CONESTOGA-ROVERS & ASSOCIATES

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

TRANSMITTAL

DATE: January 9, 2012

REFERENCE NO.: 240524

PROJECT NAME: 4255 MacArthur Boulevard, Oakland

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

RECEIVED
8:59 am, Jan 12, 2012
Alameda County
Environmental Health

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Soil Vapor Sampling Report

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

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

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Roland C. Malone, Jr., PO Box 2744, Castro Valley, CA 94546
Kenneth Williams, MacArthur/High Trailer Park, c/o Bookkeeping, 332 Peyton Drive, Hayward, CA 94544
Terry L. Grayson, ConocoPhillips Risk Management & Remediation, 76 Broadway, Sacramento, CA 95818

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

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

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

Re: Former Shell Service Station
4255 MacArthur Boulevard
Oakland, California
SAP Code 135701
Incident No. 98995758
ACEH Case No. RO0000486

Dear Mr. Wickham:

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

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

Sincerely,

Denis L. Brown
Senior Program Manager

SOIL VAPOR SAMPLING REPORT

FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SAP CODE	135701
INCIDENT NO.	98995758
AGENCY NO.	RO0000486

Prepared by:
Conestoga-Rovers & Associates

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

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JANUARY 9, 2012
REF. NO. 240524 (13)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF TABLES
(Following Text)

LIST OF APPENDICES

EXECUTIVE SUMMARY

- CRA sampled soil vapor probes SVP-2 (3 fbg), SVP-3 through SVP-5 (3 and 5 fbg), SVP-7 (3 and 5 fbg), and SVP-8 (3 and 5 fbg). Soil vapor probes SVP-1 (3 and 5 fbg), SVP-2 (5 fbg), and SVP-6 (3 and 5 fbg) could not be sampled due to water in the sampling tubing.
- Soil vapor sample concentrations were below RWQCB ESLs for commercial land use during the August 2011 sampling event with the exceptions of:
    - TPHg in SVP-4 (3 and 5 fbg);
    - TPHg, benzene, and ethylbenzene in SVP-5 (5 fbg); and
    - TPHg, benzene, ethylbenzene, total xylenes, and MTBE in SVP-7 (5 fbg).
- It should be noted that RWQCB ESL guidance advises that "TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g. BTEX, polynuclear aromatic hydrocarbons, oxidizers, etc.)." In this case, BTEX and MTBE would be the appropriate related chemicals. Sample results from 3 fbg at SVP-5 and SVP-7 demonstrate that these constituents attenuate to below ESLs at these shallow depths.
- All of the shallow probes contained at least 17% oxygen + argon, with the exception of SVP-4. These shallow oxygen concentrations indicate good potential for aerobic decay of hydrocarbons in soil vapors.
- Based on these results, no further soil vapor monitoring of the probes which were sampled is warranted. CRA recommends an additional attempt to sample probes SVP-1 (3 and 5 fbg), SVP-2 (5 fbg), and SVP-6 (3 and 5 fbg) following an extended period of dry weather.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent soil vapor probe monitoring event, as recommended in CRA's April 25, 2011 *Soil Vapor Probe Installation and Sampling Report* and approved in Alameda County Environmental Health's September 12, 2011 letter.

The site is a former Shell Service Station located on the western corner of MacArthur Boulevard and High Street in Oakland, California (Figure 1). Currently the site is a vacant lot. The former site layout consisted of a kiosk, three underground storage tanks, and three dispenser islands (Figure 2). The area surrounding the site is of mixed commercial and residential use.

A summary of previous work performed at the site and additional background information is contained in CRA's August 5, 2011 *Subsurface Investigation Work Plan* and is not repeated herein.

2.0 SAMPLING ACTIVITIES

2.1 PERSONNEL PRESENT

CRA Staff Geologist Erin Swan sampled the soil vapor probes under the supervision of California Professional Geologist Peter Schaefer.

2.2 SAMPLING DATE

August 27, 2011.

2.3 SOIL VAPOR SAMPLING

CRA sampled soil vapor probes SVP-2 (3 feet below grade [fbg]), SVP-3 through SVP-5 (3 and 5 fbg), SVP-7 (3 and 5 fbg), and SVP-8 (3 and 5 fbg) using a lung box and Tedlar® bags. Approximately 1 liter of water was purged from each sample location at soil vapor probes SVP-1 (3 and 5 fbg), SVP-2 (5 fbg), and SVP-6 (3 and 5 fbg) during the event prior to abandoning the sampling efforts.

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

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

3.0 FINDINGS

3.1 SOIL VAPOR

Soil vapor samples collected during the August 2011 sampling event contained up to 230,000,000 micrograms per cubic meter ($\mu g/m^3$) total petroleum hydrocarbons as gasoline (TPHg), 310,000 $\mu g/m^3$ benzene, 140,000 $\mu g/m^3$ ethylbenzene, 88,000 $\mu g/m^3$ total xylenes, and 66,000 $\mu g/m^3$ methyl tertiary-butyl ether (MTBE). All the maximum detections were from soil vapor probe SVP-7 at 5 fbg.

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

3.2 LEAK TESTING

CRA performed leak testing as described above, and helium was not detected in the samples. As seen in the following table, the reporting limits for helium (0.0100 percent by volume [%*v*]) are below 10% of the concentrations detected in the shrouds, and the samples are considered valid.

Probe ID	*Helium concentration in sample (%v)*	*Helium detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*
SVP-2 (3 fbg)	<0.0100	50	5.0
SVP-3 (3 fbg)	<0.0100	51	5.1
SVP-3 (5 fbg)	<0.0100	51	5.1
SVP-4 (3 fbg)	<0.0100	50	5.0
SVP-4 (5 fbg)	<0.0100	50	5.0
SVP-5 (3 fbg)	<0.0100	55	5.5
SVP-5 (5 fbg)	<0.0100	55	5.5
SVP-7 (3 fbg)	<0.0100	50	5.0
SVP-7 (5 fbg)	<0.0100	50	5.0
SVP-8 (3 fbg)	<0.0100	50	5.0
SVP-8 (5 fbg)	<0.0100	50	5.0

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

4.0 CONCLUSIONS AND RECOMMENDATIONS

Soil vapor sample concentrations were below San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs)[1] for commercial land use during the August 2011 sampling event with the exceptions of:

- TPHg in SVP-4 (3 and 5 fbg);
- TPHg, benzene, and ethylbenzene in SVP-5 (5 fbg); and
- TPHg, benzene, ethylbenzene, total xylenes, and MTBE in SVP-7 (5 fbg).

It should be noted that RWQCB ESL guidance advises that "TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g. BTEX, polynuclear aromatic hydrocarbons, oxidizers, etc.)." In this case, BTEX and MTBE would be the appropriate related chemicals. Sample results from 3 fbg at SVP-5 and SVP-7 demonstrate that these constituents attenuate to below ESLs at these shallow depths. In addition, all of the shallow probes contained at least 17% oxygen + argon, with the exception of SVP-4 (approximately 4% oxygen + argon). These shallow oxygen concentrations indicate good potential for aerobic decay of hydrocarbons in soil vapors.

Based on these results, no further soil vapor monitoring of the probes which were sampled is warranted. CRA recommends an additional attempt to sample probes SVP-1

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]

(3 and 5 fbg), SVP-2 (5 fbg), and SVP-6 (3 and 5 fbg) following an extended period of dry weather.

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

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

12/16/08

I:\Shell\6-chars\2405--\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 VICINITY.AI

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Former Shell Service Station
4255 MacArthur Boulevard
Oakland, California

CONESTOGA-ROVERS
& ASSOCIATES

Vicinity Map

12/20/2011

EXPLANATION

- SB-9 — Soil boring location (Shell)
- SVP-1 — Soil vapor probe location (Shell)
- MW-1 — Monitoring well location (Shell)
- MW-1B — Monitoring well location (ConocoPhillips)
- SVW-1 — Soil vapor well location (ConocoPhillips)
- TB-1 — Destroyed well location

- Storm drain line (STM)
- Sanitary sewer line (SAN)
- Water line (W)

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-2	8/27/2011	3	<3,800	<16	<19	<22	<43

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

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-4	8/27/2011	3	**7,900,000**	<1,600	<1,900	<2,200	<4,300
SVP-4	8/27/2011	5	**8,600,000**	<800	<940	<1,100	<2,200

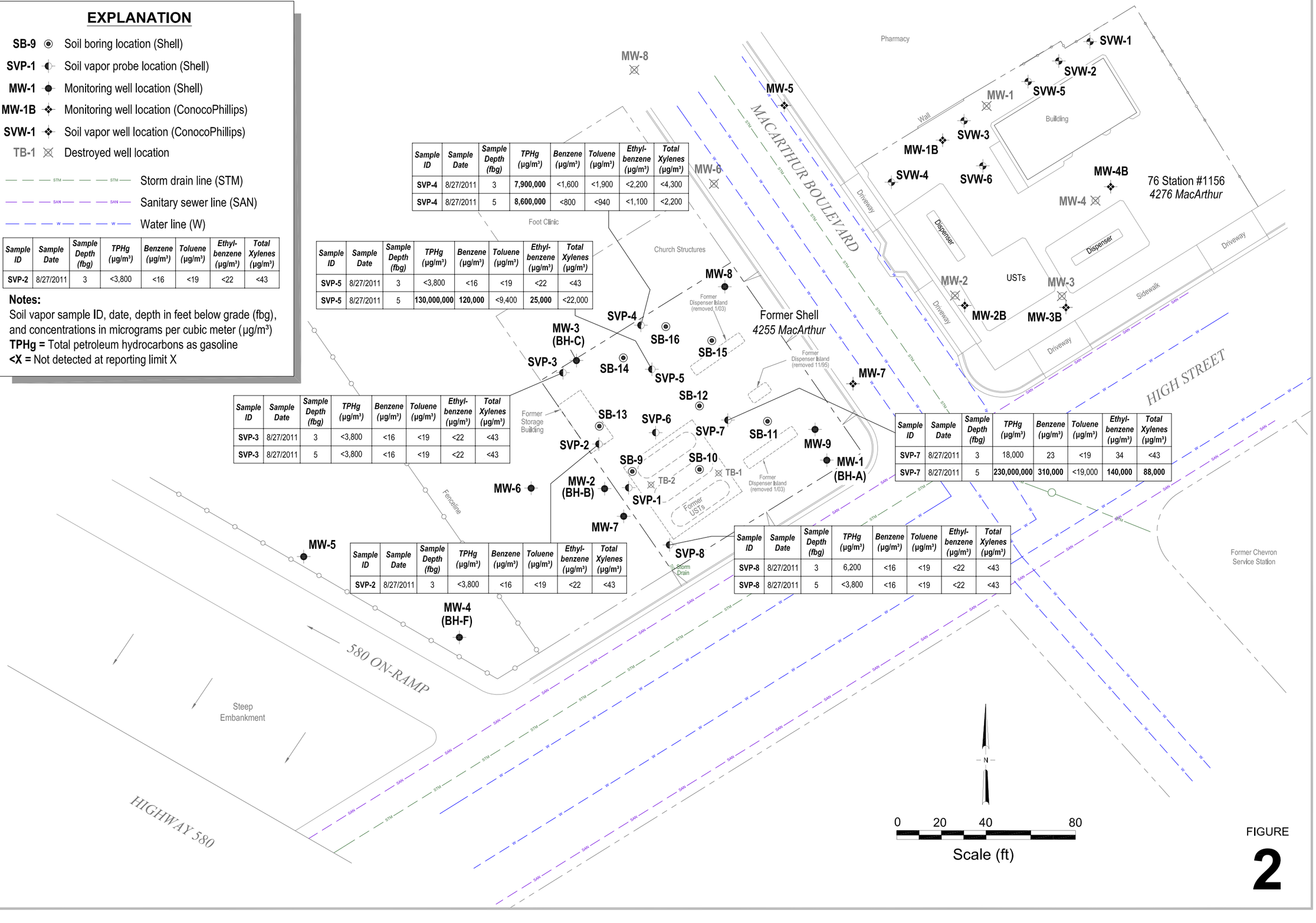
Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-5	8/27/2011	3	<3,800	<16	<19	<22	<43
SVP-5	8/27/2011	5	**130,000,000**	**120,000**	<9,400	**25,000**	<22,000

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-3	8/27/2011	3	<3,800	<16	<19	<22	<43
SVP-3	8/27/2011	5	<3,800	<16	<19	<22	<43

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-7	8/27/2011	3	18,000	23	<19	34	<43
SVP-7	8/27/2011	5	**230,000,000**	**310,000**	<19,000	**140,000**	**88,000**

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-8	8/27/2011	3	6,200	<16	<19	<22	<43
SVP-8	8/27/2011	5	<3,800	<16	<19	<22	<43

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-1	8/27/2011	3	<3,800	<16	<19	<22	<43
SVP-1	8/27/2011	5	<3,800	<16	<19	<22	<43



FIGURE

2

Soil Vapor Data Map

August 27, 2011

Former Shell Service Station
4255 MacArthur Boulevard
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\2405--\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 SITE PLAN (F2, SOIL VAPOR).DWG

TABLE

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (µg/m3)*	*Benzene (µg/m3)*	*Toluene (µg/m3)*	*Ethyl-benzene (µg/m3)*	*Total Xylenes (µg/m3)*	*MTBE (µg/m3)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Carbon Monoxide (%v)*	*Oxygen + Argon (%v)*	*Nitrogen (%v)*	*Helium (%v)*
SVP-2	3/9/2011	3	9,900	30	<19	130	120	<36	<0.500	<0.500	---	20.7	---	<0.0100
SVP-2	8/27/2011	3	<3,800	<16	<19	<22	<43	55	<0.500	<0.500	<0.500	19.8	80.2	<0.0100
SVP-3	3/9/2011	3	13,000	38	<19	140	120	<36	<0.500	<0.500	---	20.9	---	<0.0100
SVP-3	8/27/2011	3	<3,800	<16	<19	<22	<43	<36	<0.500	<0.500	<0.500	22.0	78.0	<0.0100
SVP-3	3/9/2011	5	25,000	28	<19	220	210	<36	<0.500	1.36	---	19.9	---	<0.0100
SVP-3	8/27/2011	5	<3,800	<16	<19	<22	<43	<36	<0.500	0.543	<0.500	21.5	78.0	<0.0100
SVP-4	3/9/2011	3	**1,800,000**	<320	<380	460	<870	<720	0.664	1.42	---	17.4	---	1.00
SVP-4	8/27/2011	3	**7,900,000**	<1,600	<1,900	<2,200	<4,300	<3,600	3.76	11.1	<0.500	3.97	81.2	<0.0100
SVP-4	3/9/2011	5	**8,600,000**	<640	<750	<870	<1,700	<1,400	3.10	7.02	---	2.28	---	<0.0100
SVP-4	8/27/2011	5	**8,600,000**	<800	<940	<1,100	<2,200	<1,800	4.18	12.4	<0.500	1.94	81.5	<0.0100
SVP-5	3/9/2011	3	**920,000**	<640	<750	<870	<1,700	4,600	<0.500	<0.500	---	19.8	---	<0.0100
SVP-5	8/27/2011	3	<3,800	<16	<19	<22	<43	<36	<0.500	<0.500	<0.500	21.5	78.5	<0.0100
SVP-5	3/9/2011	5	**76,000,000**	**49,000**	<30,000	<35,000	<69,000	<58,000	12.3	5.89	---	2.52	---	<0.0100
SVP-5	8/27/2011	5	**130,000,000**	**120,000**	<9,400	**25,000**	<22,000	<18,000	23.2	9.09	<0.500	1.56	56.5	<0.0100
SVP-7	3/9/2011	3	**130,000**	**590**	<150	2,000	1,500	<290	<0.500	<0.500	---	17.3	---	<0.0100
SVP-7	8/27/2011	3	18,000	23	<19	34	<43	170	<0.500	<0.500	<0.500	17.4	82.6	<0.0100
SVP-7	3/9/2011	5	**270,000,000**	**650,000**	<300,000	**420,000**	<690,000	<580,000	12.6	4.02	---	3.34	---	<0.0100
SVP-7	8/27/2011	5	**230,000,000**	**310,000**	<19,000	**140,000**	**88,000**	**66,000**	15.2	10.5	<0.500	1.96	60.2	<0.0100
SVP-8	3/9/2011	3	29,000	<26	<30	70	70	<58	<0.500	<0.500	---	19.7	---	<0.0100
SVP-8	8/27/2011	3	6,200	<16	<19	<22	<43	<36	<0.500	<0.500	<0.500	20.3	79.7	<0.0100

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

SVP-8	3/9/2011	5	**33,000**	36	<38	170	160	<72	<0.500	<0.500	---	19.3	---	<0.0100
SVP-8	8/27/2011	5	<3,800	<16	<19	<22	<43	130	<0.500	<0.500	<0.500	19.5	80.5	<0.0100
ESLs a			***29,000***	***280***	***180,000***	***3,300***	***58,000***	***31,000***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***

Notes:
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method TO-3M
Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B (M)
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)
Methane, carbon dioxide, and oxygen + argon analyzed by ASTM D-1946
Helium analyzed by ASTM D-1946 (M)
fbg = Feet below grade
µg/m3 = Micrograms per cubic meter
%*v* = Percent by volume
<x = Not detected at reporting limit x
--- = Not analyzed or available
ESL = Environmental screening level
NA = No applicable ESL
Results in **bold** exceed environmental screening level

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

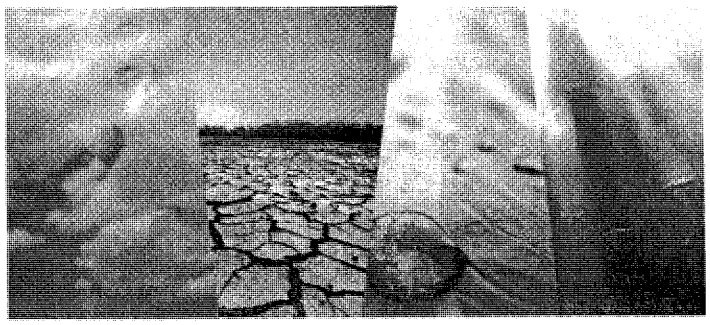
APPENDIX A

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
LABORATORY REPORT

Calscience
Environmental & Marine Chemistry Laboratories

CALSCIENCE
WORK ORDER NUMBER: 11-08-1854

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: Conestoga-Rovers & Associates
Client Project Name: 42255 Mac Arthur Blvd., Oakland, CA
Attention: Peter Schaefer
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Approved for release on 09/8/2011 by:
Xuan Dang
Project Manager

ResultLink ›

Email your PM ›

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 analyses, 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. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience
Environmental & Marine Chemistry Laboratories

Client Project Name: 42255 Mac Arthur Blvd., Oakland, CA
Work Order Number: 11-08-1854

Contents

Case Narrative

Work Order # 11-08-1854

Modified EPA 8260 in Air

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

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

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

Calscience Environmental Laboratories, Inc.

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

Work Order: 11-08-1854
Project name: 42255 Mac Arthur Blvd., Oakland, CA
Received: 08/27/11 10:00

DETECTIONS SUMMARY

Client Sample ID / Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SVP-2-3'						
Oxygen + Argon	**19.8**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**80.2**		0.500	%v	ASTM D-1946	N/A
Methyl-t-Butyl Ether (MTBE)	**55**		36	ug/m3	EPA 8260B (M)	N/A
SVP-3-5'						
Carbon Dioxide	**0.543**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**21.5**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**78.0**		0.500	%v	ASTM D-1946	N/A
SVP-3-3'						
Oxygen + Argon	**22.0**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**78.0**		0.500	%v	ASTM D-1946	N/A
SVP-4-5'						
Methane	**4.18**		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	**12.4**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**1.94**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**81.5**		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	**8600000**		76000	ug/m3	EPA TO-3M	N/A
SVP-4-3'						
Methane	**3.76**		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	**11.1**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**3.97**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**81.2**		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	**7900000**		76000	ug/m3	EPA TO-3M	N/A
SVP-8-3'						
Oxygen + Argon	**20.3**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**79.7**		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	**6200**		3800	ug/m3	EPA TO-3M	N/A
SVP-8-5'						
Oxygen + Argon	**19.5**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**80.5**		0.500	%v	ASTM D-1946	N/A
Methyl-t-Butyl Ether (MTBE)	**130**		36	ug/m3	EPA 8260B (M)	N/A

*MDL is shown.

Calscience Environmental Laboratories, Inc.

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

Work Order: 11-08-1854
Project name: 42255 Mac Arthur Blvd., Oakland, CA
Received: 08/27/11 10:00

DETECTIONS SUMMARY

Client Sample ID / Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SVP-5-3'						
Oxygen + Argon	**21.5**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**78.5**		0.500	%v	ASTM D-1946	N/A
SVP-5-5'						
Methane	**23.2**		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	**9.09**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**1.56**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**56.5**		0.500	%v	ASTM D-1946	N/A
Benzene	**120000**		8000	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	**25000**		11000	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	**130000000**		760000	ug/m3	EPA TO-3M	N/A
SVP-7-3'						
Oxygen + Argon	**17.4**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**82.6**		0.500	%v	ASTM D-1946	N/A
Benzene	**23**		16	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	**34**		22	ug/m3	EPA 8260B (M)	N/A
Methyl-t-Butyl Ether (MTBE)	**170**		36	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	**18000**		3800	ug/m3	EPA TO-3M	N/A
SVP-7-5'						
Methane	**15.2**		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	**10.5**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**1.96**		0.500	%v	ASTM D-1946	N/A
Nitrogen	**60.2**		0.500	%v	ASTM D-1946	N/A
Benzene	**310000**		16000	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	**140000**		22000	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	**88000**		43000	ug/m3	EPA 8260B (M)	N/A
Methyl-t-Butyl Ether (MTBE)	**66000**		36000	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	**230000000**		1500000	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	Date Received:	08/27/11
5900 Hollis Street, Suite A	Work Order No:	11-08-1854
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	ASTM D-1946
	Units:	%v

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3'	11-08-1854-1-A	08/25/11 11:29	Air	GC 36	N/A	08/27/11 10:58	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	19.8	0.500	1	
Carbon Dioxide	ND	0.500	1		Nitrogen	80.2	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-5'	11-08-1854-2-A	08/25/11 12:33	Air	GC 36	N/A	08/27/11 11:15	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	21.5	0.500	1	
Carbon Dioxide	0.543	0.500	1		Nitrogen	78.0	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3'	11-08-1854-3-A	08/25/11 13:01	Air	GC 36	N/A	08/27/11 11:32	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	22.0	0.500	1	
Carbon Dioxide	ND	0.500	1		Nitrogen	78.0	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-5'	11-08-1854-4-A	08/25/11 13:43	Air	GC 36	N/A	08/27/11 11:53	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	4.18	0.500	1		Oxygen + Argon	1.94	0.500	1	
Carbon Dioxide	12.4	0.500	1		Nitrogen	81.5	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-3'	11-08-1854-5-A	08/25/11 14:25	Air	GC 36	N/A	08/27/11 12:13	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	3.76	0.500	1		Oxygen + Argon	3.97	0.500	1	
Carbon Dioxide	11.1	0.500	1		Nitrogen	81.2	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-3'	11-08-1854-6-A	08/25/11 16:27	Air	GC 36	N/A	08/27/11 12:32	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	20.3	0.500	1	
Carbon Dioxide	ND	0.500	1		Nitrogen	79.7	0.500	1	
Carbon Monoxide	ND	0.500	1						

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	08/27/11
5900 Hollis Street, Suite A	Work Order No:	11-08-1854
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	ASTM D-1946
	Units:	%v

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-5'	11-08-1854-7-A	08/25/11 17:16	Air	GC 36	N/A	08/27/11 12:53	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	19.5	0.500	1	
Carbon Dioxide	ND	0.500	1		Nitrogen	80.5	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-3'	11-08-1854-8-A	08/26/11 07:52	Air	GC 36	N/A	08/27/11 14:07	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	21.5	0.500	1	
Carbon Dioxide	ND	0.500	1		Nitrogen	78.5	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5'	11-08-1854-9-A	08/26/11 08:30	Air	GC 36	N/A	08/27/11 14:28	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	23.2	0.500	1		Oxygen + Argon	1.56	0.500	1	
Carbon Dioxide	9.09	0.500	1		Nitrogen	56.5	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-3'	11-08-1854-10-A	08/26/11 09:22	Air	GC 36	N/A	08/27/11 14:45	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	17.4	0.500	1	
Carbon Dioxide	ND	0.500	1		Nitrogen	82.6	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-5'	11-08-1854-11-A	08/26/11 10:02	Air	GC 36	N/A	08/27/11 15:04	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	15.2	0.500	1		Oxygen + Argon	1.96	0.500	1	
Carbon Dioxide	10.5	0.500	1		Nitrogen	60.2	0.500	1	
Carbon Monoxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-03-002-1,369	N/A	Air	GC 36	N/A	08/27/11 10:25	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	ND	0.500	1	
Carbon Dioxide	ND	0.500	1		Nitrogen	ND	0.500	1	
Carbon Monoxide	ND	0.500	1						

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/27/11
Work Order No: 11-08-1854
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3'	11-08-1854-1-A	08/25/11 11:29	Air	GC 55	N/A	08/27/11 12:44	110827L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-5'	11-08-1854-2-A	08/25/11 12:33	Air	GC 55	N/A	08/27/11 13:10	110827L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3'	11-08-1854-3-A	08/25/11 13:01	Air	GC 55	N/A	08/27/11 13:39	110827L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-5'	11-08-1854-4-A	08/25/11 13:43	Air	GC 55	N/A	08/27/11 14:06	110827L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-3'	11-08-1854-5-A	08/25/11 14:25	Air	GC 55	N/A	08/27/11 14:32	110827L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-3'	11-08-1854-6-A	08/25/11 16:27	Air	GC 55	N/A	08/27/11 15:42	110827L01

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/27/11
Work Order No: 11-08-1854
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-5'	**11-08-1854-7-A**	**08/25/11 17:16**	**Air**	**GC 55**	**N/A**	**08/27/11 15:19**	**110827L01**

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-3'	**11-08-1854-8-A**	**08/26/11 07:52**	**Air**	**GC 55**	**N/A**	**08/27/11 14:56**	**110827L01**

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5'	**11-08-1854-9-A**	**08/26/11 08:30**	**Air**	**GC 55**	**N/A**	**08/27/11 16:29**	**110827L01**

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-3'	**11-08-1854-10-A**	**08/26/11 09:22**	**Air**	**GC 55**	**N/A**	**08/27/11 16:05**	**110827L01**

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-5'	**11-08-1854-11-A**	**08/26/11 10:02**	**Air**	**GC 55**	**N/A**	**08/27/11 16:51**	**110827L01**

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-150**	**N/A**	**Air**	**GC 55**	**N/A**	**08/27/11 12:19**	**110827L01**

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/27/11
Work Order No: 11-08-1854
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3'	**11-08-1854-1-A**	**08/25/11 11:29**	**Air**	**GC/MS V**	**N/A**	**08/27/11 16:00**	**110827L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	55	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	102	47-156			1,2-Dichloroethane-d4	95	47-156		
Toluene-d8	102	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-5'	**11-08-1854-2-A**	**08/25/11 12:33**	**Air**	**GC/MS V**	**N/A**	**08/27/11 17:02**	**110827L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	103	47-156			1,2-Dichloroethane-d4	95	47-156		
Toluene-d8	102	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3'	**11-08-1854-3-A**	**08/25/11 13:01**	**Air**	**GC/MS V**	**N/A**	**08/27/11 17:53**	**110827L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	103	47-156			1,2-Dichloroethane-d4	96	47-156		
Toluene-d8	100	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received: 08/27/11
5900 Hollis Street, Suite A	Work Order No: 11-08-1854
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 8260B (M)
	Units: ug/m3

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-5'	11-08-1854-4-A	08/25/11 13:43	Air	GC/MS V	N/A	08/28/11 05:59	110827L01

Comment(s): -The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	800	50		Xylenes (total)	ND	2200	50	
Toluene	ND	940	50		Methyl-t-Butyl Ether (MTBE)	ND	1800	50	
Ethylbenzene	ND	1100	50						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	142	47-156			1,2-Dichloroethane-d4	85	47-156		
Toluene-d8	37	47-156		2,6					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-3'	11-08-1854-5-A	08/25/11 14:25	Air	GC/MS V	N/A	08/28/11 04:16	110827L01

Comment(s): -The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1600	100		Xylenes (total)	ND	4300	100	
Toluene	ND	1900	100		Methyl-t-Butyl Ether (MTBE)	ND	3600	100	
Ethylbenzene	ND	2200	100						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	112	47-156			1,2-Dichloroethane-d4	86	47-156		
Toluene-d8	43	47-156		2,6					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-3'	11-08-1854-6-A	08/25/11 16:27	Air	GC/MS V	N/A	08/27/11 18:44	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	104	47-156			1,2-Dichloroethane-d4	98	47-156		
Toluene-d8	102	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	08/27/11
5900 Hollis Street, Suite A	Work Order No:	11-08-1854
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ug/m3

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-5'	11-08-1854-7-A	08/25/11 17:16	Air	GC/MS V	N/A	08/27/11 19:37	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	130	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	104	47-156			1,2-Dichloroethane-d4	95	47-156		
Toluene-d8	102	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-3'	11-08-1854-8-A	08/26/11 07:52	Air	GC/MS V	N/A	08/27/11 20:33	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	104	47-156			1,2-Dichloroethane-d4	95	47-156		
Toluene-d8	102	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5'	11-08-1854-9-A	08/26/11 08:30	Air	GC/MS V	N/A	08/28/11 02:34	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	120000	8000	500		Xylenes (total)	ND	22000	500	
Toluene	ND	9400	500		Methyl-t-Butyl Ether (MTBE)	ND	18000	500	
Ethylbenzene	25000	11000	500						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	103	47-156			1,2-Dichloroethane-d4	92	47-156		
Toluene-d8	48	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received: 08/27/11
5900 Hollis Street, Suite A	Work Order No: 11-08-1854
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 8260B (M)
	Units: ug/m3

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-3'	11-08-1854-10-A	08/26/11 09:22	Air	GC/MS V	N/A	08/27/11 21:32	110827L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	23	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	170	36	1	
Ethylbenzene	34	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	109	47-156			1,2-Dichloroethane-d4	97	47-156		
Toluene-d8	100	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-5'	11-08-1854-11-A	08/26/11 10:02	Air	GC/MS V	N/A	08/29/11 17:18	110829L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	310000	16000	1000		Xylenes (total)	88000	43000	1000	
Toluene	ND	19000	1000		Methyl-t-Butyl Ether (MTBE)	66000	36000	1000	
Ethylbenzene	140000	22000	1000						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	95	47-156			1,2-Dichloroethane-d4	84	47-156		
Toluene-d8	51	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-13-041-584	N/A	Air	GC/MS V	N/A	08/29/11 14:55	110829L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	101	47-156			1,2-Dichloroethane-d4	96	47-156		
Toluene-d8	100	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	08/27/11
5900 Hollis Street, Suite A	Work Order No:	11-08-1854
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA 8260B (M)
	Units:	ug/m3

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-585**	**N/A**	**Air**	**GC/MS V**	**N/A**	**08/27/11 12:43**	**110827L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	101	47-156			1,2-Dichloroethane-d4	96	47-156		
Toluene-d8	100	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/27/11
Work Order No: 11-08-1854
Preparation: N/A
Method: EPA TO-3M

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3'	11-08-1854-1-A	08/25/11 11:29	Air	GC 19	N/A	08/27/11 16:58	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-5'	11-08-1854-2-A	08/25/11 12:33	Air	GC 19	N/A	08/27/11 17:41	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3'	11-08-1854-3-A	08/25/11 13:01	Air	GC 19	N/A	08/27/11 18:18	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-5'	11-08-1854-4-A	08/25/11 13:43	Air	GC 19	N/A	08/27/11 19:36	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	8600000	76000	20		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-3'	11-08-1854-5-A	08/25/11 14:25	Air	GC 19	N/A	08/27/11 18:55	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	7900000	76000	20		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3'	11-08-1854-6-A	08/25/11 16:27	Air	GC 19	N/A	08/27/11 15:41	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	6200	3800	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/27/11
Work Order No: 11-08-1854
Preparation: N/A
Method: EPA TO-3M

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-5'	11-08-1854-7-A	08/25/11 17:16	Air	GC 19	N/A	08/27/11 15:03	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-3'	11-08-1854-8-A	08/26/11 07:52	Air	GC 19	N/A	08/27/11 14:25	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5'	11-08-1854-9-0	08/26/11 08:30	Air	GC 19	N/A	08/28/11 02:04	110827L02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	130000000	760000	200		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-3'	11-08-1854-10-A	08/26/11 09:22	Air	GC 19	N/A	08/27/11 16:20	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	18000	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-5'	11-08-1854-11-0	08/26/11 10:02	Air	GC 19	N/A	08/28/11 00:37	110827L02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	230000000	1500000	400		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-431-13	N/A	Air	GC 19	N/A	08/27/11 09:59	110827L01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/27/11
Work Order No: 11-08-1854
Preparation: N/A
Method: EPA TO-3M

Project: 42255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-431-14**	**N/A**	**Air**	**GC 19**	**N/A**	**08/28/11 00:00**	**110827L02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

Conestoga-Rovers & Associates	Date Received:	08/27/11
5900 Hollis Street, Suite A	Work Order No:	11-08-1854
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA TO-3M

Project: 42255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SVP-4-5'	Air	GC 19	N/A	08/27/11	110827D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	8607000	8777000	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

Conestoga-Rovers & Associates	Date Received: 08/27/11
5900 Hollis Street, Suite A	Work Order No: 11-08-1854
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA TO-3M

Project: 42255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SVP-7-5'	**Air**	**GC 19**	**N/A**	**08/28/11**	**110827D02**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	227400000	239900000	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 11-08-1854
Preparation: N/A
Method: ASTM D-1946

Project: 42255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,369	Air	GC 36	N/A	08/27/11	110827L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	96	96	80-120	0	0-30	
Carbon Dioxide	104	104	80-120	0	0-30	
Carbon Monoxide	102	102	80-120	0	0-30	
Oxygen + Argon	95	95	80-120	0	0-30	
Nitrogen	96	96	80-120	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 11-08-1854
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 42255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-150	Air	GC 55	N/A	08/27/11	110827L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Helium	83	83	80-120	0	0-30	
Hydrogen	99	102	80-120	3	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 11-08-1854
Preparation: N/A
Method: EPA 8260B (M)

Project: 42255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-585	Air	GC/MS V	N/A	08/27/11	110827L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	107	109	60-156	44-172	2	0-40	
Toluene	105	106	56-146	41-161	1	0-43	
Ethylbenzene	109	111	52-154	35-171	2	0-38	
Xylenes (total)	113	116	42-156	23-175	3	0-41	
Methyl-t-Butyl Ether (MTBE)	101	103	45-147	28-164	2	0-25	
Tert-Butyl Alcohol (TBA)	88	89	60-140	47-153	2	0-35	
Diisopropyl Ether (DIPE)	92	95	60-140	47-153	3	0-35	
Ethyl-t-Butyl Ether (ETBE)	99	101	60-140	47-153	3	0-35	
Tert-Amyl-Methyl Ether (TAME)	98	99	60-140	47-153	2	0-35	
Naphthalene	91	95	60-140	47-153	4	0-30	
Ethanol	80	83	47-137	32-152	3	0-35	
1,1-Difluoroethane	93	96	78-156	65-169	3	0-35	
Isopropanol	83	86	78-156	65-169	3	0-35	

Total number of LCS compounds : 13
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 11-08-1854
Preparation: N/A
Method: EPA 8260B (M)

Project: 42255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-584	Air	GC/MS V	N/A	08/29/11	110829L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	100	101	60-156	44-172	1	0-40	
Toluene	98	98	56-146	41-161	0	0-43	
Ethylbenzene	102	103	52-154	35-171	1	0-38	
Xylenes (total)	105	106	42-156	23-175	1	0-41	
Methyl-t-Butyl Ether (MTBE)	93	95	45-147	28-164	2	0-25	
Tert-Butyl Alcohol (TBA)	82	83	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	80	82	60-140	47-153	3	0-35	
Ethyl-t-Butyl Ether (ETBE)	90	92	60-140	47-153	2	0-35	
Tert-Amyl-Methyl Ether (TAME)	92	93	60-140	47-153	1	0-35	
Naphthalene	87	88	60-140	47-153	0	0-30	
Ethanol	72	74	47-137	32-152	3	0-35	
1,1-Difluoroethane	81	84	78-156	65-169	4	0-35	
Isopropanol	74	76	78-156	65-169	3	0-35	ME

Total number of LCS compounds : 13
Total number of ME compounds : 1
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-08-1854

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
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/LCSD Recovery Percentage is within Marginal Exceedance (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.
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.

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer
PO #:
INCIDENT # (ENV SERVICES): 9 8 9 9 5 7 5 8
☐ CHECK IF NO INCIDENT # APPLIES
SAP #: 1 3 5 7 0 1
DATE: 8/26/2011
PAGE: 1 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates
LOG CODE: CRAW
SITE ADDRESS: Street and City: 42255 Mac Arthur Blvd, Oakland, CA
State: CA
GLOBAL ID NO.: TO600101261
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.: 240524-95-11.03
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer
TELEPHONE: 510-420-3319
FAX: 510-420-9170
E-MAIL: pschaefer@craworld.com
SAMPLER NAME(S) (Print): Erin Swan

11-08-1854

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 :
Helium used as Tracer gas
Tedlar bags must be analize within 72 hours of sampling.
TPHg: report in range C6-C12 only
Please report results in µg/m3 for 8260 and TO-3, and report results in % by volume for ASTM D 1946(M).

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPHg by Method TO-3 (report results from C6 - C12 carbon range only)	BTEX & MTBE (8260B)	Oxygen, Argon, Carbon Dioxide, Methane, & Helium (ASTM D 1946 M)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	SVP-2-3'	8/25/11	11:29	Vapor					X	1	X	X	X	Tedlar Bag
2	SVP-3-5'		12:37	Vapor					X	1	X	X	X	Tedlar Bag
3	SVP-3-3'		1:01	Vapor					X	1	X	X	X	Tedlar Bag
4	SVP-4-5'		1:43	Vapor					X	1	X	X	X	Tedlar Bag
5	SVP-4-3'		2:25	Vapor					X	1	X	X	X	Tedlar Bag
6	SVP-8-3'		4:27	Vapor					X	1	X	X	X	Tedlar Bag
7	SVP-8-5'		5:16	Vapor					X	1	X	X	X	Tedlar Bag
8	SVP-5-3'	8/26/11	7:52	Vapor					X	1	X	X	X	Tedlar Bag
9	SVP-5-5'	8/26/11	8:30	Vapor					X	1	X	X	X	Tedlar Bag
10	SVP-7-3'	8/26/11	9:22	Vapor					X	1	X	X	X	Tedlar Bag

Relinquished by: (Signature) Erin Swan	Received by: (Signature) CEL	Date: 8/26/11	Time: 11:07
Relinquished by: (Signature) GSD 8/26/11 1730	Received by: (Signature) CEL	Date: 8/27/11	Time: 1000
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer

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

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 8/ 26 /2011

PAGE: 2 of 2

PO #:

SAP #: 1 3 5 7 0 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: 42255 Mac Arthur Blvd, Oakland, CA

State: CA

GLOBAL ID NO.: TO600101261

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

PHONE NO.: 510-420-3343

E-MAIL: shelledf@craworld.com

CONSULTANT PROJECT NO: 240524-95-11.03

SAMPLER NAME(S) (Print): Erin Swan

LAB USE ONLY: 08-1854

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 :

Helium used as Tracer gas
Tedlar bags must be analize within 72 hours of sampling.
Please report results in µg/m3 for 8260 and TO-3, and report results in % by volume for ASTM D 1946(M). Report TPHg in range C6-C12 only

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

TEMPERATURE ON RECEIPT C°

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPHg by Method TO-3 (report results from C6-C12 carbon range only)	BTEX & MTBE (8260B)	Oxygen, Argon, Carbon Dioxide, Methane, & Helium (ASTM D 1946 M)	Container PID Readings or Laboratory Notes
11	SVP-7-5'	8/26/11	10:02	Vapor					X	1	X	X	X	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag
	~~SVP-~~			~~Vapor~~					~~X~~	~~1~~	~~X~~	~~X~~	~~X~~	Tedlar Bag

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Erin Swan	CEL	8/26/11	11:07
CEL to OSD 8/26/11 1730	CEL	8/27/11	~~1000~~ 1000 8/27/11

05/2/06 Revision

GSO

WebShip > > > > >

800-322-5555 www.gso.com

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

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

COD:
$0.00

Reference:
CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 517285368

SDS

ORC

D

GARDEN GROVE

D92843A

93805232

Print Date : 08/26/11 16:14 PM

Package 1 of 1

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

LABEL INSTRUCTIONS:

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

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

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-08-1854

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: CRA DATE: 08/27/11

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

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

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

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

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

Ambient Temperature: ☑ Air ☐ Filter **Initial:** YL

CUSTODY SEALS INTACT:

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

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

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

CONTAINER TYPE:

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

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

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

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

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:** WK