CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: December 12, 2013

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
By Alameda County Environmental Health at 3:17 pm, Dec 13, 2013

Please find enclosed:
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QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

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

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

Copy to: Perry Pineda, Shell Oil Products US (electronic copy)
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Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

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

Re: 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.

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

Sincerely,
Shell Oil Products US

Perry Pineda
Senior Environmental Program Manager

SUBSURFACE INVESTIGATION REPORT

FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SAP CODE	135701
INCIDENT NO.	98995758
AGENCY NO.	RO0000486

Prepared by:
Conestoga-Rovers & Associates

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DECEMBER 12, 2013
REF. NO. 240524 (28)
This report is printed on recycled paper.

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EXECUTIVE SUMMARY

- Three on-site (SVP-1A, SVP-6A, and SVP-19A) and four off-site (SVP-22 through SVP-25) nested soil vapor probes were installed. On-site soil vapor probes SVP-1 and SVP-6 were properly destroyed. The new soil vapor probes and selected existing soil vapor probes were sampled.
- Three sets of temporary soil vapor probes (SVP-14-Temp, SVP-15-Temp, and SVP-22-Temp) were installed to obtain a vertical profile of TPHg, BTEX, and MTBE concentrations in soil vapor.
- Surface flux measurements were made at the three vertical profile probe locations and at the locations of three of the new soil vapor probes (SVP-23 through SVP-25).
- Soil vapor samples from the on-site probes contained up to 310,000,000 $\mu g/m^3$ TPHg, 930,000 $\mu g/m^3$ benzene, and 370,000 $\mu g/m^3$ ethylbenzene. No toluene, total xylenes, or naphthalene concentrations were detected above ESLs.
- No TPHg, BTEX, or naphthalene detections exceeded ESLs in soil vapor samples from the sub-slab probes installed inside the adjacent church building (SVP-16 and SVP-17).
- No BTEX or naphthalene concentrations were detected above EESLs in soil vapor samples from the permanent probes installed off site in the adjacent trailer park (SVP-13 through SVP-15 and SVP-22 through SVP-25). Up to 75,000,000 $\mu g/m^3$ TPHg was detected in the soil vapor samples from permanent probes SVP-14 and SVP-15. Soil vapor samples from the temporary soil vapor probes installed contained up to 2,400,000 $\mu g/m^3$ TPHg and 47 $\mu g/m^3$ benzene. No toluene, ethylbenzene, total xylenes, MTBE, or naphthalene concentrations exceeded ESLs.
- Further on-site soil vapor assessment may be warranted when a development plan is approved for the subject site.
- No additional investigation is recommended for the church building property.
- Vertical profiles of soil vapor results from the temporary probes generally show decreasing soil vapor concentrations as depth decreases. TPHg, benzene, and toluene were the only COCs detected in surface flux vapor samples. Based on comparing the surface flux data to ESLs, the calculated residential human health risk for benzene was 2.0E-06 or less and the calculated residential human health hazard for TPHg, benzene, and toluene ranged from 0.00063 to 0.24 with a maximum cumulative hazard of 0.24.
- Based on the construction of the mobile homes and the risk calculation, no additional off-site soil vapor investigation is warranted at the adjacent mobile home park at this time. CRA will conduct site reconnaissance during groundwater

monitoring events to assess the current use of the mobile home park in order to verify that the assumptions in the risk assessment are still valid.

- CRA recommends continued groundwater monitoring to further assess long-term concentration trends. Human health risk will be reevaluated before groundwater monitoring is terminated.

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 permanent soil vapor probe installation and sampling, soil vapor probe destructions, temporary soil vapor probe installation and sampling, and surface flux testing. The purpose of the investigation was to assess the potential for soil gas migration to indoor air. CRA followed the scope of work and procedures presented in our April 23, 2013 *Subsurface Investigation Work Plan*, which was approved by Alameda County Environmental Health (ACEH) in their May 28, 2013 letter. ACEH's November 25, 2013 electronic correspondence extended the due date for this report to December 13, 2013.

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 was presented in CRA's April 23, 2013 work plan and is not repeated herein.

2.0 INVESTIGATION ACTIVITIES

CRA conducted the following investigations to further evaluate the potential for soil vapor intrusion:

- Three on-site (SVP-1A, SVP-6A, and SVP-19A) and four off-site (SVP-22 through SVP-25) nested soil vapor probes were installed. Soil vapor probes SVP-1 and SVP-6 were properly destroyed.
- The seven new soil vapor probes and existing soil vapor probes SVP-2, SVP-5, SVP-7, SVP-13, SVP-14, SVP-15, SVP-18, and SVP-19 and sub-slab soil vapor probes SVP-16 and SVP-17 were also sampled, with the exceptions of soil vapor probes SVP-7 at 3 feet below grade (fbg), SVP-14 at 2.5 fbg, and SVP-19 at 2.5 fbg, which contained water.
- Three sets of temporary soil vapor probes (SVP-14-Temp, SVP-15-Temp, and SVP-22-Temp) were installed and samples were analyzed by an on-site mobile laboratory.

- Surface flux measurements were made at the three vertical profile probe locations and at the locations of three of the new soil vapor probes (SVP-23 through SVP-25).

2.1 PERMITS

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

2.2 FIELD DATES

August 19 and 20, 2013 (permanent soil vapor probe installation and sampling), August 19, 2013 (soil vapor probe destruction), August 21, 2013 (temporary soil vapor probe installation and sampling), August 22, 2013 (surface flux testing), and September 17 and 18, 2013 (permanent soil vapor probe sampling).

2.3 DRILLING COMPANIES

Permanent probes: Gregg Drilling & Testing, Inc.
Temporary probes: TEG - Northern California, Inc. (TEG).

2.4 CRA PERSONNEL

Geologist Chris Benedict directed the probe installation and sampling and surface flux testing working under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHODS

Permanent probes: air-knife, water-knife, jackhammer.
Temporary probes: direct push.

2.6 NUMBER OF PROBES

CRA installed three on-site (SVP-1A, SVP-6A, and SVP-19A) and four off-site (SVP-22 through SVP-25) nested soil vapor probes. CRA also installed three sets of temporary

soil vapor probes (SVP-14-Temp, SVP-15-Temp, and SVP-22-Temp). Each set included three points constructed in separate borings. The probe locations are shown on Figure 2.

2.7 VAPOR PROBE MATERIALS

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

CRA constructed the temporary vapor probes using 1/8-inch-diameter Teflon® tubing attached to 1-inch-length plastic screen intervals and #2/12 Monterey sand filter pack with a bentonite slurry seal.

2.8 SCREEN DEPTHS

Soil vapor probe (type)	*Screen depths (fbg)*
SVP-1A (permanent)	2.5, 5
SVP-6A (permanent)	2.5, 5
SVP-14-Temp (temporary)	0.5, 1.5, 2.5
SVP-15-Temp (temporary)	0.5, 1.5, 2.5
SVP-19A (permanent)	2.5, 5
SVP-22-Temp (temporary)	0.5, 1.5, 2.5
SVP-22 (permanent)	2.5, 5
SVP-23 (permanent)	2.5, 5
SVP-24 (permanent)	2.5, 5
SVP-25 (permanent)	2.5, 5

2.9 SOIL VAPOR SAMPLING PROCEDURES

2.9.1 PERMANENT SOIL VAPOR PROBES

The new soil vapor probes were sampled approximately three-and-one-half weeks after installation. Prior to sampling the new probes and selected existing probes, CRA purged one purge volume of air[1] from each vapor probe using a vacuum pump or syringe. Immediately after purging, CRA collected a soil vapor sample using a

[1] Purge volume as defined in California Environmental Protection Agency, *Advisory Active Soil Gas Investigations*, April 2012.

laboratory-supplied Tedlar® bag. During sampling, CRA connected the Teflon® tubing for each vapor probe to a lung box containing the Tedlar® bag, and the lung box chamber was connected to the vacuum pump. CRA then drew the sample into the Tedlar® bag by reducing the pressure in the lung box with the vacuum pump. Each sample was labeled, documented on a chain-of-custody, and submitted to Calscience for analysis within 72 hours.

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe purging, CRA introduced helium into the containment unit to obtain a minimum 50 percent (%) helium content level. CRA confirmed the helium content within the containment unit using a helium meter. The helium meter readings are presented in Section 3.3. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.3 and on Table 1.

2.9.2 TEMPORARY SOIL VAPOR PROBES

The temporary probes were purged and sampled between 2 hours 0 minutes and 3 hours 44 minutes after installation. Prior to sampling, TEG purged three tubing volumes of air from each vapor probe using a syringe. Immediately after purging, TEG collected a soil vapor sample using a syringe. Each sample was labeled, documented on a chain-of-custody, and submitted to a TEG on-site laboratory for immediate analysis.

During sampling, TEG covered the sample location with an inverted bucket and injected 1,1-difluoroethane into the bucket to check for leaks. All samples were analyzed by the on-site laboratory for 1,1-difluoroethane, and CRA presents the results on Table 2.

Following sampling the probes were destroyed by removing the probe materials and backfilling with neat cement.

2.9.3 SURFACE FLUX CHAMBERS

CRA used surface flux chambers to isolate the asphalt ground surface from ambient air and to collect soil vapor emanating from the subsurface at locations adjacent to three of the temporary soil vapor probes (SVP-14-Temp, SVP-15-Temp, and SVP-22-Temp) and at the locations of three of the new soil vapor probes (SVP-23 through SVP-25).

The flux chambers are constructed of stainless steel and are hemispherical, measuring approximately 12 inches in diameter and approximately 6 inches tall. Paper shields

constructed of cardboard were secured to the chambers to minimize extreme variations in temperature. Nominal volume of the chambers is 7,500 cubic centimeters. TEG placed the chambers on the asphalt ground surface and bedded the flange in bentonite slurry to seal the chambers. After sealing the chambers, TEG flushed them with four volumes (30 liters) of nitrogen. A sample was collected from each chamber after flushing and analyzed to ensure the chamber was clean of contaminants at the start of the incubation. TEG allowed the chambers to incubate for 4 hours prior to sampling to average out temporal effects on fluxes (wind, barometric pressure, etc.).

Following the 4-hour deployment, TEG collected a vapor sample from each chamber through a sampling port using a gas-tight syringe connected via an on-off valve. The small-calibrated syringes allowed for careful monitoring of sample flow and volume. This procedure ensured that the chamber air was well mixed prior to collection without introducing excessive airflow, which could cause disturbance of the natural flux from the ground surface. The sample was entered onto a chain-of-custody and immediately transferred to the on-site mobile laboratory for analysis. Duplicate samples from each chamber were collected with the syringe and injected into a Tedlar® bag. Each sample was labeled, documented on a chain-of-custody, and submitted to Calscience Environmental Laboratories, Inc. (Calscience) of Garden Grove, California for analysis within 72 hours.

2.10 SOIL VAPOR SAMPLING ANALYSES

Soil vapor samples from the permanent soil vapor probes were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3M, for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method TO-15M, for oxygen + argon, carbon dioxide, and methane by ASTM D-1946, and for helium by ASTM D-1946 (M).

Soil vapor samples from the temporary soil vapor probes and flux chambers were analyzed by a mobile laboratory for TPHg, BTEX, and MTBE by EPA Method 8260B (M), and for oxygen, carbon dioxide, and methane by GC/TCD. Duplicate samples from the temporary probes and flux chambers were analyzed at a fixed laboratory for TPHg by EPA Method TO-3M and for BTEX and MTBE by EPA Method 8260B (M). Samples collected from the temporary probes were also analyzed at a fixed lab for 1,1-difluoroethane by EPA Method 8260B (M).

2.11 SOIL VAPOR PROBE DESTRUCTION

Two soil vapor probes (SVP-1 and SVP-6) were destroyed by over-drilling using an air-or water-knife drill rig.

2.12 WASTE DISPOSAL

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

3.0 FINDINGS

3.1 SOIL VAPOR

The soil vapor chemical analytical data from the permanent soil vapor probes are summarized in Table 1, TPHg and benzene analytical results are presented on Figure 3. The soil vapor chemical analytical data from the temporary soil vapor probes are summarized in Table 2, TPHg and benzene analytical results are presented on Figure 4. The laboratory analytical reports are presented in Appendix C. Note that a mobile laboratory was used to determine additional sampling locations during the investigation. Mobile laboratory analytical results are included in Appendix C, but are not included on the tables or the figures.

3.2 SURFACE FLUX

The surface flux chemical analytical data are summarized in Table 3, and TPHg and benzene analytical results are presented on Figure 5. The laboratory analytical reports are presented in Appendix C. Note that a mobile laboratory was used to verify that the flux chambers were clean at the start of their incubation period and to determine additional flux testing locations during the investigation. Mobile laboratory analytical results are included in Appendix C, but are not included on the tables or the figures.

3.3 LEAK TESTING

CRA performed leak testing for the permanent probes as described above, and helium was not detected in any of the samples. As shown in the following table, up to 0.471 percent by volume (%v) helium was detected in the samples, which is less than 5% of the concentration detected in the shroud, and the samples are considered valid.

Probe ID	*Depth (fbg)*	*Helium concentration in sample (%v)*	*Minimum Helium detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*
SVP-1A	2.5	0.0190	50	2.5
SVP-1A	4.5	0.0241	50	2.5
SVP-2	3	0.0162	50	2.5
SVP-2	5	0.0362	50	2.5
SVP-5	3	0.0104	50	2.5
SVP-5	5	0.0132	50	2.5
SVP-6A	2.5	0.0143	50	2.5
SVP-6A	5	0.0142	50	2.5
SVP-7	5	0.0148	50	2.5
SVP-13	2.5	<0.0100	50	2.5
SVP-13	5	<0.0100	50	2.5
SVP-14	5	<0.0100	50	2.5
SVP-15	2.5	<0.0100	50	2.5
SVP-15	5	0.0107	50	2.5
SVP-16	0.5	0.0590	50	2.5
SVP-17	0.5	0.471	50	2.5
SVP-18	2	0.0151	50	2.5
SVP-18	4	0.0223	50	2.5
SVP-19	5	0.0167	50	2.5
SVP-19A	2.5	0.0223	50	2.5
SVP-19A	5	0.0118	50	2.5
SVP-22	2.5	<0.0100	50	2.5
SVP-22	5	0.0216	50	2.5
SVP-23	2.5	<0.0100	50	2.5
SVP-23	5	<0.0100	50	2.5
SVP-24	2.5	0.0130	50	2.5
SVP-24	5	0.0157	50	2.5
SVP-25	2.5	0.0199	50	2.5
SVP-25	5	0.0781	50	2.5

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

TEG performed leak testing for the temporary probes as described above, and 1,1-difluoroethane was not detected at significant concentrations in any of the samples,

with the exception of 25,000 micrograms per cubic meter ($\mu g/m^3$) in probe SVP-15-Temp at 0.5 fbg, which invalidates the sample. CRA presents these results on Table 2.

4.0 CONCLUSIONS

CRA installed and sampled three on-site nested soil vapor probes (SVP-1A, SVP-6A, and SVP-19A) and sampled selected existing on-site probes (SVP-2, SVP-5, SVP-7, SVP-18, and SVP-19). Soil vapor samples from the on-site soil vapor probes contained up to 310,000,000 $\mu g/m^3$ TPHg, 930,000 $\mu g/m^3$ benzene, and 370,000 $\mu g/m^3$ ethylbenzene. No toluene, total xylenes, or naphthalene concentrations exceeded Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs)[2].

CRA sampled the sub-slab probes installed inside the adjacent church building (SVP-16 and SVP-17). No TPHg, BTEX, or naphthalene was detected at concentrations exceeding ESLs in soil vapor samples.

CRA installed and sampled four permanent nested soil vapor probes (SVP-22 through SVP-25) and sampled three existing permanent nested soil vapor probes (SVP-13 through SVP-15) at the adjacent mobile home park. No BTEX or naphthalene concentrations were detected above ESLs in soil vapor samples. Up to 75,000,000 $\mu g/m^3$ TPHg was detected in the soil vapor samples from probes SVP-14 and SVP-15.

Soil vapor samples from the temporary soil vapor probes (SVP-14-Temp, SVP-15-Temp, and SVP-22-Temp) at the mobile home park contained up to 2,400,000 $\mu g/m^3$ TPHg and 47 $\mu g/m^3$ benzene. No toluene, ethylbenzene, total xylenes, MTBE, or naphthalene concentrations were detected above ESLs. Vertical profiles of soil vapor results from the temporary probes (Table 2 and Figure 4) generally show decreasing soil vapor concentrations as depth decreases and are consistent with the surface flux measurements, which demonstrate additional attenuation at the ground surface.

CRA used flux chamber devices to assess ground surface emission rates (or "flux") of volatile organic compounds from the subsurface (likely originating from soil or groundwater)[3]. Based on analytical data from the flux samples, the primary risk driver

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

3 Blayne Hartman, *How to Collect Reliable Soil Gas Data for Upward Risk Assessments, Part 2, Surface Flux Chamber Method,* H & P Mobile Geochemistry, Inc., August 2003

is benzene, as discussed below. TPHg and toluene were also detected in the flux samples.

The emission rate of chemicals, ER_i (micrograms per minute per square meter) is calculated as:

$$ER_i = \frac{C_c \times V_c}{A_c \times T}$$

CRA calculated an equivalent room concentration from the measured chamber concentration by assuming that the flux into the chamber is the same as the flux into the room (since flux is per unit area). The equation is:

$$C_{r-e} = ER_i \frac{A_r}{Q}$$

Where:
C_c = chamber concentration after incubation period ($\mu g/m^3$);
$C_{r\text{-}e}$ = equivalent room concentration with room air exchange ($\mu g/m^3$);
V_c = volume of the static chamber (m^3);
T = the incubation time of the chamber (minutes);
A_c = contact area of the chamber to surface soil (square meters [m^2]);
A_r = room area (m^2); and
Q = volumetric flow rate in the room (cubic meters per minute [m^3/min]).

CRA used default values for A_r and Q from the RWQB ESLs document in our calculations.

Since the RWQCB ESL document calculates the indoor air ESL for benzene based on a carcinogenic endpoint, CRA calculated carcinogenic human health risk for benzene detections using the following equation:

$$Risk = \frac{(C_{r\text{-}e}/C_{r\text{-}a\,(carc)})}{1{,}000{,}000}$$

Where:
$C_{r\text{-}e}$ = Equivalent room concentration with exchange of room air;
$C_{r\text{-}a\,(carc)}$ = allowed room concentration for 1E-06 risk from RWQCB's previously referenced ESL document; and
$C_{r\text{-}e}/C_{r\text{-}a\,(carc)}$ = Ratio of equivalent to allowed.

The RWQCB ESL document calculates the indoor air ESLs for TPHg and toluene based on a non-carcinogenic endpoint and also provides a non-carcinogenic screening level for benzene, so CRA calculated non-carcinogenic human health hazard for TPHg, benzene, and toluene detections using the following equation:

$$Hazard = \frac{(C_{r\text{-}e}/C_{r\text{-}a\ (non\text{-}carc)})}{1}$$

Where: $C_{r\text{-}e}$ = Equivalent room concentration with exchange of room air;
$C_{r\text{-}a\ (non\text{-}carc)}$ = allowed room concentration for 1.0 hazard from RWQCB's ESL document; and
$C_{r\text{-}e}/C_{r\text{-}a\ (non\text{-}carc)}$ = Ratio of equivalent to allowed.

No benzene was detected in five of the six flux chamber samples, and in the sixth sample (SVP-23) the concentration was at the laboratory reporting limit. Based on comparing the surface flux detection to the RWQCB's ESL for residential indoor air, the calculated human health risk for benzene at the location of SVP-23 is 2.0E-06 and is less than 2.0E-06 at the other five locations. Table 4 presents the flux calculations and an evaluation of residential human health risk and hazard based on the calculated surface emissions. The calculated residential human health non-carcinogenic hazard for TPHg, benzene, and toluene ranged from 0.00063 to 0.24 with a maximum cumulative hazard of 0.24. In summary, only a single benzene detection exceeds the risk criterion, and the hazard calculations show that there are not significant non-carcinogenic health risks to the mobile home park residents.

Further, the residences in the adjacent mobile home park are trailers or mobile homes which are 1 to 2 feet above the ground and have no "skirting" which could potentially accumulate soil vapors. The soil vapor evaluation was conducted assuming direct discharge of soil vapors at the surface to indoor air. Because of the considerable air circulation beneath the homes, this evaluation is extremely conservative, and there is likely not a significant risk from residual benzene soil vapor concentrations.

The office trailer for the mobile home park does have skirting. As shown in Table 5, the calculated commercial human health risk for benzene is 3.9E-07 and the commercial non-carcinogenic hazard for TPHg, benzene, and toluene ranged from 0.00015 to 0.059 with a maximum cumulative hazard of 0.059, so there are not significant health risks to commercial workers at the mobile home park.

5.0 RECOMMENDATIONS

Further on-site soil vapor assessment may be warranted when a development plan is approved for the site.

Based on sub-slab soil vapor results, no additional investigation is recommended for the church building.

Based on the construction of the mobile homes and the risk and hazard calculations, no additional off-site soil vapor investigation is warranted at this time. CRA recommends continued groundwater monitoring to further assess long-term concentration trends. CRA will conduct site reconnaissance during groundwater monitoring events to assess the current use of the mobile home park in order to verify that the assumptions in the risk assessment are still valid.

CRA recommends continued groundwater monitoring to further assess long-term concentration trends. Human health risk will be reevaluated before groundwater monitoring is terminated.

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

EXPLANATION

- SVP-1 — Destroyed soil vapor probe location
- SVP-16 — Sub-slab soil vapor probe location
- SVP-9 — Temporary soil vapor probe location
- 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)
- SB-5 — Soil boring location (Cambria, 2005)
- CPT-1 — CPT location (Cambria, 2005)
- SB-3 — Soil boring location (Cambria, 2005)
- SB-1 — Soil boring location (Cambria, 1998)
- BH-D — Soil boring location (Weiss, 1993 & 1994)
- S-A — Soil boring location (EMCON, 1985)
- TB-1 — Destroyed well location

- Storm drain line (STM)
- Sanitary sewer line (SAN)
- Water line (W)
- Electrical line (E)
- Unknown utility line (?)
- Gas line (G)

Foot Clinic
Church Structures
MW-6 (20'NW)
Dispenser
MW-2
Driveway
MW-8
BH-D
Former Shell
4255 MacArthur
Former Dispenser Island (removed 1/03)
SVP-17
SB-16
SVP-4
SB-15
SVP-16
CPT-5
MW-3 (BH-C)
CPT-4
SVP-25
SVP-3
SB-14
BH-E
MACARTHUR BOULEVARD
Former Dispenser Island (removed 11/95)
MW-7
SB-5
SB-7
CPT-2
CPT-3
SVP-5
SVP-21
SVP-11
SB-12
SVP-24
SVP-15
Former Storage Building
SB-11
SVP-7
SB-13
SB-4
SVP-6
SVP-20
MW-9
SVP-6A
SB-1
Mobile Home Park
CPT-9
CPT-1
SVP-2
MW-1 (BH-A)
SVP-22
SVP-23
SVP-1A
SB-9
S-B
SB-10
TB-1
SVP-19A
SVP-18
TB-2
Former Dispenser Island (removed 1/03)
SVP-10
MW-6
CPT-7
MW-2 (BH-B)
SVP-1
SVP-19
S-A
Former USTs
SB-2
SVP-14
MW-7
S-I
SB-6
SB-8
CPT-10
SB-3
SVP-13
SVP-8
SVP-9
CPT-8
CPT-6
Storm Drain
Fenceline
MW-5
CPT-11
580 ON-RAMP
MW-4 (BH-F)
HIGH STREET

N

0 10 20ft

Figure 2

Site Plan
Former Shell Service Station
4255 MacArthur Boulevard
Oakland, California

I:\Shell\6-chars\2405--\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 SITE PLAN.DWG (11/14/2013)

EXPLANATION

SVP-1	Destroyed soil vapor probe location
SVP-16	Sub-slab soil vapor probe location
SVP-9	Temporary soil vapor probe location
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)
- Electrical line (E)
- Unknown utility line (?)
- Gas line (G)

ID	Date	Depth	TPHg	Benzene
SVP-1A	9/18/2013	2.5	110,000	190
SVP-1A	9/18/2013	4.5	130,000	200

Notes:
Soil vapor sample ID, date, depth in feet below grade, and concentrations in micrograms per cubic meter
TPHg = Total petroleum hydrocarbons as gasoline
<X = Not detected at reporting limit X
Results in **BOLD** exceed commercial ESL

ID	Date	Depth	TPHg	Benzene
SVP-16	9/18/2013	0.5	180,000	<25

ID	Date	Depth	TPHg	Benzene
SVP-17	9/18/2013	0.5	39,000	33

ID	Date	Depth	TPHg	Benzene
SVP-5	9/18/2013	3	150,000	**640**
SVP-5	9/18/2013	5	**180,000,000**	**140,000**

ID	Date	Depth	TPHg	Benzene
SVP-2	9/18/2013	3	320,000	**710**
SVP-2	9/18/2013	5	100,000	290

ID	Date	Depth	TPHg	Benzene
SVP-6A	9/18/2013	2.5	260,000	**850**
SVP-6A	9/18/2013	5	320,000	**420**

ID	Date	Depth	TPHg	Benzene
SVP-7	9/18/2013	3	**310,000,000**	**650,000**

ID	Date	Depth	TPHg	Benzene
SVP-19A	9/17/2013	2.5	190,000	**1,600**
SVP-19A	9/18/2013	5	**270,000,000**	**570,000**

ID	Date	Depth	TPHg	Benzene
SVP-19	9/18/2013	5	**210,000,000**	**930,000**

ID	Date	Depth	TPHg	Benzene
SVP-18	9/18/2013	2	130,000	50
SVP-18	9/18/2013	4	220,000	200

ID	Date	Depth	TPHg	Benzene
SVP-1A	9/18/2013	2.5	110,000	190
SVP-1A	9/18/2013	4.5	130,000	200

ID	Date	Depth	TPHg	Benzene
SVP-25	9/17/2013	2.5	53,000	22
SVP-25	9/17/2013	5	45,000	<16

ID	Date	Depth	TPHg	Benzene
SVP-24	9/17/2013	2.5	65,000	24
SVP-24	9/17/2013	5	43,000	<16

ID	Date	Depth	TPHg	Benzene
SVP-15	9/17/2013	2.5	880,000	<640
SVP-15	9/17/2013	5	**1,500,000**	<400

ID	Date	Depth	TPHg	Benzene
SVP-23	9/17/2013	2.5	13,000	<16
SVP-23	9/17/2013	5	6,100	<16

ID	Date	Depth	TPHg	Benzene
SVP-13	9/17/2013	2.5	6,000	<16
SVP-13	9/17/2013	5	13,000	<16

ID	Date	Depth	TPHg	Benzene
SVP-22	9/17/2013	2.5	9,200	<16
SVP-22	9/17/2013	5	12,000	<16

ID	Date	Depth	TPHg	Benzene
SVP-14	9/17/2013	5	**75,000,000**	<6,400

Foot Clinic
MW-6 (20'NW)
Dispenser
N
0 10 20ft
MW-2
Driveway
MW-8
Former Shell
4255 MacArthur
Former Dispenser Island (removed 1/03)
MACARTHUR BOULEVARD
Former Dispenser Island (removed 11/95)
MW-7
SVP-17
SVP-4
SVP-16
SVP-3
MW-3 (BH-C)
SVP-25
SVP-5
SVP-21
SVP-11
SVP-24
SVP-15
Former Storage Building
SVP-6
SVP-6A
SVP-2
SVP-7
SVP-20
MW-9
MW-1 (BH-A)
Former Dispenser Island (removed 1/03)
SVP-1A
TB-1
SVP-19A
SVP-18
TB-2
SVP-19
SVP-1
Former USTs
MW-2 (BH-B)
SVP-10
MW-6
SVP-23
SVP-22
SVP-14
MW-7
SVP-8
SVP-13
SVP-9
Storm Drain
MW-5
Mobile Home Park
Fenceline
580 ON-RAMP
MW-4 (BH-F)
HIGH STREET

Figure 3

Soil Vapor Chemical Concentration Map:
Permanent Soil Vapor Probes
September 17-18, 2013
Former Shell Service Station
4255 MacArthur Boulevard
Oakland, California

I:\Shell\6-chars\2405--\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 SITE PLAN (SOIL VAPOR DATA, 2013Q3).DWG (11/21/2013)

EXPLANATION

SVP-1	Destroyed soil vapor probe location
SVP-16	Sub-slab soil vapor probe location
SVP-9	Temporary soil vapor probe location
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)
- Electrical line (E)
- Unknown utility line (?)
- Gas line (G)

ID	Date	Depth	TPHg	Benzene
SVP-14-Temp	8/21/2013	0.5	<3,800	23
SVP-14-Temp	8/21/2013	1.5	**1,300,000**	<320
SVP-14-Temp	8/21/2013	2.5	**2,400,000**	<400

Notes:
Soil vapor sample ID, date, depth in feet below grade, and concentrations in micrograms per cubic meter
TPHg = Total petroleum hydrocarbons as gasoline
<X = Not detected at reporting limit X
Results in **BOLD** exceed commercial ESL

ID	Date	Depth	TPHg	Benzene
SVP-15-Temp	8/21/2013	0.5	7,400	<16
SVP-15-Temp	8/21/2013	1.5	480,000	<40
SVP-15-Temp	8/21/2013	2.5	730,000	39

ID	Date	Depth	TPHg	Benzene
SVP-22-Temp	8/21/2013	0.5	15,000	47
SVP-22-Temp	8/21/2013	1.5	11,000	22
SVP-22-Temp	8/21/2013	2.5	18,000	26

ID	Date	Depth	TPHg	Benzene
SVP-14-Temp	8/21/2013	0.5	<3,800	23
SVP-14-Temp	8/21/2013	1.5	**1,300,000**	<320
SVP-14-Temp	8/21/2013	2.5	**2,400,000**	<400

Foot Clinic
Church Structures
Former Shell
4255 MacArthur
Former Storage Building
Former Dispenser Island (removed 1/03)
Former Dispenser Island (removed 11/95)
Former Dispenser Island (removed 1/03)
Former USTs
Storm Drain
Fenceline
Dispenser
Driveway
MACARTHUR BOULEVARD
HIGH STREET
580 ON-RAMP
N
0 10 20ft

MW-6 (20'NW)
MW-8
MW-2
SVP-17
SVP-4
SVP-16
MW-3 (BH-C)
SVP-3
SVP-25
SVP-5
MW-7
SVP-21
SVP-11
SVP-24
SVP-15
SVP-7
SVP-20
MW-9
SVP-6
SVP-6A
SVP-2
MW-1 (BH-A)
SVP-1A
SVP-23
SVP-22
TB-1
SVP-19A
SVP-18
TB-2
SVP-10
MW-6
MW-2 (BH-B)
SVP-1
SVP-19
SVP-14
MW-7
SVP-13
SVP-8
SVP-9
MW-5
MW-4 (BH-F)

Figure 4

Soil Vapor Chemical Concentration Map:
Temporary Soil Vapor Probes
August 21, 2013
Former Shell Service Station
4255 MacArthur Boulevard
Oakland, California

I:\Shell\6-chars\2405--\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 SITE PLAN (SOIL VAPOR DATA, 2013Q3).DWG (12/12/2013)

EXPLANATION

SVP-1	Destroyed soil vapor probe location
SVP-16	Sub-slab soil vapor probe location
SVP-9	Temporary soil vapor probe location
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)
- Electrical line (E)
- Unknown utility line (?)
- Gas line (G)

ID	Date	Depth	TPHg	Benzene
SVP-14-Flux	8/22/2013	0	6,600	<16

Notes:
Soil vapor sample ID, date, depth in feet below grade, and concentrations in micrograms per cubic meter
TPHg = Total petroleum hydrocarbons as gasoline
<X = Not detected at reporting limit X
Results in **BOLD** exceed commercial ESL

ID	Date	Depth	TPHg	Benzene
SVP-25-Flux	8/22/2013	0	6,700	<16

ID	Date	Depth	TPHg	Benzene
SVP-24-Flux	8/22/2013	0	<3,800	<16

ID	Date	Depth	TPHg	Benzene
SVP-15-Flux	8/22/2013	0	6,700	<16

ID	Date	Depth	TPHg	Benzene
SVP-23-Flux	8/22/2013	0	6,600	16

ID	Date	Depth	TPHg	Benzene
SVP-22-Flux	8/22/2013	0	6,900	<16

ID	Date	Depth	TPHg	Benzene
SVP-14-Flux	8/22/2013	0	6,600	<16

Foot Clinic
Church Structures
MW-6 (20'NW)
Dispenser
N
0 10 20ft
MW-2
Driveway
MW-8
Former Shell
4255 MacArthur
Former Dispenser Island (removed 1/03)
SVP-17
SVP-4
SVP-16
MW-3 (BH-C)
SVP-3
SVP-25
MACARTHUR BOULEVARD
Former Dispenser Island (removed 11/95)
MW-7
SVP-5
SVP-21
SVP-11
SVP-24
SVP-15
Former Storage Building
SVP-7
SVP-20
MW-9
SVP-6
SVP-6A
SVP-2
MW-1 (BH-A)
Former Dispenser Island (removed 1/03)
SVP-1A
SVP-23
SVP-22
TB-1
SVP-19A
SVP-18
TB-2
SVP-10
MW-6
MW-2 (BH-B)
SVP-1
SVP-19
Former USTs
SVP-14
MW-7
SVP-13
SVP-8
SVP-9
Storm Drain
MW-5
Fenceline
580 ON-RAMP
HIGH STREET
MW-4 (BH-F)

Figure 5

Surface Flux
Chemical Concentration Map
August 22, 2013
Former Shell Service Station
4255 MacArthur Boulevard
Oakland, California

I:\Shell\6-chars\2405--\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 SITE PLAN (SOIL VAPOR DATA, 2013Q3).DWG (11/21/2013)

TABLES

TABLE 1

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

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Carbon Monoxide (%v)*	*Oxygen + Argon (%v)*	*Oxygen (%v)*	*Nitrogen (%v)*	*Helium (%v)*
SVP-1	3/9/2011	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1	8/27/2011	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1	11/14/2012	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1	12/20/2012	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1	3/9/2011	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1	8/27/2011	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1	11/14/2012	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1	12/20/2012	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-1A	9/18/2013	2.5	110,000	190	21	370	500	<52	---	<0.500	<0.500	---	20.9	---	---	0.0190
SVP-1A	9/18/2013	4.5	130,000	200	<19	330	370	<52	---	<0.500	<0.500	---	19.4	---	---	0.0241
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-2	11/14/2012	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-2	12/20/2012	3	8,000	<16	<19	<22	<43	---	<52	<0.500	<0.500	---	21.8	---	---	<0.0250
SVP-2	9/18/2013	3	320,000	**710**	<380	1,200	<430	<1,000	---	<0.500	<0.500	---	18.6	---	---	0.0162
SVP-2	3/9/2011	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-2	8/27/2011	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-2	11/14/2012	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-2	12/20/2012	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-2	9/18/2013	5	100,000	290	<94	650	430	<260	---	<0.500	<0.500	---	19.0	---	---	0.0362
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

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

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Carbon Monoxide (%v)*	*Oxygen + Argon (%v)*	*Oxygen (%v)*	*Nitrogen (%v)*	*Helium (%v)*
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	9/18/2013	3	150,000	**640**	<190	820	500	<520	---	<0.500	<0.500	---	20.8	---	---	0.0104
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-5	9/18/2013	5	**180,000,000**	**140,000**	<75,000	<87,000	<87,000	<210,000	---	15.4	10.0	---	1.83	---	---	0.0132
SVP-6	3/9/2011	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6	8/27/2011	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6	11/14/2012	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6	12/20/2012	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6	3/9/2011	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6	8/27/2011	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6	11/14/2012	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6	12/20/2012	5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-6A	9/18/2013	2.5	260,000	**850**	<75	870	760	<210	---	<0.500	<0.500	---	17.4	---	---	0.0143
SVP-6A	9/18/2013	5	320,000	**420**	<75	420	340	<210	---	<0.500	<0.500	---	14.4	---	---	0.0142
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	9/18/2013	3	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
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-7	9/18/2013	5	**310,000,000**	**650,000**	<150,000	**370,000**	<170,000	<420,000	---	20.8	12.6	---	1.74	---	---	0.0148
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
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
SVP-9	4/17/2012	1	<3,800	2.0 a	35	3.0 a	15 a	<52	---	<0.500	1.87	---	19.9	---	---	<0.0100
SVP-10	4/17/2012	1	<3,800	1.7 a	46	2.7 a	12 a	<52	---	<0.500	<0.500	---	21.9	---	---	<0.0100

TABLE 1

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

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Carbon Monoxide (%v)*	*Oxygen + Argon (%v)*	*Oxygen (%v)*	*Nitrogen (%v)*	*Helium (%v)*
SVP-11	4/17/2012	1	<3,800	0.92 a	36	1.9 a	10 a	<52	---	<0.500	1.01	---	21.0	---	---	0.0132
SVP-12	4/17/2012	1	<3,800	1.9 a	38	3.0 a	15 a	<52	---	<0.500	<0.500	---	21.5	---	---	<0.0100
SVP-13	11/14/2012	2.5	7,400	<16	31	<22	<43	<52	---	<0.500	<0.500	---	21.5	---	---	<0.0100
SVP-13	9/17/2013	2.5	6,000	<16	<19	<22	75	<52		<0.500	7.62	---	15.5	---	---	<0.0100
SVP-13	11/14/2012	5	6,000	<16	30	<22	<43	<52	---	<0.500	5.32	---	16.1	---	---	<0.0100
SVP-13	9/17/2013	5	13,000	<16	<19	<22	51	<52	---	<0.500	10.1	---	13.9	---	---	<0.0100
SVP-14	11/14/2012	2.5	**1,200,000**	<1,600	<1,900	<2,200	<4,300	<5,200	---	0.764	8.54	---	10.9	---	---	<0.0100
SVP-14	9/17/2013	2.5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-14	11/14/2012	5	**36,000,000**	<32,000	<38,000	<43,000	<87,000	<100,000	---	6.86	11.7	---	5.17	---	---	<0.0100
SVP-14	9/17/2013	5	**75,000,000**	<6,400	<7,500	<8,700	<8,700	<21,000	---	21.9	20.3	---	2.33	---	---	<0.0100
SVP-15	11/14/2012	2.5	**1,500,000**	<320	<380	<430	<870	<1,000	---	<0.500	8.84	---	2.48	---	---	<0.0100
SVP-15	9/17/2013	2.5	880,000	<64	<75	<87	<87	<210	---	<0.500	12.4	---	2.24	---	---	<0.0100
SVP-15	11/14/2012	5	**1,900,000**	<400	<470	<540	<540	<1,300	---	<0.500	9.31	---	2.04	---	---	<0.0100
SVP-15	9/17/2013	5	**1,500,000**	<400	<470	<540	<540	<1,300	---	<0.500	12.5	---	2.00	---	---	0.0107
SVP-16	11/14/2012	0.5	<3,800	<16	66	<22	<43	<52	---	<0.500	2.55	---	21.1	---	---	0.0135
SVP-16	9/18/2013	0.5	180,000	<25	<30	<34	<34	<83	---	<0.500	<0.500	---	21.6	---	---	0.0590
SVP-17	11/14/2012	0.5	<3,800	<16	44	<22	<43	<52	---	<0.500	2.35	---	20.8	---	---	0.0889
SVP-17	9/18/2013	0.5	39,000	33	<19	63	92	<52	---	<0.500	<0.500	---	21.2	---	---	0.471
SVP-18	11/14/2012	2	97,000	<32	<38	46	210	<100	---	<0.500	<0.500	---	20.0	---	---	<0.0100
SVP-18	9/18/2013	2	130,000	50	24	97	230	<52	---	<0.500	<0.500		20.1	---	---	0.0151
SVP-18	11/14/2012	4	48,000	<32	90	92	760	<100	---	<0.500	<0.500	---	18.6	---	---	<0.0100
SVP-18	9/18/2013	4	220,000	200	44	390	680	<52	---	<0.500	<0.500	---	19.0	---	---	0.0223
SVP-19	11/14/2012	2.5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---
SVP-19	9/18/2013	2.5	Unable to sample, water in probe			---	---	---	---	---	---	---	---	---	---	---

TABLE 1

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

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Carbon Monoxide (%v)*	*Oxygen + Argon (%v)*	*Oxygen (%v)*	*Nitrogen (%v)*	*Helium (%v)*
SVP-19	11/14/2012	5	**230,000,000**	**1,500,000**	<94,000	**300,000**	<220,000	<260,000	---	4.80	12.5	---	2.62	---	---	<0.0100
SVP-19	9/18/2013	5	**210,000,000**	**930,000**	<9,400	**130,000**	50,000	<26,000	---	5.72	19.2	---	2.55	---	---	0.0167
SVP-19A	9/17/2013	2.5	190,000	**1,600**	<300	1,300	<350	<840	---	<0.500	0.564	---	21.2	---	---	0.0223
SVP-19A	9/18/2013	5	**270,000,000**	**570,000**	<150,000	**230,000**	<170,000	<420,000	---	8.42	<0.500	---	1.89	---	---	0.0118
SVP-20	11/14/2012	2.5	4,100	<16	48	<22	<43	<52	---	<0.500	0.908	---	17.7	---	---	<0.0100
SVP-20	11/14/2012	5	260,000	<40	<47	<54	<110	<130	---	<0.500	3.83	---	12.9	---	---	<0.0100
SVP-21	11/14/2012	2.5	29,000	<16	30	120	750	<52	---	<0.500	<0.500	---	16.1	---	---	<0.0100
SVP-21	11/14/2012	5	<3,800	<16	<19	<22	<43	<52	---	<0.500	<0.500	---	15.1	---	---	<0.0100
SVP-22	9/17/2013	2.5	9,200	<16	<19	<22	55	<52	---	<0.500	14.9	---	5.80	---	---	<0.0100
SVP-22	9/17/2013	5	12,000	<16	<19	23	79	<52	---	<0.500	17.9	---	2.15	---	---	0.0216
SVP-23	9/17/2013	2.5	13,000	<16	<19	<22	51	<52	---	<0.500	8.31	---	13.4	---	---	<0.0100
SVP-23	9/17/2013	5	6,100	<16	<19	<22	71	<52	---	<0.500	9.83	---	12.1	---	---	<0.0100
SVP-24	9/17/2013	2.5	65,000	24	<19	25	70	<52	---	<0.500	11.9	---	2.13	---	---	0.0130
SVP-24	9/17/2013	5	43,000	<16	<19	34	98	<52	---	<0.500	12.5	---	2.61	---	---	0.0157
SVP-25	9/17/2013	2.5	53,000	22	<19	25	77	<52	---	<0.500	10.1	---	2.09	---	---	0.0199
SVP-25	9/17/2013	5	45,000	<16	<19	22	72	<52	---	<0.500	11.1	---	2.35	---	---	0.0781
Residential land use ESLs [b]:			***150,000***	***42***	***160,000***	***490***	***52,000***	***36***	***4,700***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***
Commercial land use ESLs [h]:			***1,200,000***	***420***	***1,300,000***	***4,900***	***440,000***	***360***	***47,000***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B (M)

TABLE 1

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

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Carbon Monoxide (%v)*	*Oxygen + Argon (%v)*	*Oxygen (%v)*	*Nitrogen (%v)*	*Helium (%v)*

Naphthalene analyzed 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
$\mu g/m^3$ = Micrograms per cubic meter
%v = Percent by volume
<x = Not detected at reporting limit x
--- = Not analyzed
ESL = Environmental screening level
NA = No applicable ESL
Results in **bold** exceed commercial ESL

a = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

b = San Francisco Bay Regional Water Quality Control Board (RWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns - residential 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) - Updated May 2013.
c = 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) - Updated May 2013.

TABLE 2

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

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*1-1-Di-fluoro-ethane ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*
SVP-14-Temp	8/21/2013	0.5	<3,800	23	31	<22	<22	<52	<36	100	<0.500	0.689	21.2
SVP-14-Temp	8/21/2013	1.5	**1,300,000**	<320	<380	<430	<430	<1,000	<720	<110	1.61	21.5	2.17
SVP-14-Temp	8/21/2013	2.5	**2,400,000**	<400	<470	<540	<540	<1,300	<900	<140	2.50	21.1	2.80
SVP-15-Temp	8/21/2013	0.5	7,400	<16	24	<22	<22	<52	<36	25,000	<0.500	<0.500	21.6
SVP-15-Temp	8/21/2013	1.5	**480,000**	<40	<47	<54	<54	<130	<90	<14	<0.500	11.0	2.49
SVP-15-Temp	8/21/2013	2.5	**730,000**	<640	<750	<870	<870	<2,100	<1,400	---	<0.500	11.5	2.66
SVP-22-Temp	8/21/2013	0.5	15,000	**47**	27	<22	<22	<52	500 f	<5.4	<0.500	14.2	3.94
SVP-22-Temp	8/21/2013	1.5	11,000	22	23	<22	<22	<52	640 f	<5.4	<0.500	15.6	2.26
SVP-22-Temp	8/21/2013	2.5	18,000	26	22	<22	<22	<52	960 f	<5.4	<0.500	14.7	2.10
Residential land use ESLs [a]:			***150,000***	***42***	***160,000***	***490***	***52,000***	***36***	***4,700***	*NA*	*NA*	*NA*	*NA*
Commercial land use ESLs [b]:			***1,200,000***	***420***	***1,300,000***	***4,900***	***440,000***	***360***	***47,000***	*NA*	*NA*	*NA*	*NA*

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B (M)
Naphthalene analyzed by EPA Method 8260B (M)
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)
1-1-Difluoroethane analyzed by EPA Method 8260B (M)
Methane, carbon dioxide, and oxygen + argon analyzed by ASTM D-1946
fbg = Feet below grade
$\mu g/m^3$ = Micrograms per cubic meter
%v = Percent by volume
<x = Not detected at reporting limit x
--- = Not analyzed
ESL = Environmental screening level

TABLE 2

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

Sample ID	*Date*	*Depth* (*fbg*)	*TPHg* ($\mu g/m^3$)	*B* ($\mu g/m^3$)	*T* ($\mu g/m^3$)	*E* ($\mu g/m^3$)	*X* ($\mu g/m^3$)	*Naph-thalene* ($\mu g/m^3$)	*MTBE* ($\mu g/m^3$)	*1-1-Di-fluoro-ethane* ($\mu g/m^3$)	*Methane* (%*v*)	*Carbon Dioxide* (%*v*)	*Oxygen + Argon* (%*v*)

NA = No applicable ESL
Results in **bold** exceed commercial ESL
Shading indicates invalid sample due to detection of tracer compound 1,1-difluoroethane.

a = San Francisco Bay Regional Water Quality Control Board (RWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns - residential 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) - Updated May 2013.

b = 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) - Updated May 2013.

TABLE 3

SURFACE FLUX ANALYTICAL DATA
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*Naph-thalene ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*
SVP-14-Flux	8/22/2013	0	6,600	<16	28	<22	<22	<52	<36	<0.500	<0.500	21.6
SVP-15-Flux	8/22/2013	0	6,700	<16	<19	<22	<22	<52	<36	<0.500	<0.500	21.7
SVP-22-Flux	8/22/2013	0	6,900	<16	21	<22	<22	<52	<36	<0.500	<0.500	21.7
SVP-23-Flux	8/22/2013	0	6,600	16	65	<22	<22	<52	<36	<0.500	<0.500	21.6
SVP-24-Flux	8/22/2013	0	<3,800	<16	62	<22	<22	<52	<36	<0.500	<0.500	21.6
SVP-25-Flux	8/22/2013	0	6,700	<16	42	<22	<22	<52	<36	<0.500	<0.500	21.7

Notes:

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M

BTEX = Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B (M)

Naphthalene analyzed 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 unless otherwise noted

fbg = Feet below grade

$\mu g/m^3$ = Micrograms per cubic meter

%v = Percent by volume

<x = Not detected at reporting limit x

TABLE 4

SUMMARY OF SURFACE FLUX CHAMBER DATA AND CALCULATED RESIDENTIAL RISK AND HAZARD
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Chamber ID	*Compound*	C_c ($\mu g/m^3$)	*T* (min)	V_c (m^3)	A_c (m^2)	Er_i $\mu g/min\text{-}m^2$	A_r (m^2)	Q (m^3/min)	$C_{r\text{-}e}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (carc)}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (non\text{-}carc)}$ ($\mu g/m^3$)	*Risk*	*Hazard*
SVP-14	TPHg	6,600	240	0.006	0.06	2.8	100	4.07	68	NA	290	NA	0.23
SVP-14	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	Toluene	28	240	0.006	0.06	0.012	100	4.07	0.29	NA	310	NA	0.00092
SVP-14	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	TPHg	6,700	240	0.006	0.06	2.8	100	4.07	69	NA	290	NA	0.24
SVP-15	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	Toluene	19	240	0.006	0.06	0.0079	100	4.07	0.19	NA	310	NA	0.00063
SVP-15	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	TPHg	6,900	240	0.006	0.06	2.9	100	4.07	71	NA	290	NA	0.24
SVP-22	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	Toluene	21	240	0.006	0.06	0.0088	100	4.07	0.21	NA	310	NA	0.00069
SVP-22	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	TPHg	6,600	240	0.006	0.06	2.8	100	4.07	68	NA	290	NA	0.23
SVP-23	Benzene	16	240	0.006	0.06	0.0067	100	4.07	0.16	0.084	31	2.0E-06	0.0053
SVP-23	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	Toluene	65	240	0.006	0.06	0.027	100	4.07	0.67	NA	310	NA	0.0021
SVP-23	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	TPHg	<3,800	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA

SUMMARY OF SURFACE FLUX CHAMBER DATA AND CALCULATED RESIDENTIAL RISK AND HAZARD
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Chamber ID	*Compound*	C_c ($\mu g/m^3$)	*T* (min)	V_c (m^3)	A_c (m^2)	Er_i $\mu g/min\text{-}m^2$	A_r (m^2)	Q (m^3/min)	$C_{r\text{-}e}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (carc)}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (non\text{-}carc)}$ ($\mu g/m^3$)	*Risk*	*Hazard*
SVP-24	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	Toluene	62	240	0.006	0.06	0.026	100	4.07	0.63	NA	310	NA	0.0020
SVP-24	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	TPHg	6,700	240	0.006	0.06	2.8	100	4.07	69	NA	290	NA	0.24
SVP-25	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	Toluene	42	240	0.006	0.06	0.018	100	4.07	0.43	NA	310	NA	0.0014
SVP-25	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA

Definitions:

C_c = Chamber concentration after incubation period

T = Incubation time of static chamber

V_c = Chamber volume

A_c = Chamber surface contact area

ER_i = Flux

A_r = Area of room [a] = 1.00E+06 cm^2 (1.00E+02 m^2)

Q = Volumetric flow rate in room

$C_{r\text{-}e}$ = Equivalent room concentration with exchange of room air

$C_{r\text{-}a}$ = Allowed residential room concentration based on carcinogen (carc) or non-carcinogen(non-carc) endpoints from Table E-3 of San Francisco Bay Regional Water Quality Control Board's (RWQCB's) Screening for Environmental Concerns at Sites *With Contaminated Soil and Groundwater*, Interim Final dated November 2007 [Revised May 2008] - Updated May 2013

Room height[a] = 2.44E+02 cm (2.44E+00 m)

ER = Room air exchange rate/hour [a] = 1.00E+00/hour (1.67E-02 /min)

Defining Equations:

Flux: $ER_i = C_c \times V_c / A_c \times T$

Room Concentration: $C_{r\text{-}e} = ER_i * A_r / Q$

Risk = $(C_{r\text{-}e}/C_{r\text{-}a\ (carc)})/1{,}000{,}000$

Hazard = $(C_{r\text{-}e}/C_{r\text{-}a\ (non\text{-}carc)})/1$

Flow rate in room: $Q = A_r \times$ Room height $\times$ ER = 4.07 m^3/min

TABLE 4

SUMMARY OF SURFACE FLUX CHAMBER DATA AND CALCULATED RESIDENTIAL RISK AND HAZARD
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Chamber ID	*Compound*	C_c ($\mu g/m^3$)	T (min)	V_c (m^3)	A_c (m^2)	Er_i $\mu g/min\text{-}m^2$	A_r (m^2)	Q (m^3/min)	$C_{r\text{-}e}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (carc)}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (non\text{-}carc)}$ ($\mu g/m^3$)	*Risk*	*Hazard*

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B (M)
Naphthalene analyzed by EPA Method 8260B (M)
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)
$\mu g/m^3$ = Micrograms per cubic meter
min = Minutes
m^3 = Cubic meters
m^2 = Square meters
$\mu g/min\text{-}m^2$ = Micrograms per minute per square meter
m^3/min = Cubic meters per minute
NA = Not applicable; risk not calculated because constituent of concern not detected.
cm^2 = Square centimeters
cm = Centimeters
m = Meters
ESL = Environmental screening level

a = Default value used in calculating ESLs in RWQCB's *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, Interim Final - November 2007 [Revised May 2008] - Updated May 2013

TABLE 5

SUMMARY OF SURFACE FLUX CHAMBER DATA AND CALCULATED COMMERCIAL RISK AND HAZARD
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Chamber ID	*Compound*	C_c ($\mu g/m^3$)	*T* (*min*)	V_c (m^3)	A_c (m^2)	Er_i $\mu g/min\text{-}m^2$	A_r (m^2)	*Q* (m^3/min)	$C_{r\text{-}e}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (carc)}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (non\text{-}carc)}$ ($\mu g/m^3$)	*Risk*	*Hazard*
SVP-14	TPHg	6,600	240	0.006	0.06	2.8	100	4.07	68	NA	1,200	NA	0.056
SVP-14	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	Toluene	28	240	0.006	0.06	0.012	100	4.07	0.29	NA	1,300	NA	0.00022
SVP-14	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-14	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	TPHg	6,700	240	0.006	0.06	2.8	100	4.07	69	NA	1,200	NA	0.057
SVP-15	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	Toluene	19	240	0.006	0.06	0.0079	100	4.07	0.19	NA	1,300	NA	0.00015
SVP-15	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-15	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	TPHg	6,900	240	0.006	0.06	2.9	100	4.07	71	NA	1,200	NA	0.059
SVP-22	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	Toluene	21	240	0.006	0.06	0.0088	100	4.07	0.21	NA	1,300	NA	0.00017
SVP-22	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-22	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	TPHg	6,600	240	0.006	0.06	2.8	100	4.07	68	NA	1,200	NA	0.056
SVP-23	Benzene	16	240	0.006	0.06	0.0067	100	4.07	0.16	0.42	130	3.9E-07	0.0013
SVP-23	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	Toluene	65	240	0.006	0.06	0.027	100	4.07	0.67	NA	1,300	NA	0.00051
SVP-23	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-23	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	TPHg	<3,800	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA

TABLE 5

SUMMARY OF SURFACE FLUX CHAMBER DATA AND CALCULATED COMMERCIAL RISK AND HAZARD
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Chamber ID	*Compound*	C_c ($\mu g/m^3$)	*T* (min)	V_c (m^3)	A_c (m^2)	Er_i $\mu g/min\text{-}m^2$	A_r (m^2)	Q (m^3/min)	$C_{r\text{-}e}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (carc)}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (non\text{-}carc)}$ ($\mu g/m^3$)	*Risk*	*Hazard*
SVP-24	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	Toluene	62	240	0.006	0.06	0.026	100	4.07	0.63	NA	1,300	NA	0.00049
SVP-24	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-24	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	TPHg	6,700	240	0.006	0.06	2.8	100	4.07	69	NA	1,200	NA	0.057
SVP-25	Benzene	<16	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	Ethylbenzene	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	Toluene	42	240	0.006	0.06	0.018	100	4.07	0.43	NA	1,300	NA	0.00033
SVP-25	Total Xylenes	<22	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	Naphthalene	<52	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA
SVP-25	MTBE	<36	240	0.006	0.06	NA	100	4.07	NA	NA	NA	NA	NA

Definitions:

C_c = Chamber concentration after incubation period

T = Incubation time of static chamber

V_c = Chamber volume

A_c = Chamber surface contact area

ER_i = Flux

A_r = Area of room [a] = 1.00E+06 cm^2 (1.00E+02 m^2)

Q = Volumetric flow rate in room

$C_{r\text{-}e}$ = Equivalent room concentration with exchange of room air

$C_{r\text{-}a}$ = Allowed commercial room concentration based on carcinogen (carc) or non-carcinogen(non-carc) endpoints from Table E-3 of San Francisco Bay Regional Water Quality Control Board's (RWQCB's) Screening for Environmental Concerns at Sites *With Contaminated Soil and Groundwater*, Interim Final dated November 2007 [Revised May 2008] - Updated May 2013

Room height[a] = 2.44E+02 cm (2.44E+00 m)

ER = Room air exchange rate/hour [a] = 1.00E+00/hour (1.67E-02 /min)

Defining Equations:

Flux: $ER_i = C_c \times V_c / A_c \times T$

Room Concentration: $C_{r\text{-}e} = ER_i * A_r / Q$

Risk = $(C_{r\text{-}e}/C_{r\text{-}a\ (carc)})/1{,}000{,}000$

Hazard = $(C_{r\text{-}e}/C_{r\text{-}a\ (non\text{-}carc)})/1$

Flow rate in room: $Q = A_r \times$ Room height $\times$ ER = 4.07 m^3/min

TABLE 5

SUMMARY OF SURFACE FLUX CHAMBER DATA AND CALCULATED COMMERCIAL RISK AND HAZARD
FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Chamber ID	*Compound*	C_c ($\mu g/m^3$)	T (min)	V_c (m^3)	A_c (m^2)	Er_i $\mu g/min\text{-}m^2$	A_r (m^2)	Q (m^3/min)	$C_{r\text{-}e}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (carc)}$ ($\mu g/m^3$)	$C_{r\text{-}a\ (non\text{-}carc)}$ ($\mu g/m^3$)	*Risk*	*Hazard*

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B (M)
Naphthalene analyzed by EPA Method 8260B (M)
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)
$\mu g/m^3$ = Micrograms per cubic meter
min = Minutes
m^3 = Cubic meters
m^2 = Square meters
$\mu g/min\text{-}m^2$ = Micrograms per minute per square meter
m^3/min = Cubic meters per minute
NA = Not applicable; risk not calculated because constituent of concern not detected.
cm^2 = Square centimeters
cm = Centimeters
m = Meters
ESL = Environmental screening level

a = Default value used in calculating ESLs in RWQCB's *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, Interim Final – November 2007 [Revised May 2008] - Updated May 2013

APPENDIX A

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/18/2013 By jamesy

Permit Numbers: W2013-0519 to W2013-0520
Permits Valid from 08/12/2013 to 08/16/2013

Application Id: 1373923924227 **City of Project Site:** Oakland
Site Location: 4255 MacArthur Blvd.
Project Start Date: 08/12/2013 **Completion Date:** 08/16/2013
Assigned Inspector: Contact Sam Brathwaite at (925) 570-7609 or sbrathwaite@groundzonees.com

Applicant: Conestoga-Rovers & Associates - Chris Benedict
10969 Trade Center Drive # 107, Rancho Cordova, CA 95670 **Phone:** 916-889-8900 x125

Property Owner: Roland Malone
PO Box 2744, Castro Valley, CA 94546 **Phone:** --

Client: US Shell Oil Products
20945 South Wilmington Avenue, Carson, CA 90810 **Phone:** --

Total Due: $530.00
Receipt Number: WR2013-0248 **Total Amount Paid:** $530.00
Payer Name : Conestoga-Rovers & Associates Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 3 Wells
Driller: Gregg Drilling and Testing - Lic #: 485165 - Method: other **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2013-0519	07/18/2013	11/10/2013	SVP-19A	3.50 in.	0.25 in.	2.00 ft	5.50 ft
W2013-0519	07/18/2013	11/10/2013	SVP-1A	3.50 in.	0.25 in.	2.00 ft	5.50 ft
W2013-0519	07/18/2013	11/10/2013	SVP-6A	3.50 in.	0.25 in.	2.00 ft	5.50 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

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

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

4. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters

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

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

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

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

8. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

10. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

Well Destruction-Vapor monitoring well - 2 Wells
Driller: Gregg Drilling and Testing - Lic #: 485165 - Method: other **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2013-0520	07/18/2013	11/10/2013	SVP-1	4.00 in.	0.25 in.	2.50 ft	5.00 ft	2S/3W4G	W2011-0048	e0127124
W2013-0520	07/18/2013	11/10/2013	SVP-6	4.00 in.	0.25 in.	2.50 ft	5.00 ft	2S/3W4G	W2011-0048	e0127131

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the

Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.

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

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

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

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

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

8. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

10. Vapor monitoring wells constructed with tubing shall be decomissioned by complete removal of tubing, grout seal, and fill material of sand or bentonite. Fill material may be removed by hand auger if material can be removed completely.

Vapor monitoring wells constructed with pvc pipe less than 2" shall be overdrilled to total depth.

Vapor monitoring wells constructed with 2" pvc pipe or larger may be grouted by tremie pipe (any depth) or pressure grouted (less than 30', 25 psi for 5 min).

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/18/2013 By jamesy

Permit Numbers: W2013-0517 to W2013-0518
Permits Valid from 08/12/2013 to 08/16/2013

Application Id: 1373925298779 **City of Project Site:** Oakland
Site Location: 3251 High Street
Project Start Date: 08/12/2013 **Completion Date:** 08/16/2013
Assigned Inspector: Contact Sam Brathwaite at (925) 570-7609 or sbrathwaite@groundzonees.com

Applicant: Conestoga-Rovers & Associates - Chris Benedict
10969 Trade Center Dr., #107, Rancho Cordova, CA 95670 **Phone:** 916-889-8900 x125

Property Owner: James Malone
PO Box 1204, Manteca, CA 95336 **Phone:** --

Client: US Shell Oil Products
20945 South Wilmington Avenue, Carson, CA 90810 **Phone:** --

Total Due: $530.00
Receipt Number: WR2013-0247 **Total Amount Paid:** $530.00
Payer Name : Conestoga-Rovers & Paid By: CHECK **PAID IN FULL**
Associates

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 4 Wells
Driller: Gregg Drilling and Testing - Lic #: 485165 - Method: other **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2013-0517	07/18/2013	11/10/2013	SVP-22	3.50 in.	0.25 in.	2.00 ft	5.50 ft
W2013-0517	07/18/2013	11/10/2013	SVP-23	3.50 in.	0.25 in.	2.00 ft	5.50 ft
W2013-0517	07/18/2013	11/10/2013	SVP-24	3.50 in.	0.25 in.	2.00 ft	5.50 ft
W2013-0517	07/18/2013	11/10/2013	SVP-25	3.50 in.	0.25 in.	2.00 ft	5.50 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

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

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

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

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

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

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

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

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

10. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

11. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

Borehole(s) for Investigation-Environmental/Monitorinig Study - 6 Boreholes
Driller: TEG-Northern California - Lic #: 706568 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2013-0518	07/18/2013	11/10/2013	6	3.00 in.	3.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

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

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

5. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

7. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

APPENDIX B

BORING LOGS

Boring/Well Log Legend

KEY TO SYMBOLS/ABBREVIATIONS

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

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

fbg = Feet below grade

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

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

msl = Mean sea level

Soils logged according to the USCS.

UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

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

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

CONESTOGA-ROVERS & ASSOCIATES

Conestoga-Rovers & Associates
19449 Riverside Drive, Suite 230
Sonoma, California, 95476
Telephone: 707-933-4850
Fax: 707-935-6649

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-19A
JOB/SITE NAME	Former Shell service station	**DRILLING STARTED**	20-Aug-13
LOCATION	4255 MacArthur Boulevard, Oakland, California	**DRILLING COMPLETED**	20-Aug-13
PROJECT NUMBER	240524	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Airknife and Waterknife	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3"	**SCREENED INTERVAL**	2.5 to 2.6 fbg ; 5 to 5.1 fbg
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
					GP-GM		**GRAVEL with Silt and Sand (GP-GM)** ; grayish brown (10YR 5/2); dry; very hard; 10% silt, 10% sand, 80% gravel.		Bentonite Seal
					ML		**SILT (ML)** ; greenish gray (10Y 5/1) ; moist; 10% clay, 80% silt, 5% sand, 5% gravel; low plasticity.	2.0	Monterey Sand #2/16 1" - Polyethylene Vapor Implant
				5			@4.5' - brown (7.5YR 4/3).		1/4" OD Teflon Tubing
								5.5	Monterey Sand #2/16 1" - Polyethylene Vapor Implant
				10					Bottom of Boring @ 5.5 ft

WELL LOG NESTED (PID) I:\SONOMA-1.PUB\0-USERS\MDUTRAIDRAFTR~1\240524-GINT.GPJ DEFAULT.GDT 11/15/13

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-1A
JOB/SITE NAME	Former Shell service station	**DRILLING STARTED**	20-Aug-13
LOCATION	4255 MacArthur Boulevard, Oakland, California	**DRILLING COMPLETED**	20-Aug-13
PROJECT NUMBER	240524	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Airknife and Waterknife	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3"	**SCREENED INTERVAL**	2.5 to 2.6 fbg ; 5 to 5.1 fbg
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5	SM		**Fill: Silty SAND (SM)** ; grayish brown (10YR 5/2); dry; 10% clay, 10% silt, 80% sand. @2' - brown (7.5YR 4/3); moist; 10% clay, 20% silt, 70% sand.	5.2	Bentonite Seal Monterey Sand #2/16 1" - Polyethylene Vapor Implant 1/4" OD Teflon Tubing Monterey Sand #2/16 1" - Polyethylene Vapor Implant Bottom of Boring @ 5.2 ft

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\240524-GINT.GPJ DEFAULT.GDT 11/15/13

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-22
JOB/SITE NAME	Former Shell service station	**DRILLING STARTED**	19-Aug-13
LOCATION	4255 MacArthur Boulevard, Oakland, California	**DRILLING COMPLETED**	19-Aug-13
PROJECT NUMBER	240524	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Airknife and Waterknife	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3"	**SCREENED INTERVAL**	2.5 to 2.6 fbg ; 5 to 5.1 fbg
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
					ASPHALT		**ASPHALT**	0.3	Bentonite Seal
					SM		**Silty SAND with Gravel (SM)** ; brown (7.5YR 4/3); moist; 20% silt, 50% sand, 30% gravel.	1.0	Monterey Sand #2/16 1" - Polyethylene Vapor Implant 1/4" OD Teflon Tubing
				5	ML		**SILT (ML)** ; greenish gray (10Y 5/1); moist; 10% clay, 80% silt, 5% sand, 5% gravel; low plasticity.	5.5	Monterey Sand #2/16 1" - Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\240524-GINT.GPJ DEFAULT.GDT 11/15/13

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-23
JOB/SITE NAME	Former Shell service station	**DRILLING STARTED**	20-Aug-13
LOCATION	4255 MacArthur Boulevard, Oakland, California	**DRILLING COMPLETED**	20-Aug-13
PROJECT NUMBER	240524	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Airknife and Waterknife	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3"	**SCREENED INTERVAL**	2.5 to 2.6 fbg ; 5 to 5.1 fbg
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
					ASPHALT		**ASPHALT**	0.3	Bentonite Seal
					SM		**Silty SAND with Gravel (SM)** ; brown (7.5YR 4/3); moist; 20% silt, 50% sand, 30% gravel.	1.0	Monterey Sand #2/16 1" - Polyethylene Vapor Implant
				5	ML		**SILT (ML)** ; greenish gray (10Y 5/1); moist; 10% clay, 80% silt, 5% sand, 5% gravel; low plasticity.	5.5	1/4" OD Teflon Tubing Monterey Sand #2/16 1" - Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\0~USERS\MDUTRA\DRAFTR~1\240524-GINT.GPJ DEFAULT.GDT 11/15/13

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-24
JOB/SITE NAME	Former Shell service station	**DRILLING STARTED**	20-Aug-13
LOCATION	4255 MacArthur Boulevard, Oakland, California	**DRILLING COMPLETED**	20-Aug-13
PROJECT NUMBER	240524	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Airknife and Waterknife	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3"	**SCREENED INTERVAL**	2.5 to 2.6 fbg ; 5 to 5.1 fbg
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
					ASPHALT		**ASPHALT**	0.3	Bentonite Seal
					SM		**Silty SAND with Gravel (SM)** ; brown (7.5YR 4/3); moist; 20% silt, 50% sand, 30% gravel.	1.0	Monterey Sand #2/16 1" - Polyethylene Vapor Implant 1/4" OD Teflon Tubing
				5	ML		**SILT (ML)** ; greenish gray (10Y 5/1); moist; 10% clay, 80% silt, 5% sand, 5% gravel; low plasticity.	5.5	Monterey Sand #2/16 1" - Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-25
JOB/SITE NAME	Former Shell service station	**DRILLING STARTED**	19-Aug-13
LOCATION	4255 MacArthur Boulevard, Oakland, California	**DRILLING COMPLETED**	19-Aug-13
PROJECT NUMBER	240524	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Airknife and Waterknife	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3"	**SCREENED INTERVAL**	2.5 to 2.6 fbg ; 5 to 5.1 fbg
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
					ASPHALT		**ASPHALT**	0.3	
					SM		**Silty SAND with Gravel (SM)** ; brown (7.5YR 4/3); moist; 20% silt, 50% sand, 30% gravel.	1.0	Bentonite Seal
				5	ML		**SILT (ML)** ; greenish gray (10Y 5/1); moist; 10% clay, 80% silt, 5% sand, 5% gravel; low plasticity.	5.5	Monterey Sand #2/16 1" - Polyethylene Vapor Implant 1/4" OD Teflon Tubing Monterey Sand #2/16 1" - Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\240524-GINT.GPJ DEFAULT.GDT 11/15/13

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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-6A
JOB/SITE NAME	Former Shell service station	**DRILLING STARTED**	19-Aug-13
LOCATION	4255 MacArthur Boulevard, Oakland, California	**DRILLING COMPLETED**	19-Aug-13
PROJECT NUMBER	240524	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Airknife and Waterknife	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	3"	**SCREENED INTERVAL**	2.5 to 2.6 fbg ; 5 to 5.1 fbg
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5	GP-GM		**GRAVEL with Silt and Sand (GP-GM)** ; grayish brown (10YR 5/2); dry; very hard; 10% silt, 10% sand, 80% gravel.	5.5	Bentonite Seal Monterey Sand #2/16 1" - Polyethylene Vapor Implant 1/4" OD Teflon Tubing Monterey Sand #2/16 1" - Polyethylene Vapor Implant Bottom of Boring @ 5.5 ft
				10					

WELL LOG NESTED (PID) I:\SONOMA~1.PUB\0-USERS\MDUTRA\DRAFTR~1\240524-GINT.GPJ DEFAULT.GDT 11/15/13

APPENDIX C

CERTIFIED ANALYTICAL REPORTS

9 September 2013

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

SUBJECT: DATA REPORT - Conestoga-Rovers & Associates, Inc. Project # 240524
Former Shell Station / 4255 MacArthur Boulevard, Oakland, California

TEG Project # 30821F

Mr. Schaefer:

Please find enclosed a data report for the samples analyzed from the above referenced project for Conestoga-Rovers & Associates, Inc. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 44 analyses on 10 soil vapor and 12 flux chamber soil vapor samples.

-- 22 analyses for aromatic volatile hydrocarbons (BTEX & naphthalene), the fuel oxygenate methyl-t-butyl ether (MtBE), and total petroleum hydrocarbons-gasoline by EPA method 8260B.

-- 22 analyses for methane, and oxygen and carbon dioxide by by GC/TCD.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

TEG appreciates the opportunity to have provided analytical services to Conestoga-Rovers & Associates, Inc. on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak
Director, TEG-Northern California

Conestoga Rovers & Associates Project # 240524
Former Shell Station
4255 MacArthur Boulevard, Oakland, California

TEG Project #30821F

Analyses of SOIL VAPOR
BTEX, Naphthalene, MtBE, & TPH-gasoline (EPA method 8260B) in micrograms per cubic meter of Vapor
Methane (EPA 8015m) in ppmV; Oxygen and Carbon Dioxide in percent by Volume

SAMPLE NUMBER:		Probe Blank	SVP-14-0.5 temp	SVP-14-1.5 temp	SVP-14-2.5 temp	SVP-15-0.5 temp	SVP-15-0.5 temp dup
SAMPLE DEPTH (feet):			0.5	1.5	2.5	0.5	0.5
PURGE VOLUME:			3	3	3	3	3
COLLECTION DATE:		8/21/13	8/21/13	8/21/13	8/21/13	8/21/13	8/21/13
COLLECTION TIME:		10:29	12:34	12:10	11:29	14:25	14:25
DILUTION FACTOR (VOCs):		1	1	1	1	1	1
	RL						
Benzene	30	nd	47	70	71	nd	nd
Toluene	200	nd	nd	nd	nd	nd	nd
Ethylbenzene	100	nd	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd	nd
Naphthalene	70	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MtBE)	100	nd	nd	nd	nd	nd	nd
TPH (gasoline range)	10000	nd	nd	2000000	2200000	nd	nd
Methane	1000	nd	nd	16000	25000	nd	nd
Oxygen	1.0	20	18	2.4	3.9	19	18
Carbon Dioxide	1.0	nd	nd	19	19	nd	nd
1,1-Difluoroethane (leak check)	10000	nd	nd	nd	nd	nd	nd
Surrogate Recovery (Toluene-d8)		86%	79%	91%	91%	77%	79%
Surrogate Recovery (1,4-BFB)		101%	95%	106%	102%	96%	96%

'RL' Indicates reporting limit at a dilution factor of 1
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab
Analyses performed by: Mr. Lane Sharon

11350 Monier Park Place, Rancho Cordova, CA 95742 • Phone (916) 853-8010 • Fax (916) 853-8020

teg

Conestoga Rovers & Associates Project # 240524
Former Shell Station
4255 MacArthur Boulevard, Oakland, California

TEG Project #30821F

Analyses of SOIL VAPOR
BTEX, Naphthalene, MtBE, & TPH-gasoline (EPA method 8260B) in micrograms per cubic meter of Vapor
Methane (EPA 8015m) in ppmV; Oxygen and Carbon Dioxide in percent by Volume

SAMPLE NUMBER:		SVP-15-1.5 temp	SVP-15-2.5 temp	SVP-22-0.5 temp	SVP-22-1.5 temp	SVP-22-2.5 temp
SAMPLE DEPTH (feet):		1.5	2.5	0.5	1.5	2.5
PURGE VOLUME:		3	3	3	3	3
COLLECTION DATE:		8/21/13	8/21/13	8/21/13	8/21/13	8/21/13
COLLECTION TIME:		13:56	13:30	17:05	16:40	16:21
DILUTION FACTOR (VOCs):		1	1	1	1	1
	RL					
Benzene	30	43	39	89	35	53
Toluene	200	nd	nd	nd	nd	nd
Ethylbenzene	100	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd
Naphthalene	70	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MtBE)	100	nd	nd	1400	1100	1900
TPH (gasoline range)	10000	430000	810000	13000	nd	19000
Methane	1000	nd	nd	nd	nd	nd
Oxygen	1.0	2.6	3.4	3.1	3.4	2.8
Carbon Dioxide	1.0	9.1	9.9	14	14	11
1,1-Difluoroethane (leak check)	10000	nd	nd	nd	nd	nd
Surrogate Recovery (Toluene-d8)		86%	91%	75%	80%	85%
Surrogate Recovery (1,4-BFB)		106%	116%	97%	92%	102%

'RL' Indicates reporting limit at a dilution factor of 1
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab
Analyses performed by: Mr. Lane Sharon

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Conestoga Rovers & Associates Project # 240524
Former Shell Station
4255 MacArthur Boulevard, Oakland, California

TEG Project #30821F

Analyses of SOIL VAPOR
BTEX, Naphthalene, MtBE, & TPH-gasoline (EPA method 8260B) in micrograms per cubic meter of Vapor
Methane (EPA 8015m) in ppmV; Oxygen and Carbon Dioxide in percent by Volume

SAMPLE NUMBER:		Blank	SVP-14-Flux	SVP-14-Flux-EQ	SVP-15-Flux	SVP-15-Flux-EQ	SVP-22-Flux	SVP-22-Flux-EQ
COLLECTION DATE:		8/22/13	8/22/13	8/22/13	8/22/13	8/22/13	8/22/13	8/22/13
COLLECTION TIME:		07:41	08:13	12:13	09:11	13:11	08:46	12:46
DILUTION FACTOR (VOCs):		1	1	1	1	1	1	1
	RL							
Benzene	30	nd	nd	nd	nd	nd	nd	nd
Toluene	200	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	100	nd	nd	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd	nd	nd
Naphthalene	70	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MtBE)	100	nd	nd	nd	nd	nd	nd	nd
TPH (gasoline range)	10000	nd	nd	nd	nd	nd	nd	nd
Methane	1000	nd	nd	nd	nd	nd	nd	nd
Oxygen	1.0	21	21	21	21	21	21	21
Carbon Dioxide	1.0	nd	nd	nd	nd	nd	nd	nd
Surrogate Recovery (Toluene-d8)		77%	75%	79%	73%	76%	79%	78%
Surrogate Recovery (1,4-BFB)		88%	89%	97%	84%	91%	92%	93%

'RL' Indicates reporting limit at a dilution factor of 1
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab
Analyses performed by: Mr. Lane Sharon

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teg

Conestoga Rovers & Associates Project # 240524
Former Shell Station
4255 MacArthur Boulevard, Oakland, California

TEG Project #30821F

Analyses of SOIL VAPOR
BTEX, Naphthalene, MtBE, & TPH-gasoline (EPA method 8260B) in micrograms per cubic meter of Vapor
Methane (EPA 8015m) in ppmV; Oxygen and Carbon Dioxide in percent by Volume

SAMPLE NUMBER:		SVP-23-Flux	SVP-23-Flux-EQ	SVP-24-Flux	SVP-24-Flux-EQ	SVP-25-Flux	SVP-25-Flux-EQ
COLLECTION DATE:		8/22/13	8/22/13	8/22/13	8/22/13	8/22/13	8/22/13
COLLECTION TIME:		10:13	14:20	09:56	13:56	09:35	13:35
DILUTION FACTOR (VOCs):		1	1	1	1	1	1
	RL						
Benzene	30	nd	nd	nd	nd	nd	nd
Toluene	200	nd	nd	nd	nd	nd	nd
Ethylbenzene	100	nd	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd	nd
Naphthalene	70	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MtBE)	100	nd	nd	nd	nd	nd	nd
TPH (gasoline range)	10000	nd	nd	nd	nd	nd	nd
Methane	1000	nd	nd	nd	nd	nd	nd
Oxygen	1.0	21	21	21	21	21	21
Carbon Dioxide	1.0	nd	nd	nd	nd	nd	nd
Surrogate Recovery (Toluene-d8)		78%	72%	74%	76%	85%	78%
Surrogate Recovery (1,4-BFB)		94%	85%	84%	93%	96%	93%

'RL' Indicates reporting limit at a dilution factor of 1
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab
Analyses performed by: Mr. Lane Sharon

11350 Monier Park Place, Rancho Cordova, CA 95742 • Phone (916) 853-8010 • Fax (916) 853-8020

TEG Project #30821F

CALIBRATION DATA - Calibration Check Compounds

	Vinyl Chloride	1,1 DCE	Chloroform	1,2 DCP	Toluene	Ethylbenzene
Midpoint	10.0	10.0	10.0	10.0	10.0	10.0
Continuing Calibration - Midpoint						
8/21/13	8.1	9.1	10.7	10.8	10.0	8.3
	81%	91%	107%	108%	100%	83%
8/22/13	8.6	9.7	10.3	11.0	10.5	8.1
	86%	97%	103%	110%	105%	81%

Calscience Environmental Laboratories, Inc.

Supplemental Report 1

Additional requested analyses have been added to the original report.

CALSCIENCE

WORK ORDER NUMBER: 13-08-1529

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 4255 MacArthur Blvd., Oakland, CA

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

Approved for release on 11/15/2013 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: 4255 MacArthur Blvd., Oakland, CA
Work Order Number: 13-08-1529

Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-08-1529 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 08/22/13. They were assigned to Work Order 13-08-1529.

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

Holding Times:

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

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

Quality Control:

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

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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

1,1-Difluoroethane is added to EPA 8260 list of analytes per client's request.

Subcontractor Information:

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

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	13-08-1529
		Project Name:	4255 MacArthur Blvd., Oakland, CA
		PO Number:	
		Date/Time Received:	08/22/13 10:40
		Number of Containers:	4
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SVP-14-2.5	13-08-1529-1	08/21/13 11:34	1	Air
SVP-14-1.5	13-08-1529-2	08/21/13 13:30	1	Air
SVP-14-0.5	13-08-1529-3	08/21/13 13:34	1	Air
SVP-15-2.5	13-08-1529-4	08/21/13 14:30	1	Air

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Calscience Environmental Laboratories, Inc.

Case Narrative

Work Order: 13-08-1529 Page 1 of 1

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

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

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

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	13-08-1529
	5900 Hollis Street, Suite A	Project Name:	4255 MacArthur Blvd., Oakland, CA
	Emeryville, CA 94608-2008	Received:	08/22/13
Attn:	Peter Schaefer		Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-14-2.5 (13-08-1529-1)						
Methane	2.50		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	21.1		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.80		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	2400000		19000	ug/m3	EPA TO-3M	N/A
SVP-14-1.5 (13-08-1529-2)						
Methane	1.61		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	21.5		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.17		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	1300000		7600	ug/m3	EPA TO-3M	N/A
SVP-14-0.5 (13-08-1529-3)						
Carbon Dioxide	0.689		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	21.2		0.500	%v	ASTM D-1946	N/A
Benzene	23		16	ug/m3	EPA 8260B (M)	N/A
Toluene	31		19	ug/m3	EPA 8260B (M)	N/A
1,1-Difluoroethane	100		5.4	ug/m3	EPA 8260B (M)	N/A
SVP-15-2.5 (13-08-1529-4)						
Carbon Dioxide	11.5		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.66		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	730000		3800	ug/m3	EPA TO-3M	N/A

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

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-14-2.5	**13-08-1529-1-A**	**08/21/13 11:34**	**Air**	**GC 65**	**N/A**	**08/22/13 14:03**	**130822L01**

Parameter	Result	RL	DF	Qualifiers
Methane	2.50	0.500	1	
Carbon Dioxide	21.1	0.500	1	
Oxygen + Argon	2.80	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	1.61	0.500	1	
Carbon Dioxide	21.5	0.500	1	
Oxygen + Argon	2.17	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	0.689	0.500	1	
Oxygen + Argon	21.2	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	11.5	0.500	1	
Oxygen + Argon	2.66	0.500	1	

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-14-2.5	**13-08-1529-1-A**	**08/21/13 11:34**	**Air**	**GC/MS K**	**N/A**	**08/23/13 16:06**	**130823L01**

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

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	400	25	
Toluene	ND	470	25	
Ethylbenzene	ND	540	25	
p/m-Xylene	ND	1100	25	
o-Xylene	ND	540	25	
Xylenes (total)	ND	540	1	
Methyl-t-Butyl Ether (MTBE)	ND	900	25	
Naphthalene	ND	1300	25	
1,1-Difluoroethane	ND	140	25	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	113	47-156	
1,2-Dichloroethane-d4	90	47-156	
Toluene-d8	36	47-156	2,6

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

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	320	20	
Toluene	ND	380	20	
Ethylbenzene	ND	430	20	
p/m-Xylene	ND	870	20	
o-Xylene	ND	430	20	
Xylenes (total)	ND	430	1	
Methyl-t-Butyl Ether (MTBE)	ND	720	20	
Naphthalene	ND	1000	20	
1,1-Difluoroethane	ND	110	20	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	113	47-156	
1,2-Dichloroethane-d4	91	47-156	
Toluene-d8	43	47-156	2,6

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-14-0.5	**13-08-1529-3-A**	**08/21/13 13:34**	**Air**	**GC/MS K**	**N/A**	**08/23/13 02:10**	**130822L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	23	16	1	
Toluene	31	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	100	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	47-156	
1,2-Dichloroethane-d4	96	47-156	
Toluene-d8	101	47-156	

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

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	640	40	
Toluene	ND	750	40	
Ethylbenzene	ND	870	40	
p/m-Xylene	ND	1700	40	
o-Xylene	ND	870	40	
Xylenes (total)	ND	870	1	
Methyl-t-Butyl Ether (MTBE)	ND	1400	40	
Naphthalene	ND	2100	40	
1,1-Difluoroethane	ND	220	40	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	114	47-156	
1,2-Dichloroethane-d4	95	47-156	
Toluene-d8	90	47-156	

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-1439**	**N/A**	**Air**	**GC/MS K**	**N/A**	**08/22/13 21:35**	**130822L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	ND	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	47-156	
1,2-Dichloroethane-d4	95	47-156	
Toluene-d8	97	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	ND	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	47-156	
1,2-Dichloroethane-d4	90	47-156	
Toluene-d8	101	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-14-2.5	**13-08-1529-1-A**	**08/21/13 11:34**	**Air**	**GC 38**	**N/A**	**08/22/13 21:34**	**130822L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	2400000	19000	5	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	1300000	7600	2	

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

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	730000	3800	1	

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

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Conestoga-Rovers & Associates		Date Received:	08/22/13
5900 Hollis Street, Suite A		Work Order:	13-08-1529
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 4255 MacArthur Blvd., Oakland, CA			Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-08-1530-1	**Air**	**GC 38**	**N/A**	**08/23/13 04:23**	**130822D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	14300000	14530000	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: ASTM D-1946

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1879	**Air**	**GC 65**	**N/A**	**08/22/13 09:58**	**130822L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.323	96	4.335	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.49	97	14.87	99	80-120	3	0-30	
Carbon Monoxide	6.990	7.094	101	7.089	101	80-120	0	0-30	
Oxygen + Argon	4.010	4.077	102	4.016	100	80-120	2	0-30	
Nitrogen	69.50	67.82	98	67.62	97	80-120	0	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: EPA 8260B (M)
Page 2 of 4

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1439	**Air**	**GC/MS K**	**N/A**	**08/22/13 16:59**	**130822L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	76.35	96	77.08	97	60-156	44-172	1	0-40	
Toluene	94.21	86.78	92	89.43	95	56-146	41-161	3	0-43	
Ethylbenzene	108.6	96.44	89	99.64	92	52-154	35-171	3	0-38	
p/m-Xylene	217.1	203.1	94	205.7	95	42-156	23-175	1	0-41	
o-Xylene	108.6	100.0	92	99.29	91	52-148	36-164	1	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	76.93	85	74.90	83	45-147	28-164	3	0-25	
Tert-Butyl Alcohol (TBA)	151.6	158.1	104	148.1	98	60-140	47-153	7	0-35	
Diisopropyl Ether (DIPE)	104.5	83.67	80	81.74	78	60-140	47-153	2	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	80.02	77	77.86	75	60-140	47-153	3	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	80.92	77	82.86	79	60-140	47-153	2	0-35	
Naphthalene	131.1	120.6	92	122.8	94	60-140	47-153	2	0-30	
Ethanol	188.4	124.2	66	126.0	67	47-137	32-152	1	0-35	
1,1-Difluoroethane	67.54	59.57	88	57.32	85	78-156	65-169	4	0-35	
Isopropanol	61.45	45.65	74	45.57	74	78-156	65-169	0	0-35	ME

Total number of LCS compounds: 14
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: EPA 8260B (M)
Page 3 of 4

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1440	**Air**	**GC/MS K**	**N/A**	**08/23/13 11:18**	**130823L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	82.52	103	83.69	105	60-156	44-172	1	0-40	
Toluene	94.21	93.32	99	94.26	100	56-146	41-161	1	0-43	
Ethylbenzene	108.6	104.4	96	103.4	95	52-154	35-171	1	0-38	
p/m-Xylene	217.1	216.1	100	212.5	98	42-156	23-175	2	0-41	
o-Xylene	108.6	103.7	95	102.0	94	52-148	36-164	2	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	84.43	94	82.26	91	45-147	28-164	3	0-25	
Tert-Butyl Alcohol (TBA)	151.6	162.8	107	173.3	114	60-140	47-153	6	0-35	
Diisopropyl Ether (DIPE)	104.5	94.25	90	90.10	86	60-140	47-153	5	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	86.73	83	85.11	81	60-140	47-153	2	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	82.15	79	87.14	83	60-140	47-153	6	0-35	
Naphthalene	131.1	117.7	90	118.8	91	60-140	47-153	1	0-30	
Ethanol	188.4	150.2	80	139.4	74	47-137	32-152	7	0-35	
1,1-Difluoroethane	67.54	68.03	101	62.97	93	78-156	65-169	8	0-35	
Isopropanol	61.45	54.84	89	50.81	83	78-156	65-169	8	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/22/13
Work Order: 13-08-1529
Preparation: N/A
Method: EPA TO-3M

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-431-181	**Air**	**GC 38**	**08/22/13 09:56**	**130822L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	330200	86	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-08-1529 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

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

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

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Shell Oil Products Chain Of Custody Record

LAB (Location/PM)
- ☑ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (IRVINE / Phil Sanelle - PM)
- ☐ 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 - 240524
PO #:
INCIDENT # (ENV SERVICES): 9 8 9 9 6 0 8 6
SAP #: 1 3 6 0 1 9
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 8/21/13
PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates
LOG CODE: CRAW
ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer
TELEPHONE: 510-420-3319
FAX: 510-420-9170
E-MAIL: pschaefer@craworld.com

SITE ADDRESS: Street and City: 4255 MacArthur Blvd., Oakland
State: CA
GLOBAL ID NO.: T0600101261
EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville
PHONE NO.: 510-420-3343
E-MAIL: sonomaedf@craworld.com
CONSULTANT PROJECT NO.: 240524
SAMPLER NAME(S) (Print): CHRIS BENEDICT
PLEASE ONLY 13-08-1529

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:
1) Please upload the "CRA EQuIS 4-file EDD" to the CRA Website (http://cralabedduplload.craworld.com/equis/default.aspx) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder.
2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH as Gasoline (8260B)	TPH - Extractable (8015M)	BTEX, MTBE (8260B)	Naphthalene (8260B)	Oxygen, CO2 (GC/TCD)	methane (GC/TCD)	1,1-difluoroethane (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)			TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	SVP-14-2.5	8/21/13	1134	VAPOR						1	X		X	X	X	X															
2	SVP-14-1.5	↓	1330	↓						1	X		X	X	X	X															
3	SVP-14-0.5		1354							1	X		X	X	X	X															
4	SVP-15-2.5		1430							1	X		X	X	X	X															

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature] CEL	8/21/13	1440
[signature]	[signature]	8/21/13	1730
[signature]	[signature]	8/22/13	1040

05/2/06 Revision

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GSO
GOLDEN STATE OVERNIGHT

WebShip > > > > >

800-322-5555 www.gso.com

1529

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 #: 522564490

NPS

ORC **A**

GARDEN GROVE

D92841A

15248882

Print Date : 08/21/13 15:36 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.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-08- 1 5 2 9

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA

DATE: 08/22/13

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

Temperature 2.0 °C - 0.2 °C (CF) = 1.8 °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: JP

CUSTODY SEALS INTACT:

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

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

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☑	☐	☐

CONTAINER TYPE:

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

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

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

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

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

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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised/corrected.

CALSCIENCE

WORK ORDER NUMBER: 13-08-1631

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 4255 MacArthur Blvd., Oakland, CA

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

Approved for release on 11/12/2013 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: 4255 MacArthur Blvd., Oakland, CA
Work Order Number: 13-08-1631

Calscience Environmental Laboratories, Inc.

Work Order Narrative

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 08/23/13. They were assigned to Work Order 13-08-1631.

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

Holding Times:

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

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

Quality Control:

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

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

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

Sample SVP-25-FLUX collected at 14:27 was renamed as SVP-23-FLUX per client's request (CEL 13-08-1631-11).

Samples SVP-22-0.5, SVP-22-1.5 and SVP-22-2.5 (CEL 13-08-1631-3, -4 and -5):
The dilution analysis for Methyl-t-Butyl Ether (MTBE) for the above samples were performed outside of the method recommended holding time.
The samples were originally analyzed without dilution (DF=1) and within the holding time. All compounds detected were within the calibration range with the exception of MTBE exceeded the calibration range and required a higher dilution.
Due to the short holding time requirement for the method and to the fact that the samples were received on a Friday with the holding time expired on Saturday, the chemist was unable to perform the reanalysis within the holding time. The results for MTBE were reported with a qualifier HT indicating the analysis was performed outside of the method recommended holding time.

Subcontractor Information:

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

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	13-08-1631
		Project Name:	4255 MacArthur Blvd., Oakland, CA
		PO Number:	
		Date/Time Received:	08/23/13 11:15
		Number of Containers:	11
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SVP-15-1.5	13-08-1631-1	08/21/13 15:15	1	Air
SVP-15-0.5	13-08-1631-2	08/21/13 15:20	1	Air
SVP-22-0.5	13-08-1631-3	08/21/13 17:05	1	Air
SVP-22-1.5	13-08-1631-4	08/21/13 17:15	1	Air
SVP-22-2.5	13-08-1631-5	08/21/13 17:25	1	Air
SVP-14-FLUX	13-08-1631-6	08/22/13 12:40	1	Air
SVP-22-FLUX	13-08-1631-7	08/22/13 13:10	1	Air
SVP-15-FLUX	13-08-1631-8	08/22/13 13:35	1	Air
SVP-25-FLUX	13-08-1631-9	08/22/13 13:55	1	Air
SVP-24-FLUX	13-08-1631-10	08/22/13 14:15	1	Air
SVP-23-FLUX	13-08-1631-11	08/22/13 14:27	1	Air

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Calscience Environmental Laboratories, Inc.

Case Narrative

Work Order: 13-08-1631 Page 1 of 1

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

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

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

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Calscience Environmental Laboratories, Inc.

Detections Summary

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

Work Order: 13-08-1631
Project Name: 4255 MacArthur Blvd., Oakland, CA
Received: 08/23/13

Attn: Peter Schaefer

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-15-1.5 (13-08-1631-1)						
Carbon Dioxide	11.0		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.49		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	480000		3800	ug/m3	EPA TO-3M	N/A
SVP-15-0.5 (13-08-1631-2)						
Oxygen + Argon	21.6		0.500	%v	ASTM D-1946	N/A
Toluene	24		19	ug/m3	EPA 8260B (M)	N/A
1,1-Difluoroethane	25000		1400	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	7400		3800	ug/m3	EPA TO-3M	N/A
SVP-22-0.5 (13-08-1631-3)						
Carbon Dioxide	14.2		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	3.94		0.500	%v	ASTM D-1946	N/A
Benzene	47		16	ug/m3	EPA 8260B (M)	N/A
Toluene	27		19	ug/m3	EPA 8260B (M)	N/A
Methyl-t-Butyl Ether (MTBE)	500		360	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	15000		3800	ug/m3	EPA TO-3M	N/A
SVP-22-1.5 (13-08-1631-4)						
Carbon Dioxide	15.6		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.26		0.500	%v	ASTM D-1946	N/A
Benzene	22		16	ug/m3	EPA 8260B (M)	N/A
Toluene	23		19	ug/m3	EPA 8260B (M)	N/A
Methyl-t-Butyl Ether (MTBE)	640		140	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	11000		3800	ug/m3	EPA TO-3M	N/A
SVP-22-2.5 (13-08-1631-5)						
Carbon Dioxide	14.7		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.10		0.500	%v	ASTM D-1946	N/A
Benzene	26		16	ug/m3	EPA 8260B (M)	N/A
Toluene	22		19	ug/m3	EPA 8260B (M)	N/A
Methyl-t-Butyl Ether (MTBE)	960		360	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	18000		3800	ug/m3	EPA TO-3M	N/A
SVP-14-FLUX (13-08-1631-6)						
Oxygen + Argon	21.6		0.500	%v	ASTM D-1946	N/A
Toluene	28		19	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	6600		3800	ug/m3	EPA TO-3M	N/A
SVP-22-FLUX (13-08-1631-7)						
Oxygen + Argon	21.7		0.500	%v	ASTM D-1946	N/A
Toluene	21		19	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	6900		3800	ug/m3	EPA TO-3M	N/A

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	13-08-1631
	5900 Hollis Street, Suite A	Project Name:	4255 MacArthur Blvd., Oakland, CA
	Emeryville, CA 94608-2008	Received:	08/23/13
Attn:	Peter Schaefer		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-15-FLUX (13-08-1631-8)						
Oxygen + Argon	21.7		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	6700		3800	ug/m3	EPA TO-3M	N/A
SVP-25-FLUX (13-08-1631-9)						
Oxygen + Argon	21.7		0.500	%v	ASTM D-1946	N/A
Toluene	42		19	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	6700		3800	ug/m3	EPA TO-3M	N/A
SVP-24-FLUX (13-08-1631-10)						
Oxygen + Argon	21.6		0.500	%v	ASTM D-1946	N/A
Toluene	62		19	ug/m3	EPA 8260B (M)	N/A
SVP-23-FLUX (13-08-1631-11)						
Oxygen + Argon	21.6		0.500	%v	ASTM D-1946	N/A
Benzene	16		16	ug/m3	EPA 8260B (M)	N/A
Toluene	65		19	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	6600		3800	ug/m3	EPA TO-3M	N/A

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

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-15-1.5	**13-08-1631-1-A**	**08/21/13 15:15**	**Air**	**GC 65**	**N/A**	**08/23/13 12:24**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	11.0	0.500	1	
Oxygen + Argon	2.49	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.6	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	14.2	0.500	1	
Oxygen + Argon	3.94	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	15.6	0.500	1	
Oxygen + Argon	2.26	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	14.7	0.500	1	
Oxygen + Argon	2.10	0.500	1	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received: 08/23/13
5900 Hollis Street, Suite A	Work Order: 13-08-1631
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946
	Units: %v

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-14-FLUX	**13-08-1631-6-A**	**08/22/13 12:40**	**Air**	**GC 65**	**N/A**	**08/23/13 14:09**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.6	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.7	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.7	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.7	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.6	0.500	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received:	08/23/13
Work Order:	13-08-1631
Preparation:	N/A
Method:	ASTM D-1946
Units:	%v

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-23-FLUX	**13-08-1631-11-A**	**08/22/13 14:27**	**Air**	**GC 65**	**N/A**	**08/23/13 16:33**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.6	0.500	1	

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-15-1.5	**13-08-1631-1-A**	**08/21/13 15:15**	**Air**	**GC/MS AA**	**N/A**	**08/24/13 17:56**	**130824L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	40	2.5	
Toluene	ND	47	2.5	
Ethylbenzene	ND	54	2.5	
p/m-Xylene	ND	110	2.5	
o-Xylene	ND	54	2.5	
Xylenes (total)	ND	54	1	
Methyl-t-Butyl Ether (MTBE)	ND	90	2.5	
Naphthalene	ND	130	2.5	
1,1-Difluoroethane	ND	14	2.5	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	129	47-156	
1,2-Dichloroethane-d4	123	47-156	
Toluene-d8	61	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	24	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	47-156	
1,2-Dichloroethane-d4	102	47-156	
Toluene-d8	94	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-15-0.5	**13-08-1631-2-A**	**08/21/13 15:20**	**Air**	**GC/MS AA**	**N/A**	**08/24/13 23:17**	**130824L01**

Parameter	Result	RL	DF	Qualifiers
1,1-Difluoroethane	25000	1400	250	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	107	47-156	
1,2-Dichloroethane-d4	107	47-156	
Toluene-d8	97	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	47	16	1	
Toluene	27	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	ND	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	47-156	
1,2-Dichloroethane-d4	110	47-156	
Toluene-d8	86	47-156	

Comment(s): - Dilution analysis was performed outside the recommended holding time.

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	500	360	10	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	47-156	
1,2-Dichloroethane-d4	111	47-156	
Toluene-d8	102	47-156	

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-22-1.5	**13-08-1631-4-A**	**08/21/13 17:15**	**Air**	**GC/MS AA**	**N/A**	**08/23/13 22:35**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	22	16	1	
Toluene	23	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	ND	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	109	47-156	
1,2-Dichloroethane-d4	110	47-156	
Toluene-d8	90	47-156	

Comment(s): - Dilution analysis was performed outside the recommended holding time.

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	640	140	4	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	47-156	
1,2-Dichloroethane-d4	109	47-156	
Toluene-d8	103	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-22-2.5	**13-08-1631-5-A**	**08/21/13 17:25**	**Air**	**GC/MS AA**	**N/A**	**08/23/13 23:22**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	26	16	1	
Toluene	22	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	ND	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	112	47-156	
1,2-Dichloroethane-d4	111	47-156	
Toluene-d8	86	47-156	

Comment(s): - Dilution analysis was performed outside the recommended holding time.

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	960	360	10	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	47-156	
1,2-Dichloroethane-d4	106	47-156	
Toluene-d8	103	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-14-FLUX	**13-08-1631-6-A**	**08/22/13 12:40**	**Air**	**GC/MS AA**	**N/A**	**08/24/13 00:14**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	28	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	47-156	
1,2-Dichloroethane-d4	108	47-156	
Toluene-d8	102	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	21	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	47-156	
1,2-Dichloroethane-d4	111	47-156	
Toluene-d8	100	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-15-FLUX	**13-08-1631-8-A**	**08/22/13 13:35**	**Air**	**GC/MS AA**	**N/A**	**08/24/13 02:52**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	107	47-156	
1,2-Dichloroethane-d4	111	47-156	
Toluene-d8	99	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	42	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	47-156	
1,2-Dichloroethane-d4	110	47-156	
Toluene-d8	103	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-24-FLUX	**13-08-1631-10-A**	**08/22/13 14:15**	**Air**	**GC/MS AA**	**N/A**	**08/24/13 04:27**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	62	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	47-156	
1,2-Dichloroethane-d4	112	47-156	
Toluene-d8	101	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	16	16	1	
Toluene	65	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	47-156	
1,2-Dichloroethane-d4	112	47-156	
Toluene-d8	103	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-1430**	**N/A**	**Air**	**GC/MS AA**	**N/A**	**08/23/13 18:44**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	ND	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	47-156	
1,2-Dichloroethane-d4	120	47-156	
Toluene-d8	101	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	ND	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	ND	22	1	
Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Naphthalene	ND	52	1	
1,1-Difluoroethane	ND	5.4	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	47-156	
1,2-Dichloroethane-d4	115	47-156	
Toluene-d8	99	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-1453**	**N/A**	**Air**	**GC/MS AA**	**N/A**	**09/06/13 13:25**	**130906L01**

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	36	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	47-156	
1,2-Dichloroethane-d4	96	47-156	
Toluene-d8	95	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-15-1.5	**13-08-1631-1-A**	**08/21/13 15:15**	**Air**	**GC 38**	**N/A**	**08/23/13 12:32**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	480000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	7400	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	15000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	11000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	18000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	6600	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	6900	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	6700	3800	1	

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-25-FLUX	**13-08-1631-9-A**	**08/22/13 13:55**	**Air**	**GC 38**	**N/A**	**08/23/13 17:59**	**130823L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	6700	3800	1	

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

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	6600	3800	1	

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

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

Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Conestoga-Rovers & Associates		Date Received:	08/23/13
5900 Hollis Street, Suite A		Work Order:	13-08-1631
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 4255 MacArthur Blvd., Oakland, CA			Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-08-1632-1	**Air**	**GC 38**	**N/A**	**08/23/13 20:36**	**130823D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	13610000	14010000	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: ASTM D-1946

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1880	**Air**	**GC 65**	**N/A**	**08/23/13 10:01**	**130823L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.332	96	4.340	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.49	97	14.92	99	80-120	3	0-30	
Carbon Monoxide	6.990	7.106	102	7.099	102	80-120	0	0-30	
Oxygen + Argon	4.010	4.079	102	4.006	100	80-120	2	0-30	
Nitrogen	69.50	67.92	98	67.67	97	80-120	0	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Page 2 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1430	**Air**	**GC/MS AA**	**N/A**	**08/23/13 15:04**	**130823L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	79.88	100	80.18	100	60-156	44-172	0	0-40	
Toluene	94.21	96.85	103	97.03	103	56-146	41-161	0	0-43	
Ethylbenzene	108.6	110.6	102	110.0	101	52-154	35-171	0	0-38	
p/m-Xylene	217.1	233.1	107	231.3	107	42-156	23-175	1	0-41	
o-Xylene	108.6	115.0	106	113.4	104	52-148	36-164	1	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	90.90	101	90.79	101	45-147	28-164	0	0-25	
Tert-Butyl Alcohol (TBA)	151.6	169.4	112	168.3	111	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	91.71	88	91.34	87	60-140	47-153	0	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	94.22	90	93.65	90	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	96.20	92	96.41	92	60-140	47-153	0	0-35	
Naphthalene	131.1	128.2	98	138.9	106	60-140	47-153	8	0-30	
Ethanol	188.4	202.4	107	200.7	107	47-137	32-152	1	0-35	
1,1-Difluoroethane	67.54	71.09	105	72.79	108	78-156	65-169	2	0-35	
Isopropanol	61.45	68.64	112	68.33	111	78-156	65-169	0	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Page 3 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1432	**Air**	**GC/MS AA**	**N/A**	**08/24/13 11:48**	**130824L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	80.65	101	78.82	99	60-156	44-172	2	0-40	
Toluene	94.21	98.51	105	94.27	100	56-146	41-161	4	0-43	
Ethylbenzene	108.6	113.6	105	108.6	100	52-154	35-171	4	0-38	
p/m-Xylene	217.1	243.0	112	229.1	106	42-156	23-175	6	0-41	
o-Xylene	108.6	118.9	109	112.5	104	52-148	36-164	5	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	92.00	102	91.32	101	45-147	28-164	1	0-25	
Tert-Butyl Alcohol (TBA)	151.6	173.8	115	165.0	109	60-140	47-153	5	0-35	
Diisopropyl Ether (DIPE)	104.5	92.48	89	90.01	86	60-140	47-153	3	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	95.83	92	95.27	91	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	99.36	95	95.85	92	60-140	47-153	4	0-35	
Naphthalene	131.1	139.0	106	136.2	104	60-140	47-153	2	0-30	
Ethanol	188.4	209.6	111	197.1	105	47-137	32-152	6	0-35	
1,1-Difluoroethane	67.54	71.04	105	68.96	102	78-156	65-169	3	0-35	
Isopropanol	61.45	70.16	114	66.45	108	78-156	65-169	5	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 08/23/13
Work Order: 13-08-1631
Preparation: N/A
Method: EPA 8260B (M)
Page 4 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1453	**Air**	**GC/MS AA**	**N/A**	**09/06/13 11:52**	**130906L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	95.54	120	94.79	119	60-156	44-172	1	0-40	
Toluene	94.21	116.0	123	112.8	120	56-146	41-161	3	0-43	
Ethylbenzene	108.6	133.3	123	130.1	120	52-154	35-171	2	0-38	
p/m-Xylene	217.1	270.8	125	259.4	119	42-156	23-175	4	0-41	
o-Xylene	108.6	129.2	119	125.6	116	52-148	36-164	3	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	103.8	115	103.6	115	45-147	28-164	0	0-25	
Tert-Butyl Alcohol (TBA)	151.6	161.2	106	158.8	105	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	113.1	108	111.1	106	60-140	47-153	2	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	108.4	104	108.1	104	60-140	47-153	0	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	110.4	106	109.5	105	60-140	47-153	1	0-35	
Naphthalene	131.1	122.5	94	160.1	122	60-140	47-153	27	0-30	
Ethanol	188.4	192.4	102	181.7	96	47-137	32-152	6	0-35	
1,1-Difluoroethane	67.54	75.04	111	71.80	106	78-156	65-169	4	0-35	
Isopropanol	61.45	66.11	108	63.88	104	78-156	65-169	3	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Conestoga-Rovers & Associates	Date Received:	08/23/13
5900 Hollis Street, Suite A	Work Order:	13-08-1631
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA TO-3M
Project: 4255 MacArthur Blvd., Oakland, CA		Page 5 of 5

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-431-182	**Air**	**GC 38**	**08/23/13 10:07**	**130823L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	338100	88	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-08-1631 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

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

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

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Shell Oil Product... Chain Of Custody Record

LAB (Location/PM)
- [x] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (IRVINE / Phil Sanelle - PM)
- [ ] OTHER (_____)

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

Print Bill To Contact Name: Peter Schaefer - 240524

PO #:

INCIDENT # (ENV SERVICES): 98996086

SAP #: 136019

- [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 8-22-13

PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 4255 MacArthur Blvd., Oakland	State: CA
ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608		EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville	PHONE NO.: 510-420-3343
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		E-MAIL: sonomaedf@craworld.com	CONSULTANT PROJECT NO.: 240524
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com	GLOBAL ID NO.: T0600101261
SAMPLER NAME(S) (Print): CHRIS BENZIGA			LAB USE ONLY: 13-08-1631

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

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

SPECIAL INSTRUCTIONS OR NOTES:
1) Please upload the "CRA EQuIS 4-file EDD" to the CRA Website (http://cralabedduplоad.craworld.com/equis/default.aspx) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder.
2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH as Gasoline (8260B)	TPH - Extractable (8015M)	BTEX, MTBE (8260B)	Naphthalene (8260B)	Oxygen, CO2 (GC/TCD)	methane (GC/TCD)	1,1-difluoroethane (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)		TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	SVP-15-1.5	8/21/13	1515							1	X		X	X	X	X	X													
2	SVP-15-0.5		1520							1	X		X	X	X	X	X													
3	SVP-22-0.5		1705							1	X		X	X	X	X	X													
4	SVP-22-1.5		1715							1	X		X	X	X	X	X													
5	SVP-22-2.5		1725							1	X		X	X	X	X	X													
6	SVP-14-FLUX	8/22/13	1240							1	X		X	X	X	X														
7	SVP-22-FLUX		1310							1	X		X	X	X	X														
8	SVP-15-FLUX		1335							1	X		X	X	X	X														
9	SVP-25-FLUX		1355							1	X		X	X	X	X														
10	SVP-24-FLUX		1415							1	X		X	X	X	X														
11	SVP-25-FLUX		1425							1	X		X	X	X	X														

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature] CEL	8/22/13	1600
[signature] TO GSO 8/22/13 1730	[signature]	8/23/13	11:15

05/2/06 Revision

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1631

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, PARSONS, CARDNO ERI

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 522576083

NPS

ORC

A

GARDEN GROVE

D92841A

15298638

Print Date : 08/22/13 15:49 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.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-08-1613/1

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA DATE: 08/23/13

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

Temperature ____.____ °C - 0.2 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

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

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

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

Ambient Temperature: ☑ Air ☐ Filter Initial: JV

CUSTODY SEALS INTACT:

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

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

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. 8/23/13			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☐

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

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

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

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

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

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

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Xuan Dang

From: Schaefer, Peter [pschaefer@craworld.com]
Sent: Tuesday, November 12, 2013 11:56 AM
To: Xuan Dang
Subject: RE: 4255 MacArthur Blvd., Oakland, CA / CEL 13-08-1631

Xuan,

Due to a field error, I need to have this report & EDF reissued with SVP-25-FLUX collected at 14:27 renamed as SVP-23-FLUX. Thank you for your help.

Regards,

Peter Schaefer
(510) 420-3319

From: Xuan Dang [mailto:xdang@calscience.com]
Sent: Tuesday, September 10, 2013 2:21 PM
To: Schaefer, Peter
Cc: Carter, Brenda; Sonoma EDF; Shell-US-LabDataManagement; Shell Lab Billing
Subject: 4255 MacArthur Blvd., Oakland, CA / CEL 13-08-1631

Please see case narrative on page 4 regarding the holding time issue for MTBE analysis on samples #3,4 and 5.

Please let me know if you have questions or need further information.

Best Regards,

Xuan Dang
Project Manager

Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
www.calscience.com

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-09-1194

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 4255 Mac Arthur Blvd., Oakland, CA

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

Approved for release on 10/01/2013 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: 4255 Mac Arthur Blvd., Oakland, CA
Work Order Number: 13-09-1194

Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-09-1194 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 09/19/13. They were assigned to Work Order 13-09-1194.

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

Holding Times:

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

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

Quality Control:

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

Additional Comments:

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

EPA 8260B(M) – LCS/LCSD Batch 130921L01 GC/MS YY

The percent recoveries for 1,1-Difluoroethane and Isopropanol failed the control limits. These compounds were not requested for this project and therefore, the sample data was not affected and was reported without further clarification.

Subcontractor Information:

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

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Calscience Environmental Laboratories, Inc.

Sample Summary

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

Work Order: 13-09-1194
Project Name: 4255 Mac Arthur Blvd., Oakland, CA
PO Number:
Date/Time Received: 09/19/13 11:00
Number of Containers: 24

Attn: Peter Schaefer

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SVP-14-5	13-09-1194-1	09/17/13 11:20	1	Air
SVP-22-2.5	13-09-1194-2	09/17/13 11:55	1	Air
SVP-22-5	13-09-1194-3	09/17/13 12:15	1	Air
SVP-15-2.5	13-09-1194-4	09/17/13 12:55	1	Air
SVP-15-5	13-09-1194-5	09/17/13 13:20	1	Air
SVP-25-2.5	13-09-1194-6	09/17/13 13:55	1	Air
SVP-25-5	13-09-1194-7	09/17/13 14:20	1	Air
SVP-24-2.5	13-09-1194-8	09/17/13 15:15	1	Air
SVP-24-5	13-09-1194-9	09/17/13 15:35	1	Air
SVP-13-2.5	13-09-1194-10	09/17/13 16:20	1	Air
SVP-13-5	13-09-1194-11	09/17/13 16:35	1	Air
SVP-23-2.5	13-09-1194-12	09/17/13 17:15	1	Air
SVP-23-5	13-09-1194-13	09/17/13 17:30	1	Air
SVP-19-5	13-09-1194-14	09/18/13 07:40	1	Air
SVP-19A-2.5	13-09-1194-15	09/18/13 08:15	1	Air
SVP-19A-5	13-09-1194-16	09/18/13 08:40	1	Air
SVP-7-5	13-09-1194-17	09/18/13 09:15	1	Air
SVP-6A-2.5	13-09-1194-18	09/18/13 09:40	1	Air
SVP-6A-5	13-09-1194-19	09/18/13 10:05	1	Air
DUP	13-09-1194-20	09/17/13 00:00	1	Air
SVP-5-2.5	13-09-1194-21	09/18/13 10:35	1	Air
SVP-5-5	13-09-1194-22	09/18/13 11:00	1	Air
SVP-2-2.5	13-09-1194-23	09/18/13 11:45	1	Air
SVP-2-5	13-09-1194-24	09/18/13 12:35	1	Air

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Calscience Environmental Laboratories, Inc.

Case Narrative

Work Order: 13-09-1194 Page 1 of 1

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

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

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

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Calscience Environmental Laboratories, Inc.

Detections Summary

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

Work Order: 13-09-1194
Project Name: 4255 Mac Arthur Blvd., Oakland, CA
Received: 09/19/13

Attn: Peter Schaefer

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-14-5 (13-09-1194-1)						
Methane	21.9		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	20.3		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.33		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	75000000		760000	ug/m3	EPA TO-3M	N/A
SVP-22-2.5 (13-09-1194-2)						
Carbon Dioxide	14.9		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	5.80		0.500	%v	ASTM D-1946	N/A
p/m-Xylene	55		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	55		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	9200		3800	ug/m3	EPA TO-3M	N/A
SVP-22-5 (13-09-1194-3)						
Carbon Dioxide	17.9		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.15		0.500	%v	ASTM D-1946	N/A
Helium	0.0216		0.0100	%v	ASTM D-1946 (M)	N/A
Ethylbenzene	23		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	79		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	79		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	12000		3800	ug/m3	EPA TO-3M	N/A
SVP-15-2.5 (13-09-1194-4)						
Carbon Dioxide	12.4		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.24		0.500	%v	ASTM D-1946	N/A
Gasoline Range Organics (C6-C12)	880000		3800	ug/m3	EPA TO-3M	N/A
SVP-15-5 (13-09-1194-5)						
Carbon Dioxide	12.5		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.00		0.500	%v	ASTM D-1946	N/A
Helium	0.0107		0.0100	%v	ASTM D-1946 (M)	N/A
Gasoline Range Organics (C6-C12)	1500000		3800	ug/m3	EPA TO-3M	N/A
SVP-25-2.5 (13-09-1194-6)						
Carbon Dioxide	10.1		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.09		0.500	%v	ASTM D-1946	N/A
Helium	0.0199		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	22		16	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	25		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	77		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	77		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	53000		3800	ug/m3	EPA TO-3M	N/A

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

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

Work Order: 13-09-1194
Project Name: 4255 Mac Arthur Blvd., Oakland, CA
Received: 09/19/13

Attn: Peter Schaefer

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-25-5 (13-09-1194-7)						
Carbon Dioxide	11.1		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.35		0.500	%v	ASTM D-1946	N/A
Helium	0.0781		0.0100	%v	ASTM D-1946 (M)	N/A
Ethylbenzene	22		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	72		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	72		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	45000		3800	ug/m3	EPA TO-3M	N/A
SVP-24-2.5 (13-09-1194-8)						
Carbon Dioxide	11.9		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.13		0.500	%v	ASTM D-1946	N/A
Helium	0.0130		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	24		16	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	25		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	70		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	70		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	65000		3800	ug/m3	EPA TO-3M	N/A
SVP-24-5 (13-09-1194-9)						
Carbon Dioxide	12.5		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.61		0.500	%v	ASTM D-1946	N/A
Helium	0.0157		0.0100	%v	ASTM D-1946 (M)	N/A
Ethylbenzene	34		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	98		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	98		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	43000		3800	ug/m3	EPA TO-3M	N/A
SVP-13-2.5 (13-09-1194-10)						
Carbon Dioxide	7.62		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	15.5		0.500	%v	ASTM D-1946	N/A
p/m-Xylene	75		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	75		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	6000		3800	ug/m3	EPA TO-3M	N/A
SVP-13-5 (13-09-1194-11)						
Carbon Dioxide	10.1		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	13.9		0.500	%v	ASTM D-1946	N/A
p/m-Xylene	51		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	51		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	13000		3800	ug/m3	EPA TO-3M	N/A

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Calscience Environmental Laboratories, Inc.

Detections Summary

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

Work Order: 13-09-1194
Project Name: 4255 Mac Arthur Blvd., Oakland, CA
Received: 09/19/13

Attn: Peter Schaefer

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-23-2.5 (13-09-1194-12)						
Carbon Dioxide	8.31		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	13.4		0.500	%v	ASTM D-1946	N/A
p/m-Xylene	51		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	51		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	13000		3800	ug/m3	EPA TO-3M	N/A
SVP-23-5 (13-09-1194-13)						
Carbon Dioxide	9.83		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	12.1		0.500	%v	ASTM D-1946	N/A
p/m-Xylene	71		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	71		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	6100		3800	ug/m3	EPA TO-3M	N/A
SVP-19-5 (13-09-1194-14)						
Methane	5.72		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	19.2		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	2.55		0.500	%v	ASTM D-1946	N/A
Helium	0.0167		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	930000		320000	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	130000		11000	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	50000		22000	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	50000		11000	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	210000000		760000	ug/m3	EPA TO-3M	N/A
SVP-19A-2.5 (13-09-1194-15)						
Carbon Dioxide	0.564		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	21.2		0.500	%v	ASTM D-1946	N/A
Helium	0.0223		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	1600		260	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	1300		350	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	190000		3800	ug/m3	EPA TO-3M	N/A
SVP-19A-5 (13-09-1194-16)						
Methane	8.42		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	1.89		0.500	%v	ASTM D-1946	N/A
Helium	0.0118		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	570000		130000	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	230000		170000	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	270000000		1500000	ug/m3	EPA TO-3M	N/A

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

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

Work Order: 13-09-1194
Project Name: 4255 Mac Arthur Blvd., Oakland, CA
Received: 09/19/13

Attn: Peter Schaefer

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-7-5 (13-09-1194-17)						
Methane	20.8		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	12.6		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	1.74		0.500	%v	ASTM D-1946	N/A
Helium	0.0148		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	650000		130000	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	370000		170000	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	310000000		1500000	ug/m3	EPA TO-3M	N/A
SVP-6A-2.5 (13-09-1194-18)						
Oxygen + Argon	17.4		0.500	%v	ASTM D-1946	N/A
Helium	0.0143		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	850		64	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	870		87	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	610		170	ug/m3	EPA 8260B (M)	N/A
o-Xylene	150		87	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	760		87	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	260000		3800	ug/m3	EPA TO-3M	N/A
SVP-6A-5 (13-09-1194-19)						
Oxygen + Argon	14.4		0.500	%v	ASTM D-1946	N/A
Helium	0.0142		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	420		64	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	420		87	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	340		170	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	340		87	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	320000		3800	ug/m3	EPA TO-3M	N/A
DUP (13-09-1194-20)						
Carbon Dioxide	10.0		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	13.9		0.500	%v	ASTM D-1946	N/A
p/m-Xylene	56		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	56		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	5800		3800	ug/m3	EPA TO-3M	N/A
SVP-5-2.5 (13-09-1194-21)						
Oxygen + Argon	20.8		0.500	%v	ASTM D-1946	N/A
Helium	0.0104		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	640		160	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	820		220	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	500		430	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	500		220	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	150000		3800	ug/m3	EPA TO-3M	N/A

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	13-09-1194
	5900 Hollis Street, Suite A	Project Name:	4255 Mac Arthur Blvd., Oakland, CA
	Emeryville, CA 94608-2008	Received:	09/19/13
Attn:	Peter Schaefer		Page 5 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-5-5 (13-09-1194-22)						
Methane	15.4		0.500	%v	ASTM D-1946	N/A
Carbon Dioxide	10.0		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	1.83		0.500	%v	ASTM D-1946	N/A
Helium	0.0132		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	140000		64000	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	180000000		760000	ug/m3	EPA TO-3M	N/A
SVP-2-2.5 (13-09-1194-23)						
Oxygen + Argon	18.6		0.500	%v	ASTM D-1946	N/A
Helium	0.0162		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	710		320	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	1200		430	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	320000		3800	ug/m3	EPA TO-3M	N/A
SVP-2-5 (13-09-1194-24)						
Oxygen + Argon	19.0		0.500	%v	ASTM D-1946	N/A
Helium	0.0362		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	290		80	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	650		110	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	430		220	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	430		110	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	100000		3800	ug/m3	EPA TO-3M	N/A

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

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 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-14-5	**13-09-1194-1-A**	**09/17/13 11:20**	**Air**	**GC 65**	**N/A**	**09/19/13 14:10**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Methane	21.9	0.500	1	
Carbon Dioxide	20.3	0.500	1	
Oxygen + Argon	2.33	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	14.9	0.500	1	
Oxygen + Argon	5.80	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	17.9	0.500	1	
Oxygen + Argon	2.15	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	12.4	0.500	1	
Oxygen + Argon	2.24	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	12.5	0.500	1	
Oxygen + Argon	2.00	0.500	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 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-25-2.5	**13-09-1194-6-A**	**09/17/13 13:55**	**Air**	**GC 65**	**N/A**	**09/19/13 17:16**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	10.1	0.500	1	
Oxygen + Argon	2.09	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	11.1	0.500	1	
Oxygen + Argon	2.35	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	11.9	0.500	1	
Oxygen + Argon	2.13	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	12.5	0.500	1	
Oxygen + Argon	2.61	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	7.62	0.500	1	
Oxygen + Argon	15.5	0.500	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 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-13-5	**13-09-1194-11-A**	**09/17/13 16:35**	**Air**	**GC 65**	**N/A**	**09/19/13 19:23**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	10.1	0.500	1	
Oxygen + Argon	13.9	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	8.31	0.500	1	
Oxygen + Argon	13.4	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	9.83	0.500	1	
Oxygen + Argon	12.1	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	5.72	0.500	1	
Carbon Dioxide	19.2	0.500	1	
Oxygen + Argon	2.55	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	0.564	0.500	1	
Oxygen + Argon	21.2	0.500	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 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-19A-5	**13-09-1194-16-A**	**09/18/13 08:40**	**Air**	**GC 65**	**N/A**	**09/20/13 08:35**	**130919L02**

Parameter	Result	RL	DF	Qualifiers
Methane	8.42	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	1.89	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	20.8	0.500	1	
Carbon Dioxide	12.6	0.500	1	
Oxygen + Argon	1.74	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	17.4	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	14.4	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	10.0	0.500	1	
Oxygen + Argon	13.9	0.500	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 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-5-2.5	**13-09-1194-21-A**	**09/18/13 10:35**	**Air**	**GC 65**	**N/A**	**09/20/13 10:45**	**130919L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	20.8	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	15.4	0.500	1	
Carbon Dioxide	10.0	0.500	1	
Oxygen + Argon	1.83	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	18.6	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	19.0	0.500	1	

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 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	**099-03-002-1897**	**N/A**	**Air**	**GC 65**	**N/A**	**09/19/13 21:58**	**130919L02**

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Project: 4255 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-14-5	**13-09-1194-1-A**	**09/17/13 11:20**	**Air**	**GC 55**	**N/A**	**09/19/13 16:24**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0216	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0107	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0199	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0781	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0130	0.0100	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Project: 4255 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-24-5	**13-09-1194-9-A**	**09/17/13 15:35**	**Air**	**GC 55**	**N/A**	**09/20/13 03:38**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0157	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0167	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0223	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0118	0.0100	1	

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Project: 4255 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-7-5	**13-09-1194-17-A**	**09/18/13 09:15**	**Air**	**GC 55**	**N/A**	**09/20/13 16:56**	**130920L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0148	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0143	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0142	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0104	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0132	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0162	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0362	0.0100	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Project: 4255 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	**099-12-872-499**	**N/A**	**Air**	**GC 55**	**N/A**	**09/19/13 15:13**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-14-5	**13-09-1194-1-A**	**09/17/13 11:20**	**Air**	**GC/MS AA**	**N/A**	**09/20/13 05:32**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	6400	400	
Toluene	ND	7500	400	
Ethylbenzene	ND	8700	400	
p/m-Xylene	ND	17000	400	
o-Xylene	ND	8700	400	
Xylenes (total)	ND	8700	1	
Naphthalene	ND	21000	400	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	47-156	
1,2-Dichloroethane-d4	90	47-156	
Toluene-d8	53	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	55	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	55	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	47-156	
1,2-Dichloroethane-d4	92	47-156	
Toluene-d8	95	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-22-5	**13-09-1194-3-A**	**09/17/13 12:15**	**Air**	**GC/MS AA**	**N/A**	**09/20/13 07:11**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	23	22	1	
p/m-Xylene	79	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	79	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	47-156	
1,2-Dichloroethane-d4	94	47-156	
Toluene-d8	98	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	64	4	
Toluene	ND	75	4	
Ethylbenzene	ND	87	4	
p/m-Xylene	ND	170	4	
o-Xylene	ND	87	4	
Xylenes (total)	ND	87	1	
Naphthalene	ND	210	4	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	129	47-156	
1,2-Dichloroethane-d4	96	47-156	
Toluene-d8	55	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-15-5	**13-09-1194-5-A**	**09/17/13 13:20**	**Air**	**GC/MS AA**	**N/A**	**09/20/13 12:39**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	400	25	
Toluene	ND	470	25	
Ethylbenzene	ND	540	25	
p/m-Xylene	ND	1100	25	
o-Xylene	ND	540	25	
Xylenes (total)	ND	540	1	
Naphthalene	ND	1300	25	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	47-156	
1,2-Dichloroethane-d4	90	47-156	
Toluene-d8	69	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	22	16	1	
Toluene	ND	19	1	
Ethylbenzene	25	22	1	
p/m-Xylene	77	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	77	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	47-156	
1,2-Dichloroethane-d4	93	47-156	
Toluene-d8	80	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-25-5	**13-09-1194-7-A**	**09/17/13 14:20**	**Air**	**GC/MS AA**	**N/A**	**09/20/13 14:13**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	22	22	1	
p/m-Xylene	72	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	72	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	47-156	
1,2-Dichloroethane-d4	94	47-156	
Toluene-d8	91	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	24	16	1	
Toluene	ND	19	1	
Ethylbenzene	25	22	1	
p/m-Xylene	70	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	70	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	113	47-156	
1,2-Dichloroethane-d4	96	47-156	
Toluene-d8	60	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-24-5	**13-09-1194-9-A**	**09/17/13 15:35**	**Air**	**GC/MS AA**	**N/A**	**09/20/13 15:00**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	34	22	1	
p/m-Xylene	98	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	98	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	47-156	
1,2-Dichloroethane-d4	94	47-156	
Toluene-d8	85	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	75	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	75	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	47-156	
1,2-Dichloroethane-d4	103	47-156	
Toluene-d8	97	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-13-5	**13-09-1194-11-A**	**09/17/13 16:35**	**Air**	**GC/MS II**	**N/A**	**09/20/13 08:40**	**130919L02**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	51	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	51	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	47-156	
1,2-Dichloroethane-d4	103	47-156	
Toluene-d8	96	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	51	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	51	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	47-156	
1,2-Dichloroethane-d4	104	47-156	
Toluene-d8	94	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-23-5	**13-09-1194-13-A**	**09/17/13 17:30**	**Air**	**GC/MS II**	**N/A**	**09/20/13 10:20**	**130919L02**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	71	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	71	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	47-156	
1,2-Dichloroethane-d4	104	47-156	
Toluene-d8	91	47-156	

Parameter	Result	RL	DF	Qualifiers
Toluene	ND	9400	500	
Ethylbenzene	130000	11000	500	
p/m-Xylene	50000	22000	500	
o-Xylene	ND	11000	500	
Xylenes (total)	50000	11000	1	
Naphthalene	ND	26000	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	111	47-156	
1,2-Dichloroethane-d4	103	47-156	
Toluene-d8	54	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-19-5	**13-09-1194-14-A**	**09/18/13 07:40**	**Air**	**GC/MS YY**	**N/A**	**09/21/13 07:00**	**130920L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	930000	320000	20000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	47-156	
1,2-Dichloroethane-d4	101	47-156	
Toluene-d8	99	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	1600	260	16	
Toluene	ND	300	16	
Ethylbenzene	1300	350	16	
p/m-Xylene	ND	690	16	
o-Xylene	ND	350	16	
Xylenes (total)	ND	350	1	
Naphthalene	ND	840	16	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	107	47-156	
1,2-Dichloroethane-d4	99	47-156	
Toluene-d8	92	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-19A-5	**13-09-1194-16-A**	**09/18/13 08:40**	**Air**	**GC/MS YY**	**N/A**	**09/21/13 07:45**	**130920L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	570000	130000	8000	
Toluene	ND	150000	8000	
Ethylbenzene	230000	170000	8000	
p/m-Xylene	ND	350000	8000	
o-Xylene	ND	170000	8000	
Xylenes (total)	ND	170000	1	
Naphthalene	ND	420000	8000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	47-156	
1,2-Dichloroethane-d4	101	47-156	
Toluene-d8	95	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	650000	130000	8000	
Toluene	ND	150000	8000	
Ethylbenzene	370000	170000	8000	
p/m-Xylene	ND	350000	8000	
o-Xylene	ND	170000	8000	
Xylenes (total)	ND	170000	1	
Naphthalene	ND	420000	8000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	47-156	
1,2-Dichloroethane-d4	101	47-156	
Toluene-d8	91	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-6A-2.5	**13-09-1194-18-A**	**09/18/13 09:40**	**Air**	**GC/MS YY**	**N/A**	**09/21/13 15:53**	**130921L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	850	64	4	
Toluene	ND	75	4	
Ethylbenzene	870	87	4	
p/m-Xylene	610	170	4	
o-Xylene	150	87	4	
Xylenes (total)	760	87	1	
Naphthalene	ND	210	4	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	144	47-156	
1,2-Dichloroethane-d4	98	47-156	
Toluene-d8	73	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	420	64	4	
Toluene	ND	75	4	
Ethylbenzene	420	87	4	
p/m-Xylene	340	170	4	
o-Xylene	ND	87	4	
Xylenes (total)	340	87	1	
Naphthalene	ND	210	4	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	163	47-156	2,7
1,2-Dichloroethane-d4	98	47-156	
Toluene-d8	58	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 Mac Arthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP	**13-09-1194-20-A**	**09/17/13 00:00**	**Air**	**GC/MS AA**	**N/A**	**09/20/13 15:47**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	16	1	
Toluene	ND	19	1	
Ethylbenzene	ND	22	1	
p/m-Xylene	56	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	56	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	47-156	
1,2-Dichloroethane-d4	94	47-156	
Toluene-d8	99	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	640	160	10	
Toluene	ND	190	10	
Ethylbenzene	820	220	10	
p/m-Xylene	500	430	10	
o-Xylene	ND	220	10	
Xylenes (total)	500	220	1	
Naphthalene	ND	520	10	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	47-156	
1,2-Dichloroethane-d4	100	47-156	
Toluene-d8	92	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-5-5	**13-09-1194-22-A**	**09/18/13 11:00**	**Air**	**GC/MS YY**	**N/A**	**09/21/13 09:15**	**130920L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	140000	64000	4000	
Toluene	ND	75000	4000	
Ethylbenzene	ND	87000	4000	
p/m-Xylene	ND	170000	4000	
o-Xylene	ND	87000	4000	
Xylenes (total)	ND	87000	1	
Naphthalene	ND	210000	4000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	109	47-156	
1,2-Dichloroethane-d4	102	47-156	
Toluene-d8	86	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	710	320	20	
Toluene	ND	380	20	
Ethylbenzene	1200	430	20	
p/m-Xylene	ND	870	20	
o-Xylene	ND	430	20	
Xylenes (total)	ND	430	1	
Naphthalene	ND	1000	20	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	47-156	
1,2-Dichloroethane-d4	100	47-156	
Toluene-d8	90	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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-2-5	**13-09-1194-24-A**	**09/18/13 12:35**	**Air**	**GC/MS YY**	**N/A**	**09/21/13 06:15**	**130920L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	290	80	5	
Toluene	ND	94	5	
Ethylbenzene	650	110	5	
p/m-Xylene	430	220	5	
o-Xylene	ND	110	5	
Xylenes (total)	430	110	1	
Naphthalene	ND	260	5	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	107	47-156	
1,2-Dichloroethane-d4	101	47-156	
Toluene-d8	89	47-156	

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

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	47-156	
1,2-Dichloroethane-d4	95	47-156	
Toluene-d8	95	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 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	**099-13-041-1478**	**N/A**	**Air**	**GC/MS II**	**N/A**	**09/20/13 04:13**	**130919L02**

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

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	47-156	
1,2-Dichloroethane-d4	104	47-156	
Toluene-d8	103	47-156	

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

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	47-156	
1,2-Dichloroethane-d4	103	47-156	
Toluene-d8	97	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates		Date Received:	09/19/13
5900 Hollis Street, Suite A		Work Order:	13-09-1194
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
		Units:	ug/m3
Project: 4255 Mac Arthur Blvd., Oakland, CA			Page 15 of 15

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-1491**	**N/A**	**Air**	**GC/MS YY**	**N/A**	**09/21/13 14:17**	**130921L01**

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

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	47-156	
1,2-Dichloroethane-d4	103	47-156	
Toluene-d8	97	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 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-14-5	**13-09-1194-1-A**	**09/17/13 11:20**	**Air**	**GC 38**	**N/A**	**09/20/13 12:30**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	75000000	760000	200	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	9200	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	12000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	880000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	1500000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	53000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	45000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	65000	3800	1	

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 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-24-5	**13-09-1194-9-A**	**09/17/13 15:35**	**Air**	**GC 43**	**N/A**	**09/20/13 15:26**	**130919L03**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	43000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	6000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	13000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	13000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	6100	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	210000000	760000	200	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	190000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	270000000	1500000	400	

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

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Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 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-7-5	**13-09-1194-17-A**	**09/18/13 09:15**	**Air**	**GC 38**	**N/A**	**09/20/13 10:56**	**130919L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	310000000	1500000	400	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	260000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	320000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	5800	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	150000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	180000000	760000	200	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	320000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	100000	3800	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 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	**099-14-431-205**	**N/A**	**Air**	**GC 38**	**N/A**	**09/20/13 00:21**	**130919L01**

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

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

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Conestoga-Rovers & Associates		Date Received:	09/19/13
5900 Hollis Street, Suite A		Work Order:	13-09-1194
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 4255 Mac Arthur Blvd., Oakland, CA			Page 1 of 2

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
SVP-15-5	**Air**	**GC 38**	**N/A**	**09/20/13 09:26**	**130919D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	1514000	1500000	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Conestoga-Rovers & Associates		Date Received:	09/19/13
5900 Hollis Street, Suite A		Work Order:	13-09-1194
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 4255 Mac Arthur Blvd., Oakland, CA			Page 2 of 2

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
SVP-15-2.5	**Air**	**GC 43**	**N/A**	**09/20/13 06:38**	**130919D03**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	877100	911700	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1898	**Air**	**GC 65**	**N/A**	**09/19/13 11:07**	**130919L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.321	96	4.310	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.56	97	14.70	98	80-120	1	0-30	
Carbon Monoxide	6.990	7.070	101	7.045	101	80-120	0	0-30	
Oxygen + Argon	4.010	4.063	101	4.064	101	80-120	0	0-30	
Nitrogen	69.50	67.66	97	67.50	97	80-120	0	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1897	**Air**	**GC 65**	**N/A**	**09/19/13 21:10**	**130919L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.304	96	4.324	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.84	99	15.11	101	80-120	2	0-30	
Carbon Monoxide	6.990	7.039	101	7.043	101	80-120	0	0-30	
Oxygen + Argon	4.010	4.083	102	4.020	100	80-120	2	0-30	
Nitrogen	69.50	67.49	97	67.36	97	80-120	0	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946 (M)
Page 3 of 10

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-499	**Air**	**GC 55**	**N/A**	**09/19/13 14:24**	**130919L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	1.014	101	1.028	103	80-120	1	0-30	
Hydrogen	1.000	0.9620	96	0.9727	97	80-120	1	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: ASTM D-1946 (M)
Page 4 of 10

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-500	**Air**	**GC 55**	**N/A**	**09/20/13 13:56**	**130920L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	1.021	102	1.059	106	80-120	4	0-30	
Hydrogen	1.000	0.9693	97	1.003	100	80-120	3	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Page 5 of 10

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1479	**Air**	**GC/MS AA**	**N/A**	**09/19/13 21:01**	**130919L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	79.55	100	80.32	101	60-156	44-172	1	0-40	
Toluene	94.21	98.05	104	98.35	104	56-146	41-161	0	0-43	
Ethylbenzene	108.6	108.6	100	116.9	108	52-154	35-171	7	0-38	
p/m-Xylene	217.1	223.8	103	238.8	110	42-156	23-175	6	0-41	
o-Xylene	108.6	108.3	100	117.9	109	52-148	36-164	8	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	87.00	97	87.21	97	45-147	28-164	0	0-25	
Tert-Butyl Alcohol (TBA)	151.6	118.2	78	116.8	77	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	81.19	78	82.12	79	60-140	47-153	1	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	87.61	84	88.05	84	60-140	47-153	1	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	91.59	88	91.71	88	60-140	47-153	0	0-35	
Naphthalene	131.1	133.0	101	132.9	101	60-140	47-153	0	0-30	
Ethanol	188.4	134.4	71	132.9	71	47-137	32-152	1	0-35	
1,1-Difluoroethane	67.54	59.47	88	67.50	100	78-156	65-169	13	0-35	
Isopropanol	61.45	50.10	82	50.14	82	78-156	65-169	0	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Page 6 of 10

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1478	**Air**	**GC/MS II**	**N/A**	**09/19/13 22:12**	**130919L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	91.80	115	90.01	113	60-156	44-172	2	0-40	
Toluene	94.21	107.4	114	101.2	107	56-146	41-161	6	0-43	
Ethylbenzene	108.6	118.4	109	112.1	103	52-154	35-171	5	0-38	
p/m-Xylene	217.1	234.7	108	221.8	102	42-156	23-175	6	0-41	
o-Xylene	108.6	116.5	107	110.3	102	52-148	36-164	6	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	100.5	112	98.58	109	45-147	28-164	2	0-25	
Tert-Butyl Alcohol (TBA)	151.6	157.6	104	155.0	102	60-140	47-153	2	0-35	
Diisopropyl Ether (DIPE)	104.5	107.7	103	105.5	101	60-140	47-153	2	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	105.9	101	103.5	99	60-140	47-153	2	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	106.0	102	103.7	99	60-140	47-153	2	0-35	
Naphthalene	131.1	125.8	96	115.7	88	60-140	47-153	8	0-30	
Ethanol	188.4	187.3	99	182.1	97	47-137	32-152	3	0-35	
1,1-Difluoroethane	67.54	75.27	111	74.09	110	78-156	65-169	2	0-35	
Isopropanol	61.45	64.94	106	62.51	102	78-156	65-169	4	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Page 7 of 10

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1480	**Air**	**GC/MS YY**	**N/A**	**09/20/13 14:05**	**130920L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	71.85	90	70.82	89	60-156	44-172	1	0-40	
Toluene	94.21	93.53	99	91.45	97	56-146	41-161	2	0-43	
Ethylbenzene	108.6	109.2	101	106.1	98	52-154	35-171	3	0-38	
p/m-Xylene	217.1	215.9	99	209.9	97	42-156	23-175	3	0-41	
o-Xylene	108.6	105.1	97	102.2	94	52-148	36-164	3	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	82.76	92	79.96	89	45-147	28-164	3	0-25	
Tert-Butyl Alcohol (TBA)	151.6	155.5	103	148.8	98	60-140	47-153	4	0-35	
Diisopropyl Ether (DIPE)	104.5	74.94	72	73.55	70	60-140	47-153	2	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	85.64	82	83.04	79	60-140	47-153	3	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	89.08	85	87.51	84	60-140	47-153	2	0-35	
Naphthalene	131.1	129.0	98	120.2	92	60-140	47-153	7	0-30	
Ethanol	188.4	136.9	73	133.3	71	47-137	32-152	3	0-35	
1,1-Difluoroethane	67.54	52.63	78	49.27	73	78-156	65-169	7	0-35	ME
Isopropanol	61.45	50.92	83	48.35	79	78-156	65-169	5	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA 8260B (M)
Page 8 of 10

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1491	**Air**	**GC/MS YY**	**N/A**	**09/21/13 11:44**	**130921L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	64.66	81	60.57	76	60-156	44-172	7	0-40	
Toluene	94.21	82.37	87	78.26	83	56-146	41-161	5	0-43	
Ethylbenzene	108.6	96.04	88	90.45	83	52-154	35-171	6	0-38	
p/m-Xylene	217.1	189.4	87	179.1	82	42-156	23-175	6	0-41	
o-Xylene	108.6	91.99	85	86.74	80	52-148	36-164	6	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	72.02	80	67.62	75	45-147	28-164	6	0-25	
Tert-Butyl Alcohol (TBA)	151.6	106.1	70	123.5	81	60-140	47-153	15	0-35	
Diisopropyl Ether (DIPE)	104.5	70.40	67	66.53	64	60-140	47-153	6	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	75.03	72	70.23	67	60-140	47-153	7	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	75.74	72	70.98	68	60-140	47-153	6	0-35	
Naphthalene	131.1	116.7	89	103.4	79	60-140	47-153	12	0-30	
Ethanol	188.4	120.3	64	113.3	60	47-137	32-152	6	0-35	
1,1-Difluoroethane	67.54	45.81	68	43.79	65	78-156	65-169	5	0-35	ME
Isopropanol	61.45	43.17	70	40.42	66	78-156	65-169	7	0-35	ME

Total number of LCS compounds: 14
Total number of ME compounds: 2
Total number of ME compounds allowed: 1
LCS ME CL validation result: 'Not Pass (See Narrative)

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Conestoga-Rovers & Associates	Date Received:	09/19/13
5900 Hollis Street, Suite A	Work Order:	13-09-1194
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA TO-3M
Project: 4255 Mac Arthur Blvd., Oakland, CA		Page 9 of 10

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-431-205	**Air**	**GC 38**	**09/19/13 22:14**	**130919L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	380900	100	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

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

Project: 4255 Mac Arthur Blvd., Oakland, CA

Date Received: 09/19/13
Work Order: 13-09-1194
Preparation: N/A
Method: EPA TO-3M

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-431-207	**Air**	**GC 43**	**09/19/13 21:47**	**130919L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	340500	89	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-09-1194 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

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

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

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Shell Oil Products Chain Of Custody Record

LAB (Location/PM)
- ☑ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (IRVINE / Phil Sanelle - PM)
- ☐ 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 - 240524

PO #

INCIDENT # (ENV SERVICES): 9 8 9 9 6 0 8 6

SAP #: 1 3 6 0 1 9

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 9/17/13

PAGE: 1 of 3

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: 4255 MacArthur Blvd., Oakland

State: CA

GLOBAL ID NO.: T0600101261

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

PHONE NO.: 510-420-3343

E-MAIL: sonomaedf@craworld.com

CONSULTANT PROJECT NO.: 240524

SAMPLER NAME(S) (Print): C BONRDICT

LAB USE ONLY: 13-09-1194

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 :
1) Please upload the "CRA EQuIS 4-file EDD" to the CRA Website (http://cralabeddupload.craworld.com/equis/default.aspx) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder.
2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH as Gasoline (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	Naphthalene (8260B)	Oxygen, CO2 (ASTM D-1946)	methane, helium (ASTM D-1946)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)			TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	SVP-14-5	9/17/13	1120	VAPOR						1	X		X	X	X	X															
2	SVP-22-2.5		1155							1	X		X	X	X	X															
3	SVP-22-5		1215							1	X		X	X	X	X															
4	SVP-15-2.5		1255							1	X		X	X	X	X															
5	SVP-15-5		1320							1	X		X	X	X	X															
6	SVP-25-2.5		1355							1	X		X	X	X	X															
7	SVP-25-5		1415 1420							1	X		X	X	X	X															
8	SVP-24-2.5		1515							1	X		X	X	X	X															
9	SVP-24-5		1535							1	X		X	X	X	X															
10	SVP-13-2.5		1620							1	X		X	X	X	X															

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	Tom O'Malley CRA	9/18/13	1248
Tom O'Malley TO650 9/18/13 1730	[signature]	9/19/13	11:00

05/2/06 Revision

Return to Contents

Shell Oil Products Chain Of Custody Record

LAB (Location/PM)
- ☑ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (IRVINE / Phil Sanelle - PM)
- ☐ 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 - 240524
PO #:
INCIDENT # (ENV SERVICES): 98996086 ☐ CHECK IF NO INCIDENT # APPLIES
SAP #: 136019
DATE: 9/18/13
PAGE: 2 of 3

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 4255 MacArthur Blvd., Oakland	State: CA
ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608		GLOBAL ID NO.: T0600101261	
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville	PHONE NO.: 510-420-3343
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com	E-MAIL: sonomaedf@craworld.com
		CONSULTANT PROJECT NO.: 240524	
		SAMPLER NAME(S) (Print): C. Bienaimé	LAB USE ONLY: 09 - 1194

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH as Gasoline (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	Naphthalene (8260B)	Oxygen, CO2 (ASTM D-1946)	methane, helium (ASTM D-1946)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)			Container PID Readings or Laboratory Notes
11	SVP-13-5	9/17/13	1635	VAPOR						1	X		X	X	X	X															
12	SVP-23-2.5	↓	1715	↓						1	X		X	X	X	X															
13	SVP-23-5		1720							1	X		X	X	X	X															
14	SVP-19-5	9/18/13	740							1	X		X	X	X	X															
15	SVP-19A-2.5		815							1	X		X	X	X	X															
16	SVP-19A-5		940							1	X		X	X	X	X															
17	SVP-7-5		915							1	X		X	X	X	X															
18	SVP-6A-2.5		940							1	X		X	X	X	X															
19	SVP-6A-5	↓	1005	↓						1	X		X	X	X	X															
20	DUP	9/17/13								1	X		X	X	X	X															

Relinquished by: (Signature)	Received by: (Signature) Tom O'Malley CRA	Date: 9/18/13	Time: 1248
Relinquished by: (Signature) Tom O'Malley TOMO 9/18/13 1730	Received by: (Signature)	Date: 9/19/13	Time: 11:00
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

Return to Contents

Shell Oil Products Chain Of Custody Record

LAB (Location/PM)
- ☑ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (IRVINE / Phil Sanelle - PM)
- ☐ 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 - 240524

INCIDENT # (ENV SERVICES): 98996086 ☐ CHECK IF NO INCIDENT # APPLIES

DATE: 9/18/13

PO #:

SAP #: 136019

PAGE: 3 of 3

SAMPLING COMPANY:	Conestoga-Rovers & Associates
LOG CODE:	CRAW
SITE ADDRESS: Street and City	4255 MacArthur Blvd., Oakland
State	CA
GLOBAL ID NO.:	T0600101261
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:	sonomaedf@craworld.com
CONSULTANT PROJECT NO.:	240524
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):	C. BENEDICT
LAB USE ONLY	09-1194

TURNAROUND TIME (CALENDAR DAYS): ☐ STANDARD (14 DAY) ☑ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

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2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH as Gasoline (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	Naphthalene (8260B)	Oxygen, CO2 (ASTM D-1946)	methane, helium (ASTM D-1946)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
21	SVP-5-2.5	9/18/13	1035	VAPOR						1	X		X	X	X	X													
22	SVP-5-5	"	1100	"						1	X		X	X	X	X													
23	SVP-2-2.5		1145	"						1	X		X	X	X	X													
24	SVP-2-5		1235	"						1	X		X	X	X	X													

Relinquished by: (Signature)	Received by: (Signature)	Date: 9/18/13	Time: 1248
Relinquished by: (Signature) Tom O'Malley TO GSO 9/18/13 1730	Received by: (Signature)	Date: 9/19/13	Time: 11:00
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

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GSO GOLDEN STATE OVERNIGHT

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 #: 522777897

NPS

ORC

A

GARDEN GROVE

D92841A

16177962

Print Date : 09/18/13 16:19 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.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-09-1 1 9 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA DATE: 09/19/13

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

Temperature ____.____ °C - 0.2 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

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

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

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

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

CUSTODY SEALS INTACT:

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

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

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☑	☐	☐

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

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

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

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

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

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

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-09-1324

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 4255 MacArthur Blvd., Oakland, CA

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

Approved for release on 09/30/2013 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: 4255 MacArthur Blvd., Oakland, CA
Work Order Number: 13-09-1324

Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-09-1324 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 09/20/13. They were assigned to Work Order 13-09-1324.

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

Holding Times:

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

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

Quality Control:

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

Additional Comments:

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

Subcontractor Information:

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

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client:	Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608-2008	Work Order:	13-09-1324
		Project Name:	4255 MacArthur Blvd., Oakland, CA
		PO Number:	
		Date/Time Received:	09/20/13 10:50
		Number of Containers:	6
Attn:	Peter Schaefer		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SVP-1A-2.5	13-09-1324-1	09/18/13 13:15	1	Air
SVP-1A-4.5	13-09-1324-2	09/18/13 13:35	1	Air
SVP-18-2	13-09-1324-3	09/18/13 14:05	1	Air
SVP-18-4	13-09-1324-4	09/18/13 14:30	1	Air
SVP-16	13-09-1324-5	09/18/13 15:55	1	Air
SVP-17	13-09-1324-6	09/18/13 16:30	1	Air

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Calscience Environmental Laboratories, Inc.

Case Narrative

Work Order: 13-09-1324 Page 1 of 1

Modified EPA 8260 in Air

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

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

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

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Calscience Environmental Laboratories, Inc.

Detections Summary

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

Work Order: 13-09-1324
Project Name: 4255 MacArthur Blvd., Oakland, CA
Received: 09/20/13

Attn: Peter Schaefer

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-1A-2.5 (13-09-1324-1)						
Oxygen + Argon	20.9		0.500	%v	ASTM D-1946	N/A
Helium	0.0190		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	190		16	ug/m3	EPA 8260B (M)	N/A
Toluene	21		19	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	370		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	380		43	ug/m3	EPA 8260B (M)	N/A
o-Xylene	110		22	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	500		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	110000		3800	ug/m3	EPA TO-3M	N/A
SVP-1A-4.5 (13-09-1324-2)						
Oxygen + Argon	19.4		0.500	%v	ASTM D-1946	N/A
Helium	0.0241		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	200		16	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	330		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	310		43	ug/m3	EPA 8260B (M)	N/A
o-Xylene	60		22	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	370		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	130000		3800	ug/m3	EPA TO-3M	N/A
SVP-18-2 (13-09-1324-3)						
Oxygen + Argon	20.1		0.500	%v	ASTM D-1946	N/A
Helium	0.0151		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	50		16	ug/m3	EPA 8260B (M)	N/A
Toluene	24		19	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	97		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	180		43	ug/m3	EPA 8260B (M)	N/A
o-Xylene	47		22	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	230		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	130000		3800	ug/m3	EPA TO-3M	N/A
SVP-18-4 (13-09-1324-4)						
Oxygen + Argon	19.0		0.500	%v	ASTM D-1946	N/A
Helium	0.0223		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	200		16	ug/m3	EPA 8260B (M)	N/A
Toluene	44		19	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	390		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	450		43	ug/m3	EPA 8260B (M)	N/A
o-Xylene	220		22	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	680		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	220000		3800	ug/m3	EPA TO-3M	N/A

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client:	Conestoga-Rovers & Associates	Work Order:	13-09-1324
	5900 Hollis Street, Suite A	Project Name:	4255 MacArthur Blvd., Oakland, CA
	Emeryville, CA 94608-2008	Received:	09/20/13
Attn:	Peter Schaefer		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SVP-16 (13-09-1324-5)						
Oxygen + Argon	21.6		0.500	%v	ASTM D-1946	N/A
Helium	0.0590		0.0100	%v	ASTM D-1946 (M)	N/A
Gasoline Range Organics (C6-C12)	180000		3800	ug/m3	EPA TO-3M	N/A
SVP-17 (13-09-1324-6)						
Oxygen + Argon	21.2		0.500	%v	ASTM D-1946	N/A
Helium	0.471		0.0100	%v	ASTM D-1946 (M)	N/A
Benzene	33		16	ug/m3	EPA 8260B (M)	N/A
Ethylbenzene	63		22	ug/m3	EPA 8260B (M)	N/A
p/m-Xylene	92		43	ug/m3	EPA 8260B (M)	N/A
Xylenes (total)	92		22	ug/m3	EPA 8260B (M)	N/A
Gasoline Range Organics (C6-C12)	39000		3800	ug/m3	EPA TO-3M	N/A

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

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1A-2.5	**13-09-1324-1-A**	**09/18/13 13:15**	**Air**	**GC 65**	**N/A**	**09/20/13 16:00**	**130919L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	20.9	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	19.4	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	20.1	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	19.0	0.500	1	

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.6	0.500	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-17	**13-09-1324-6-A**	**09/18/13 16:30**	**Air**	**GC 65**	**N/A**	**09/20/13 17:37**	**130919L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.500	1	
Carbon Dioxide	ND	0.500	1	
Oxygen + Argon	21.2	0.500	1	

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1A-2.5	**13-09-1324-1-A**	**09/18/13 13:15**	**Air**	**GC 55**	**N/A**	**09/20/13 22:52**	**130920L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0190	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0241	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0151	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0223	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.0590	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	0.471	0.0100	1	

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1A-2.5	**13-09-1324-1-A**	**09/18/13 13:15**	**Air**	**GC/MS II**	**N/A**	**09/20/13 21:07**	**130920L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	190	16	1	
Toluene	21	19	1	
Ethylbenzene	370	22	1	
p/m-Xylene	380	43	1	
o-Xylene	110	22	1	
Xylenes (total)	500	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	246	47-156	2,7
1,2-Dichloroethane-d4	106	47-156	
Toluene-d8	64	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	200	16	1	
Toluene	ND	19	1	
Ethylbenzene	330	22	1	
p/m-Xylene	310	43	1	
o-Xylene	60	22	1	
Xylenes (total)	370	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	151	47-156	
1,2-Dichloroethane-d4	91	47-156	
Toluene-d8	50	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-18-2	**13-09-1324-3-A**	**09/18/13 14:05**	**Air**	**GC/MS II**	**N/A**	**09/21/13 03:41**	**130920L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	50	16	1	
Toluene	24	19	1	
Ethylbenzene	97	22	1	
p/m-Xylene	180	43	1	
o-Xylene	47	22	1	
Xylenes (total)	230	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	285	47-156	2,7
1,2-Dichloroethane-d4	95	47-156	
Toluene-d8	75	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	200	16	1	
Toluene	44	19	1	
Ethylbenzene	390	22	1	
p/m-Xylene	450	43	1	
o-Xylene	220	22	1	
Xylenes (total)	680	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	330	47-156	2,7
1,2-Dichloroethane-d4	90	47-156	
Toluene-d8	60	47-156	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-16	**13-09-1324-5-A**	**09/18/13 15:55**	**Air**	**GC/MS II**	**N/A**	**09/21/13 10:33**	**130920L03**

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

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	25	1.58	
Toluene	ND	30	1.58	
Ethylbenzene	ND	34	1.58	
p/m-Xylene	ND	69	1.58	
o-Xylene	ND	34	1.58	
Xylenes (total)	ND	34	1	
Naphthalene	ND	83	1.58	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	47-156	
1,2-Dichloroethane-d4	91	47-156	
Toluene-d8	93	47-156	

Parameter	Result	RL	DF	Qualifiers
Benzene	33	16	1	
Toluene	ND	19	1	
Ethylbenzene	63	22	1	
p/m-Xylene	92	43	1	
o-Xylene	ND	22	1	
Xylenes (total)	92	22	1	
Naphthalene	ND	52	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	47-156	
1,2-Dichloroethane-d4	85	47-156	
Toluene-d8	85	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates		Date Received:	09/20/13
5900 Hollis Street, Suite A		Work Order:	13-09-1324
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA 8260B (M)
		Units:	ug/m3
Project: 4255 MacArthur Blvd., Oakland, CA			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-1486**	**N/A**	**Air**	**GC/MS II**	**N/A**	**09/20/13 15:19**	**130920L03**

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

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	47-156	
1,2-Dichloroethane-d4	109	47-156	
Toluene-d8	100	47-156	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: EPA TO-3M
Units: ug/m3

Project: 4255 MacArthur Blvd., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-1A-2.5	**13-09-1324-1-A**	**09/18/13 13:15**	**Air**	**GC 43**	**N/A**	**09/21/13 12:36**	**130920L01**

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	110000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	130000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	130000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	220000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	180000	3800	1	

Parameter	Result	RL	DF	Qualifiers
Gasoline Range Organics (C6-C12)	39000	3800	1	

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

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Conestoga-Rovers & Associates		Date Received:	09/20/13
5900 Hollis Street, Suite A		Work Order:	13-09-1324
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M
Project: 4255 MacArthur Blvd., Oakland, CA			Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-09-1222-2	**Air**	**GC 43**	**N/A**	**09/20/13 20:40**	**130920D01**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	14850000	14670000	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: ASTM D-1946

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1897	**Air**	**GC 65**	**N/A**	**09/19/13 21:10**	**130919L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.500	4.304	96	4.324	96	80-120	0	0-30	
Carbon Dioxide	15.00	14.84	99	15.11	101	80-120	2	0-30	
Carbon Monoxide	6.990	7.039	101	7.043	101	80-120	0	0-30	
Oxygen + Argon	4.010	4.083	102	4.020	100	80-120	2	0-30	
Nitrogen	69.50	67.49	97	67.36	97	80-120	0	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: ASTM D-1946 (M)
Page 2 of 4

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-500	**Air**	**GC 55**	**N/A**	**09/20/13 13:56**	**130920L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	1.021	102	1.059	106	80-120	4	0-30	
Hydrogen	1.000	0.9693	97	1.003	100	80-120	3	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: EPA 8260B (M)
Page 3 of 4

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-1486	**Air**	**GC/MS II**	**N/A**	**09/20/13 12:51**	**130920L03**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	86.76	109	85.78	107	60-156	44-172	1	0-40	
Toluene	94.21	113.6	121	115.1	122	56-146	41-161	1	0-43	
Ethylbenzene	108.6	128.5	118	128.8	119	52-154	35-171	0	0-38	
p/m-Xylene	217.1	265.6	122	268.5	124	42-156	23-175	1	0-41	
o-Xylene	108.6	128.6	118	129.2	119	52-148	36-164	0	0-38	
Methyl-t-Butyl Ether (MTBE)	90.13	96.81	107	97.03	108	45-147	28-164	0	0-25	
Tert-Butyl Alcohol (TBA)	151.6	153.1	101	154.5	102	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	105.0	100	105.9	101	60-140	47-153	1	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	102.8	98	103.0	99	60-140	47-153	0	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	104.0	100	103.3	99	60-140	47-153	1	0-35	
Naphthalene	131.1	133.0	101	135.5	103	60-140	47-153	2	0-30	
Ethanol	188.4	175.2	93	175.6	93	47-137	32-152	0	0-35	
1,1-Difluoroethane	67.54	72.11	107	71.99	107	78-156	65-169	0	0-35	
Isopropanol	61.45	61.37	100	61.78	101	78-156	65-169	1	0-35	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

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

Project: 4255 MacArthur Blvd., Oakland, CA

Date Received: 09/20/13
Work Order: 13-09-1324
Preparation: N/A
Method: EPA TO-3M

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-431-204	**Air**	**GC 43**	**09/20/13 17:01**	**130920L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	386800	101	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-09-1324 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

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

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

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Shell Oil Products Chain Of Custody Record

LAB (Location/PM)
- ☑ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (IRVINE / Phil Sanelle - PM)
- ☐ 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 - 240524
PO #:
INCIDENT # (ENV SERVICES): 98996086 ☐ CHECK IF NO INCIDENT # APPLIES
SAP #: 136019
DATE: 9/18/13
PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 4255 MacArthur Blvd., Oakland	State: CA
GLOBAL ID NO.: T0600101261			
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: sonomaedf@craworld.com	CONSULTANT PROJECT NO.: 240524		
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		SAMPLER NAME(S) (Print): C. BENEDICT	LAB USE ONLY: 13-09-1324
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com	

TURNAROUND TIME (CALENDAR DAYS): ☐ STANDARD (14 DAY) ☑ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☑ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:
1) Please upload the "CRA EQuIS 4-file EDD" to the CRA Website (http://cralabeddupload.craworld.com/equis/default.aspx) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder.
2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH as Gasoline (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	Naphthalene (8260B)	Oxygen, CO2 (ASTM D-1946)	methane, helium (ASTM D-1946)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)			TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	SVP-1A-2.5	9/18/13	1315	VAPOR						1	X		X	X	X	X															
2	SVP-1A-3 SVP-1A-4.5	"	1335	"						1	X		X	X	X	X															
3	SVP-1B-2	"	1405	"						1	X		X	X	X	X															
4	SVP-1B-4	"	1430	"						1	X		X	X	X	X															
5	SVP-1C	"	1555	"						1	X		X	X	X	X															
6	SVP-1F	"	1630	"						1	X		X	X	X	X															

Relinquished by: (Signature)	Received by: (Signature) Tom O'Malley CRA	Date: 9/19/13	Time: 1510
Relinquished by: (Signature) Tom O'Malley TO 650 9/19/13 1730	Received by: (Signature)	Date: 9/20/13	Time: 1020
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

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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:
PARSONS, CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 522787697

NPS

ORC

A

GARDEN GROVE

D92841A

16226219

Print Date : 09/19/13 15:28 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.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-09-1324

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA DATE: 09/20/13

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

Temperature ____.____ °C - 0.2 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

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

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

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

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

CUSTODY SEALS INTACT:

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

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

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☑	☐	☐

CONTAINER TYPE:

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

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

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

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

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

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

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

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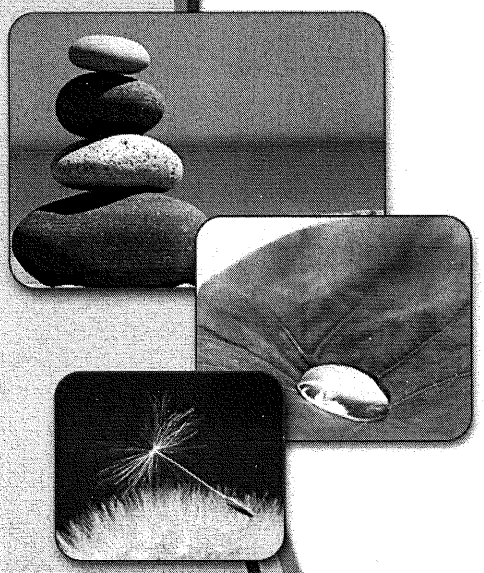


TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 440-55333-1
Client Project/Site: 4255 MacArthur Blvd., Oakland, CA

For:
Conestoga-Rovers & Associates, Inc.
19449 Riverside Drive, Suite 230
Sonoma, California 95476

Attn: Peter Schaefer

Philip Sanelle

Authorized for release by:
9/9/2013 10:22:23 AM

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

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-55333-3	CRA-A	Solid	08/21/13 09:00	08/24/13 10:20

Job ID: 440-55333-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-55333-1

Comments
No additional comments.

Receipt
The samples were received on 8/24/2013 10:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

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

GC Semi VOA
Method(s) 8015B: The MS/MSD for batch 127709 was diluted due to an abundance of target analytes : (LCS 440-127709/2-A). As such, surrogate and spike recoveries were diluted out and are not reported. LCS met acceptable recovery limits.

Method(s) 8015B: Due to the high concentration of Diesel (C8-C28), the matrix spike / matrix spike duplicate (MS/MSD) for batch 127709 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. (LCS 440-127709/2-A)

No other analytical or quality issues were noted.

Metals
Method(s) 6010B: The matrix spike recoveries for Barium & Antimony for batch 129154 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.SP-01-06 (440-55600-6 MS)

Method(s) 6010B: The matrix spike duplicate recoveries for Barium , Antimony & Thallium for batch 129154 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample ID: CRA-A

Lab Sample ID: 440-55333-3

Date Collected: 08/21/13 09:00
Date Received: 08/24/13 10:20

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.099		mg/Kg			08/30/13 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*83*		*80 - 125*		*08/30/13 12:29*	*1*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*08/30/13 12:29*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/30/13 12:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00099		mg/Kg			08/30/13 12:29	1
Ethylbenzene	ND		0.00099		mg/Kg			08/30/13 12:29	1
Toluene	ND		0.00099		mg/Kg			08/30/13 12:29	1
Xylenes, Total	ND		0.0020		mg/Kg			08/30/13 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*08/30/13 12:29*	*1*
Dibromofluoromethane (Surr)	*83*		*80 - 125*		*08/30/13 12:29*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/30/13 12:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	6.0		5.0		mg/Kg		08/28/13 14:05	08/29/13 01:23	1
ORO (C29-C40)	9.0		5.0		mg/Kg		08/28/13 14:05	08/29/13 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*72*		*40 - 140*	*08/28/13 14:05*	*08/29/13 01:23*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Arsenic	ND		3.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Barium	70		1.5		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Beryllium	ND		0.50		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Cadmium	ND		0.50		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Chromium	16		1.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Cobalt	4.1		1.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Copper	12		2.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Lead	15		2.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Molybdenum	ND		2.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Nickel	18		2.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Selenium	ND		3.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Thallium	ND		10		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Vanadium	33		1.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Zinc	35		5.0		mg/Kg		09/05/13 08:22	09/05/13 15:13	5
Silver	ND		1.5		mg/Kg		09/05/13 08:22	09/05/13 15:13	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.087		0.020		mg/Kg		09/03/13 11:28	09/03/13 16:45	1

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-1

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

Protocol References:

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

Laboratory References:

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

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-1

Client Sample ID: CRA-A

Lab Sample ID: 440-55333-3

Date Collected: 08/21/13 09:00
Date Received: 08/24/13 10:20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.03 g	10 mL	128153	08/30/13 12:29	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.03 g	10 mL	128154	08/30/13 12:29	AL	TAL IRV
Total/NA	Prep	CA LUFT			30.05 g	1 mL	127709	08/28/13 14:05	SJ	TAL IRV
Total/NA	Analysis	8015B		1			127813	08/29/13 01:23	KW	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	128363	09/03/13 11:28	MM	TAL IRV
Total/NA	Analysis	7471A		1			128771	09/03/13 16:45	DB	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	129154	09/05/13 08:22	DT	TAL IRV
Total/NA	Analysis	6010B		5			129332	09/05/13 15:13	EN	TAL IRV

Laboratory References:

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

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

Lab Sample ID: MB 440-128153/4
Matrix: Solid
Analysis Batch: 128153

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			08/30/13 09:02	1
Ethylbenzene	ND		0.0010		mg/Kg			08/30/13 09:02	1
Toluene	ND		0.0010		mg/Kg			08/30/13 09:02	1
Xylenes, Total	ND		0.0020		mg/Kg			08/30/13 09:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*08/30/13 09:02*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 125*		*08/30/13 09:02*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*08/30/13 09:02*	*1*

Lab Sample ID: LCS 440-128153/5
Matrix: Solid
Analysis Batch: 128153

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0540		mg/Kg		108	65 - 120
Ethylbenzene	0.0500	0.0580		mg/Kg		116	70 - 125
m,p-Xylene	0.100	0.110		mg/Kg		110	70 - 125
o-Xylene	0.0500	0.0569		mg/Kg		114	70 - 125
Toluene	0.0500	0.0561		mg/Kg		112	70 - 125

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

Lab Sample ID: 440-55331-A-3 MS
Matrix: Solid
Analysis Batch: 128153

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0498	0.0529		mg/Kg		106	65 - 130
Ethylbenzene	ND		0.0498	0.0591		mg/Kg		119	70 - 135
m,p-Xylene	ND		0.0996	0.114		mg/Kg		115	70 - 130
o-Xylene	ND		0.0498	0.0571		mg/Kg		115	65 - 130
Toluene	ND		0.0498	0.0541		mg/Kg		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 125*
Toluene-d8 (Surr)	*98*		*80 - 120*

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

Lab Sample ID: 440-55331-A-3 MSD
Matrix: Solid
Analysis Batch: 128153

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0498	0.0541		mg/Kg		109	65 - 130	2	20
Ethylbenzene	ND		0.0498	0.0620		mg/Kg		124	70 - 135	5	25
m,p-Xylene	ND		0.0996	0.118		mg/Kg		118	70 - 130	3	25
o-Xylene	ND		0.0498	0.0594		mg/Kg		119	65 - 130	4	25
Toluene	ND		0.0498	0.0568		mg/Kg		114	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 125*
Toluene-d8 (Surr)	*99*		*80 - 120*

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

Lab Sample ID: MB 440-128154/4
Matrix: Solid
Analysis Batch: 128154

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			08/30/13 09:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*80 - 125*		*08/30/13 09:02*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*08/30/13 09:02*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*08/30/13 09:02*	*1*

Lab Sample ID: LCS 440-128154/6
Matrix: Solid
Analysis Batch: 128154

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1.00	0.767		mg/Kg		77	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*80 - 125*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: 440-55331-A-3 MS
Matrix: Solid
Analysis Batch: 128154

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	2.39		mg/Kg		70	55 - 140

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

Lab Sample ID: 440-55331-A-3 MS
Matrix: Solid
Analysis Batch: 128154

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*92*		*80 - 125*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: 440-55331-A-3 MSD
Matrix: Solid
Analysis Batch: 128154

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	2.51		mg/Kg		73	55 - 140	5	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*95*		*80 - 125*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

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

Lab Sample ID: MB 440-127709/1-A
Matrix: Solid
Analysis Batch: 127813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127709

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		08/28/13 14:05	08/29/13 10:05	1
ORO (C29-C40)	ND		5.0		mg/Kg		08/28/13 14:05	08/29/13 10:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*89*		*40 - 140*	*08/28/13 14:05*	*08/29/13 10:05*	*1*

Lab Sample ID: LCS 440-127709/2-A
Matrix: Solid
Analysis Batch: 127813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127709

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28)			33.3	23.7		mg/Kg		71	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*81*		*40 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-129154/1-A ^5
Matrix: Solid
Analysis Batch: 129332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 129154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Arsenic	ND		3.0		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Barium	ND		1.5		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Beryllium	ND		0.49		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Cadmium	ND		0.49		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Chromium	ND		0.99		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Cobalt	ND		0.99		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Copper	ND		2.0		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Lead	ND		2.0		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Molybdenum	ND		2.0		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Nickel	ND		2.0		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Selenium	ND		3.0		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Thallium	ND		9.9		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Vanadium	ND		0.99		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Zinc	ND		4.9		mg/Kg		09/05/13 08:22	09/05/13 14:59	5
Silver	ND		1.5		mg/Kg		09/05/13 08:22	09/05/13 14:59	5

Lab Sample ID: LCS 440-129154/2-A ^5
Matrix: Solid
Analysis Batch: 129332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 129154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	43.2		mg/Kg		86	80 - 120
Arsenic	50.0	44.2		mg/Kg		88	80 - 120
Barium	50.0	46.1		mg/Kg		92	80 - 120
Beryllium	50.0	45.7		mg/Kg		91	80 - 120
Cadmium	50.0	45.2		mg/Kg		90	80 - 120
Chromium	50.0	45.0		mg/Kg		90	80 - 120
Cobalt	50.0	46.9		mg/Kg		94	80 - 120
Copper	50.0	44.8		mg/Kg		90	80 - 120
Lead	50.0	44.6		mg/Kg		89	80 - 120
Molybdenum	50.0	46.2		mg/Kg		92	80 - 120
Nickel	50.0	45.8		mg/Kg		92	80 - 120
Selenium	50.0	39.9		mg/Kg		80	80 - 120
Thallium	50.0	44.0		mg/Kg		88	80 - 120
Vanadium	50.0	45.0		mg/Kg		90	80 - 120
Zinc	50.0	43.4		mg/Kg		87	80 - 120
Silver	25.0	21.9		mg/Kg		88	80 - 120

Lab Sample ID: 440-55600-A-6-E MS ^5
Matrix: Solid
Analysis Batch: 129332

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 129154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		49.0	30.2	F	mg/Kg		49	75 - 125
Arsenic	20		49.0	61.8		mg/Kg		84	75 - 125
Barium	150		49.0	171	F	mg/Kg		37	75 - 125
Beryllium	ND		49.0	44.6		mg/Kg		90	75 - 125

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

Lab Sample ID: 440-55600-A-6-E MS ^5
Matrix: Solid
Analysis Batch: 129332

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 129154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	4.6		49.0	45.3		mg/Kg		83	75 - 125
Chromium	36		49.0	85.0		mg/Kg		100	75 - 125
Cobalt	6.7		49.0	49.8		mg/Kg		88	75 - 125
Copper	1400		49.0	332	4	mg/Kg		-2253	75 - 125
Lead	400		49.0	311	4	mg/Kg		-181	75 - 125
Molybdenum	2.6		49.0	46.4		mg/Kg		89	75 - 125
Nickel	34		49.0	72.1		mg/Kg		78	75 - 125
Selenium	ND		49.0	40.9		mg/Kg		80	75 - 125
Thallium	ND		49.0	38.4		mg/Kg		78	75 - 125
Vanadium	25		49.0	68.7		mg/Kg		89	75 - 125
Zinc	730		49.0	629	4	mg/Kg		-201	75 - 125
Silver	ND		24.5	21.9		mg/Kg		89	75 - 125

Lab Sample ID: 440-55600-A-6-F MSD ^5
Matrix: Solid
Analysis Batch: 129332

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 129154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		50.0	31.6	F	mg/Kg		51	75 - 125	5	20
Arsenic	20		50.0	68.6		mg/Kg		96	75 - 125	10	20
Barium	150		50.0	188	F	mg/Kg		70	75 - 125	9	20
Beryllium	ND		50.0	47.0		mg/Kg		93	75 - 125	5	20
Cadmium	4.6		50.0	49.4		mg/Kg		90	75 - 125	9	20
Chromium	36		50.0	80.1		mg/Kg		88	75 - 125	6	20
Cobalt	6.7		50.0	53.9		mg/Kg		94	75 - 125	8	20
Copper	1400		50.0	336	4	mg/Kg		-2201	75 - 125	1	20
Lead	400		50.0	337	4	mg/Kg		-126	75 - 125	8	20
Molybdenum	2.6		50.0	51.3		mg/Kg		97	75 - 125	10	20
Nickel	34		50.0	87.3		mg/Kg		107	75 - 125	19	20
Selenium	ND		50.0	44.3		mg/Kg		85	75 - 125	8	20
Thallium	ND		50.0	36.5	F	mg/Kg		73	75 - 125	5	20
Vanadium	25		50.0	70.4		mg/Kg		91	75 - 125	2	20
Zinc	730		50.0	674	4	mg/Kg		-105	75 - 125	7	20
Silver	ND		25.0	23.0		mg/Kg		92	75 - 125	5	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-128363/1-A
Matrix: Solid
Analysis Batch: 128771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128363

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		09/03/13 11:28	09/03/13 16:16	1

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

Lab Sample ID: LCS 440-128363/2-A
Matrix: Solid
Analysis Batch: 128771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128363

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.658		mg/Kg		82	80 - 120

Lab Sample ID: 440-55692-E-2-B MS
Matrix: Solid
Analysis Batch: 128771

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 128363

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.083		0.784	0.774		mg/Kg		88	70 - 130

Lab Sample ID: 440-55692-E-2-C MSD
Matrix: Solid
Analysis Batch: 128771

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 128363

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.083		0.816	0.765		mg/Kg		84	70 - 130	1	20

QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-1

GC/MS VOA

Analysis Batch: 128153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55331-A-3 MS	Matrix Spike	Total/NA	Solid	8260B	
440-55331-A-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	
440-55333-3	CRA-A	Total/NA	Solid	8260B	
LCS 440-128153/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-128153/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 128154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55331-A-3 MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	
440-55331-A-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	
440-55333-3	CRA-A	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-128154/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-128154/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 127709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55333-3	CRA-A	Total/NA	Solid	CA LUFT	
LCS 440-127709/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-127709/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Analysis Batch: 127813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55333-3	CRA-A	Total/NA	Solid	8015B	127709
LCS 440-127709/2-A	Lab Control Sample	Total/NA	Solid	8015B	127709
MB 440-127709/1-A	Method Blank	Total/NA	Solid	8015B	127709

Metals

Prep Batch: 128363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55333-3	CRA-A	Total/NA	Solid	7471A	
440-55692-E-2-B MS	Matrix Spike	Total/NA	Solid	7471A	
440-55692-E-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	
LCS 440-128363/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 440-128363/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 128771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55333-3	CRA-A	Total/NA	Solid	7471A	128363
440-55692-E-2-B MS	Matrix Spike	Total/NA	Solid	7471A	128363
440-55692-E-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	128363
LCS 440-128363/2-A	Lab Control Sample	Total/NA	Solid	7471A	128363
MB 440-128363/1-A	Method Blank	Total/NA	Solid	7471A	128363

Metals (Continued)

Prep Batch: 129154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55333-3	CRA-A	Total/NA	Solid	3050B	
440-55600-A-6-E MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-55600-A-6-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	
LCS 440-129154/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-129154/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 129332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-55333-3	CRA-A	Total/NA	Solid	6010B	129154
440-55600-A-6-E MS ^5	Matrix Spike	Total/NA	Solid	6010B	129154
440-55600-A-6-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	129154
LCS 440-129154/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	129154
MB 440-129154/1-A ^5	Method Blank	Total/NA	Solid	6010B	129154

Qualifiers

Metals

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-1

Laboratory: TestAmerica Irvine

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

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

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

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer - 240524

INCIDENT # (ENV SERVICES): 9 8 9 9 6 0 8 6

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 8/23/13

PAGE: 1 of 1

PO #: 1 3 6 0 1 9

SAP #:

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 4255 MacArthur Blvd., Oakland

State: CA

GLOBAL ID NO.: T0600101261

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: sonomaedf@craworld.com

CONSULTANT PROJECT NO.: 240524

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

SAMPLER NAME(S) (Print): Chris Benedict

LAB USE ONLY

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@craworld.com

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

REQUESTED ANALYSIS

- ☐ LA - RWQCB REPORT FORMAT
- ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

Call composite sample ID and field point name CRA-A

Marked TAT except for those contingent tests needed for Aquatic Bioassay

cc: Derek Eisman, Deisman@craworld.com and Shell.Lab.Billing@craworld.com

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

TEMPERATURE ON RECEIPT C°: 4.2/4.0

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)	Container PID Readings or Laboratory Notes
	CRA-1A	8/20/13	1530	Soil						1	X	X	X											X	X				
	CRA-2A	8/21/13	0900	Soil						1	X	X	X											X	X				
																					9:55								
																					8-26-13								

Relinquished by (Signature): 8/23/13 1020

Received by (Signature):

Date: 8/23/13 Time: 1020

Relinquished by (Signature): 8-23-13 1630

Received by (Signature):

Date: Time:

Relinquished by (Signature):

Received by (Signature):

Date: 8/24/13 Time: 1020

05/2/06 Revision

440-55333 Chain of Custody

Login Sample Receipt Checklist

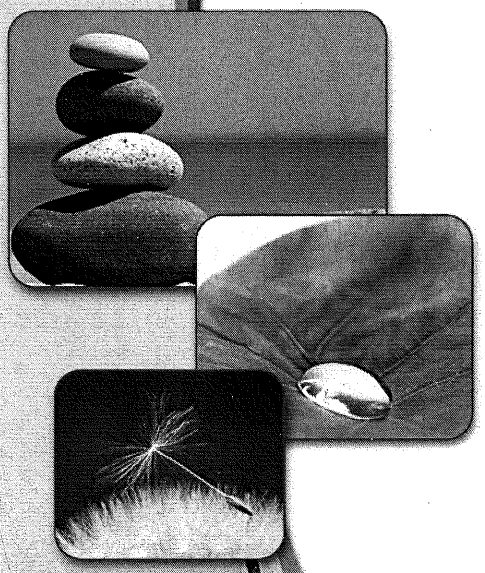
Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-55333-1

Login Number: 55333
List Number: 1
Creator: Freitag, Kevin R

List Source: TestAmerica Irvine

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



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 440-55333-2
Client Project/Site: 4255 MacArthur Blvd., Oakland, CA

For:
Conestoga-Rovers & Associates, Inc.
19449 Riverside Drive, Suite 230
Sonoma, California 95476

Attn: Peter Schaefer

Philip Sanelle

Authorized for release by:
9/13/2013 10:41:53 AM

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

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-55333-3	CRA-A	Solid	08/21/13 09:00	08/24/13 10:20

Case Narrative

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-2

Job ID: 440-55333-2

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-55333-2

Comments
No additional comments.

Receipt
The samples were received on 8/24/2013 10:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

Subcontract non-Sister
No analytical or quality issues were noted.

Subcontract Work
Method 939M Organic Lead: This method was subcontracted to MCCAMPBELL ANALYTICAL, INC.. The subcontract certification is different from those listed on the TestAmerica cover page of this final report.

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-2

Method	Method Description	Protocol	Laboratory
939M Organic Lead	General Sub Contract Method	NONE	

Protocol References:

NONE = NONE

Laboratory References:

= McCampbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565

Glossary

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

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 4255 MacArthur Blvd., Oakland, CA

TestAmerica Job ID: 440-55333-2

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
N/A	N/A	N/A	None on record.	

Laboratory: McCampbell Analytical, Inc.

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

Authority	Program	EPA Region	Certification ID	Expiration Date
N/A	N/A	N/A	None on record.	

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1309204

Report Created for: TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Project Contact: Sanelle Philip
Project Name: #44003117; 4255 MacArthur Blvd
Project P.O.:

Project Received: 09/10/2013

Analytical Report reviewed & approved for release on 09/12/2013 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

ACCREDITED IN ACCORDANCE WITH nelac

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: TestAmerica Irvine
Project: #44003117; 4255 MacArthur Blvd
WorkOrder: 1309204

Glossary Abbreviation	Description
95% Interval	95% Confident Interval
DF	Dilution Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	TestAmerica Irvine	**WorkOrder:**	1309204
Project:	#44003117; 4255 MacArthur Blvd	**Extraction Method**	HML 939-M
Date Received:	9/10/13 9:47	**Analytical Method:**	HML 939-M
Date Prepared:	9/10/13	**Unit:**	mg/kg

Organic Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CRA-A (440-55333-3)	1309204-001A	Soil/TOTAL	08/21/2013 09:00	AA2	81504

Analytes	Result	RL	DF	Date Analyzed
Organic Lead as Lead	ND	0.010	1	09/11/2013 20:11

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	TestAmerica Irvine	**WorkOrder:**	1309204
Date Prepared:	9/10/13	**BatchID:**	81504
Date Analyzed:	9/11/13	**Extraction Method:**	HML 939-M
Instrument:	AA2	**Analytical Method:**	HML 939-M
Matrix:	Soil	**Unit:**	mg/kg
Project:	#44003117; 4255 MacArthur Blvd	**Sample ID:**	MB/LCS-81504 1309203-001AMS/MSD

QC SUMMARY REPORT FOR HML 939-M

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Organic Lead as Lead	ND	0.023	0.010	0.026	-	89.7	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Organic Lead as Lead	0.02508	0.02576	0.026	ND	97.8	100	75-125	2.68	25

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1309204 **ClientCode: TAI**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☒ EQuIS ☐ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Sanelle Philip
TestAmerica Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614
949-261-1022 FAX: 949-260-3297

Email: Philip.sanelle@testamericainc.com
cc:
PO:
ProjectNo: #44003117; 4255 MacArthur Blvd

Bill to:
Accounts Payable
TestAmerica Irvine
P.O. Box 2912
North Canton, OH 44720

Requested TAT: 3 days

Date Received: 09/10/2013
Date Printed: 09/10/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1309204-001	CRA-A (440-55333-3)	Soil	8/21/2013 9:00	☐	A											

Test Legend:

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

Prepared by: Laura Rodriguez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

1504204

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica

Client Information (Sub Contract Lab)	Sampler	Lab PM: Sanelle, Philip	Carrier Tracking No(s):	COC No: 440-25404.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: philip.sanelle@testamericainc.com		Page: Page 1 of 1
Company: McCampbell Analytical, Inc.				Job #: 440-55333-2

Address: 1534 Willow Pass Road,	Due Date Requested: 9/13/2013
City: Pittsburg	TAT Requested (days): 72 hr
State, Zip: CA, 94565	PO #:
Phone:	WO #:
Email:	Project #: 44003117
Project Name: 4255 MacArthur Blvd., Oakland, CA	SSOW#:
Site: 4255 MacArthur Blvd., Oakland	

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT? 9356 Organic Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CRA-A (440-55333-3)	8/21/13	09.00 Pacific		Solid			X	1	

APPROPRIATE CONTAINERS
PRESERVED IN LAB
VOAS | O&G | METALS | OTHER

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): Return To Client / Disposal By Lab / Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Vin Banda	9/9/13 12:00	TAL	Fedex	9/9/13 17:00	
2	Relinquished by	Date/Time	Company	Received by: Dave Redan	9/10/13 9:15	
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Composite Sample Worksheet

440-55333
PHIL SANELLE

Date/Time: 9/9/13
posited by: MS
Composite Sample ID: 55333-C-3

Test / Total volume weight required	Actual vol/weight composited (ml or g)	Type of Container used	Component Sample ID: 55333-A-1	Component Sample ID: 55333-A-2					Comments
			Component amount (mLs or g)						
	100.05	4oz	50.01	50.04					
Composite Sample ID:			Component Sample IDs						
			Component amount (mLs or g)						

G:\FORMS\Composite Sample Worksheet_2272012

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **TestAmerica Irvine**

Date and Time Received: **9/10/2013 9:47:10 AM**

Project Name: **#44003117; 4255 MacArthur Blvd**

LogIn Reviewed by: Laura Rodriguez

WorkOrder N°: **1309204** Matrix: Soil

Carrier: FedEx

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 5.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Comments:

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&M
- ☑ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER

Print Bill To Contact Name: Peter Schaefer - 240524

PO #

INCIDENT # (ENV SERVICES): 9 8 9 9 6 0 8 6

SAP #: 1 3 6 0 1 9

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 8/23/13

PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 4255 MacArthur Blvd., Oakland

State: CA

GLOBAL ID NO.: T0600101261

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: sonomaedf@craworld.com

CONSULTANT PROJECT NO.: 240524

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

SAMPLER NAME(S) (Print): Chris Benedict

LAB USE ONLY

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@craworld.com

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

REQUESTED ANALYSIS

- ☐ LA - RWQCB REPORT FORMAT
- ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

Call composite sample ID and field point name CRA-A

Marked TAT except for those contingent tests needed for Aquatic Bioassay

cc: Derek Eisman, Deisman@craworld.com and Shell.Lab.Billing@craworld.com

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

TEMPERATURE ON RECEIPT C°: 4.2/4.0

Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM 17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)
	CRA-1A	8/20/13	1530	Soil						1	X	X	X											X	X			
	CRA-2A	8/21/13	0900	Soil						1	X	X	X											X	X			
																					9:55							
																					8-26-13							

440-55333 Chain of Custody

	Date	Time
Relinquished by: (Signature) 8/23/13 1020	8/23/13	1
Relinquished by: (Signature) 8-23-13 1630		
Relinquished by: (Signature)	8/24/13	1020

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

05/2/06 Revision

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9/13/2013

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-55333-2

Login Number: 55333
List Number: 1
Creator: Freitag, Kevin R

List Source: TestAmerica Irvine

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