CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: April 22, 2010

REFERENCE NO.: 060119

PROJECT NAME: 2350 (2368) Harrison Street, Oakland

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

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10:05 am, Apr 26, 2010
Alameda County
Environmental Health

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QUANTITY	DESCRIPTION
1	Soil Vapor Probe Installation and Sampling Report

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

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

Copy to: Denis Brown, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810
Richard Burge, 490 Grand Avenue, Suite 100, Oakland, CA 94610

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Denis L. Brown
Shell Oil Products US
HSE – Environmental Services
20945 S. Wilmington Ave.
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Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Former Shell Service Station
2350 (2368) Harrison Street
Oakland, California
SAP Code. 173318
Incident No. 97743969
ACEH No. RO0000505

Dear Mr. Wickham:

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

As always, please feel free to contact me directly at (707) 865-0251 with any questions or concerns.

Sincerely,

Denis L. Brown
Project Manager

SOIL VAPOR PROBE INSTALLATION AND SAMPLING REPORT

FORMER SHELL SERVICE STATION
2350 (2368) HARRISON STREET
OAKLAND, CALIFORNIA

SAP CODE	173318
INCIDENT NO.	97743969
AGENCY NO.	RO0000505

Prepared by:
Conestoga-Rovers & Associates

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APRIL 22, 2010
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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent soil vapor probe installation and sampling. CRA followed the soil vapor investigation scopes of work presented in our November 11, 2009 *Survey of Potential Off-Site Sources Subsurface Investigation Work Plan Addendum* and January 26, 2010 *Subsurface Investigation Work Plan Addendum No. 2*, which were approved by Alameda County Environmental Health's (ACEH's) February 5, 2010 letter.

As detailed below, the off-site investigation scope of work presented in CRA's November 11, 2009 work plan addendum has not been completed due to delays in obtaining access to two off-site properties.

The subject property is a former Shell service station located on the southern corner of the Harrison Street and Bay Place intersection in Oakland, California (Figure 1). The former station, whose address was 2368 Harrison Street, included underground fuel storage tanks (USTs), a waste oil tank, three dispenser islands, and a station building (Figure 2). The site is currently occupied by a 7-Eleven Store, whose address is 2350 Harrison Street, and the area surrounding the station is predominantly a mix of commercial and residential use (Figure 2). Glen Echo Creek runs in an underground culvert along Harrison Street and flows into a concrete-lined channel approximately 280 feet south of the site. The creek then flows into Lake Merritt which is approximately 650 feet south of the site.

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

2.0 EXECUTIVE SUMMARY

- One soil vapor probe (SVP-2a) and two near sub-slab vapor probes (SVP-4 and SVP-5) were installed.
- CRA conducted soil vapor sampling from SVP-2 through SVP-5. Sampling was attempted at soil vapor probes SVP-1 and SVP-2a, but could not be completed because water was present in the probes' Teflon® tubing.
- Soil vapor probes SVP-2 and SVP-3 contained concentrations of TPHg and benzene that exceeded the commercial ESLs. Probe SVP-2 also contained a concentration of xylenes which exceeded the commercial ESL.

- No TPHg or BTEX were detected in near sub-slab soil vapor samples. No VOCs were detected in near sub-slab vapor with the exception of acetone and chloroform, which were both below commercial ESLs.
- No further soil vapor sampling is warranted.

3.0 NEAR SUB-SLAB SOIL VAPOR PROBE INSTALLATION AND SAMPLING

3.1 PERMIT

CRA obtained a drilling permit from Alameda County Public Works Agency (ACPWA), and a copy is provided in Appendix B.

3.2 FIELD DATES

February 27, 2010 (near sub-slab soil vapor probe installation) and March 23, 2010 (near sub-slab soil vapor probe sampling).

3.3 DRILLING COMPANY

Vapor Tech Services.

3.4 PERSONNEL PRESENT

California Professional Geologist Peter Schaefer.

3.5 DRILLING METHOD

Concrete core, rotary hammer drill.

3.6 NUMBER OF PROBES

CRA installed two near sub-slab soil vapor probes (SVP-4 and SVP-5) at the locations shown on Figure 2.

3.7 VAPOR PROBE MATERIALS

CRA constructed the near sub-slab soil vapor probes using ¼-inch stainless steel tubing cut to a length that allowed the probe to float within the slab thickness, attached with stainless steel Swagelok® compression fittings.

3.8 PROBE DEPTHS

The following table presents details of the near sub-slab probe construction.

Near sub-slab probe ID	*Total depth of boring below sidewalk surface (inches)*	*Observed slab thickness (inches)*	*Depth of tip of the stainless steel tubing below sidewalk surface (inches)*
SVP-4	8	5	5
SVP-5	7.5	4.25	4.25

3.9 SOIL VAPOR SAMPLING PROCEDURE

During sampling, CRA connected the stainless steel tubing for each near sub-slab vapor probe to a control valve and then to a flow regulator attached to a lab-supplied sampling manifold connecting two 1-liter Summa canisters (one purge canister and one sampling canister) with flow regulators and pressure gauges. Prior to sampling, CRA conducted a vacuum test between the Summa canisters, the sampling manifold, and the valves by closing the valves and opening the purge Summa canister for approximately 10 minutes. CRA purged at least three tubing volumes of air into the purge canister prior to sampling. Immediately after purging, CRA collected soil vapor samples using the second 1-liter Summa canister. Each sample was labeled, documented on a chain-of-custody, and submitted to Calscience Environmental Laboratories, Inc. in Garden Grove, California for analysis.

To check the system for leaks, CRA placed a containment unit (or shroud) over the near sub-slab soil vapor probe and sampling manifold. Prior to near sub-slab soil vapor probe sampling, 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. CRA's field helium meter readings are presented in Section 5.2. All samples were analyzed by the laboratory for helium, and the results are presented in Section 5.2 and Table 1.

3.10 SOIL VAPOR SAMPLING ANALYSES

Near sub-slab soil vapor samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3 (modified); volatile organic compounds (VOCs) and naphthalene by modified EPA Method TO-15; oxygen and argon, carbon dioxide, and methane by ASTM D-1946; and helium by ASTM D-1946 (M).

3.11 WASTE DISPOSAL

No waste was generated during these field activities.

4.0 SOIL VAPOR PROBE INSTALLATION AND SAMPLING

4.1 PERMIT

CRA obtained a drilling permit from ACPWA (Appendix B).

4.2 FIELD DATES

February 26, 2010 (soil vapor probe installation) and March 23, 2010 (soil vapor probe sampling).

4.3 DRILING COMPANY

Gregg Drilling & Testing, Inc.

4.4 PERSONNEL PRESENT

Geologist Erin Swan directed the probe installation working under the supervision of California Professional Geologist Peter Schaefer.

4.5 DRILLING METHOD

Air-knife.

4.6 NUMBER OF PROBES

CRA installed one soil vapor probe (SVP-2a). The probe specifications and soil types encountered are described on the boring log contained in Appendix C. The probe location is shown on Figure 2.

4.7 VAPOR PROBE MATERIALS

CRA constructed the vapor probe using ¼-inch diameter Teflon® tubing attached to 1-inch length plastic screen intervals, and #2/12 Monterey sand filter pack. A probe diagram is provided with the boring log in Appendix C.

4.8 SCREENED INTERVAL

1.75 to 1.85 feet below grade.

4.9 SOIL VAPOR SAMPLING PROCEDURE

CRA conducted soil vapor sampling from SVP-2 and SVP-3. Sampling was attempted at soil vapor probes SVP-1 and SVP-2a but could not be completed because water was present in the probes' Teflon® tubing. CRA made several attempts to clear the water without success. CRA purged approximately ¼-liter of water from SVP-1 and 1-liter of water from SVP-2a.

Prior to sampling, CRA purged at least three tubing volumes of air from each vapor probe using a vacuum pump. Immediately after purging, CRA collected a soil vapor sample using a 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

Environmental Laboratories, Inc. of Garden Grove, California for analysis within 72 hours.

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe sampling, 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 5.2. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 5.2 and on Table 1.

4.10 SOIL VAPOR SAMPLING ANALYSES

Soil vapor samples were analyzed for TPHg by EPA Method TO-3 (modified); VOCs and naphthalene by modified EPA Method TO-15; oxygen and argon, carbon dioxide, and methane by ASTM D-1946; and helium by ASTM D-1946 (M).

4.11 WASTE DISPOSAL

Water-knife sludge generated during field activities was stored on site in 55-gallon drums, sampled, and profiled for disposal. Waste disposal confirmation documentation is pending and will be provided by CRA upon request.

5.0 FINDINGS

5.1 SOIL VAPOR

Soil vapor probe samples collected on March 23, 2010 contained up to 75,000,000 micrograms per cubic meter ($\mu g/m^3$) TPHg, 160,000 $\mu g/m^3$ benzene, 25,000 $\mu g/m^3$ 4-ethyltoluene, 160,000 $\mu g/m^3$ xylenes, 32,000 $\mu g/m^3$ 1,3,5-trimethylbenzene, and 61,000 $\mu g/m^3$ 1,2,4-trimethylbenzene from SVP-2.

The near sub-slab soil vapor probe samples collected on March 23, 2010 did not contain TPHg, benzene, toluene, ethylbenzene, or xylenes (BTEX). They contained up to 27 $\mu g/m^3$ acetone and 7.2 $\mu g/m^3$ chloroform.

Table 1 summarizes the soil vapor analytical data. BTEX results are shown on Figure 2, and the laboratory analytical report is presented in Appendix D.

5.2 LEAK TESTING

CRA performed leak testing as described above, and helium was not detected any of the samples. As shown in the following table, the reporting limits for helium (0.0100 to 0.0163 percent by volume [%*v*]) are less than 10 percent of the concentration detected in the shroud, and the samples are considered valid.

Probe ID	*Helium concentration in sample (%v)*	*Helium detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*
SVP-2	<0.0100	57	5.7
SVP-3	<0.0100	62	6.2
SVP-4	<0.0144	59	5.9
SVP-5	<0.0163	65	6.5

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

6.0 STATUS OF PROPOSED OFF-SITE INVESTIGATION

CRA proposed off-site borings in Harrison Street and on the Oakland Senior Center property in our November 11, 2009 *Survey of Potential Off-Site Sources Subsurface Investigation Work Plan Addendum.* Based on results of CRA's initial utility locating efforts, utility lines on the west side of Harrison Street would make drilling proposed borings B-11 through B-13 (proposed in CRA's November 11, 2009 *Survey of Potential Off-Site Sources and Subsurface Investigation Work Plan Addendum*) in this area unsafe. CRA has initiated efforts to obtain access to the property at 2337 Harrison Street in order to meet our objective of locating potential off-site sources of petroleum hydrocarbon impacts to soil and groundwater. Figure 3 presents a revised proposed boring location (B-11) on the 2337 Harrison St. property.

CRA, on behalf of Shell, is negotiating access agreements with the City of Oakland and the property owner of 2337 Harrison Street, but we have not yet received signed access agreements. CRA will schedule drilling following receipt of completed access agreements from the property owners and appropriate drilling permits from ACPWA. CRA requests an extension of the May 24, 2010 due date for the report and proposes to

submit a report detailing the results of the off-site investigation within 60 days of receiving the final laboratory analytical report.

7.0 CONCLUSIONS

TPHg and benzene concentrations in soil vapor samples from probes SVP-2 and SVP-3 collected during this sampling event exceeded San Francisco Bay Regional Water Quality Control Board environmental screening levels (ESLs) for commercial land use.[1] Xylenes detected in the soil vapor sample from probe SVP-2 also exceeded the ESLs for commercial land use.

No TPHg or BTEX were detected in near sub-slab soil vapor samples. The only VOCs detected in near sub-slab vapor samples (acetone and chloroform) are below the commercial land use ESLs.

8.0 RECOMMENDATIONS

The soil vapor data from the near sub-slab soil vapor probes (SVP-4 and SVP-5) demonstrate that soil vapor concentrations found in probes SVP-1 through SVP-3 attenuate before reaching the 7-Eleven store building. Therefore, there does not appear to be a risk of soil vapor intrusion into the building. Based on these results, no further soil vapor investigation is warranted.

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

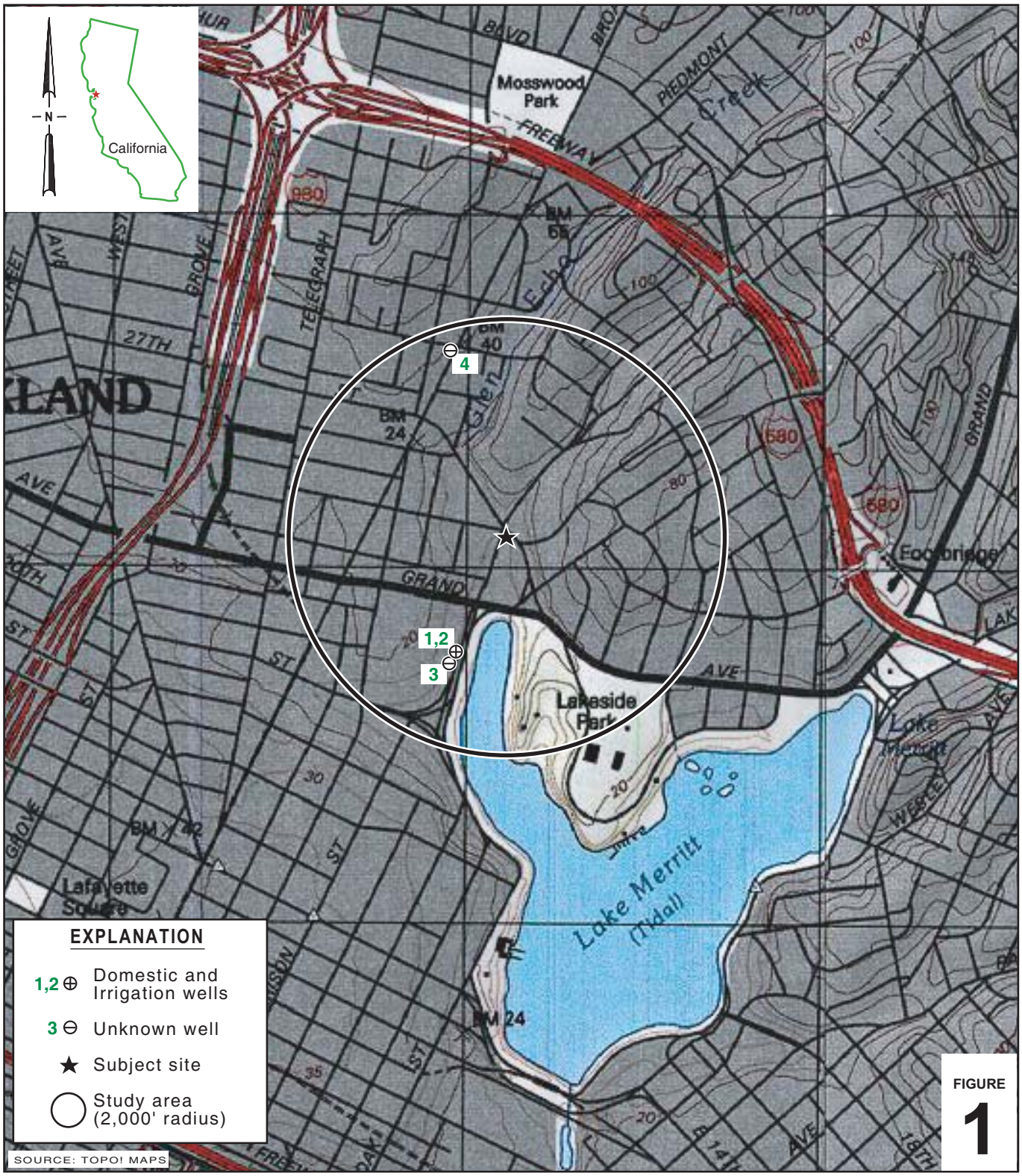
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

10/31/08



I:\Shell\6-chars\0601-\060119-Oakland 2350 Harrison St\060119-FIGURES\060119 VICINITY.AI

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

FIGURE
1

Former Shell Service Station

2350 (2368) Harrison Street

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

04/07/10

Soil Vapor Data Map

March 23, 2010

HARRISON STREET

HARRISON STREET

Underground Culvert & Storm Drain (Approx.)

Former Shell Station
2368 Harrison St.

Islands

Former Dispenser Island

Sidewalk

Driveway

Light Pole

Planter

Sidewalk

Former USTs

Former Waste Oil UST

Sidewalk

Fenced Enclosure

Former Drive-on Hoist

7-11 Store Building
2350 Harrison St.

Beck's BMW
2344 Harrison St.

Rouse Tire
2340 Harrison St.

Rouse Tire

Offices

Merritt Hotel
(Former Lake Merritt Lodge)
2332 Harrison St.
(Former Heating Oil LUST)

Parking Lot

SVP-2	75,000,000 160,000 <11,000 <94,000 160,000
SVP-3	24,000,000 14,000 <430 <3,800 <1,700
SVP-4	<8,300 <2.3 <3.1 <2.7 <13
SVP-5	<9,400 <2.6 <3.5 <3.1 <14

S-1 S-2 S-4 S-5 S-6

B-1 B-2 B-3 B-4

SVP-1 SVP-2 SVP-2a SVP-3 SVP-4 SVP-5

HP-1 HP-2

EXPLANATION

- SVP-4 — Proposed near sub-slab soil vapor probe
- SVP-2a — Proposed soil vapor probe
- B-1 — Soil boring location
- B-5 — Soil boring location, abandoned after 2' due to utility conflict
- HP-1 — Hydropunch location (CRA, 2009)
- SVP-1 — Soil vapor probe location
- S-1 — Monitoring well location
- Storm drain (STM)
- Sanitary sewer line (SAN)
- Water line (W)
- Electrical line (E)
- Gas line (G)
- Telecommunications line (T)
- Unknown utility line, indicated by private utility locator

SVP-2 (TPHg, Benzene, Ethylbenz., Toluene, Xylenes) — Soil Vapor Sample ID; Soil vapor concentrations, in micrograms per cubic meter

N

0 10 20 40

Scale (ft)

FIGURE

2

Former Shell Service Station

2350 (2368) Harrison Street
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\0601--l\060119-Oakland 2350 Harrison St\060119-FIGURES\060119 SITE PLAN.DWG

11/10/09

Extended Site Plan

EXPLANATION

- B-1 — Proposed Hydropunch/soil boring location
- B-1 — Soil boring location (CRA, 2009)
- Soil boring location, abandoned after 2' due to utility conflict (CRA, 2009)
- SVP-1 — Soil vapor probe location (CRA, 2009)
- HP-1 — Hydropunch location (CRA, 2009)
- S-1 — Monitoring well location
- Storm drain (STM)
- Sanitary sewer line (SAN)
- Water line (W)
- Electrical line (E)
- Gas line (G)
- Telecommunications line (T)
- Unknown utility line, indicated by private utility locator
- Approximate property of former gas station

Notes:
LUST = Leaking Underground Storage Tank
Approximate location of underground culvert and storm drain based on "Creek & Watershed Map of Oakland & Berkeley" (Sowers, 2000)

500-foot radius from subject site

VALDEZ STREET
24th STREET
23rd STREET
27th STREET
HARRISON STREET
WAVERLY DRIVE
VERNON TERRACE
BAY PLACE
MONTECITO AVENUE
PARK VIEW TERRACE
Glen Echo Creek
Approx. Underground Culvert & Storm Drain Location

Acura Auto Dealership
255 27th St.
(Former Waste Oil LUST)

Former Gas Station
250 24th St.

Former Gas Station
251 24th St.

Former Gas Station
140 Bay Place

Autotrends
300 24th St.

First Congregational Church
2501 Harrison St.

Whole Foods Market
230 Bay Place
(Former Bob Cox Cadillac and Buick Dealership, Former Mineral Spirits LUST and Fuel UST Complex LUST

Discount Market

Parking Garage
Oakland Tribune
2302 Valdez St.
(Former Gasoline and Waste Oil LUST)

MWM Architect's Office
2333 Harrison

Oakland Senior Center Building

St. Paul's Towers Retirement Community

St. Paul's Towers

St. Pauls' Episcopal School
116 Montecito Ave.

St. Pauls' Episcopal Church
114 Montecito Ave.

Adam's Park

Parking Lot
Parking Garage
Offices
Res.
Apts.
Grass
Sidewalk
Crosswalk
Driveway
Planter
Fence and Gate

B-5
B-6
B-7
B-8
B-9
B-10
B-11

N

0 50 100 200
Scale (ft)

FIGURE
3

Former Shell Service Station
2350 (2368) Harrison Street
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\0601-\0601\19-Oakland 2350 Harrison St\0601\19-FIGURES\060119 EXT SITE PLAN (100').DWG

TABLE

TABLE 1

SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Screened Interval (fbg)*	*TPHg*	*Acetone*	*Benzene*	*Carbon Disulfide*	*Chloro-form*	*Ethyl-benzene*	*4-Ethyl-toluene*	*Toluene*	*Total Xylenes*	*1,3,5-Tri-methyl-benzene*	*1,2,4-Tri-methyl-benzene*	*Helium (%v)*	*Oxygen & Argon (%v)*	*Carbon Dioxide (%v)*	*Methane (%v)*
SVP-1	5/28/2009	4.4-4.5	---	<3,000	**52,000**	<3,900	<1,500	**5,200**	<1,500	5,000	6,500	<1,500	<3,100	0.195	---	---	---
SVP-2	5/28/2009	4.4-4.5	---	44,000	**530,000**	<30,000	<12,000	**14,000**	<12,000	<42,000	11,000	<12,000	<24,000	<0.0177	---	---	---
SVP-2-DUP	5/28/2009	4.4-4.5	---	48,000	**520,000**	<31,000	<12,000	**12,000**	<12,000	10,000	<43,000	<12,000	<24,000	0.165	---	---	---
SVP-2	3/23/2010	4.4-4.5	**75,000,000**	<590,000[a]	**160,000**[a]	<160,000[a]	<12,000[a]	<11,000[a]	25,000[a]	<94,000[a]	**160,000**[a]	32,000[a]	61,000[a]	<0.0100	2.43	9.46	10.8
SVP-3	5/28/2009	4.4-4.5	---	<670	**2,400**	1,000	<340	370	<350	550	1,400	<350	<690	0.266	---	---	---
SVP-3	3/23/2010	4.4-4.5	**24,000,000**	<24,000[a]	**1,400**[a]	<6,200[a]	<490[a]	<430[a]	<490[a]	<3,800[a]	<1,700[a]	<490[a]	<1,500[a]	<0.0100	1.94	10.7	5.59
SVP-4[b]	3/23/2010	NA	<8,300	27	<2.3	<9.0	7.2	<3.1	<3.5	<2.7	<13	<3.5	<11	<0.0144	14.5	<0.720	<0.720
SVP-5[b]	3/23/2010	NA	<9,400	<7.7	<2.6	<10	7.2	<3.5	<4.0	<3.1	<14	<4.0	<12	<0.0163	12.0	1.20	<0.815
Trip Blank	5/28/2009		---	<4.8	<1.6	<6.2	<2.4	<2.2	<2.5	<1.9	<8.7	<2.5	<4.9	<0.0100	---	---	---
SFRWQCB ESLs[c] ***Shallow Soil Gas Commercial***			29,000	1,800,000	280	NA	1,500	3,300	NA	180,000	58,000	NA	NA	NA	NA	NA	NA

Notes:

All results in micrograms per cubic meter ($\mu g/m^3$) unless otherwise indicated.
fbg = Feet below grade
%v = Percentage by volume
Volatile organic compounds analyzed by EPA TO-15. All detected analytes tabulated; see laboratory report for a complete list of specific constituents and
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
Helium analyzed by ASTM D-1946 (M)
Oxygen and argon, carbon dioxide, and methane analyzed by ASTM D-1946.
--- = Not analyzed
NA = Not applicable

a = Laboratory method EPA TO-15 was modified to use Tedlar® bags instead of Summa canisters.
b = Near sub-slab soil vapor probes
c = San Francisco Bay Regional Water Quality Control Board commercial land use Environmental Screening Level for soil gas for evaluation of potential vapor intrusion concerns (Table E-2 of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater* California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

Results in **bold** exceed environmental screening level

APPENDIX A

SITE HISTORY

SITE HISTORY

March 1977 Underground Storage Tank (UST) Removal: According to Alameda County Environmental Health (ACEH), Shell Oil Products US (Shell) obtained a permit to remove four USTs with volumes of 10,000 gallons, 8,000 gallons, 5,000 gallons, and 550 gallons when they sold the property to Mr. Richard Burge. In a March 16, 2007 letter to Shell, ACEH stated that no documentation of the UST removal was available.

November 1992 Construction Activities: Samples collected during light pole installation contained 3,200 milligrams per kilogram (mg/kg) lube oil and 89 mg/kg total petroleum hydrocarbons as gasoline (TPHg). Laboratory reports and a site plan are presented in GTEL Environmental Laboratories, Inc.'s (GTEL's) December 15, 1992 letter to Groundwater Technologies, Inc.

March 1993 Soil Borings: Samples from four soil borings contained concentrations of up to 7,900 mg/kg lube oil and 620 mg/kg TPHg. Laboratory reports are presented in GTEL's March 24, 1993 letter to Groundwater Technologies, Inc.

June 2008 Monitoring Well Installation: Conestoga-Rovers & Associates (CRA) installed six monitoring wells (S-1 through S-6) to evaluate the extent of soil and groundwater impacts at the site. Soil analytical data indicated that TPHg and total petroleum hydrocarbons as diesel (TPHd) concentrations exceeded San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs) for shallow soil in borings S-1, S-2, S-4, and S-5. The TPHd chromatographic patterns did not match the diesel standard, and may represent motor oil or hydraulic oil. CRA's July 9, 2008 *Subsurface Investigation Report* documents these activities.

May 2009 Subsurface Investigation: CRA drilled two hydropunch borings (HP-1 and HP-2), three off-site soil borings (B-1, B-2, and B-3: down gradient), and one on-site soil boring (B-4: vicinity of former waste oil UST) and installed three soil vapor probes (SVP-1 through SVP-3) No ethylbenzene, toluene, xylenes, fuel oxygenates, or lead scavengers were detected in soil samples collected during this investigation. Only the TPHg (up to 920 mg/kg), TPHd (up to 700 mg/kg), and benzene (up to 2.4 mg/kg) detections exceed the ESLs. No benzene, toluene, ethylbenzene, xylenes or fuel oxygenates were detected in grab groundwater samples collected from the off-site soil borings. Only TPHg (up to 14,000 micrograms per liter [µg/l]) and TPHd (up to 58,000 µg/l) exceeded the ESLs in the two samples; no other constituents of concern exceeded ESLs. Oil and grease (O&G; up to 715,000 µg/l) was also detected in both samples. The concentrations of TPHg, TPHd, and O&G in the grab groundwater samples are considerably higher than concentrations detected in the on-site wells. CRA

noted that hydrocarbon concentrations in the borings increase with distance from the site. This suggests that the site is not the source and that there is or was an off-site source. All soil vapor sample concentrations for toluene, xylenes, and other volatile organic compounds (VOCs) are below ESLs. Benzene concentrations in soil vapor samples from probes SVP-1 through SVP-3 and ethylbenzene detections in probes SVP-1 and SVP-2 exceeded the ESLs. CRA's June 26, 2009 *Subsurface Investigation Report* presents details of this investigation.

Groundwater Monitoring: Groundwater monitoring was initiated during the second quarter of 2008. Groundwater gradient and flow direction have been variable. Fourth quarter 2009 groundwater samples from the wells contained up to 2,200 µg/l TPHg, 950 µg/l TPHd, 200 µg/l benzene, 42 µg/l ethylbenzene, 3.6 µg/l toluene, 2.6 µg/l xylenes, 150 µg/l tertiary-butyl alcohol, 25 µg/l diisopropyl ether, 3.2 µg/l n-butylbenzene, 5.0 µg/l sec-butylbenzene, 11 µg/l isopropylbenzene, 2.7 µg/l p-isopropyltoluene, 7.3 µg/l n-propylbenzene, and 2.6 µg/l 1,2,4-trimethylbenzene. Since the initiation of quarterly groundwater monitoring, no lead scavengers or methyl tertiary-butyl ether have been detected in any of the groundwater samples. TPHg, TPHd, and benzene concentrations exceed the ESLs for sites where groundwater is not a current or potential source of drinking water.

APPENDIX B

PERMIT

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 02/17/2010 By jamesy

Permit Numbers: W2010-0093 to W2010-0094
Permits Valid from 02/24/2010 to 06/01/2010

Application Id: 1265764573268
City of Project Site: Alameda
Site Location: 2350 (2368) Harrison Street
Oakland, CA
Project Start Date: 02/24/2010
Completion Date: 06/01/2010
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant:	Conestoga Rovers & Associates - Erin Swan 5900 Hollis St Suite A, Emeryville, CA 94608	**Phone:** 510-420-3372
Property Owner:	Richard Burge 490 Grand Ave, Suite 200, Oakland, CA 94608	**Phone:** 510-452-1433
Client:	Shell Shell Oil Products US 20945 S. Wilmington Ave, Carson, CA 90810	**Phone:** 707-865-0074
Contact:	Erin Swan	**Phone:** -- **Cell:** 510-385-0074

Total Due: $530.00
Receipt Number: WR2010-0044 **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 - 3 Wells
Driller: Gregg Drilling & 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
W2010-0093	02/17/2010	05/25/2010	SVP-2	3.00 in.	0.25 in.	1.50 ft	1.75 ft
W2010-0093	02/17/2010	05/25/2010	SVP-4	0.30 in.	0.25 in.	0.08 ft	0.16 ft
W2010-0093	02/17/2010	05/25/2010	SVP-5	0.30 in.	0.25 in.	0.08 ft	0.16 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 contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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. 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.

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

11. 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.

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 9 Boreholes
Driller: Gregg Drilling & Testing - Lic #: 485165 - Method: other **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2010-0094	02/17/2010	05/25/2010	9	2.50 in.	15.00 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. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. 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.

6. 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.

7. 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.

8. 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.

APPENDIX C

BORING LOG

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-2a
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	26-Feb-10
LOCATION	2350 (2368) Harrison Street, Oakland, CA	**DRILLING COMPLETED**	26-Feb-10
PROJECT NUMBER	060119	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling, C-57 #485165	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3"	**SCREENED INTERVALS**	1.75 to 1.85 fbg
LOGGED BY	E. Swan	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer	**DEPTH TO WATER (Static)**	NA
REMARKS	Air knifed to 2 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.3	Flush-grade 6"well box Portland Type I/II 1/4" OD Teflon Tubing Bentonite Seal Monterey Sand Vapor Probe Screen
					ML		**Sandy SILT with gravel (ML)**; dark yellowish brown (10YR 4/6); moist; 50% silt, 30% fine to coarse sand, 20% coarse gravel; low to medium plasticity; fill.	2.0	Bottom of Boring @ 2 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\0601--1060119--1\1064AE2~1\060119-GINT.GPJ DEFAULT.GDT 4/7/10

APPENDIX D

CERTIFIED ANALYTICAL REPORT

Calscience
Environmental
Laboratories, Inc.

April 01, 2010

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

Subject: **Calscience Work Order No.: 10-03-1887**
Client Reference: 2350 (2368) Harrison St., Oakland, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 3/24/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

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

Sincerely,

Philip Sanelle for

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	10-03-1887-1-A	03/23/10 12:50	Air	GC 36	N/A	03/24/10 00:00	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	10.8	0.500	1		Oxygen + Argon	2.43	0.500	1	
Carbon Dioxide	9.46	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	10-03-1887-2-A	03/23/10 13:25	Air	GC 36	N/A	03/24/10 00:00	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	5.59	0.500	1		Oxygen + Argon	1.94	0.500	1	
Carbon Dioxide	10.7	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	10-03-1887-3-A	03/23/10 12:18	Air	GC 36	N/A	03/24/10 00:00	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.720	1.44		Oxygen + Argon	14.5	0.720	1.44	
Carbon Dioxide	ND	0.720	1.44						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	10-03-1887-4-A	03/23/10 13:12	Air	GC 36	N/A	03/24/10 00:00	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.815	1.63		Oxygen + Argon	12.0	0.815	1.63	
Carbon Dioxide	1.20	0.815	1.63						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-03-002-1,020	N/A	Air	GC 36	N/A	03/24/10 00:00	100324L01

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-3M

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	10-03-1887-1-A	03/23/10 12:50	Air	GC 13	N/A	03/24/10 12:49	100324L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	75000000	290000	50		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	10-03-1887-2-A	03/23/10 13:25	Air	GC 13	N/A	03/24/10 12:38	100324L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	24000000	290000	50		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	10-03-1887-3-A	03/23/10 12:18	Air	GC 13	N/A	03/24/10 13:56	100324L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	8300	1.44		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	10-03-1887-4-A	03/23/10 13:12	Air	GC 13	N/A	03/24/10 14:06	100324L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	9400	1.63		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	098-01-005-2,170	N/A	Air	GC 13	N/A	03/24/10 07:35	100324L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	5700	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	10-03-1887-1-A	03/23/10 12:50	Air	GC 55	N/A	03/24/10 00:00	100324L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	10-03-1887-2-A	03/23/10 13:25	Air	GC 55	N/A	03/24/10 00:00	100324L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	10-03-1887-3-A	03/23/10 12:18	Air	GC 55	N/A	03/24/10 00:00	100324L01

Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0144	1.44		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	10-03-1887-4-A	03/23/10 13:12	Air	GC 55	N/A	03/24/10 00:00	100324L01

Parameter	Result	RL	DF	Qual	Units
Helium	ND	0.0163	1.63		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-872-20	N/A	Air	GC 55	N/A	03/24/10 00:00	100324L01

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received:	03/24/10
Work Order No:	10-03-1887
Preparation:	N/A
Method:	EPA TO-15
Units:	ug/m3

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4	10-03-1887-3-A	03/23/10 12:18	Air	GC/MS AA	N/A	03/24/10 22:59	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	27	6.8	1.44		t-1,3-Dichloropropene	ND	6.5	1.44	
Benzene	ND	2.3	1.44		Ethanol	ND	14	1.44	
Benzyl Chloride	ND	11	1.44		Ethyl-t-Butyl Ether (ETBE)	ND	12	1.44	
Bromodichloromethane	ND	4.8	1.44		Ethylbenzene	ND	3.1	1.44	
Bromoform	ND	7.4	1.44		4-Ethyltoluene	ND	3.5	1.44	
Bromomethane	ND	2.8	1.44		Hexachloro-1,3-Butadiene	ND	23	1.44	
2-Butanone	ND	6.4	1.44		2-Hexanone	ND	8.8	1.44	
Carbon Disulfide	ND	9.0	1.44		Methyl-t-Butyl Ether (MTBE)	ND	10	1.44	
Carbon Tetrachloride	ND	4.5	1.44		Methylene Chloride	ND	25	1.44	
Chlorobenzene	ND	3.3	1.44		4-Methyl-2-Pentanone	ND	8.8	1.44	
Chloroethane	ND	1.9	1.44		Naphthalene	ND	75	1.44	
Chloroform	7.2	3.5	1.44		Xylenes (total)	ND	13	1.44	
Chloromethane	ND	1.5	1.44		Styrene	ND	9.2	1.44	
Dibromochloromethane	ND	6.1	1.44		Tert-Amyl-Methyl Ether (TAME)	ND	12	1.44	
Dichlorodifluoromethane	ND	3.6	1.44		Tert-Butyl Alcohol (TBA)	ND	8.7	1.44	
Diisopropyl Ether (DIPE)	ND	12	1.44		Tetrachloroethene	ND	4.9	1.44	
1,1-Dichloroethane	ND	2.9	1.44		Toluene	ND	2.7	1.44	
1,1-Dichloroethene	ND	2.9	1.44		Trichloroethene	ND	3.9	1.44	
1,2-Dibromoethane	ND	5.5	1.44		Trichlorofluoromethane	ND	8.1	1.44	
Dichlorotetrafluoroethane	ND	20	1.44		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	17	1.44	
1,2-Dichlorobenzene	ND	4.3	1.44		1,1,1-Trichloroethane	ND	3.9	1.44	
1,2-Dichloroethane	ND	2.9	1.44		1,1,2-Trichloroethane	ND	3.9	1.44	
1,2-Dichloropropane	ND	3.3	1.44		1,3,5-Trimethylbenzene	ND	3.5	1.44	
1,3-Dichlorobenzene	ND	4.3	1.44		1,1,2,2-Tetrachloroethane	ND	9.9	1.44	
1,4-Dichlorobenzene	ND	4.3	1.44		1,2,4-Trimethylbenzene	ND	11	1.44	
c-1,3-Dichloropropene	ND	3.3	1.44		1,2,4-Trichlorobenzene	ND	21	1.44	
c-1,2-Dichloroethene	ND	2.9	1.44		Vinyl Acetate	ND	10	1.44	
t-1,2-Dichloroethene	ND	2.9	1.44		Vinyl Chloride	ND	1.8	1.44	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	101	57-129			1,2-Dichloroethane-d4	103	47-137		
Toluene-d8	105	78-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5	10-03-1887-4-A	03/23/10 13:12	Air	GC/MS AA	N/A	03/24/10 23:47	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	7.7	1.63		t-1,3-Dichloropropene	ND	7.4	1.63	
Benzene	ND	2.6	1.63		Ethanol	ND	15	1.63	
Benzyl Chloride	ND	13	1.63		Ethyl-t-Butyl Ether (ETBE)	ND	14	1.63	
Bromodichloromethane	ND	5.5	1.63		Ethylbenzene	ND	3.5	1.63	
Bromoform	ND	8.4	1.63		4-Ethyltoluene	ND	4.0	1.63	
Bromomethane	ND	3.2	1.63		Hexachloro-1,3-Butadiene	ND	26	1.63	
2-Butanone	ND	7.2	1.63		2-Hexanone	ND	10	1.63	
Carbon Disulfide	ND	10	1.63		Methyl-t-Butyl Ether (MTBE)	ND	12	1.63	
Carbon Tetrachloride	ND	5.1	1.63		Methylene Chloride	ND	28	1.63	
Chlorobenzene	ND	3.8	1.63		4-Methyl-2-Pentanone	ND	10	1.63	
Chloroethane	ND	2.2	1.63		Naphthalene	ND	85	1.63	
Chloroform	7.2	4.0	1.63		Xylenes (total)	ND	14	1.63	
Chloromethane	ND	1.7	1.63		Styrene	ND	10	1.63	
Dibromochloromethane	ND	6.9	1.63		Tert-Amyl-Methyl Ether (TAME)	ND	14	1.63	
Dichlorodifluoromethane	ND	4.0	1.63		Tert-Butyl Alcohol (TBA)	ND	9.9	1.63	
Diisopropyl Ether (DIPE)	ND	14	1.63		Tetrachloroethene	ND	5.5	1.63	
1,1-Dichloroethane	ND	3.3	1.63		Toluene	ND	3.1	1.63	
1,1-Dichloroethene	ND	3.2	1.63		Trichloroethene	ND	4.4	1.63	
1,2-Dibromoethane	ND	6.3	1.63		Trichlorofluoromethane	ND	9.2	1.63	
Dichlorotetrafluoroethane	ND	23	1.63		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	19	1.63	
1,2-Dichlorobenzene	ND	4.9	1.63		1,1,1-Trichloroethane	ND	4.4	1.63	
1,2-Dichloroethane	ND	3.3	1.63		1,1,2-Trichloroethane	ND	4.4	1.63	
1,2-Dichloropropane	ND	3.8	1.63		1,3,5-Trimethylbenzene	ND	4.0	1.63	
1,3-Dichlorobenzene	ND	4.9	1.63		1,1,2,2-Tetrachloroethane	ND	11	1.63	
1,4-Dichlorobenzene	ND	4.9	1.63		1,2,4-Trimethylbenzene	ND	12	1.63	
c-1,3-Dichloropropene	ND	3.7	1.63		1,2,4-Trichlorobenzene	ND	24	1.63	
c-1,2-Dichloroethene	ND	3.2	1.63		Vinyl Acetate	ND	11	1.63	
t-1,2-Dichloroethene	ND	3.2	1.63		Vinyl Chloride	ND	2.1	1.63	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	101	57-129			1,2-Dichloroethane-d4	103	47-137		
Toluene-d8	100	78-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-021-8,474	N/A	Air	GC/MS AA	N/A	03/24/10 16:55	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4.8	1		t-1,3-Dichloropropene	ND	4.5	1	
Benzene	ND	1.6	1		Ethanol	ND	9.4	1	
Benzyl Chloride	ND	7.8	1		Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	
Bromodichloromethane	ND	3.4	1		Ethylbenzene	ND	2.2	1	
Bromoform	ND	5.2	1		4-Ethyltoluene	ND	2.5	1	
Bromomethane	ND	1.9	1		Hexachloro-1,3-Butadiene	ND	16	1	
2-Butanone	ND	4.4	1		2-Hexanone	ND	6.1	1	
Carbon Disulfide	ND	6.2	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Carbon Tetrachloride	ND	3.1	1		Methylene Chloride	ND	17	1	
Chlorobenzene	ND	2.3	1		4-Methyl-2-Pentanone	ND	6.1	1	
Chloroethane	ND	1.3	1		Naphthalene	ND	52	1	
Chloroform	ND	2.4	1		Xylenes (total)	ND	8.7	1	
Chloromethane	ND	1.0	1		Styrene	ND	6.4	1	
Dibromochloromethane	ND	4.3	1		Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	
Dichlorodifluoromethane	ND	2.5	1		Tert-Butyl Alcohol (TBA)	ND	6.1	1	
Diisopropyl Ether (DIPE)	ND	8.4	1		Tetrachloroethene	ND	3.4	1	
1,1-Dichloroethane	ND	2.0	1		Toluene	ND	1.9	1	
1,1-Dichloroethene	ND	2.0	1		Trichloroethene	ND	2.7	1	
1,2-Dibromoethane	ND	3.8	1		Trichlorofluoromethane	ND	5.6	1	
Dichlorotetrafluoroethane	ND	14	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	
1,2-Dichlorobenzene	ND	3.0	1		1,1,1-Trichloroethane	ND	2.7	1	
1,2-Dichloroethane	ND	2.0	1		1,1,2-Trichloroethane	ND	2.7	1	
1,2-Dichloropropane	ND	2.3	1		1,3,5-Trimethylbenzene	ND	2.5	1	
1,3-Dichlorobenzene	ND	3.0	1		1,1,2,2-Tetrachloroethane	ND	6.9	1	
1,4-Dichlorobenzene	ND	3.0	1		1,2,4-Trimethylbenzene	ND	7.4	1	
c-1,3-Dichloropropene	ND	2.3	1		1,2,4-Trichlorobenzene	ND	15	1	
c-1,2-Dichloroethene	ND	2.0	1		Vinyl Acetate	ND	7.0	1	
t-1,2-Dichloroethene	ND	2.0	1		Vinyl Chloride	ND	1.3	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	99	57-129			1,2-Dichloroethane-d4	95	47-137		
Toluene-d8	97	78-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	03/24/10
5900 Hollis Street, Suite A	Work Order No:	10-03-1887
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA TO-15M
	Units:	ug/m3

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2	10-03-1887-1-A	03/23/10 12:50	Air	GC/MS AA	N/A	03/24/10 19:56	100324L01

Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	590000	5000		t-1,3-Dichloropropene	ND	23000	5000	
Benzene	160000	8000	5000		Ethanol	ND	470000	5000	
Benzyl Chloride	ND	39000	5000		Ethyl-t-Butyl Ether (ETBE)	ND	42000	5000	
Bromodichloromethane	ND	17000	5000		Ethylbenzene	ND	11000	5000	
Bromoform	ND	26000	5000		4-Ethyltoluene	25000	12000	5000	
Bromomethane	ND	9700	5000		Hexachloro-1,3-Butadiene	ND	80000	5000	
2-Butanone	ND	22000	5000		2-Hexanone	ND	31000	5000	
Carbon Disulfide	ND	160000	5000		Methyl-t-Butyl Ether (MTBE)	ND	36000	5000	
Carbon Tetrachloride	ND	16000	5000		Methylene Chloride	ND	87000	5000	
Chlorobenzene	ND	12000	5000		4-Methyl-2-Pentanone	ND	31000	5000	
Chloroethane	ND	6600	5000		Naphthalene	ND	260000	5000	
Chloroform	ND	12000	5000		Xylenes (total)	160000	43000	5000	
Chloromethane	ND	5200	5000		Styrene	ND	32000	5000	
Dibromochloromethane	ND	21000	5000		Tert-Amyl-Methyl Ether (TAME)	ND	42000	5000	
Dichlorodifluoromethane	ND	12000	5000		Tert-Butyl Alcohol (TBA)	ND	76000	5000	
Diisopropyl Ether (DIPE)	ND	42000	5000		Tetrachloroethene	ND	17000	5000	
1,1-Dichloroethane	ND	10000	5000		Toluene	ND	94000	5000	
1,1-Dichloroethene	ND	9900	5000		Trichloroethene	ND	13000	5000	
1,2-Dibromoethane	ND	19000	5000		Trichlorofluoromethane	ND	28000	5000	
Dichlorotetrafluoroethane	ND	70000	5000		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	57000	5000	
1,2-Dichlorobenzene	ND	15000	5000		1,1,1-Trichloroethane	ND	14000	5000	
1,2-Dichloroethane	ND	10000	5000		1,1,2-Trichloroethane	ND	14000	5000	
1,2-Dichloropropane	ND	12000	5000		1,3,5-Trimethylbenzene	32000	12000	5000	
1,3-Dichlorobenzene	ND	15000	5000		1,1,2,2-Tetrachloroethane	ND	34000	5000	
1,4-Dichlorobenzene	ND	15000	5000		1,2,4-Trimethylbenzene	61000	37000	5000	
c-1,3-Dichloropropene	ND	11000	5000		1,2,4-Trichlorobenzene	ND	74000	5000	
c-1,2-Dichloroethene	ND	9900	5000		Vinyl Acetate	ND	35000	5000	
t-1,2-Dichloroethene	ND	9900	5000		Vinyl Chloride	ND	6400	5000	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	97	57-129			1,2-Dichloroethane-d4	87	47-137		
Toluene-d8	98	78-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	03/24/10
5900 Hollis Street, Suite A	Work Order No:	10-03-1887
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	EPA TO-15M
	Units:	ug/m3

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3	10-03-1887-2-A	03/23/10 13:25	Air	GC/MS AA	N/A	03/25/10 14:04	100325L01

Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	24000	200		t-1,3-Dichloropropene	ND	910	200	
Benzene	1400	320	200		Ethanol	ND	19000	200	
Benzyl Chloride	ND	1600	200		Ethyl-t-Butyl Ether (ETBE)	ND	1700	200	
Bromodichloromethane	ND	670	200		Ethylbenzene	ND	430	200	
Bromoform	ND	1000	200		4-Ethyltoluene	ND	490	200	
Bromomethane	ND	390	200		Hexachloro-1,3-Butadiene	ND	3200	200	
2-Butanone	ND	880	200		2-Hexanone	ND	1200	200	
Carbon Disulfide	ND	6200	200		Methyl-t-Butyl Ether (MTBE)	ND	1400	200	
Carbon Tetrachloride	ND	630	200		Methylene Chloride	ND	3500	200	
Chlorobenzene	ND	460	200		4-Methyl-2-Pentanone	ND	1200	200	
Chloroethane	ND	260	200		Naphthalene	ND	10000	200	
Chloroform	ND	490	200		Xylenes (total)	ND	1700	200	
Chloromethane	ND	210	200		Styrene	ND	1300	200	
Dibromochloromethane	ND	850	200		Tert-Amyl-Methyl Ether (TAME)	ND	1700	200	
Dichlorodifluoromethane	ND	490	200		Tert-Butyl Alcohol (TBA)	ND	3000	200	
Diisopropyl Ether (DIPE)	ND	1700	200		Tetrachloroethene	ND	680	200	
1,1-Dichloroethane	ND	400	200		Toluene	ND	3800	200	
1,1-Dichloroethene	ND	400	200		Trichloroethene	ND	540	200	
1,2-Dibromoethane	ND	770	200		Trichlorofluoromethane	ND	1100	200	
Dichlorotetrafluoroethane	ND	2800	200		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2300	200	
1,2-Dichlorobenzene	ND	600	200		1,1,1-Trichloroethane	ND	550	200	
1,2-Dichloroethane	ND	400	200		1,1,2-Trichloroethane	ND	550	200	
1,2-Dichloropropane	ND	460	200		1,3,5-Trimethylbenzene	ND	490	200	
1,3-Dichlorobenzene	ND	600	200		1,1,2,2-Tetrachloroethane	ND	1400	200	
1,4-Dichlorobenzene	ND	600	200		1,2,4-Trimethylbenzene	ND	1500	200	
c-1,3-Dichloropropene	ND	450	200		1,2,4-Trichlorobenzene	ND	3000	200	
c-1,2-Dichloroethene	ND	400	200		Vinyl Acetate	ND	1400	200	
t-1,2-Dichloroethene	ND	400	200		Vinyl Chloride	ND	260	200	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	116	57-129			1,2-Dichloroethane-d4	99	47-137		
Toluene-d8	70	78-156	2						

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-981-437	N/A	Air	GC/MS AA	N/A	03/24/10 16:55	100324L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	120	1		t-1,3-Dichloropropene	ND	4.5	1	
Benzene	ND	1.6	1		Ethanol	ND	94	1	
Benzyl Chloride	ND	7.8	1		Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	
Bromodichloromethane	ND	3.4	1		Ethylbenzene	ND	2.2	1	
Bromoform	ND	5.2	1		4-Ethyltoluene	ND	2.5	1	
Bromomethane	ND	1.9	1		Hexachloro-1,3-Butadiene	ND	16	1	
2-Butanone	ND	4.4	1		2-Hexanone	ND	6.1	1	
Carbon Disulfide	ND	31	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Carbon Tetrachloride	ND	3.1	1		Methylene Chloride	ND	17	1	
Chlorobenzene	ND	2.3	1		4-Methyl-2-Pentanone	ND	6.1	1	
Chloroethane	ND	1.3	1		Naphthalene	ND	52	1	
Chloroform	ND	2.4	1		Xylenes (total)	ND	8.7	1	
Chloromethane	ND	1.0	1		Styrene	ND	6.4	1	
Dibromochloromethane	ND	4.3	1		Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	
Dichlorodifluoromethane	ND	2.5	1		Tert-Butyl Alcohol (TBA)	ND	15	1	
Diisopropyl Ether (DIPE)	ND	8.4	1		Tetrachloroethene	ND	3.4	1	
1,1-Dichloroethane	ND	2.0	1		Toluene	ND	19	1	
1,1-Dichloroethene	ND	2.0	1		Trichloroethene	ND	2.7	1	
1,2-Dibromoethane	ND	3.8	1		Trichlorofluoromethane	ND	5.6	1	
Dichlorotetrafluoroethane	ND	14	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	
1,2-Dichlorobenzene	ND	3.0	1		1,1,1-Trichloroethane	ND	2.7	1	
1,2-Dichloroethane	ND	2.0	1		1,1,2-Trichloroethane	ND	2.7	1	
1,2-Dichloropropane	ND	2.3	1		1,3,5-Trimethylbenzene	ND	2.5	1	
1,3-Dichlorobenzene	ND	3.0	1		1,1,2,2-Tetrachloroethane	ND	6.9	1	
1,4-Dichlorobenzene	ND	3.0	1		1,2,4-Trimethylbenzene	ND	7.4	1	
c-1,3-Dichloropropene	ND	2.3	1		1,2,4-Trichlorobenzene	ND	15	1	
c-1,2-Dichloroethene	ND	2.0	1		Vinyl Acetate	ND	7.0	1	
t-1,2-Dichloroethene	ND	2.0	1		Vinyl Chloride	ND	1.3	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	99	57-129			1,2-Dichloroethane-d4	95	47-137		
Toluene-d8	97	78-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-15M
Units: ug/m3

Project: 2350 (2368) Harrison St., Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-981-441	N/A	Air	GC/MS AA	N/A	03/25/10 12:30	100325L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	120	1		t-1,3-Dichloropropene	ND	4.5	1	
Benzene	ND	1.6	1		Ethanol	ND	94	1	
Benzyl Chloride	ND	7.8	1		Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	
Bromodichloromethane	ND	3.4	1		Ethylbenzene	ND	2.2	1	
Bromoform	ND	5.2	1		4-Ethyltoluene	ND	2.5	1	
Bromomethane	ND	1.9	1		Hexachloro-1,3-Butadiene	ND	16	1	
2-Butanone	ND	4.4	1		2-Hexanone	ND	6.1	1	
Carbon Disulfide	ND	31	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Carbon Tetrachloride	ND	3.1	1		Methylene Chloride	ND	17	1	
Chlorobenzene	ND	2.3	1		4-Methyl-2-Pentanone	ND	6.1	1	
Chloroethane	ND	1.3	1		Naphthalene	ND	52	1	
Chloroform	ND	2.4	1		Xylenes (total)	ND	8.7	1	
Chloromethane	ND	1.0	1		Styrene	ND	6.4	1	
Dibromochloromethane	ND	4.3	1		Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	
Dichlorodifluoromethane	ND	2.5	1		Tert-Butyl Alcohol (TBA)	ND	15	1	
Diisopropyl Ether (DIPE)	ND	8.4	1		Tetrachloroethene	ND	3.4	1	
1,1-Dichloroethane	ND	2.0	1		Toluene	ND	19	1	
1,1-Dichloroethene	ND	2.0	1		Trichloroethene	ND	2.7	1	
1,2-Dibromoethane	ND	3.8	1		Trichlorofluoromethane	ND	5.6	1	
Dichlorotetrafluoroethane	ND	14	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	
1,2-Dichlorobenzene	ND	3.0	1		1,1,1-Trichloroethane	ND	2.7	1	
1,2-Dichloroethane	ND	2.0	1		1,1,2-Trichloroethane	ND	2.7	1	
1,2-Dichloropropane	ND	2.3	1		1,3,5-Trimethylbenzene	ND	2.5	1	
1,3-Dichlorobenzene	ND	3.0	1		1,1,2,2-Tetrachloroethane	ND	6.9	1	
1,4-Dichlorobenzene	ND	3.0	1		1,2,4-Trimethylbenzene	ND	7.4	1	
c-1,3-Dichloropropene	ND	2.3	1		1,2,4-Trichlorobenzene	ND	15	1	
c-1,2-Dichloroethene	ND	2.0	1		Vinyl Acetate	ND	7.0	1	
t-1,2-Dichloroethene	ND	2.0	1		Vinyl Chloride	ND	1.3	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	98	57-129			1,2-Dichloroethane-d4	102	47-137		
Toluene-d8	98	78-156							

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

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

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

Date Received: 03/24/10
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-3M

Project: 2350 (2368) Harrison St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
10-03-1867-2	Air	GC 13	N/A	03/24/10	100324D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
TPH as Gasoline	8600	8600	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates	Date Received:	N/A
5900 Hollis Street, Suite A	Work Order No:	10-03-1887
Emeryville, CA 94608-2008	Preparation:	N/A
	Method:	ASTM D-1946

Project: 2350 (2368) Harrison St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,020	Air	GC 36	N/A	03/24/10	100324L01

Parameter	LCS Conc	LCSD Conc	RPD	RPD CL	Qualifiers
Carbon Dioxide	5.252	5.241	0	0-30	
Oxygen + Argon	19.42	19.51	1	0-30	
Nitrogen	73.16	73.47	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates	Date Received: N/A
5900 Hollis Street, Suite A	Work Order No: 10-03-1887
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946 (M)

Project: 2350 (2368) Harrison St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-20	Air	GC 55	N/A	03/24/10	100324L01

Parameter	LCS Conc	LCSD Conc	RPD	RPD CL	Qualifiers
Helium	1.011	0.9986	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-15

Project: 2350 (2368) Harrison St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-8,474	Air	GC/MS AA	N/A	03/24/10	100324L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	103	107	60-156	44-172	4	0-40	
Carbon Tetrachloride	106	107	64-154	49-169	1	0-32	
1,2-Dibromoethane	108	112	54-144	39-159	3	0-36	
1,2-Dichlorobenzene	106	107	34-160	13-181	1	0-47	
1,2-Dichloroethane	100	107	69-153	55-167	7	0-30	
1,2-Dichloropropane	104	108	67-157	52-172	4	0-35	
1,4-Dichlorobenzene	105	107	36-156	16-176	1	0-47	
c-1,3-Dichloropropene	120	124	61-157	45-173	3	0-35	
Ethylbenzene	111	114	52-154	35-171	3	0-38	
o-Xylene	110	113	52-148	36-164	3	0-38	
p/m-Xylene	102	105	42-156	23-175	3	0-41	
Tetrachloroethene	106	109	56-152	40-168	2	0-40	
Toluene	105	109	56-146	41-161	4	0-43	
Trichloroethene	110	112	63-159	47-175	2	0-34	
1,1,2-Trichloroethane	107	109	65-149	51-163	2	0-37	
Vinyl Chloride	102	108	45-177	23-199	6	0-36	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-15M

Project: 2350 (2368) Harrison St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-981-437	Air	GC/MS AA	N/A	03/24/10	100324L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	103	107	60-156	44-172	4	0-40	
Carbon Tetrachloride	106	107	64-154	49-169	1	0-32	
1,2-Dibromoethane	108	112	54-144	39-159	3	0-36	
1,2-Dichlorobenzene	106	107	34-160	13-181	1	0-47	
1,2-Dichloroethane	100	107	69-153	55-167	7	0-30	
1,2-Dichloropropane	104	108	67-157	52-172	4	0-35	
1,4-Dichlorobenzene	105	107	36-156	16-176	1	0-47	
c-1,3-Dichloropropene	120	124	61-157	45-173	3	0-35	
Ethylbenzene	111	114	52-154	35-171	3	0-38	
o-Xylene	110	113	52-148	36-164	3	0-38	
p/m-Xylene	102	105	42-156	23-175	3	0-41	
Tetrachloroethene	106	109	56-152	40-168	2	0-40	
Toluene	105	109	56-146	41-161	4	0-43	
Trichloroethene	110	112	63-159	47-175	2	0-34	
1,1,2-Trichloroethane	107	109	65-149	51-163	2	0-37	
Vinyl Chloride	102	108	45-177	23-199	6	0-36	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-03-1887
Preparation: N/A
Method: EPA TO-15M

Project: 2350 (2368) Harrison St., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-981-441	Air	GC/MS AA	N/A	03/25/10	100325L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	103	104	60-156	44-172	1	0-40	
Carbon Tetrachloride	99	101	64-154	49-169	3	0-32	
1,2-Dibromoethane	109	111	54-144	39-159	2	0-36	
1,2-Dichlorobenzene	103	104	34-160	13-181	1	0-47	
1,2-Dichloroethane	105	104	69-153	55-167	0	0-30	
1,2-Dichloropropane	104	106	67-157	52-172	2	0-35	
1,4-Dichlorobenzene	103	104	36-156	16-176	2	0-47	
c-1,3-Dichloropropene	119	121	61-157	45-173	2	0-35	
Ethylbenzene	112	115	52-154	35-171	2	0-38	
o-Xylene	110	113	52-148	36-164	3	0-38	
p/m-Xylene	103	106	42-156	23-175	3	0-41	
Tetrachloroethene	106	108	56-152	40-168	2	0-40	
Toluene	108	111	56-146	41-161	3	0-43	
Trichloroethene	106	107	63-159	47-175	2	0-34	
1,1,2-Trichloroethane	104	107	65-149	51-163	2	0-37	
Vinyl Chloride	106	107	45-177	23-199	0	0-36	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 10-03-1887

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

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer

INCIDENT # (ENV SERVICES): 9 7 7 4 3 9 6 9 ☐ CHECK IF NO INCIDENT # APPLIES

PO #:

SAP #: 1 7 3 3 1 8

DATE: 3/23/2010

PAGE: 1 of 1

SAMPLING COMPANY	Conestoga-Rovers & Associates
LOG CODE	CRAW
SITE ADDRESS: Street and City	2350 (2368) Harrison St., Oakland
State	CA
GLOBAL ID NO	TO600102237
ADDRESS	5900 Hollis Street, Suite A, Emeryville, CA 94608
EDF DELIVERABLE TO (Name, Company, Office Location)	Brenda Carter, CRA, Emeryville
PHONE NO	510-420-3343
E-MAIL	shelledf@craworld.com
CONSULTANT PROJECT NO	060119-95-2010.4
PROJECT CONTACT (Hardcopy or PDF Report to)	Peter Schaefer
SAMPLER NAME(S) (Print)	Erin Swan
TELEPHONE	510-420-3319
FAX	510-420-9170
E-MAIL	pschaefer@craworld.com
LAB USE ONLY	03-1887

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 :

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

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

Analysis Tedlar bags within 72 hours

Please report results in µg/m³ Needed detection limit of below 140 µg/m3 for 1,1,2,2,- tetrachloroethane

TEMPERATURE ON RECEIPT C°

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	NONE	Ice OTHER	NO. OF CONT.	Helium, Oxygen, Carbon Dioxide, & Methane Method ASTM D1946	TPHg, Full scall VOCs, & Naphthalene (EPA 8260B)	Container PID Readings or Laboratory Notes
	~~SVP-1~~	~~3/23/10~~		~~Vapor~~				~~X~~			~~X~~	~~X~~	—
1	SVP-2	3/23/10	12:50	Vapor				X			X	X	Tedlar Bag
	~~SVP-2a~~	~~3/23/10~~		~~Vapor~~				~~X~~			~~X~~	~~X~~	—
2	SVP-3	3/23/10	1:25	Vapor				X			X	X	Tedlar Bag
3	SVP-4	3/23/10	12:18	Vapor				X			X	X	LC031
4	SVP-5	3/23/10	1:12	Vapor				X			X	X	LC076

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
E. Swan	T. O'Malley CEL	3/23/10	4:15
T. O'Malley TO GSO 3/23/10 7:35	W. Obata CEL	3/24/10	1030

05/2/06 Revision

1887

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:
STANTEC (ARCO)

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 513804771

NPS

ORC

D

GARDEN GROVE

D92843A

80255448

Print Date : 03/23/10 15:33 PM

Package 1 of 1

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

LABEL INSTRUCTIONS:

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

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

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-03-1887

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA

DATE: 03/24/10

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

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

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

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

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

Ambient Temperature: ☑ Air ☐ Filter ☐ Metals Only ☐ PCBs Only **Initial:** WB

CUSTODY SEALS INTACT:

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

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

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	☑	☐	☐
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☑	☐	☐

CONTAINER TYPE:

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

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

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

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

Air: ☑Tedlar® 1,2 ☑Summa® 3,4 **Other:** ☐_____ **Trip Blank Lot#:**_____ **Checked by:** bL

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

Preservative: **h:** HCL **n:** HNO3 **na$_2$:** $Na_2S_2O_3$ **Na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** bL

SOP T100_090 (07/16/09)

* 1 container per sample.