CONESTOGA-ROVERS & ASSOCIATES

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

TRANSMITTAL

DATE: April 13, 2011

REFERENCE NO.: 241501

PROJECT NAME: 461 8th Street, Oakland

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

RECEIVED
4:01 pm, Apr 14, 2011
Alameda County
Environmental Health

Please find enclosed:
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- ☐ Originals
- ☐ Prints
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QUANTITY	DESCRIPTION
1	Sump Sampling Report

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

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

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Leroy Griffin, Fire Prevention Bureau, 250 Frank Ogawa Plaza, 3rd Floor, Suite 3341, Oakland, CA 94612
A.F. Evans Company, c/o Anye Spivey, 1000 Broadway, Suite 300, Oakland, CA 94507
Leah Goldberg, Meyers Nave, 555 12th Street, Suite 1500, Oakland, CA 94607
Grover Buhr, Treadwell & Rollo (electronic copy)

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

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

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94205-6577

Subject: Former Shell Service Station
461 8th Street
Oakland, California
SAP Code 129453
Incident No. 97093399
ACEH Case No. RO0000343

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 (707) 865-0251 with any questions or concerns.

Sincerely,

Denis L. Brown
Senior Program Manager

SUMP SAMPLING REPORT

FORMER SHELL SERVICE STATION
461 8TH STREET
OAKLAND, CALIFORNIA

SAP CODE	129453
INCIDENT NO.	97093399
AGENCY NO.	RO0000343

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

Office: (510) 420-0700
Fax: (510) 420-9170

web: http://www.CRAworld.com

APRIL 13, 2011
REF. NO. 241501 (22)
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TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF TABLES
(Following Text)

LIST OF APPENDICES

EXECUTIVE SUMMARY

- On November 18, 2010, CRA sampled two sumps in the OPD building located on the southwest corner of 7th Street and Broadway, and on February 2, 2011, CRA sampled a sump in the BART tunnel below the southeast corner of 7th Street and Broadway. Sumps in two basement parking garages on the east side of Broadway between 6th and 8th Streets could not be sampled because of access issues. Two spigots reportedly installed in the driven portion of the BART KE line circa 1980 could not be located for sampling by BART or CRA personnel.
- Water samples from the sumps samples were analyzed for TPHg, BTEX, fuel oxygenates, and sulfate. No chemicals of concern (COCs) were detected in water samples from the BART sump and one of the sumps in the OPD building (SUMP-BART-1 and SUMP-OPD-2, respectively). The water sample (SUMP-OPD-1) collected from the other sump in the OPD building contained TPHg, benzene, and ethylbenzene. Sulfate was detected in two of the sump samples.
- Concentrations of TPHg, benzene, and ethylbenzene detected in water sample SUMP-OPD-1 are below non-drinking water ESLs. No further sampling of these sumps is warranted.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent sump water sampling requested in Alameda County Environmental Health's (ACEH's) May 3, 2010 letter. ACEH's September 14, 2010 and January 7, 2011 electronic correspondence approved extensions of the due date for this report. Sumps located in two basement parking garages on the east side of Broadway between 6th and 8th Streets (704 Broadway and 423 7th Street) could not be sampled because the property owners did not respond to CRA's request for access to the sumps on their property. Two spigots reportedly installed in the driven portion of the San Francisco Bay Area Rapid Transit (BART) KE line circa 1980 could not be located for sampling by BART or CRA personnel.

The site is a paved parking lot located at the southwest corner of the intersection of 8th Street and Broadway in a primarily commercial area of Oakland, California (Figure 1). The former station layout included an underground storage tank (UST) complex and dispenser islands (Figure 2). The site is currently a paid public parking lot.

A summary of previous work performed at the site and additional background information was submitted in CRA's September 21, 2010 *In Situ Chemical Oxidation Pilot Test Report* and is not repeated herein.

2.0 SAMPLING ACTIVITIES

2.1 PERSONNEL PRESENT

Under the supervision of California Professional Geologist Peter Schaefer, CRA Staff Geologist Bryan Fong sampled two sumps in the Oakland Police Department (OPD) building located at 455 7th Street and one sump in the BART tunnel below the southeast corner of 7th Street and Broadway.

2.2 SAMPLING DATES

November 19, 2010 (OPD sumps) and February 2, 2011 (BART sump).

2.3 SUMP WATER SAMPLING

On November 19, 2010, CRA collected water samples (SUMP-OPD-1 and SUMP-OPD-2) from two sumps in the OPD building located at 455 7th Street. On February 2, 2011, CRA collected a water sample (SUMP-BART-1) from a sump in the BART tunnel below the southeast corner of 7th Street and Broadway. Sumps located in two basement parking garages on the east side of Broadway between 6th and 8th Streets could not be sampled because of access issues. Two spigots reportedly installed in the driven portion of the BART KE line circa 1980 could not be located for sampling by BART or CRA personnel.

CRA collected one grab water sample from each sump using a disposable bailer (Figure 2). The water was transferred from the bailer to containers with the appropriate preservatives and no headspace. The water samples were labeled, placed into a cooler with ice, entered onto a chain-of-custody record, and transported to a California-certified analytical laboratory.

3.0 FINDINGS

3.1 SUMP WATER

Water samples from the sump samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), fuel oxygenates, and sulfate. Fuel oxygenates were not detected in any of the sump water samples. No chemicals of concern (COCs) were detected in water samples from the BART sump and one of the sumps in the OPD building (SUMP-BART-1 and SUMP-OPD-2, respectively). The water sample (SUMP-OPD-1) collected from the other sump in the OPD building contained 93 micrograms per liter (µg/L) TPHg, 38 µg/l benzene, and 4 µg/l ethylbenzene. Sump water sample SUMP-BART-1 contained 62,000 mg/l sulfate, and sump water sample SUMP-OPD-1 contained 100 mg/l sulfate. Sulfate was not detected in sump water sample SUMP-OPD-2.

Table 1 summarizes sump water sampling analytical data. TPHg and BTEX results are shown on Figure 2, and the laboratory analytical reports are presented in Appendix A.

4.0 CONCLUSIONS AND RECOMMENDATIONS

COC concentrations in all sump water samples were below San Francisco Bay Regional Water Quality Control Board environmental screening levels for groundwater where groundwater is not a potential source of drinking water.[1] No further sampling of these sumps is warranted.

CRA's September 13, 2010 and December 10, 2010 letters requested access to sumps in basement parking garages located at 704 Broadway and 423 7th Street. These sumps could not be sampled because the property owners did not respond to CRA's request for access. CRA will sample these sumps if access agreements can be completed.

Two spigots reportedly installed in the driven portion of the BART KE line circa 1980 could not be located for sampling by BART or CRA personnel. Efforts to locate the spigots have been suspended.

---

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

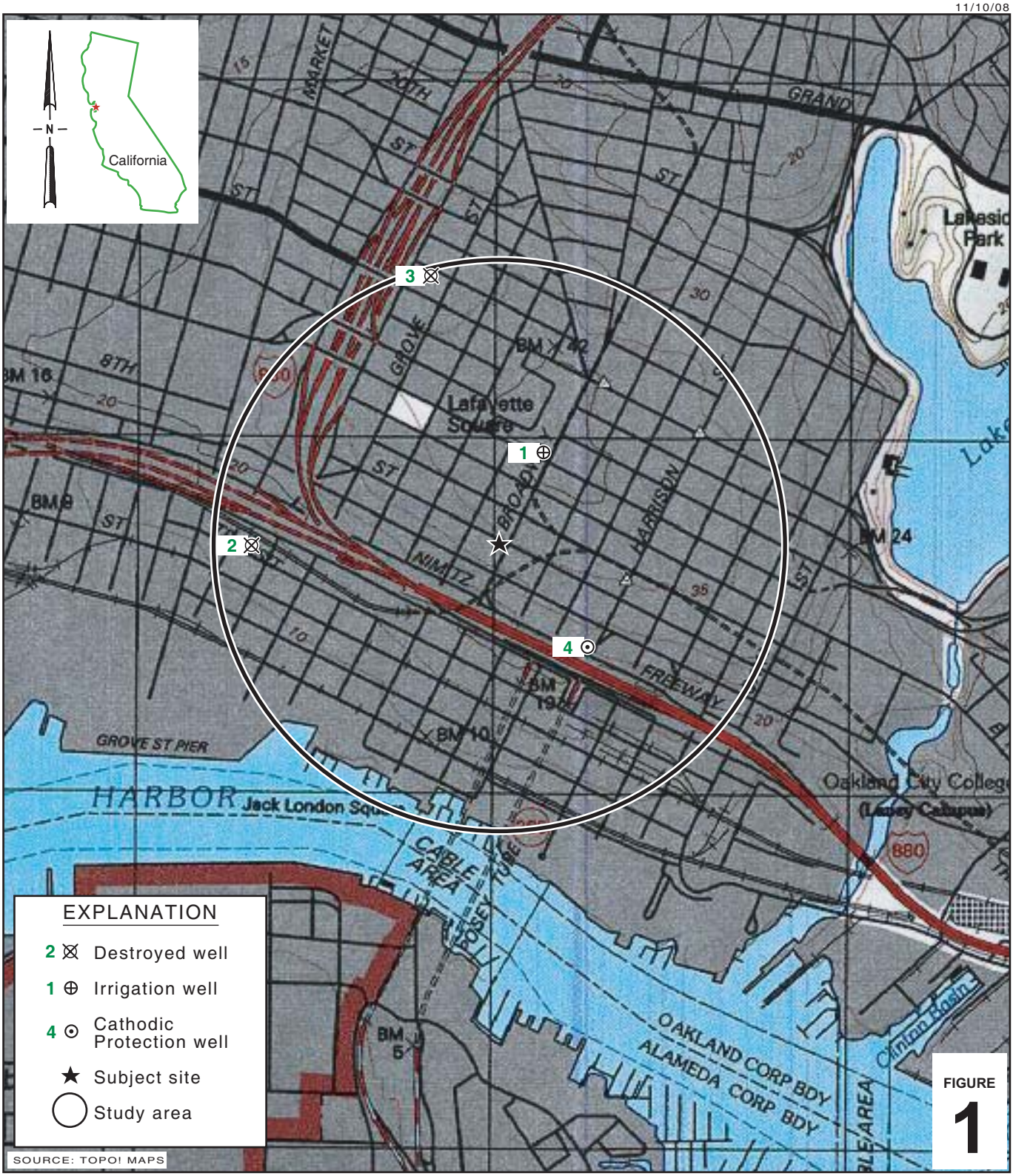
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

11/10/08



I:\Shell\6-chars\2415--\241501-Oakland 461 8th\241501-FIGURES\241501 VICINITY.Ai

FIGURE
1

0 1/8 1/4 1/2 1

SCALE (MILES)

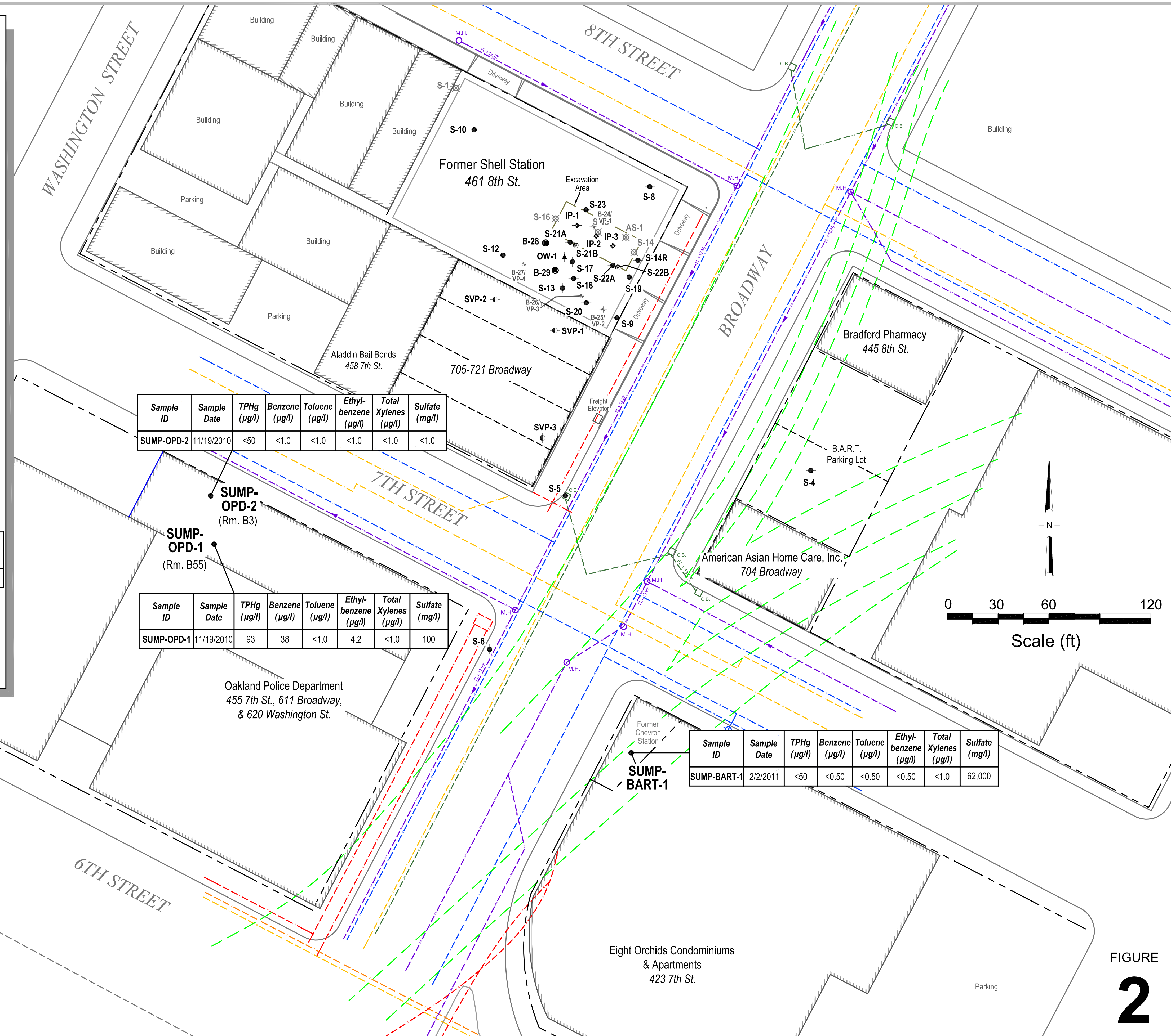
Former Shell Service Station
461 8th Street
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

04/05/2011

Sump Water Sampling Data Map



EXPLANATION

- SUMP-OPD-1 — Approximate sump sample location
- B-28 — Soil boring location
- SVP-1 — Soil vapor probe location
- S-4 — Monitoring well location
- S-21B — Deeper monitoring well location
- OW-1 — Observation well location
- IP-1 — Injection point
- B-24/VP-1 — Soil boring/vapor probe location
- S-1 — Destroyed well location
- BART line tunnel
- Storm drain line (STM)
- Water line (W)
- Sanitary sewer line (SAN)
- Telecommunications line (T)
- Gas line (G)
- Electrical line (E)
- M.H. — Manhole
- C.B. — Catch basin
- FL = 16.50' — Flow line depth below ground surface

Sample ID	Sample Date	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	Sulfate (mg/l)
SUMP-OPD-1	11/19/2010	93	38	<1.0	4.2	<1.0	100

Notes:

Sump sample ID, date, and concentrations in micrograms per liter (µg/l) or milligrams per liter (mg/l)

TPHg = Total petroleum hydrocarbons as gasoline

<X = Not detected at reporting limit X

Sample ID	Sample Date	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	Sulfate (mg/l)
SUMP-OPD-2	11/19/2010	<50	<1.0	<1.0	<1.0	<1.0	<1.0

Sample ID	Sample Date	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	Sulfate (mg/l)
SUMP-OPD-1	11/19/2010	93	38	<1.0	4.2	<1.0	100

Sample ID	Sample Date	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	Sulfate (mg/l)
SUMP-BART-1	2/2/2011	<50	<0.50	<0.50	<0.50	<1.0	62,000

Base map modified from 6-25-08 Virgil Chavez Land Survey map.

I:\Shell\6-chars\2415--\241501-Oakland 461 8th\241501-FIGURES\241501 SITE PLAN.DWG

CONESTOGA-ROVERS & ASSOCIATES

Former Shell Service Station

461 8th Street
Oakland, California

FIGURE 2

TABLE

TABLE 1

SUMP WATER SAMPLING ANALYTICAL DATA
FORMER SHELL SERVICE STATION
461 8TH STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Sulfate*[a]
SUMP-OPD-1	11/19/2010	93	38	<1.0	4.2	<1.0	<1.0	<10	<2.0	<2.0	<2.0	100[a]
SUMP-OPD-2	11/19/2010	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<1.0[a]
SUMP-BART-1	2/2/2011	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	62,000[a]
Groundwater ESL[b]*:*		210	46	130	43	100	1,800	18,000	---	---	---	---

Notes:

All results in micrograms per liter (µg/l) with the exception of sulfate which is reported in milligrams per liter (mg/l).
TPHg = Total petroleum hydrocarbons as gasoline; analyzed by EPA Method 8260B
Benzene, toluene, ethylbenzene, and xylenes EPA Method 8260B
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
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
Sulfate by EPA Method 300.0
<x = Not detected at reporting limit x
--- = No applicable ESL
ESL = Environmental screening level

a = Sulfate reported in mg/l
b = San Francisco Bay Regional Water Quality Control Board Environmental Screening Level for groundwater where groundwater is not a source of drinking water (Table B 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]).

APPENDIX A

LABORATORY ANALYTICAL REPORTS

Calscience
Environmental
Laboratories, Inc.

December 02, 2010

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

Subject: **Calscience Work Order No.: 10-11-1620**
Client Reference: 461 8th St., Oakland, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 11/19/2010 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 11/19/10
Work Order No: 10-11-1620
Preparation: N/A
Method: EPA 300.0

Project: 461 8th St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SUMP-OPD-1	10-11-1620-1-D	11/19/10 08:30	Aqueous	IC 7	N/A	11/19/10 17:25	101119L01

Parameter	Result	RL	DF	Qual	Units
Sulfate	100	2.0	2		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SUMP-OPD-2	10-11-1620-2-D	11/19/10 09:08	Aqueous	IC 7	N/A	11/19/10 17:41	101119L01

Parameter	Result	RL	DF	Qual	Units
Sulfate	ND	1.0	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-906-1,397	N/A	Aqueous	IC 7	N/A	11/19/10 10:58	101119L01

Parameter	Result	RL	DF	Qual	Units
Sulfate	ND	1.0	1		mg/L

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 11/19/10
Work Order No: 10-11-1620
Preparation: EPA 5030C
Method: LUFT GC/MS / EPA 8260B
Units: ug/L

Project: 461 8th St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SUMP-OPD-1	10-11-1620-1-A	11/19/10 08:30	Aqueous	GC/MS LL	11/20/10	11/20/10 13:29	101120L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	38	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	4.2	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		TPPH	93	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	104	80-126			1,2-Dichloroethane-d4	110	80-131		
Toluene-d8	100	80-120			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	98	80-120							

SUMP-OPD-2	10-11-1620-2-B	11/19/10 09:08	Aqueous	GC/MS QQ	11/22/10	11/23/10 05:46	101122L03

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		TPPH	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	95	80-126			1,2-Dichloroethane-d4	104	80-131		
Toluene-d8	98	80-120			Toluene-d8-TPPH	96	88-112		
1,4-Bromofluorobenzene	96	80-120							

Method Blank	099-12-767-4,916	N/A	Aqueous	GC/MS LL	11/20/10	11/20/10 13:00	101120L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		TPPH	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	109	80-126			1,2-Dichloroethane-d4	111	80-131		
Toluene-d8	98	80-120			Toluene-d8-TPPH	97	88-112		
1,4-Bromofluorobenzene	100	80-120							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 11/19/10
Work Order No: 10-11-1620
Preparation: EPA 5030C
Method: LUFT GC/MS / EPA 8260B
Units: ug/L

Project: 461 8th St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-767-4,923**	**N/A**	**Aqueous**	**GC/MS QQ**	**11/22/10**	**11/23/10 00:29**	**101122L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1		TPPH	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	95	80-126			1,2-Dichloroethane-d4	99	80-131		
Toluene-d8	100	80-120			Toluene-d8-TPPH	97	88-112		
1,4-Bromofluorobenzene	95	80-120							

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates	Date Received: 11/19/10
5900 Hollis Street, Suite A	Work Order No: 10-11-1620
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 300.0

Project 461 8th St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SUMP-OPD-1	Aqueous	IC 7	N/A	11/19/10	101119S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Sulfate	98	97	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates	Date Received: 11/19/10
5900 Hollis Street, Suite A	Work Order No: 10-11-1620
Emeryville, CA 94608-2008	Preparation: EPA 5030C
	Method: LUFT GC/MS / EPA 8260B

Project 461 8th St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SUMP-OPD-1	Aqueous	GC/MS LL	11/20/10	11/20/10	101120S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	72	62	80-120	7	0-20	3
Ethylbenzene	100	95	73-127	4	0-20	
Toluene	99	92	80-120	7	0-20	
Methyl-t-Butyl Ether (MTBE)	101	98	65-131	4	0-22	
Tert-Butyl Alcohol (TBA)	94	94	62-134	0	0-20	
Diisopropyl Ether (DIPE)	104	98	64-136	6	0-29	
Ethyl-t-Butyl Ether (ETBE)	103	99	70-124	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	101	95	71-125	6	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates	Date Received: 11/19/10
5900 Hollis Street, Suite A	Work Order No: 10-11-1620
Emeryville, CA 94608-2008	Preparation: EPA 5030C
	Method: LUFT GC/MS / EPA 8260B

Project 461 8th St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-11-1630-4	Aqueous	GC/MS QQ	11/22/10	11/23/10	101122S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	85	96	80-120	13	0-20	
Ethylbenzene	84	99	73-127	16	0-20	
Toluene	84	96	80-120	14	0-20	
Methyl-t-Butyl Ether (MTBE)	88	100	65-131	12	0-22	
Tert-Butyl Alcohol (TBA)	99	124	62-134	22	0-20	4
Diisopropyl Ether (DIPE)	87	99	64-136	13	0-29	
Ethyl-t-Butyl Ether (ETBE)	88	101	70-124	13	0-20	
Tert-Amyl-Methyl Ether (TAME)	89	102	71-125	14	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates	Date Received: N/A
5900 Hollis Street, Suite A	Work Order No: 10-11-1620
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 300.0

Project: 461 8th St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-1,397	Aqueous	IC 7	N/A	11/19/10	101119L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Sulfate	102	102	90-110	0	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates	Date Received: N/A
5900 Hollis Street, Suite A	Work Order No: 10-11-1620
Emeryville, CA 94608-2008	Preparation: EPA 5030C
	Method: LUFT GC/MS / EPA 8260B

Project: 461 8th St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-767-4,916	Aqueous	GC/MS LL	11/20/10	11/20/10	101120L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	92	99	80-120	7	0-20	
Ethylbenzene	96	103	80-123	8	0-20	
Toluene	92	102	80-120	10	0-20	
Methyl-t-Butyl Ether (MTBE)	94	106	75-123	12	0-25	
Tert-Butyl Alcohol (TBA)	83	100	72-126	18	0-20	
Diisopropyl Ether (DIPE)	96	106	75-129	10	0-22	
Ethyl-t-Butyl Ether (ETBE)	97	108	76-124	11	0-20	
Tert-Amyl-Methyl Ether (TAME)	95	103	79-121	9	0-20	
TPPH	113	87	65-135	26	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-11-1620
Preparation: EPA 5030C
Method: LUFT GC/MS / EPA 8260B

Project: 461 8th St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-767-4,923	Aqueous	GC/MS QQ	11/22/10	11/22/10	101122L03

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	88	89	80-120	1	0-20	
Ethylbenzene	90	90	80-123	0	0-20	
Toluene	88	89	80-120	1	0-20	
Methyl-t-Butyl Ether (MTBE)	87	91	75-123	5	0-25	
Tert-Butyl Alcohol (TBA)	101	102	72-126	1	0-20	
Diisopropyl Ether (DIPE)	88	89	75-129	1	0-22	
Ethyl-t-Butyl Ether (ETBE)	89	92	76-124	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	89	95	79-121	6	0-20	
TPPH	97	101	65-135	3	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 10-11-1620

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

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

SHELL Chain Of Custody Record

- ☐ TA - Irvine, California
- ☐ TA - Morgan Hill, California
- ☐ TA - Sacramenta, California
- ☐ TA - Nashville, Tennesee
- ☑ Calscience
- ☐ Other_____

NAME OF PERSON TO BILL: Denis Brown

☑ ENVIRONMENTAL SERVICES ☐ NETWORK DEV / FE ☐ BILL CONSULTANT ☐ COMPLIANCE ☐ RMT/CRMT

☐ CHECK BOX TO VERIFY IF NO INCIDENT # APPLIES

INCIDENT # (ES ONLY): 9 7 0 9 3 3 9 9

PO #:

SAP or CRMT #: 1 2 9 4 5 3

Date: 11/18/10

PAGE: 1 of 1

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	GLOBAL ID NO.:
Conestoga-Rovers & Associates (CRA)	CRAW	461 8th St, Oakland	CA	T0600101263

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
5900 Hollis St, Suite A, Emeryville, CA 94608	Carter, Brenda, CRA, Emeryville	510-420-3343	shell.em.edf@craworld.com	241501

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:
Peter Schaefer	510 420 3319	510 420 9170	pschaefer@craworld.com

SAMPLER NAME(S) (Print): Bryan Fong

LAB USE ONLY: 11-1620

TAT (STD IS 10 BUSINESS DAYS / RUSH IS CALENDAR DAYS): ☑ STD ☐ 5 DAY ☐ 3 DAY ☐ 2 DAY ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

SPECIAL INSTRUCTIONS OR NOTES:

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

No partial lab reports, send final PDF report only.

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPHg (EPA 8260B)	TPHd - Extractable (8015M)	BTEX (EPA 8260B)	MTBE (EPA 8260B)	TBA (EPA 8260B)	ETBE (EPA 8260B)	DIPE (EPA 8260B)	TAME (EPA 8260B)	Sulfate (EPA 300.0)	TEMPERATURE ON RECEIPT C°
1	SUMP-OPD-1	11/18/10	830	water	3	X		X	X	X	X	X	X		3 VOA/ HCl
2	SUMP-OPD-1	11/18/10	830	water	1									X	250 Poly / None
2 3	SUMP-OPD-2	11/18/10	908	water	3	X		X	X	X	X	X	X		3 VOA/ HCl
4	SUMP-OPD-2	11/18/10	908	water	1									X	250 Poly / None

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Bryan Fong	Emeryville office - Bryan Fong	11-18-2010	10:43
	CEE	11/18/10	1320
TO GBD 11/18/10 1730		11/18/10 11/19/10	1030

05/02/06 Revision

1620

GSO

WebShip > > > > >

800-322-5555 www.gso.com

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

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

COD:
$0.00

Reference:
BTS, MILLER BROOKS, CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515389138

NPS

ORC **D**

GARDEN GROVE

D92843A

86461785

Print Date : 11/18/10 14:32 PM

Package 1 of 1

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

LABEL INSTRUCTIONS:

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

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

STEP 2 - Fold this page in half.

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

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

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-11-1620

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA

DATE: 11/19/10

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

Temperature 2.7 °C + 0.5 °C (CF) = 3.2 °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: [illegible]

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: [illegible]

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Initial: [illegible]

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

CONTAINER TYPE:

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

Water: ☐VOA ☑VOA**h** (3) ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☑250 pJ ☐_____ ☐_____

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

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

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-11-1620

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s)/Container(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☑ **Sample container(s) not labeled** — (1-2) ALL SAMPLES NOT INDIVIDUALLY LABEL. LABELED ON ZIPLOC BAG.
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

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

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

Comments: _____

*Transferred at Client's request.

Initial / Date: PS 11/19/10

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: Conestoga-Rovers & Associates - Emeryville Shell
5900 Hollis St., Suite A
Emeryville, CA 94608
Attention: Peter Schaefer

Project: 461 8th St., Oakland, CA - Shell
241501

Sampled: 02/02/11
Received: 02/07/11
Issued: 02/21/11 11:18

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IUB0656-01	SUMP-BART-1	Water

Reviewed By:

Philip Sanelle

TestAmerica Irvine

Philip Sanelle
Project Manager

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Conestoga-Rovers & Associates - Emeryville Shell
5900 Hollis St., Suite A
Emeryville, CA 94608
Attention: Peter Schaefer

Project ID: 461 8th St., Oakland, CA - Shell 241501
Report Number: IUB0656

Sampled: 02/02/11
Received: 02/07/11

VOLATILE FUEL HYDROCARBONS BY GC/MS (CA LUFT)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB0656-01 (SUMP-BART-1 - Water)								**pH, P**
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C4-C12)	TPH by GC/MS	11B1594	50	ND	1	2/13/2011	2/13/2011	
Surrogate: Dibromofluoromethane (80-120%)				*107 %*				
Surrogate: Toluene-d8 (80-120%)				*103 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*95 %*				

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Project Manager

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5900 Hollis St., Suite A
Emeryville, CA 94608
Attention: Peter Schaefer

Project ID: 461 8th St., Oakland, CA - Shell 241501
Report Number: IUB0656

Sampled: 02/02/11
Received: 02/07/11

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB0656-01 (SUMP-BART-1 - Water)								**pH, P**
Reporting Units: ug/l								
Benzene	EPA 8260B	11B1594	0.50	ND	1	2/13/2011	2/13/2011	
Ethylbenzene	EPA 8260B	11B1594	0.50	ND	1	2/13/2011	2/13/2011	
Toluene	EPA 8260B	11B1594	0.50	ND	1	2/13/2011	2/13/2011	
Xylenes, Total	EPA 8260B	11B1594	1.0	ND	1	2/13/2011	2/13/2011	
Di-isopropyl Ether (DIPE)	EPA 8260B	11B1594	1.0	ND	1	2/13/2011	2/13/2011	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	11B1594	1.0	ND	1	2/13/2011	2/13/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11B1594	1.0	ND	1	2/13/2011	2/13/2011	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	11B1594	1.0	ND	1	2/13/2011	2/13/2011	
tert-Butanol (TBA)	EPA 8260B	11B1594	10	ND	1	2/13/2011	2/13/2011	
Surrogate: 4-Bromofluorobenzene (80-120%)				*95 %*				
Surrogate: Dibromofluoromethane (80-120%)				*107 %*				
Surrogate: Toluene-d8 (80-120%)				*103 %*				

TestAmerica Irvine

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Project Manager

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5900 Hollis St., Suite A
Emeryville, CA 94608
Attention: Peter Schaefer

Project ID: 461 8th St., Oakland, CA - Shell 241501
Report Number: IUB0656

Sampled: 02/02/11
Received: 02/07/11

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB0656-01 (SUMP-BART-1 - Water)								
Reporting Units: ug/l								
Sulfate	EPA 300.0	11B0780	10000	**62000**	20	2/7/2011	2/7/2011	

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Attention: Peter Schaefer

Project ID: 461 8th St., Oakland, CA - Shell 241501
Report Number: IUB0656

Sampled: 02/02/11
Received: 02/07/11

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS BY GC/MS (CA LUFT)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11B1594 Extracted: 02/13/11										
Blank Analyzed: 02/13/2011 (11B1594-BLK1)										
Volatile Fuel Hydrocarbons (C4-C12)	ND	50	ug/l							
Surrogate: Dibromofluoromethane	*25.5*		*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*25.7*		*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			
LCS Analyzed: 02/13/2011 (11B1594-BS2)										
Volatile Fuel Hydrocarbons (C4-C12)	361	50	ug/l	500		72	55-130			
Surrogate: Dibromofluoromethane	*24.9*		*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: Toluene-d8	*25.5*		*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.2*		*ug/l*	*25.0*		*97*	*80-120*			
Matrix Spike Analyzed: 02/13/2011 (11B1594-MS1)					**Source: IUB0583-01**					
Volatile Fuel Hydrocarbons (C4-C12)	1040	50	ug/l	1720	ND	60	50-145			
Surrogate: Dibromofluoromethane	*24.5*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*25.8*		*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			
Matrix Spike Dup Analyzed: 02/13/2011 (11B1594-MSD1)					**Source: IUB0583-01**					
Volatile Fuel Hydrocarbons (C4-C12)	1040	50	ug/l	1720	ND	60	50-145	0.4	20	
Surrogate: Dibromofluoromethane	*24.6*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*25.9*		*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			

TestAmerica Irvine

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Project Manager

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Conestoga-Rovers & Associates - Emeryville Shell
5900 Hollis St., Suite A
Emeryville, CA 94608
Attention: Peter Schaefer

Project ID: 461 8th St., Oakland, CA - Shell 241501
Report Number: IUB0656

Sampled: 02/02/11
Received: 02/07/11

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11B1594 Extracted: 02/13/11										
Blank Analyzed: 02/13/2011 (11B1594-BLK1)										
Benzene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
m,p-Xylenes	ND	1.0	ug/l							
o-Xylene	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Di-isopropyl Ether (DIPE)	ND	1.0	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	1.0	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	1.0	ug/l							
tert-Butanol (TBA)	ND	10	ug/l							
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Dibromofluoromethane	*25.5*		*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*25.7*		*ug/l*	*25.0*		*103*	*80-120*			
LCS Analyzed: 02/13/2011 (11B1594-BS1)										
Benzene	22.0	0.50	ug/l	25.0		88	70-120			
Ethylbenzene	23.5	0.50	ug/l	25.0		94	75-125			
Toluene	22.8	0.50	ug/l	25.0		91	70-120			
m,p-Xylenes	44.7	1.0	ug/l	50.0		89	75-125			
o-Xylene	23.0	0.50	ug/l	25.0		92	75-125			
Xylenes, Total	67.7	1.0	ug/l	75.0		90	70-125			
Di-isopropyl Ether (DIPE)	21.5	1.0	ug/l	25.0		86	60-135			
Ethyl tert-Butyl Ether (ETBE)	22.9	1.0	ug/l	25.0		92	65-135			
Methyl-tert-butyl Ether (MTBE)	23.4	1.0	ug/l	25.0		94	60-135			
tert-Amyl Methyl Ether (TAME)	24.5	1.0	ug/l	25.0		98	60-135			
tert-Butanol (TBA)	132	10	ug/l	125		106	70-135			
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Dibromofluoromethane	*25.0*		*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: Toluene-d8	*25.5*		*ug/l*	*25.0*		*102*	*80-120*			

TestAmerica Irvine

Philip Sanelle
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Conestoga-Rovers & Associates - Emeryville Shell
5900 Hollis St., Suite A
Emeryville, CA 94608
Attention: Peter Schaefer

Project ID: 461 8th St., Oakland, CA - Shell 241501
Report Number: IUB0656

Sampled: 02/02/11
Received: 02/07/11

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11B1594 Extracted: 02/13/11										
Matrix Spike Analyzed: 02/13/2011 (11B1594-MS1)					**Source: IUB0583-01**					
Benzene	22.6	0.50	ug/l	25.0	ND	90	65-125			
Ethylbenzene	24.1	0.50	ug/l	25.0	ND	96	65-130			
Toluene	23.5	0.50	ug/l	25.0	ND	94	70-125			
m,p-Xylenes	45.8	1.0	ug/l	50.0	ND	92	65-130			
o-Xylene	23.4	0.50	ug/l	25.0	ND	94	65-125			
Xylenes, Total	69.3	1.0	ug/l	75.0	ND	92	60-130			
Di-isopropyl Ether (DIPE)	21.1	1.0	ug/l	25.0	ND	85	60-140			
Ethyl tert-Butyl Ether (ETBE)	23.0	1.0	ug/l	25.0	ND	92	60-135			
Methyl-tert-butyl Ether (MTBE)	23.9	1.0	ug/l	25.0	ND	96	55-145			
tert-Amyl Methyl Ether (TAME)	24.6	1.0	ug/l	25.0	0.330	97	60-140			
tert-Butanol (TBA)	133	10	ug/l	125	ND	106	65-140			
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Dibromofluoromethane	*24.5*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*25.8*		*ug/l*	*25.0*		*103*	*80-120*			
Matrix Spike Dup Analyzed: 02/13/2011 (11B1594-MSD1)					**Source: IUB0583-01**					
Benzene	22.5	0.50	ug/l	25.0	ND	90	65-125	0.2	20	
Ethylbenzene	24.2	0.50	ug/l	25.0	ND	97	65-130	0.6	20	
Toluene	23.4	0.50	ug/l	25.0	ND	93	70-125	0.5	20	
m,p-Xylenes	46.4	1.0	ug/l	50.0	ND	93	65-130	1	25	
o-Xylene	23.5	0.50	ug/l	25.0	ND	94	65-125	0.04	20	
Xylenes, Total	69.8	1.0	ug/l	75.0	ND	93	60-130	0.7	20	
Di-isopropyl Ether (DIPE)	21.0	1.0	ug/l	25.0	ND	84	60-140	0.5	25	
Ethyl tert-Butyl Ether (ETBE)	23.1	1.0	ug/l	25.0	ND	92	60-135	0.1	25	
Methyl-tert-butyl Ether (MTBE)	23.4	1.0	ug/l	25.0	ND	94	55-145	2	25	
tert-Amyl Methyl Ether (TAME)	24.6	1.0	ug/l	25.0	0.330	97	60-140	0.3	30	
tert-Butanol (TBA)	138	10	ug/l	125	ND	110	65-140	4	25	
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Dibromofluoromethane	*24.6*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*25.9*		*ug/l*	*25.0*		*103*	*80-120*			

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Report Number: IUB0656

Sampled: 02/02/11
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11B0780 Extracted: 02/07/11										
Blank Analyzed: 02/07/2011 (11B0780-BLK1)										
Sulfate	ND	500	ug/l							
LCS Analyzed: 02/07/2011 (11B0780-BS1)										
Sulfate	10400	500	ug/l	10000		104	90-110			*M-3*
Matrix Spike Analyzed: 02/07/2011 (11B0780-MS2)					**Source: IUB0697-01**					
Sulfate	65900	2500	ug/l	10000	53300	126	80-120			*MHA*

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DATA QUALIFIERS AND DEFINITIONS

M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
P	The sample, as received, was not preserved in accordance to the referenced analytical method.
pH	pH = 3
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C4-C12):

Volatile Fuel Hydrocarbons (C4-C12) are quantitated against a gasoline standard. Quantitation begins immediately before TBA-d9.

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241501
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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 8260B	Water	X	X
TPH by GC/MS	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Philip Sanelle
Project Manager

SHELL Chain Of Custody Record

LAB: TA

- [x] TA - Irvine, California
- [ ] TA - Morgan Hill, California
- [ ] TA - Sacramenta, California
- [ ] TA - Nashville, Tennesee
- [ ] Calscience
- [ ] Other_____

NAME OF PERSON TO BILL: Denis Brown

- [x] ENVIRONMENTAL SERVICES
- [ ] NETWORK DEV / FE
- [ ] BILL CONSULTANT
- [ ] COMPLIANCE
- [ ] RMT/CRMT

[ ] CHECK BOX TO VERIFY IF NO INCIDENT # APPLIES

INCIDENT # (ES ONLY): 9 7 0 9 3 3 9 9

PO #: 4 0 4 0 3 6 0 5 8

SAP or CRMT #: 1 2 9 4 5 3

Date: 11/18/10

PAGE: 1 of 1

SAMPLING COMPANY:	LOG CODE:
Conestoga-Rovers & Associates (CRA)	CRAW

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

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

TELEPHONE:	FAX:	E-MAIL:
510 420 3319	510 420 9170	pschaefer@craworld.com

SITE ADDRESS: Street and City: 461 8th St, Oakland

State: CA

GLOBAL ID NO.: T0600101263

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

PHONE NO.: 510-420-3343

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

CONSULTANT PROJECT NO.: 241501

SAMPLER NAME(S) (Print): Bryan Fong

LAB USE ONLY: IU130656

TAT (STD IS 10 BUSINESS DAYS / RUSH IS CALENDAR DAYS):

- [x] STD
- [ ] 5 DAY
- [ ] 3 DAY
- [ ] 2 DAY
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

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

SPECIAL INSTRUCTIONS OR NOTES:

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

No partial lab reports, send final PDF report only.

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPHg (EPA 8260B)	TPHd - Extractable (8015M)	BTEX (EPA 8260B)	MTBE (EPA 8260B)	TBA (EPA 8260B)	ETBE (EPA 8260B)	DIPE (EPA 8260B)	TAME (EPA 8260B)	Sulfate (EPA 300.0)
	SUMP-BART-1	2/2/11	10:00	water	3	X		X	X	X	X	X	X	
	SUMP-BART-1	2/2/11	10:00	water	1									X

FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes

5.9°C

TEMPERATURE ON RECEIPT C°

3 VOA/ HCl

250 Poly / None

SAT 2/7/11 13:10

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	Emeryville Office (CRA)	2-2-2011	11:30
Relinquished by: (Signature)	Received by: (Signature)	2-4-11	10:54
Relinquished by: (Signature) 2-4-11 16:00	Received by: (Signature)	2/7/11	10:00

Q&Q Graphic (714) 898-9702

05/02/06 Revision