80 - 120
Dibromofluoromethane (Surr)	117		80 - 125
Toluene-d8 (Surr)	111		80 - 120

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

Lab Sample ID: 440-55221-A-1 MSD
Matrix: Solid
Analysis Batch: 127479

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0479	0.0523		mg/Kg		109	65 - 130	1	20
Isopropyl Ether (DIPE)	ND		0.0479	0.0561		mg/Kg		117	60 - 150	7	25
Ethyl-t-butyl ether (ETBE)	ND		0.0479	0.0572		mg/Kg		119	60 - 145	9	30
Ethylbenzene	ND		0.0479	0.0511		mg/Kg		107	70 - 135	6	25
m,p-Xylene	ND		0.0958	0.104		mg/Kg		108	70 - 130	7	25
Methyl-t-Butyl Ether (MTBE)	ND		0.0479	0.0586		mg/Kg		122	55 - 155	4	35
o-Xylene	ND		0.0479	0.0550		mg/Kg		115	65 - 130	0	25
Tert-amyl-methyl ether (TAME)	ND		0.0479	0.0595		mg/Kg		124	60 - 150	5	25
tert-Butyl alcohol (TBA)	ND		0.239	0.262		mg/Kg		109	65 - 145	0	30
Toluene	ND		0.0479	0.0540		mg/Kg		113	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*113*		*80 - 125*
Toluene-d8 (Surr)	*116*		*80 - 120*

Lab Sample ID: MB 440-127551/4
Matrix: Solid
Analysis Batch: 127551

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg			08/28/13 08:43	100
Isopropyl Ether (DIPE)	ND		0.25		mg/Kg			08/28/13 08:43	100
Ethyl-t-butyl ether (ETBE)	ND		0.25		mg/Kg			08/28/13 08:43	100
Ethylbenzene	ND		0.10		mg/Kg			08/28/13 08:43	100
Methyl-t-Butyl Ether (MTBE)	ND		0.25		mg/Kg			08/28/13 08:43	100
Tert-amyl-methyl ether (TAME)	ND		0.25		mg/Kg			08/28/13 08:43	100
tert-Butyl alcohol (TBA)	ND		5.0		mg/Kg			08/28/13 08:43	100
Toluene	ND		0.10		mg/Kg			08/28/13 08:43	100
Xylenes, Total	ND		0.10		mg/Kg			08/28/13 08:43	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*		*08/28/13 08:43*	*100*
Dibromofluoromethane (Surr)	*92*		*55 - 140*		*08/28/13 08:43*	*100*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/28/13 08:43*	*100*

Lab Sample ID: LCS 440-127551/5
Matrix: Solid
Analysis Batch: 127551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.50	2.68		mg/Kg		107	65 - 120
Isopropyl Ether (DIPE)	2.50	2.34		mg/Kg		94	60 - 140
Ethyl-t-butyl ether (ETBE)	2.50	2.38		mg/Kg		95	60 - 140
Ethylbenzene	2.50	2.95		mg/Kg		118	80 - 120
m,p-Xylene	5.00	5.66		mg/Kg		113	70 - 125
Methyl-t-Butyl Ether (MTBE)	2.50	2.53		mg/Kg		101	55 - 145

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

Lab Sample ID: LCS 440-127551/5
Matrix: Solid
Analysis Batch: 127551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	2.50	2.92		mg/Kg		117	70 - 125
Tert-amyl-methyl ether (TAME)	2.50	2.45		mg/Kg		98	60 - 145
tert-Butyl alcohol (TBA)	12.5	12.7		mg/Kg		102	65 - 140
Toluene	2.50	2.78		mg/Kg		111	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*
Dibromofluoromethane (Surr)	*98*		*55 - 140*
Toluene-d8 (Surr)	*106*		*60 - 140*

Lab Sample ID: LCSD 440-127551/6
Matrix: Solid
Analysis Batch: 127551

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.50	2.61		mg/Kg		105	65 - 120	2	20
Isopropyl Ether (DIPE)	2.50	2.34		mg/Kg		94	60 - 140	0	20
Ethyl-t-butyl ether (ETBE)	2.50	2.40		mg/Kg		96	60 - 140	1	20
Ethylbenzene	2.50	2.84		mg/Kg		114	80 - 120	4	20
m,p-Xylene	5.00	5.50		mg/Kg		110	70 - 125	3	20
Methyl-t-Butyl Ether (MTBE)	2.50	2.54		mg/Kg		102	55 - 145	0	25
o-Xylene	2.50	2.75		mg/Kg		110	70 - 125	6	20
Tert-amyl-methyl ether (TAME)	2.50	2.51		mg/Kg		101	60 - 145	2	25
tert-Butyl alcohol (TBA)	12.5	12.2		mg/Kg		98	65 - 140	4	20
Toluene	2.50	2.73		mg/Kg		109	80 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*
Dibromofluoromethane (Surr)	*97*		*55 - 140*
Toluene-d8 (Surr)	*104*		*60 - 140*

Lab Sample ID: MB 440-127850/5
Matrix: Solid
Analysis Batch: 127850

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg			08/29/13 12:40	100
Isopropyl Ether (DIPE)	ND		0.25		mg/Kg			08/29/13 12:40	100
Ethyl-t-butyl ether (ETBE)	ND		0.25		mg/Kg			08/29/13 12:40	100
Ethylbenzene	ND		0.10		mg/Kg			08/29/13 12:40	100
Methyl-t-Butyl Ether (MTBE)	ND		0.25		mg/Kg			08/29/13 12:40	100
Tert-amyl-methyl ether (TAME)	ND		0.25		mg/Kg			08/29/13 12:40	100
tert-Butyl alcohol (TBA)	ND		5.0		mg/Kg			08/29/13 12:40	100
Toluene	ND		0.10		mg/Kg			08/29/13 12:40	100
Xylenes, Total	ND		0.10		mg/Kg			08/29/13 12:40	100

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

Lab Sample ID: MB 440-127850/5
Matrix: Solid
Analysis Batch: 127850

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		65 - 140		08/29/13 12:40	100
Dibromofluoromethane (Surr)	111		55 - 140		08/29/13 12:40	100
Toluene-d8 (Surr)	110		60 - 140		08/29/13 12:40	100

Lab Sample ID: LCS 440-127850/6
Matrix: Solid
Analysis Batch: 127850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.50	2.35		mg/Kg		94	65 - 120
Isopropyl Ether (DIPE)	2.50	2.73		mg/Kg		109	60 - 140
Ethyl-t-butyl ether (ETBE)	2.50	2.63		mg/Kg		105	60 - 140
Ethylbenzene	2.50	2.55		mg/Kg		102	80 - 120
m,p-Xylene	5.00	4.96		mg/Kg		99	70 - 125
Methyl-t-Butyl Ether (MTBE)	2.50	2.61		mg/Kg		104	55 - 145
o-Xylene	2.50	2.70		mg/Kg		108	70 - 125
Tert-amyl-methyl ether (TAME)	2.50	2.48		mg/Kg		99	60 - 145
tert-Butyl alcohol (TBA)	12.5	14.1		mg/Kg		113	65 - 140
Toluene	2.50	2.60		mg/Kg		104	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		65 - 140
Dibromofluoromethane (Surr)	109		55 - 140
Toluene-d8 (Surr)	108		60 - 140

Lab Sample ID: LCSD 440-127850/7
Matrix: Solid
Analysis Batch: 127850

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.50	2.36		mg/Kg		95	65 - 120	1	20
Isopropyl Ether (DIPE)	2.50	2.70		mg/Kg		108	60 - 140	1	20
Ethyl-t-butyl ether (ETBE)	2.50	2.54		mg/Kg		102	60 - 140	3	20
Ethylbenzene	2.50	2.43		mg/Kg		97	80 - 120	5	20
m,p-Xylene	5.00	5.02		mg/Kg		100	70 - 125	1	20
Methyl-t-Butyl Ether (MTBE)	2.50	2.52		mg/Kg		101	55 - 145	4	25
o-Xylene	2.50	2.61		mg/Kg		104	70 - 125	3	20
Tert-amyl-methyl ether (TAME)	2.50	2.43		mg/Kg		97	60 - 145	2	25
tert-Butyl alcohol (TBA)	12.5	13.6		mg/Kg		109	65 - 140	4	20
Toluene	2.50	2.56		mg/Kg		102	80 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		65 - 140
Dibromofluoromethane (Surr)	104		55 - 140
Toluene-d8 (Surr)	106		60 - 140

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

Lab Sample ID: MB 440-128470/4
Matrix: Solid
Analysis Batch: 128470

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			08/31/13 14:41	1
Isopropyl Ether (DIPE)	ND		0.0020		mg/Kg			08/31/13 14:41	1
Ethyl-t-butyl ether (ETBE)	ND		0.0020		mg/Kg			08/31/13 14:41	1
Ethylbenzene	ND		0.0010		mg/Kg			08/31/13 14:41	1
Methyl-t-Butyl Ether (MTBE)	ND		0.0020		mg/Kg			08/31/13 14:41	1
Tert-amyl-methyl ether (TAME)	ND		0.0020		mg/Kg			08/31/13 14:41	1
tert-Butyl alcohol (TBA)	ND		0.050		mg/Kg			08/31/13 14:41	1
Toluene	ND		0.0010		mg/Kg			08/31/13 14:41	1
Xylenes, Total	ND		0.0020		mg/Kg			08/31/13 14:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*80 - 120*		*08/31/13 14:41*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 125*		*08/31/13 14:41*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/31/13 14:41*	*1*

Lab Sample ID: LCS 440-128470/5
Matrix: Solid
Analysis Batch: 128470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0480		mg/Kg		96	65 - 120
Isopropyl Ether (DIPE)	0.0500	0.0568		mg/Kg		114	60 - 140
Ethyl-t-butyl ether (ETBE)	0.0500	0.0511		mg/Kg		102	60 - 140
Ethylbenzene	0.0500	0.0488		mg/Kg		98	70 - 125
m,p-Xylene	0.100	0.117		mg/Kg		117	70 - 125
Methyl-t-Butyl Ether (MTBE)	0.0500	0.0497		mg/Kg		99	60 - 140
o-Xylene	0.0500	0.0611		mg/Kg		122	70 - 125
Tert-amyl-methyl ether (TAME)	0.0500	0.0464		mg/Kg		93	60 - 145
tert-Butyl alcohol (TBA)	0.250	0.284		mg/Kg		114	70 - 135
Toluene	0.0500	0.0506		mg/Kg		101	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 125*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 440-128470/7
Matrix: Solid
Analysis Batch: 128470

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.0480		mg/Kg		96	65 - 120	0	20
Isopropyl Ether (DIPE)	0.0500	0.0556		mg/Kg		111	60 - 140	2	20
Ethyl-t-butyl ether (ETBE)	0.0500	0.0497		mg/Kg		99	60 - 140	3	20
Ethylbenzene	0.0500	0.0503		mg/Kg		101	70 - 125	3	20
m,p-Xylene	0.100	0.118		mg/Kg		118	70 - 125	1	20
Methyl-t-Butyl Ether (MTBE)	0.0500	0.0490		mg/Kg		98	60 - 140	1	25

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

Lab Sample ID: LCSD 440-128470/7
Matrix: Solid
Analysis Batch: 128470

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene	0.0500	0.0612		mg/Kg		122	70 - 125	0	20
Tert-amyl-methyl ether (TAME)	0.0500	0.0460		mg/Kg		92	60 - 145	1	20
tert-Butyl alcohol (TBA)	0.250	0.269		mg/Kg		108	70 - 135	5	20
Toluene	0.0500	0.0512		mg/Kg		102	70 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 125*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: 440-55037-8 MS
Matrix: Solid
Analysis Batch: 128470

Client Sample ID: S-13-18'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0498	0.0477		mg/Kg		96	65 - 130
Isopropyl Ether (DIPE)	ND		0.0498	0.0528		mg/Kg		106	60 - 150
Ethyl-t-butyl ether (ETBE)	ND		0.0498	0.0467		mg/Kg		94	60 - 145
Ethylbenzene	0.014		0.0498	0.0658		mg/Kg		105	70 - 135
m,p-Xylene	ND		0.0996	0.117		mg/Kg		118	70 - 130
Methyl-t-Butyl Ether (MTBE)	ND		0.0498	0.0450		mg/Kg		90	55 - 155
o-Xylene	ND		0.0498	0.0608		mg/Kg		122	65 - 130
Tert-amyl-methyl ether (TAME)	ND		0.0498	0.0423		mg/Kg		85	60 - 150
tert-Butyl alcohol (TBA)	ND		0.249	0.278		mg/Kg		112	65 - 145
Toluene	ND		0.0498	0.0503		mg/Kg		101	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*80 - 125*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 440-55037-8 MSD
Matrix: Solid
Analysis Batch: 128470

Client Sample ID: S-13-18'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0495	0.0491		mg/Kg		99	65 - 130	3	20
Isopropyl Ether (DIPE)	ND		0.0495	0.0539		mg/Kg		109	60 - 150	2	25
Ethyl-t-butyl ether (ETBE)	ND		0.0495	0.0484		mg/Kg		98	60 - 145	4	30
Ethylbenzene	0.014		0.0495	0.0664		mg/Kg		106	70 - 135	1	25
m,p-Xylene	ND		0.0990	0.118		mg/Kg		119	70 - 130	1	25
Methyl-t-Butyl Ether (MTBE)	ND		0.0495	0.0456		mg/Kg		92	55 - 155	1	35
o-Xylene	ND		0.0495	0.0610		mg/Kg		123	65 - 130	0	25
Tert-amyl-methyl ether (TAME)	ND		0.0495	0.0442		mg/Kg		89	60 - 150	4	25
tert-Butyl alcohol (TBA)	ND		0.248	0.281		mg/Kg		114	65 - 145	1	30
Toluene	ND		0.0495	0.0512		mg/Kg		103	70 - 130	2	20

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

Lab Sample ID: 440-55037-8 MSD
Matrix: Solid
Analysis Batch: 128470

Client Sample ID: S-13-18'
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*80 - 125*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-127263/5
Matrix: Solid
Analysis Batch: 127263

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			08/27/13 10:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*80 - 125*		*08/27/13 10:20*	*1*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*08/27/13 10:20*	*1*
Toluene-d8 (Surr)	*110*		*80 - 120*		*08/27/13 10:20*	*1*

Lab Sample ID: LCS 440-127263/7
Matrix: Solid
Analysis Batch: 127263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1.00	1.02		mg/Kg		102	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*111*		*80 - 125*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*113*		*80 - 120*

Lab Sample ID: 440-55037-1 MS
Matrix: Solid
Analysis Batch: 127263

Client Sample ID: S-14-8'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.32		mg/Kg		97	55 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*105*		*80 - 125*
4-Bromofluorobenzene (Surr)	*110*		*80 - 120*
Toluene-d8 (Surr)	*109*		*80 - 120*

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

Lab Sample ID: 440-55037-1 MSD — **Client Sample ID: S-14-8'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 127263

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.17		mg/Kg		92	55 - 140	5	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*80 - 125*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*116*		*80 - 120*

Lab Sample ID: MB 440-127480/8 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 127480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			08/27/13 21:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*80 - 125*		*08/27/13 21:55*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*08/27/13 21:55*	*1*
Toluene-d8 (Surr)	*117*		*80 - 120*		*08/27/13 21:55*	*1*

Lab Sample ID: LCS 440-127480/6 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 127480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1.00	1.03		mg/Kg		103	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*117*		*80 - 125*
4-Bromofluorobenzene (Surr)	*115*		*80 - 120*
Toluene-d8 (Surr)	*113*		*80 - 120*

Lab Sample ID: 440-55221-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 127480

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.30	3.40		mg/Kg		103	55 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*117*		*80 - 125*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Toluene-d8 (Surr)	*111*		*80 - 120*

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

Lab Sample ID: 440-55221-A-1 MSD
Matrix: Solid
Analysis Batch: 127480

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.30	2.99		mg/Kg		90	55 - 140	13	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*113*		*80 - 125*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*116*		*80 - 120*

Lab Sample ID: MB 440-127552/4
Matrix: Solid
Analysis Batch: 127552

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		10		mg/Kg			08/28/13 08:43	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*92*		*55 - 140*		*08/28/13 08:43*	*100*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*		*08/28/13 08:43*	*100*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/28/13 08:43*	*100*

Lab Sample ID: LCS 440-127552/7
Matrix: Solid
Analysis Batch: 127552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	50.0	37.3		mg/Kg		75	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*55 - 140*
4-Bromofluorobenzene (Surr)	*91*		*65 - 140*
Toluene-d8 (Surr)	*98*		*60 - 140*

Lab Sample ID: LCSD 440-127552/8
Matrix: Solid
Analysis Batch: 127552

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	50.0	37.7		mg/Kg		75	60 - 130	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*93*		*55 - 140*
4-Bromofluorobenzene (Surr)	*95*		*65 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

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

Lab Sample ID: MB 440-127851/5
Matrix: Solid
Analysis Batch: 127851

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		10		mg/Kg			08/29/13 12:40	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*55 - 140*		*08/29/13 12:40*	*100*
4-Bromofluorobenzene (Surr)	*104*		*65 - 140*		*08/29/13 12:40*	*100*
Toluene-d8 (Surr)	*110*		*60 - 140*		*08/29/13 12:40*	*100*

Lab Sample ID: LCS 440-127851/8
Matrix: Solid
Analysis Batch: 127851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	50.0	48.0		mg/Kg		96	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*55 - 140*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*
Toluene-d8 (Surr)	*104*		*60 - 140*

Lab Sample ID: LCSD 440-127851/9
Matrix: Solid
Analysis Batch: 127851

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	50.0	40.5		mg/Kg		81	60 - 130	17	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*55 - 140*
4-Bromofluorobenzene (Surr)	*100*		*65 - 140*
Toluene-d8 (Surr)	*107*		*60 - 140*

Lab Sample ID: MB 440-128471/4
Matrix: Solid
Analysis Batch: 128471

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			08/31/13 14:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*80 - 125*		*08/31/13 14:41*	*1*
4-Bromofluorobenzene (Surr)	*87*		*80 - 120*		*08/31/13 14:41*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/31/13 14:41*	*1*

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

Lab Sample ID: LCS 440-128471/6
Matrix: Solid
Analysis Batch: 128471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			1.00	0.956		mg/Kg		96	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*95*		*80 - 125*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: 440-55037-8 MS
Matrix: Solid
Analysis Batch: 128471

Client Sample ID: S-13-18'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)	0.16		3.44	2.83		mg/Kg		78	55 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*91*		*80 - 125*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 440-55037-8 MSD
Matrix: Solid
Analysis Batch: 128471

Client Sample ID: S-13-18'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	0.16		3.42	3.21		mg/Kg		89	55 - 140	12	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*91*		*80 - 125*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-1

GC/MS VOA

Prep Batch: 127061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-2	S-14-12'	Total/NA	Solid	5030B	
440-55037-6	S-13-9'	Total/NA	Solid	5030B	
440-55037-7	S-13-12'	Total/NA	Solid	5030B	

Analysis Batch: 127262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-1	S-14-8'	Total/NA	Solid	8260B	
440-55037-1 MS	S-14-8'	Total/NA	Solid	8260B	
440-55037-1 MSD	S-14-8'	Total/NA	Solid	8260B	
440-55037-3	S-14-16'	Total/NA	Solid	8260B	
LCS 440-127262/6	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-127262/5	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 127263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-1	S-14-8'	Total/NA	Solid	8260B/CA_LUFT MS	
440-55037-1 MS	S-14-8'	Total/NA	Solid	8260B/CA_LUFT MS	
440-55037-1 MSD	S-14-8'	Total/NA	Solid	8260B/CA_LUFT MS	
440-55037-3	S-14-16'	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-127263/7	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-127263/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 127479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-4	S-14-19'	Total/NA	Solid	8260B	
440-55037-5	S-13-6'	Total/NA	Solid	8260B	
440-55221-A-1 MS	Matrix Spike	Total/NA	Solid	8260B	
440-55221-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	
LCS 440-127479/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-127479/8	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 127480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-4	S-14-19'	Total/NA	Solid	8260B/CA_LUFT MS	
440-55037-5	S-13-6'	Total/NA	Solid	8260B/CA_LUFT MS	
440-55221-A-1 MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	
440-55221-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-127480/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-127480/8	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

GC/MS VOA (Continued)

Analysis Batch: 127551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-2	S-14-12'	Total/NA	Solid	8260B	127061
440-55037-7	S-13-12'	Total/NA	Solid	8260B	127061
LCS 440-127551/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-127551/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 440-127551/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 127552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-2	S-14-12'	Total/NA	Solid	8260B/CA_LUFT MS	127061
440-55037-7	S-13-12'	Total/NA	Solid	8260B/CA_LUFT MS	127061
LCS 440-127552/7	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-127552/8	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-127552/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 127850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-6	S-13-9'	Total/NA	Solid	8260B	127061
LCS 440-127850/6	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-127850/7	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 440-127850/5	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 127851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-6	S-13-9'	Total/NA	Solid	8260B/CA_LUFT MS	127061
LCS 440-127851/8	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-127851/9	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-127851/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 128470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-8	S-13-18'	Total/NA	Solid	8260B	
440-55037-8 MS	S-13-18'	Total/NA	Solid	8260B	
440-55037-8 MSD	S-13-18'	Total/NA	Solid	8260B	
LCS 440-128470/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-128470/7	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 440-128470/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 128471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-8	S-13-18'	Total/NA	Solid	8260B/CA_LUFT MS	
440-55037-8 MS	S-13-18'	Total/NA	Solid	8260B/CA_LUFT MS	
440-55037-8 MSD	S-13-18'	Total/NA	Solid	8260B/CA_LUFT MS	

GC/MS VOA (Continued)

Analysis Batch: 128471 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-128471/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-128471/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-14
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-28-14 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-14
New Mexico	State Program	6	N/A	01-31-14
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

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 - 240897
PO #:
INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 4 6 ☐ CHECK IF NO INCIDENT # APPLIES
SAP #: 1 3 5 6 8 6
DATE: 8/20/13
PAGE: 1 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 4411 Foothill Blvd, Oakland	State: CA
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
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		E-MAIL: shell.em.edf@craworld.com	CONSULTANT PROJECT NO.: 240897-2013-04
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@CRAworld.com	GLOBAL ID NO.: T0600101065
SAMPLER NAME(S) (Print): Patrick O'Connell			LAB USE ONLY: 440-55037

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 :
Copy of final report to Shell.Lab.Billing@craworld.com

☑ 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.	TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXY's (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: ____ (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
	S-14-8'	8/20/13	0800	SOIL				X		1	X						X							
	S-14-12'	8/20/13	0805	SOIL				X		1	X						X							
	S-14-16'	8/20/13	0810	SOIL				X		1	X						X							
	S-14-19'	8/20/13	0815	SOIL				X		1	X						X							
	S-13-6'	8/20/13	0955	SOIL				X		1	X						X							
	S-13-9'	8/20/13	1000	SOIL				X		1	X						X							
	S-13-12'	8/20/13	1005	SOIL				X		1	X						X							
	S-13-18'	8/20/13	1020	SOIL				X		1	X						X							
																								po

Relinquished by: (Signature) Patrick O'Connell	Received by: (Signature)	Date: 8-20-13	Time: 1515
Relinquished by: (Signature)	Received by: (Signature)	Date: 8-20-13	Time: 1725
Relinquished by: (Signature) 8/20/13 1800	Received by: (Signature) 2.5°C	Date: 8/21/13 5-4/5.2	Time: 9:45

05/2/06 Revision

440-55037 Chain of Custody

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9/4/2013

8/21/13

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 - 240897

INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 4 6

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 8/20/13

PAGE: 2 of 2

PO #:

SAP #: 1 3 5 6 8 6

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: shelledf@craworld.com

CONSULTANT PROJECT NO.: 240897-2013-04

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): Patrick O'Connell

LAB USE ONLY: 440-55053

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 :

Marked TAT except for those contingent tests needed for Aquatic Bioassay determination (5 day TAT or better may apply)

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

cc: Bbarlow@craworld.com, Deisman@craworld.com and Shell.Lab.Billing@craworld.com Call

composite sample IDs and field point names: CRA-A, CRA-B, etc

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)	Test for disposal (See Attached)	Container PID Readings or Laboratory Notes
	CRA - 1A	8/20/13	1230	SO				X		1	X	X	X											X	X				X	Please call
	CRA - 2A	8/20/13	1235	SO				X		1	X	X	X											X	X				X	composite sample
	CRA - 3A	8/20/13	1240	SO				X		1	X	X	X											X	X				X	CRA-A
																														Per Contingency Sheet,
																														for Solids & Liquids;
																														run STLC and / or TCLP
																														as needed.
																														Solids ONLY;
																														run Fish Toxicity

Relinquished by: (Signature) Patrick O'Connell	Received by: (Signature)	Date: 8-20-13	Time: 1515
Relinquished by: (Signature)	Received by: (Signature)	Date: 8-20-13	Time: 1725
Relinquished by: (Signature) 8/20/13 1800	Received by: (Signature)	Date: 8/21/13	Time: 9:45

2.5°C

5-4/52

05/2/06 Revision

9/4/2013

Contingent analyses

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

Metal	Trigger level TTLC (mg/kg)	Requirement
Antimony	150	STLC required if TTLC ≥ 150 mg/kg
Arsenic	50/100	STLC required if TTLC ≥ 50 mg/kg; STLC and TCLP required if TTLC ≥ 100 mg/kg
Barium	1,000/2,000	STLC required if TTLC ≥ 1,000 mg/kg; STLC and TCLP required if TTLC ≥ 2,000 mg/kg
Beryllium	7.5	STLC required if TTLC ≥ 7.5 mg/kg
Cadmium	10/20	STLC required if TTLC ≥ 10 mg/kg; 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	**13/50/100**	Organic lead required if TTLC lead ≥ 13 mg/kg 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 ≥ 2,500 mg/kg

Login Sample Receipt Checklist

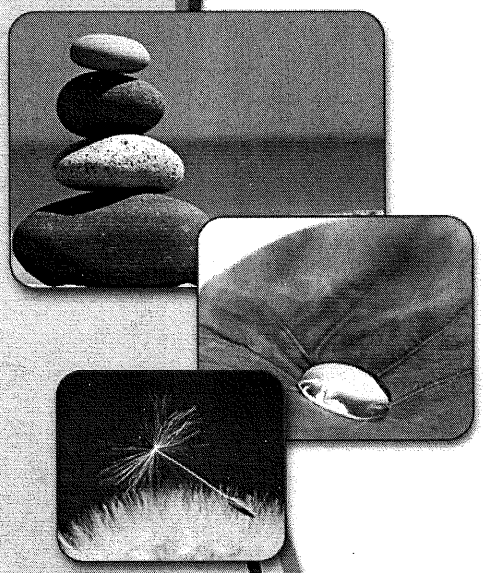
Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-55037-1

Login Number: 55037
List Number: 1
Creator: Perez, Angel

List Source: TestAmerica Irvine

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-55037-2
Client Project/Site: 4411 Foothill Blvd., Oakland

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Philip Sanelle

Authorized for release by:
9/4/2013 3:24:35 PM

Philip Sanelle, Project Manager I
philip.sanelle@testamericainc.com

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-55037-12	CRA-A	Solid	08/20/13 12:40	08/21/13 09:45

Job ID: 440-55037-2

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-55037-2

Comments
No additional comments.

Receipt
The samples were received on 8/21/2013 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2° C.

GC/MS VOA
No analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: Due to the high concentration of DRO(C10-C28), the matrix spike / matrix spike duplicate (MS/MSD) for batch 127511 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. (LCS 440-127511/2-A)

No other analytical or quality issues were noted.

Metals
Method(s) 6010B: The matrix spike recoveries for Barium , Antimony & Vanadium for batch 127586 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 6010B: The matrix spike duplicate recoveries for Antimony & Vanadium for batch 127586 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample ID: CRA-A
Date Collected: 08/20/13 12:40
Date Received: 08/21/13 09:45

Lab Sample ID: 440-55037-12
Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	95		10		mg/Kg		08/26/13 14:48	08/28/13 15:27	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*92*		*55 - 140*	*08/26/13 14:48*	*08/28/13 15:27*	*100*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*	*08/26/13 14:48*	*08/28/13 15:27*	*100*
Toluene-d8 (Surr)	*102*		*60 - 140*	*08/26/13 14:48*	*08/28/13 15:27*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:27	100
Ethylbenzene	0.47		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:27	100
Toluene	ND		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:27	100
Xylenes, Total	2.2		0.10		mg/Kg		08/26/13 14:48	08/28/13 15:27	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*60 - 140*	*08/26/13 14:48*	*08/28/13 15:27*	*100*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*	*08/26/13 14:48*	*08/28/13 15:27*	*100*
Dibromofluoromethane (Surr)	*92*		*55 - 140*	*08/26/13 14:48*	*08/28/13 15:27*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		08/27/13 20:42	08/28/13 08:46	1
ORO (C29-C40)	ND		5.0		mg/Kg		08/27/13 20:42	08/28/13 08:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*73*		*40 - 140*	*08/27/13 20:42*	*08/28/13 08:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Arsenic	4.2		3.0		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Barium	110		1.5		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Beryllium	ND		0.50		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Cadmium	ND		0.50		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Chromium	62		0.99		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Cobalt	16		0.99		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Copper	26		2.0		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Lead	5.3		2.0		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Molybdenum	ND		2.0		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Nickel	130		2.0		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Selenium	ND		3.0		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Thallium	ND		9.9		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Vanadium	36		0.99		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Zinc	35		5.0		mg/Kg		08/28/13 08:55	08/28/13 17:01	5
Silver	ND		1.5		mg/Kg		08/28/13 08:55	08/28/13 17:01	5

Method: 6010B - Metals (ICP) - STLC Citrate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.98		0.10		mg/L			09/03/13 18:19	20

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-2

Client Sample ID: CRA-A
Date Collected: 08/20/13 12:40
Date Received: 08/21/13 09:45

Lab Sample ID: 440-55037-12
Matrix: Solid

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.088		0.020		mg/Kg		08/28/13 09:15	08/28/13 12:18	1

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-2

Client Sample ID: CRA-A
Date Collected: 08/20/13 12:40
Date Received: 08/21/13 09:45

Lab Sample ID: 440-55037-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.03 g	10 mL	127061	08/26/13 14:48	HR	TAL IRV
Total/NA	Analysis	8260B		100			127551	08/28/13 15:27	AL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		100			127552	08/28/13 15:27	TN	TAL IRV
Total/NA	Prep	CA LUFT			30.06 g	1 mL	127511	08/27/13 20:42	SJ	TAL IRV
Total/NA	Analysis	8015B		1			127298	08/28/13 08:46	KW	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	127465	08/28/13 09:15	MM	TAL IRV
Total/NA	Analysis	7471A		1			127686	08/28/13 12:18	DB	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	127586	08/28/13 08:55	DT	TAL IRV
Total/NA	Analysis	6010B		5			127779	08/28/13 17:01	EN	TAL IRV
STLC Citrate	Leach	CA WET Citrate			50.03 g	500 mL	128516	09/01/13 19:40	SN	TAL IRV
STLC Citrate	Analysis	6010B		20			128758	09/03/13 18:19	TK	TAL IRV

Laboratory References:

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

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

Lab Sample ID: MB 440-127551/4
Matrix: Solid
Analysis Batch: 127551

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg			08/28/13 08:43	100
Ethylbenzene	ND		0.10		mg/Kg			08/28/13 08:43	100
Toluene	ND		0.10		mg/Kg			08/28/13 08:43	100
Xylenes, Total	ND		0.10		mg/Kg			08/28/13 08:43	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/28/13 08:43*	*100*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*		*08/28/13 08:43*	*100*
Dibromofluoromethane (Surr)	*92*		*55 - 140*		*08/28/13 08:43*	*100*

Lab Sample ID: LCS 440-127551/5
Matrix: Solid
Analysis Batch: 127551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.50	2.68		mg/Kg		107	65 - 120
Ethylbenzene	2.50	2.95		mg/Kg		118	80 - 120
m,p-Xylene	5.00	5.66		mg/Kg		113	70 - 125
o-Xylene	2.50	2.92		mg/Kg		117	70 - 125
Toluene	2.50	2.78		mg/Kg		111	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*106*		*60 - 140*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*
Dibromofluoromethane (Surr)	*98*		*55 - 140*

Lab Sample ID: LCSD 440-127551/6
Matrix: Solid
Analysis Batch: 127551

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.50	2.61		mg/Kg		105	65 - 120	2	20
Ethylbenzene	2.50	2.84		mg/Kg		114	80 - 120	4	20
m,p-Xylene	5.00	5.50		mg/Kg		110	70 - 125	3	20
o-Xylene	2.50	2.75		mg/Kg		110	70 - 125	6	20
Toluene	2.50	2.73		mg/Kg		109	80 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*60 - 140*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*
Dibromofluoromethane (Surr)	*97*		*55 - 140*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-127552/4
Matrix: Solid
Analysis Batch: 127552

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		10		mg/Kg			08/28/13 08:43	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*92*		*55 - 140*		*08/28/13 08:43*	*100*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*		*08/28/13 08:43*	*100*
Toluene-d8 (Surr)	*99*		*60 - 140*		*08/28/13 08:43*	*100*

Lab Sample ID: LCS 440-127552/7
Matrix: Solid
Analysis Batch: 127552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	50.0	37.3		mg/Kg		75	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*55 - 140*
4-Bromofluorobenzene (Surr)	*91*		*65 - 140*
Toluene-d8 (Surr)	*98*		*60 - 140*

Lab Sample ID: LCSD 440-127552/8
Matrix: Solid
Analysis Batch: 127552

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	50.0	37.7		mg/Kg		75	60 - 130	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*93*		*55 - 140*
4-Bromofluorobenzene (Surr)	*95*		*65 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

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

Lab Sample ID: MB 440-127511/1-A
Matrix: Solid
Analysis Batch: 127297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127511

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		08/27/13 20:42	08/27/13 22:55	1
ORO (C29-C40)	ND		5.0		mg/Kg		08/27/13 20:42	08/27/13 22:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*76*		*40 - 140*	*08/27/13 20:42*	*08/27/13 22:55*	*1*

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

Lab Sample ID: LCS 440-127511/2-A
Matrix: Solid
Analysis Batch: 127297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127511

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	33.3	24.8		mg/Kg		74	45 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*77*		*40 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-127586/1-A ^5
Matrix: Solid
Analysis Batch: 127779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Arsenic	ND		3.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Barium	ND		1.5		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Beryllium	ND		0.50		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Cadmium	ND		0.50		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Chromium	ND		1.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Cobalt	ND		1.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Copper	ND		2.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Lead	ND		2.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Molybdenum	ND		2.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Nickel	ND		2.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Selenium	ND		3.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Thallium	ND		10		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Vanadium	ND		1.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Zinc	ND		5.0		mg/Kg		08/28/13 08:55	08/28/13 16:51	5
Silver	ND		1.5		mg/Kg		08/28/13 08:55	08/28/13 16:51	5

Lab Sample ID: LCS 440-127586/2-A ^5
Matrix: Solid
Analysis Batch: 127779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	49.5	44.8		mg/Kg		91	80 - 120
Arsenic	49.5	45.0		mg/Kg		91	80 - 120
Barium	49.5	47.4		mg/Kg		96	80 - 120
Beryllium	49.5	46.1		mg/Kg		93	80 - 120
Cadmium	49.5	46.1		mg/Kg		93	80 - 120
Chromium	49.5	45.5		mg/Kg		92	80 - 120
Cobalt	49.5	47.1		mg/Kg		95	80 - 120
Copper	49.5	47.3		mg/Kg		95	80 - 120
Lead	49.5	44.8		mg/Kg		90	80 - 120
Molybdenum	49.5	46.2		mg/Kg		93	80 - 120
Nickel	49.5	46.1		mg/Kg		93	80 - 120
Selenium	49.5	43.0		mg/Kg		87	80 - 120
Thallium	49.5	45.5		mg/Kg		92	80 - 120
Vanadium	49.5	46.7		mg/Kg		94	80 - 120

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

Lab Sample ID: LCS 440-127586/2-A ^5
Matrix: Solid
Analysis Batch: 127779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	49.5	45.1		mg/Kg		91	80 - 120
Silver	24.8	24.1		mg/Kg		97	80 - 120

Lab Sample ID: 440-55485-E-5-E MS ^5
Matrix: Solid
Analysis Batch: 127779

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 127586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		49.3	31.3	F	mg/Kg		64	75 - 125
Arsenic	4.8		49.3	49.9		mg/Kg		92	75 - 125
Barium	170		49.3	183	F	mg/Kg		36	75 - 125
Beryllium	ND		49.3	47.3		mg/Kg		96	75 - 125
Cadmium	3.7		49.3	48.0		mg/Kg		90	75 - 125
Chromium	16		49.3	67.1		mg/Kg		104	75 - 125
Cobalt	1.6		49.3	45.6		mg/Kg		89	75 - 125
Copper	15		49.3	61.4		mg/Kg		94	75 - 125
Lead	ND		49.3	44.9		mg/Kg		87	75 - 125
Molybdenum	4.7		49.3	51.9		mg/Kg		96	75 - 125
Nickel	28		49.3	69.2		mg/Kg		83	75 - 125
Selenium	ND		49.3	44.2		mg/Kg		84	75 - 125
Thallium	ND		49.3	43.5		mg/Kg		88	75 - 125
Vanadium	60		49.3	124	F	mg/Kg		131	75 - 125
Zinc	41		49.3	87.7		mg/Kg		94	75 - 125
Silver	ND		24.6	22.8		mg/Kg		93	75 - 125

Lab Sample ID: 440-55485-E-5-F MSD ^5
Matrix: Solid
Analysis Batch: 127779

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 127586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		49.0	32.6	F	mg/Kg		66	75 - 125	4	20
Arsenic	4.8		49.0	53.9		mg/Kg		100	75 - 125	8	20
Barium	170		49.0	204		mg/Kg		79	75 - 125	11	20
Beryllium	ND		49.0	50.8		mg/Kg		104	75 - 125	7	20
Cadmium	3.7		49.0	51.0		mg/Kg		97	75 - 125	6	20
Chromium	16		49.0	73.0		mg/Kg		117	75 - 125	8	20
Cobalt	1.6		49.0	48.5		mg/Kg		96	75 - 125	6	20
Copper	15		49.0	65.8		mg/Kg		104	75 - 125	7	20
Lead	ND		49.0	47.8		mg/Kg		94	75 - 125	6	20
Molybdenum	4.7		49.0	54.6		mg/Kg		102	75 - 125	5	20
Nickel	28		49.0	74.8		mg/Kg		95	75 - 125	8	20
Selenium	ND		49.0	45.9		mg/Kg		88	75 - 125	4	20
Thallium	ND		49.0	46.0		mg/Kg		94	75 - 125	6	20
Vanadium	60		49.0	138	F	mg/Kg		160	75 - 125	11	20
Zinc	41		49.0	93.1		mg/Kg		106	75 - 125	6	20
Silver	ND		24.5	24.4		mg/Kg		100	75 - 125	7	20

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

Lab Sample ID: MB 440-128516/1-A ^20
Matrix: Solid
Analysis Batch: 128758

Client Sample ID: Method Blank
Prep Type: STLC Citrate

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.10		mg/L			09/03/13 18:05	20

Lab Sample ID: LCS 440-128516/2-A ^20
Matrix: Solid
Analysis Batch: 128758

Client Sample ID: Lab Control Sample
Prep Type: STLC Citrate

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	20.0	20.7		mg/L		104	80 - 120

Lab Sample ID: 440-55519-A-1-A MS ^20
Matrix: Solid
Analysis Batch: 128758

Client Sample ID: Matrix Spike
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND		20.0	20.8		mg/L		104	75 - 125

Lab Sample ID: 440-55519-A-1-A MSD ^20
Matrix: Solid
Analysis Batch: 128758

Client Sample ID: Matrix Spike Duplicate
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		20.0	20.7		mg/L		104	75 - 125	0	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-127465/1-A
Matrix: Solid
Analysis Batch: 127686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		08/28/13 09:15	08/28/13 12:06	1

Lab Sample ID: LCS 440-127465/2-A
Matrix: Solid
Analysis Batch: 127686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.828		mg/Kg		103	80 - 120

Lab Sample ID: 440-55366-A-1-E MS
Matrix: Solid
Analysis Batch: 127686

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 127465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.816	0.750		mg/Kg		92	70 - 130

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 440-55366-A-1-F MSD
Matrix: Solid
Analysis Batch: 127686

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 127465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.784	0.741		mg/Kg		94	70 - 130	1	20

GC/MS VOA

Prep Batch: 127061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	5030B	

Analysis Batch: 127551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	8260B	127061
LCS 440-127551/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-127551/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 440-127551/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 127552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	8260B/CA_LUFT MS	127061
LCS 440-127552/7	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-127552/8	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-127552/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

GC Semi VOA

Analysis Batch: 127297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-127511/2-A	Lab Control Sample	Total/NA	Solid	8015B	127511
MB 440-127511/1-A	Method Blank	Total/NA	Solid	8015B	127511

Analysis Batch: 127298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	8015B	127511

Prep Batch: 127511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	CA LUFT	
LCS 440-127511/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-127511/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Metals

Prep Batch: 127465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	7471A	
440-55366-A-1-E MS	Matrix Spike	Total/NA	Solid	7471A	
440-55366-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	
LCS 440-127465/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 440-127465/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 127586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	3050B	
440-55485-E-5-E MS ^5	Matrix Spike	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 127586 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55485-E-5-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	
LCS 440-127586/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-127586/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 127686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	7471A	127465
440-55366-A-1-E MS	Matrix Spike	Total/NA	Solid	7471A	127465
440-55366-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	127465
LCS 440-127465/2-A	Lab Control Sample	Total/NA	Solid	7471A	127465
MB 440-127465/1-A	Method Blank	Total/NA	Solid	7471A	127465

Analysis Batch: 127779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	Total/NA	Solid	6010B	127586
440-55485-E-5-E MS ^5	Matrix Spike	Total/NA	Solid	6010B	127586
440-55485-E-5-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	127586
LCS 440-127586/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	127586
MB 440-127586/1-A ^5	Method Blank	Total/NA	Solid	6010B	127586

Leach Batch: 128516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	STLC Citrate	Solid	CA WET Citrate	
440-55519-A-1-A MS ^20	Matrix Spike	STLC Citrate	Solid	CA WET Citrate	
440-55519-A-1-A MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	CA WET Citrate	
LCS 440-128516/2-A ^20	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
MB 440-128516/1-A ^20	Method Blank	STLC Citrate	Solid	CA WET Citrate	

Analysis Batch: 128758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55037-12	CRA-A	STLC Citrate	Solid	6010B	128516
440-55519-A-1-A MS ^20	Matrix Spike	STLC Citrate	Solid	6010B	128516
440-55519-A-1-A MSD ^20	Matrix Spike Duplicate	STLC Citrate	Solid	6010B	128516
LCS 440-128516/2-A ^20	Lab Control Sample	STLC Citrate	Solid	6010B	128516
MB 440-128516/1-A ^20	Method Blank	STLC Citrate	Solid	6010B	128516

Qualifiers

Metals

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4411 Foothill Blvd., Oakland

TestAmerica Job ID: 440-55037-2

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-14
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-28-14 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-14
New Mexico	State Program	6	N/A	01-31-14
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

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 - 240897

PO #:

INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 4 6 ☐ CHECK IF NO INCIDENT # APPLIES

SAP #: 1 3 5 6 8 6

DATE: 8/20/13

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

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 :

Copy of final report to Shell.Lab.Billing@craworld.com

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

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.: 240897-2013-04

SAMPLER NAME(S) (Print): Patrick O'Connell

LAB USE ONLY: 440-55037

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: ____ (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
	S-14-8'	8/20/13	0800	SOIL				X		1	X						X							
	S-14-12'	8/20/13	0805	SOIL				X		1	X						X							
	S-14-16'	8/20/13	0810	SOIL				X		1	X						X							
	S-14-19'	8/20/13	0815	SOIL				X		1	X						X							
	S-13-6'	8/20/13	0955	SOIL				X		1	X						X							
	S-13-9'	8/20/13	1000	SOIL				X		1	X						X							
	S-13-12'	8/20/13	1005	SOIL				X		1	X						X							
	S-13-18'	8/20/13	1020	SOIL				X		1	X						X							
																								PO

Relinquished by: (Signature) Patrick O'Connell	Received by: (Signature)	Date: 8-20-13	Time: 1515
Relinquished by: (Signature)	Received by: (Signature)	Date: 8-20-13	Time: 1725
Relinquished by: (Signature) 8/20/13 1800	Received by: (Signature) 2.5°C	Date: 8/21/13 5-1/5-2	Time: 9:45

05/2/06 Revision

8/21/13

440-55037 Chain of Custody

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 - 240897

PO #:

INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 4 6

SAP #: 1 3 5 6 8 6

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 8/20/13

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: shelledf@craworld.com

CONSULTANT PROJECT NO.: 240897-2013-04

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): Patrick O'Connell

LAB USE ONLY: 440-550037

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 :
Marked TAT except for those contingent tests needed for Aquatic Bioassay determination (5 day TAT or better may apply)

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

cc: Bbarlow@craworld.com, Delsman@craworld.com and Shell.Lab.Billing@craworld.com Call
composite sample IDs and field point names: CRA-A, CRA-B, etc

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)	Test for disposal (See Attached)	Container PID Readings or Laboratory Notes
	CRA - 1A	8/20/13	1230	SO				X		1	X	X	X											X	X				X	Please call composite sample CRA-A
	CRA - 2A	8/20/13	1235	SO				X		1	X	X	X											X	X				X	
	CRA - 3A	8/20/13	1240	SO				X		1	X	X	X											X	X				X	
																														Per Contingency Sheet, for Solids & Liquids; run STLC and / or TCLP as needed. Solids ONLY; run Fish Toxicity

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Patrick O'Connell		8-20-13	1515
		8-20-13	1725
8/20/13 1800		8/21/13	9:45

2.5°C

5+/52

05/2/06 Revision

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9/4/2013

Contingent analyses

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

Metal	Trigger level TTLC (mg/kg)	Requirement
Antimony	150	STLC required if TTLC ≥ 150 mg/kg
Arsenic	50/100	STLC required if TTLC ≥ 50 mg/kg; STLC and TCLP required if TTLC ≥ 100 mg/kg
Barium	1,000/2,000	STLC required if TTLC ≥ 1,000 mg/kg; STLC and TCLP required if TTLC ≥ 2,000 mg/kg
Beryllium	7.5	STLC required if TTLC ≥ 7.5 mg/kg
Cadmium	10/20	STLC required if TTLC ≥ 10 mg/kg; 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	**13/50/100**	Organic lead required if TTLC lead ≥ 13 mg/kg 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 ≥ 2,500 mg/kg

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-55037-2

Login Number: 55037
List Number: 1
Creator: Perez, Angel

List Source: TestAmerica Irvine

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