



**CONESTOGA-ROVERS
& ASSOCIATES**

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www.CRAworld.com

TRANSMITTAL

DATE: April 25, 2011 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
9:11 am, Apr 27, 2011
Alameda County
Environmental Health

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 Originals Other
 Prints
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 Overnight Courier Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Soil Vapor Probe Installation and Sampling Report

As Requested For Review and Comment
 For Your Use

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

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

Completed by: Peter Schaefer Signed: *Peter Schaefer*

Filing: **Correspondence File**



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

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

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

Dear Mr. Wickham:

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Denis L. Brown", is written over a horizontal line.

Denis L. Brown
Senior Program Manager



SOIL VAPOR PROBE INSTALLATION AND SAMPLING REPORT

**FORMER SHELL SERVICE STATION
4255 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA**

**SAP CODE 135701
INCIDENT NO. 98995758
AGENCY NO. RO0000486**

**APRIL 25, 2011
REF. NO. 240524 (11)**
This report is printed on recycled paper.

**Prepared by:
Conestoga-Rovers
& Associates**

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

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EXECUTIVE SUMMARY

- Eight nested soil vapor probes (SVP-1 through SVP-8) were installed with screens at approximately 3 and 5 fbg.
- Soil vapor probes SVP-1 and SVP-6 at 3 fbg and 5 fbg and soil vapor probe SVP-2 at 5 fbg could not be sampled due to water in the sampling tubing.
- Soil vapor samples were collected from 3 fbg in SVP-2 and at 3 and 5 fbg in SVP-3 through SVP-5, SVP-7, and SVP-8. The highest soil vapor concentrations of TPHg, benzene, and MTBE were detected in SVP-7 at 5 fbg which contained 270,000,000 $\mu\text{g}/\text{m}^3$ TPHg, 650,000 $\mu\text{g}/\text{m}^3$ benzene, and 420,000 $\mu\text{g}/\text{m}^3$ ethylbenzene.
- TPHg concentrations exceeded ESLs in SVP-4, SVP-5, SVP-7, and SVP-8; benzene concentrations exceeded ESLs in SVP-5 and SVP-7; and ethylbenzene concentrations exceeded ESLs in SVP-7.
- The laboratory reporting limits were above ESLs for benzene in SVP-4 and SVP-5, toluene in SVP-7, ethylbenzene in SVP-5, and xylenes and MTBE in SVP-5 and SVP-7 due to the presence of other hydrocarbons in the soil vapor samples.
- TPHg, BTEX, and MTBE concentrations in SVP-3 through SVP-5, SVP-7, and SVP-8 were lower in samples from the probes at 3 fbg than in the probes at 5 fbg, with the exception of benzene in SVP-3 and instances where BTEX and MTBE were not detected due to the presence of other hydrocarbons in the soil vapor samples. These results show that there is consistent vertical attenuation of soil vapor concentrations. The vertical attenuation observed during this sampling event was over an order of magnitude for TPHg, benzene, and ethylbenzene in SVP-7.
- CRA recommends resampling soil vapor probes SVP-1 through SVP-8 to confirm the results from this sampling event and to obtain samples from the probes which contained water during this sampling event. Analytical results for samples from soil vapor probes SVP-1 at 3 fbg and 5 fbg and SVP-2 at 5 fbg are needed to better understand the potential for soil vapor intrusion to the southwest of the site. CRA proposes to conduct the next sampling event early in the third quarter of 2011 to allow time for SVP-1 and SVP-6 at 3 fbg and 5 fbg and SVP-2 at 5 fbg to dry out.

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. 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 October 20, 2010 work plan, which was approved by Alameda County Environmental Health (ACEH) in their December 13, 2010 letter.

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

A summary of previous work performed at the site and additional background information is contained in CRA's October 20, 2010 *Soil Vapor Probe Installation and Soil Vapor Sampling Work Plan* and is not repeated herein.

2.0 SOIL VAPOR PROBE INSTALLATION AND SAMPLING

2.1 PERMIT

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

2.2 FIELD DATES

February 15 and February 16, 2011 (soil vapor probe installation), and March 9, 2010 (soil vapor probe sampling).

2.3 DRILLING COMPANY

Vapor Tech Services

2.4 PERSONNEL PRESENT

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

2.5 DRILLING METHOD

Air-knife.

2.6 NUMBER OF PROBES

CRA installed eight nested soil vapor probes (SVP-1 through SVP-8) with screens at approximately 3 and 5 feet below grade (fbg). The probe specifications and soil types encountered are described on the boring logs contained in Appendix B. The probe locations are shown on Figure 2.

2.7 VAPOR PROBE MATERIALS

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

2.8 SCREENED INTERVALS

2.91 to 3.00 fbg and to 4.66 to 4.75 fbg.

2.9 SOIL VAPOR SAMPLING PROCEDURE

On March 9, 2010, CRA sampled soil vapor probes SVP-2 at 3 fbg and SVP-3 through SVP-5, SVP-7, and SVP-8 at 3 fbg and 5 fbg. CRA also attempted to sample soil vapor probes SVP-1 at 3 fbg and 5 fbg, SVP-2 at 5 fbg, and SVP-6 at 3 fbg and 5 fbg. During the sampling event, these soil vapor probes could not be sampled because water was present in the probes' Teflon® tubing. Several attempts were made to clear the water from the probes without success. All soil vapor samples were collected using a lung box and Tedlar® bag.

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 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 3.2. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.2 and on Table 1.

2.10 SOIL VAPOR SAMPLING ANALYSES

Soil vapor samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3 (modified); for benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method 8260B (modified); for oxygen and argon, carbon dioxide, and methane by ASTM D-1946; and for helium by ASTM D-1946 (modified).

2.11 WASTE DISPOSAL

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

3.0 FINDINGS

3.1 SOIL VAPOR

The soil vapor chemical analytical data are summarized in Table 1, and TPHg and BTEX analytical results are presented on Figure 2. The laboratory analytical report is presented in Appendix C.

3.2 LEAK TESTING

CRA performed leak testing as described above, and helium was not detected in any of the samples. As shown in the following table, the reporting limit for helium (0.0100 percent by volume [%v]) and the concentration of 1.00%v detected in SVP-4-3 are less than 10 percent of the concentration detected in the shroud, and the samples are considered valid.

<i>Probe ID</i>	<i>Helium concentration in sample (%v)</i>	<i>Helium detected in shroud (%v)</i>	<i>Maximum acceptable helium concentration in sample (%v)</i>
SVP-2-3	<0.0100	60	6.0
SVP-3-3	<0.0100	51	5.1
SVP-3-5	<0.0100	50	5.0
SVP-4-3	1.00	75	7.5
SVP-4-5	<0.0100	58	5.8
SVP-5-3	<0.0100	51	5.1
SVP-5-5	<0.0100	52	5.2
SVP-7-3	<0.0100	52	5.2
SVP-7-5	<0.0100	62	6.2
SVP-8-3	<0.0100	52	5.2
SVP-8-5	<0.0100	59	5.9

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

4.0 CONCLUSIONS

TPHg concentrations exceeded San Francisco Bay Regional Water Quality Control Board's environmental screening levels (ESLs) for commercial land use¹ in SVP-4, SVP-5, SVP-7, and SVP-8; benzene concentrations exceeded ESLs in SVP-5 and SVP-7; and

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]

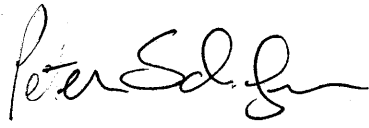
ethylbenzene concentrations exceeded ESLs in SVP-7. The laboratory reporting limits were above ESLs for benzene in SVP-4 and SVP-5, toluene in SVP-7, ethylbenzene in SVP-5, and xylenes and MTBE in SVP-5 and SVP-7 due to the presence of other hydrocarbons in the soil vapor samples.

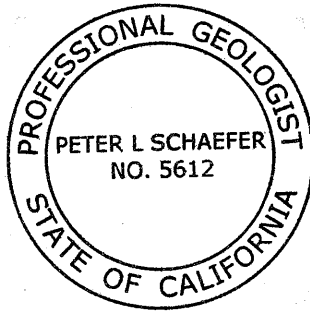
TPHg, BTEX, and MTBE concentrations in SVP-3 through SVP-5, SVP-7, and SVP-8 were lower in samples from the probes at 3 fbg than in the probes at 5 fbg, with the exception of benzene in SVP-3 and instances where BTEX and MTBE were not detected due to the presence of other hydrocarbons in the soil vapor samples. These results show that there is consistent vertical attenuation of soil vapor concentrations. The vertical attenuation observed during this sampling event was over an order of magnitude for TPHg, benzene, and ethylbenzene in SVP-7.

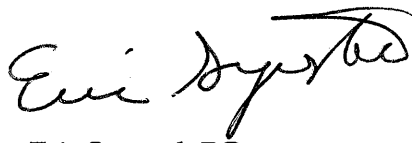
5.0 RECOMMENDATIONS

CRA recommends resampling soil vapor probes SVP-1 through SVP-8 to confirm the results from this sampling event and to obtain samples from the probes which contained water during this sampling event. Analytical results for samples from soil vapor probes SVP-1 at 3 fbg and 5 fbg and SVP-2 at 5 fbg are needed to better understand the potential for soil vapor intrusion to the southwest of the site. CRA proposes to conduct the next sampling event early in the third quarter of 2011 to allow time for SVP-1 and SVP-6 at 3 fbg and 5 fbg, and SVP-2 at 5 fbg to dry out.

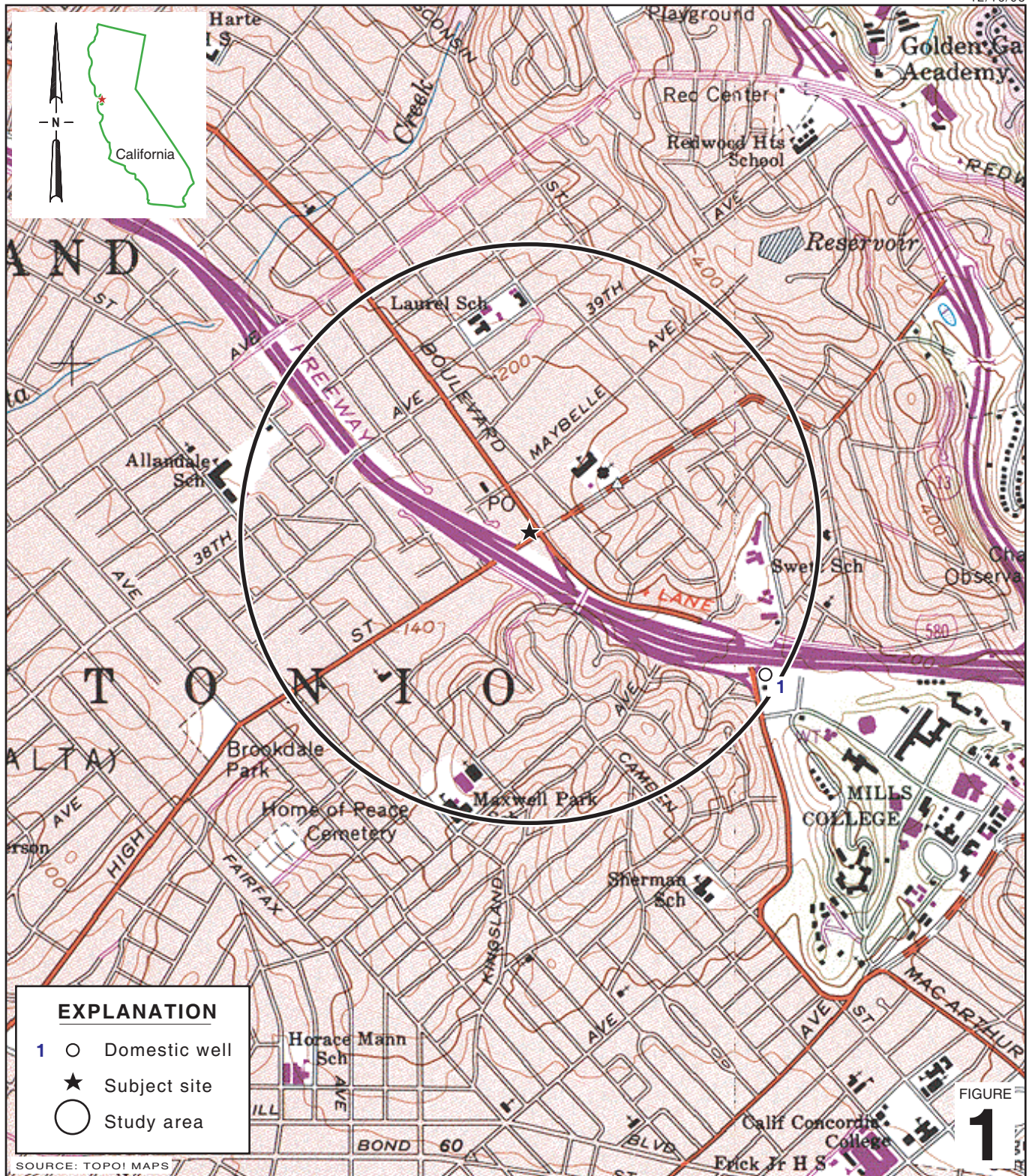
All of which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES


Peter Schaefer, CEG, CHG




Eric Syrstad, PG

FIGURES



I:\Shell\6-chars\2405--\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 VICINITY.A1






Former Shell Service Station
 4255 MacArthur Boulevard
 Oakland, California






**CONESTOGA-ROVERS
 & ASSOCIATES**

Vicinity Map

EXPLANATION

- SVP-1  Soil vapor probe location (Shell)
- MW-1  Monitoring well location (Shell)
- MW-1B  Monitoring well location (Tosco)
- SVW-1  Soil vapor well location (Tosco)
- TB-1  Destroyed well location

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

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-2	3/9/2011	3	9,900	30	<19	130	120

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

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-4	3/9/2011	3	1,800,000	<320	<380	460	<870
SVP-4	3/9/2011	5	8,600,000	<640	<750	<870	<1,700

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-5	3/9/2011	3	920,000	<640	<750	<870	<1,700
SVP-5	3/9/2011	5	76,000,000	49,000	<30,000	<35,000	<69,000

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-3	3/9/2011	3	13,000	38	<19	140	120
SVP-3	3/9/2011	5	25,000	28	<19	220	210

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-2	3/9/2011	3	9,900	30	<19	130	120

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-7	3/9/2011	3	130,000	590	<150	2,000	1,500
SVP-7	3/9/2011	5	270,000,000	650,000	<300,000	420,000	<690,000

Sample ID	Sample Date	Sample Depth (fbg)	TPHg (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl-benzene (µg/m³)	Total Xylenes (µg/m³)
SVP-8	3/9/2011	3	29,000	<26	<30	70	70
SVP-8	3/9/2011	5	33,000	36	<38	170	160

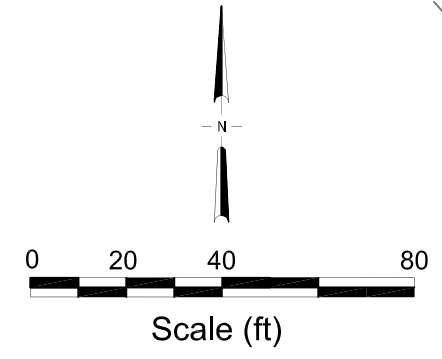
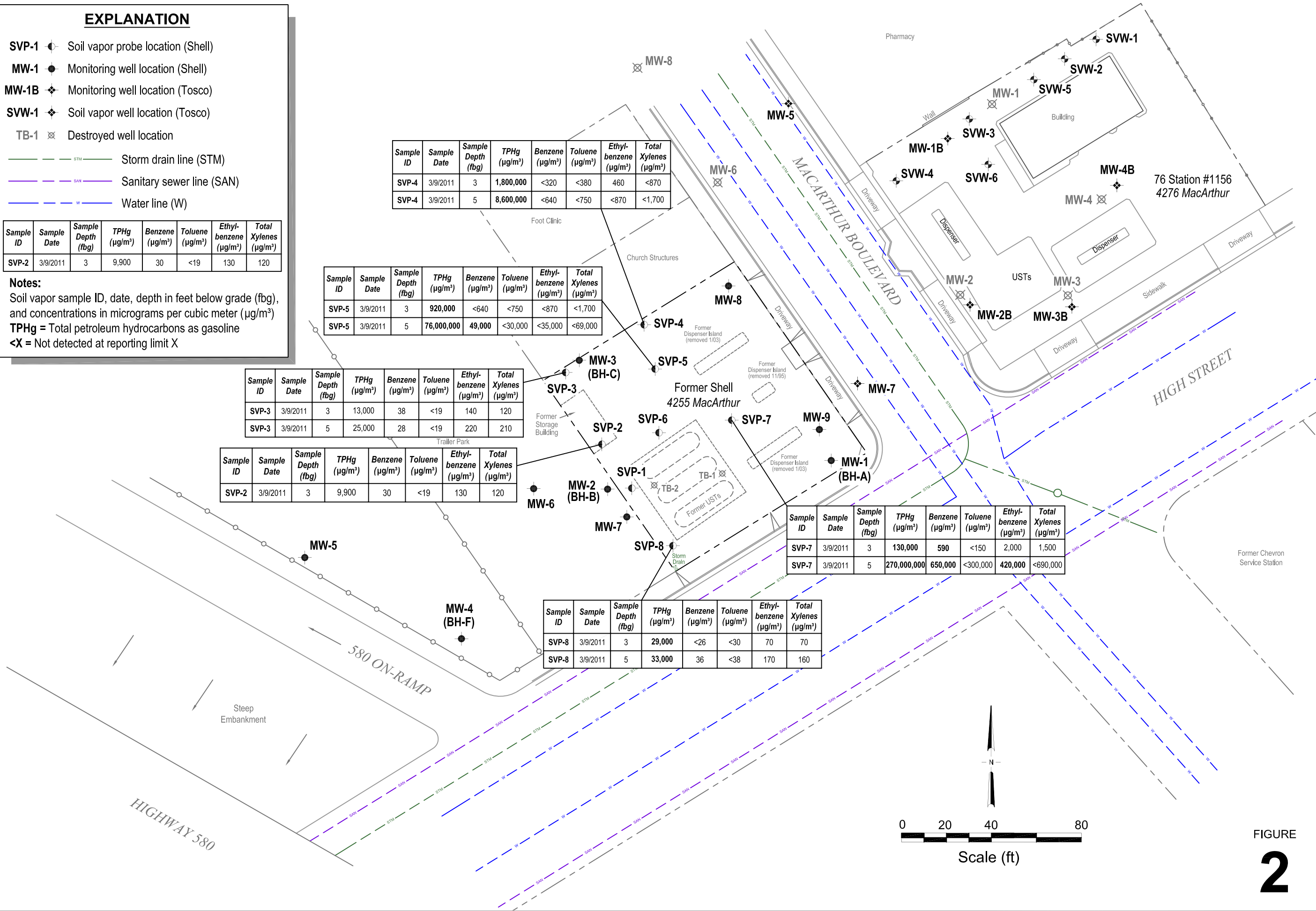


FIGURE
2

I:\Shell\6-chars\2405-1\240524-Oakland 4255 MacArthur\240524-FIGURES\240524 SITE PLAN (F2, SOIL VAPOR).DWG

TABLE

TABLE 1

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

Sample ID	Date	Depth (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Methane (%v)	Carbon Dioxide (%v)	Oxygen + Argon (%v)	Helium (%v)
SVP-2	3/9/2011	3	9,900	30	<19	130	120	<36	<0.500	<0.500	20.7	<0.0100
SVP-3	3/9/2011	3	13,000	38	<19	140	120	<36	<0.500	<0.500	20.9	<0.0100
SVP-3	3/9/2011	5	25,000	28	<19	220	210	<36	<0.500	1.36	19.9	<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	3/9/2011	5	8,600,000	<640	<750	<870	<1,700	<1,400	3.10	7.02	2.28	<0.0100
SVP-5	3/9/2011	3	920,000	<640	<750	<870	<1,700	4,600	<0.500	<0.500	19.8	<0.0100
SVP-5	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-7	3/9/2011	3	130,000	590	<150	2,000	1,500	<290	<0.500	<0.500	17.3	<0.0100
SVP-7	3/9/2011	5	270,000,000	650,000	<300,000	420,000	<690,000	<580,000	12.6	4.02	3.34	<0.0100
SVP-8	3/9/2011	3	29,000	<26	<30	70	70	<58	<0.500	<0.500	19.7	<0.0100
SVP-8	3/9/2011	5	33,000	36	<38	170	160	<72	<0.500	<0.500	19.3	<0.0100
ESLs ^a			29,000	280	180,000	3,300	58,000	31,000	NA	NA	NA	NA

Notes:

All results in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) unless otherwise indicated.

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

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

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)

Methane, carbon dioxide, and oxygen + argon analyzed by ASTM D-1946

Helium analyzed by ASTM D-1946 (M)

fbg = Feet below grade

%v = Percentage by volume

<x = Not detected at reporting limit x

ESL = Environmental screening level

NA = No applicable ESL

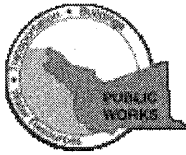
Results in **bold** exceed environmental screening level

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

APPENDIX A

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: 01/25/2011 By jamesy

Permit Numbers: W2011-0048
Permits Valid from 02/15/2011 to 02/17/2011

Application Id: 1295548790380
Site Location: 4255 MacArthur Blvd,

City of Project Site:Oakland

Project Start Date: 02/15/2011

Completion Date:02/17/2011

Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: Conestoga Rovers & Associates - Erin Swan
5900 Hollis Street, Suite A, Emeryville, CA 94608

Phone: 510-420-0700

Property Owner: Roland Malone
Po Box 2744, Castro Valley, CA 94546

Phone: --

Client: US Shell Oil Company
20945 S. Wilmington Ave, Carson, CA 90810

Phone: 707-865-0251

Contact: Erin Swan

Phone: 510-420-3372
Cell: 510-385-0074

	Total Due:	\$265.00
Receipt Number: WR2011-0022	Total Amount Paid:	\$265.00
Payer Name : Conestoga Rovers & Associates	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 8 Wells

Driller: Vaportech Services - Lic #: 916085 - Method: other

Work Total: \$265.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2011-0048	01/25/2011	05/16/2011	SVP-1	4.00 in.	0.25 in.	1.50 ft	5.00 ft
W2011-0048	01/25/2011	05/16/2011	SVP-2	4.00 in.	0.25 in.	1.50 ft	5.00 ft
W2011-0048	01/25/2011	05/16/2011	SVP-3	4.00 in.	0.25 in.	1.50 ft	5.00 ft
W2011-0048	01/25/2011	05/16/2011	SVP-4	4.00 in.	0.25 in.	1.50 ft	5.00 ft
W2011-0048	01/25/2011	05/16/2011	SVP-5	4.00 in.	0.25 in.	1.50 ft	5.00 ft
W2011-0048	01/25/2011	05/16/2011	SVP-6	4.00 in.	0.25 in.	1.50 ft	5.00 ft
W2011-0048	01/25/2011	05/16/2011	SVP-7	4.00 in.	0.25 in.	1.50 ft	5.00 ft
W2011-0048	01/25/2011	05/16/2011	SVP-8	4.00 in.	0.25 in.	1.50 ft	5.00 ft

Specific Work Permit Conditions

- 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.
- Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with

Alameda County Public Works Agency - Water Resources Well Permit

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, property 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. 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.

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		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
			GM	Silty gravels, gravel-sand-silt mixtures
	Sand and Sandy Soils		GC	Clayey gravels, gravel-sand-clay mixtures
			SW	Well-graded sands, gravelly sands, little or no fines
			SP	Poorly-graded sands, gravelly sand, little or no fines
Fine-Grained Soils (>50% Silts and/or Clays)	Silts and Clays		SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
			ML	Inorganic silts, very fine sands, silty or clayey fine sands, clayey silts with slight plasticity
	Silts and Clays		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
			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
Highly Organic Soils			CH	Inorganic clays of high plasticity
			OH	Organic clays of medium to high plasticity, organic silts
			PT	Peat, humus, swamp soils with high organic contents

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





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-1
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	16-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	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	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0							FILL: grayish brown (10YR 5/2); dry; 100% crushed concrete fill; non-plastic.		<p>Portland Type I/II</p> <p>Bentonite Seal</p> <p>Monterey Sand</p> <p>1" Stainless Steel Mesh Vapor Probe</p> <p>1/4" OD Teflon Tubing</p> <p>Monterey Sand</p> <p>1" Stainless Steel Mesh Vapor Probe</p> <p>Bottom of Boring @ 5 fbg</p>
					CL		Sandy CLAY: brown (10YR 4/3); moist; 55% clay, 10% silt, 35% fine-medium sand; low plasticity.	2.0	
0				5				5.0	

WELL LOG (PID) I:\SHELL\6-CHARS\2405-1240524-11244DE7-114255.GPJ DEFAULT.GDT 4/18/11



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 5900 Hollis Street, Suite A
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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-2
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	16-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	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	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0						FILL ; grayish brown (10YR 5/2); dry; 100% crushed concrete fill; non-plastic.		<p>Portland Type I/II</p> <p>Bentonite Seal</p> <p>Monterey Sand</p> <p>1" Stainless Steel Mesh Vapor Probe</p> <p>1/4" OD Teflon Tubing</p> <p>Monterey Sand</p> <p>1" Stainless Steel Mesh Vapor Probe</p> <p>Bottom of Boring @ 5 fbg</p>
						@ 2.5' bgs - solidified concrete pieces	2.5	
0				CL		Sandy CLAY ; brown (10YR 4/3); moist; 55% clay, 10% silt, 35% fine-medium sand; low plasticity.	3.0	
			5				5.0	

WELL LOG (PID) \SHELL16-CHARS2405-1240524-1244DE7-114255.GPJ DEFAULT.GDT 4/19/11



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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-3
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	15-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	15-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	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	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0							Sandy CLAY with FILL ; grayish brown (10YR 5/2); moist; 55% clay, 10% silt, 35% fine-medium sand; low plasticity.		<p>Portland Type I/II</p> <p>Bentonite Seal</p> <p>Monterey Sand 1" Stainless Steel Mesh Vapor Probe</p> <p>1/4" OD Teflon Tubing</p> <p>Monterey Sand 1" Stainless Steel Mesh Vapor Probe</p> <p>Bottom of Boring @ 5 fbg</p>
0				5	CL			5.0	

WELL LOG (PID) I:\SHELL\6-CHARS\2405-240524-1244DE7-114255.GPJ DEFAULT.GDT 4/18/11



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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-4
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	15-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	15-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	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	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0				5			Sandy CLAY with FILL ; grayish brown (10YR 5/2); moist; 55% clay, 10% silt, 35% fine-medium sand; low plasticity.	5.0	<ul style="list-style-type: none"> Portland Type I/II Bentonite Seal Monterey Sand 1" Stainless Steel Mesh Vapor Probe 1/4" OD Teflon Tubing Monterey Sand 1" Stainless Steel Mesh Vapor Probe
0									Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2405-1240524-1244DE7-14255.GPJ DEFAULT.GDT 4/18/11



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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-5
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	15-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	15-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	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	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0							FILL ; grayish brown (10YR 5/2); dry; 100% crushed concrete fill; non-plastic.		
0					CL		Sandy CLAY ; brown (10YR 4/3); moist; 55% clay, 10% silt, 35% fine-medium sand; low plasticity.	3.0	
				5				5.0	

WELL LOG (PID) I:\SHELL\US-CHARS\2405-1240524-1244DE7-14255.GPJ DEFAULT.GDT 4/18/11



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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-6
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	16-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	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	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0						FILL ; grayish brown (10YR 5/2); dry; 100% crushed concrete fill; non-plastic.		
0			5				5.0	
								Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2405-240524-1244DE7-114255.GPJ_DEFAULT.GDT 4/21/11



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BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-7
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	16-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer PG#5612	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\SHELL16-CHARS\2405-1240524-1244DE7~14255.GPJ DEFAULT.GDT 4/18/11

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0							FILL ; grayish brown (10YR 5/2); dry; 100% crushed concrete fill; non-plastic.		<p>Portland Type I/II Bentonite Seal Monterey Sand 1" Stainless Steel Mesh Vapor Probe 1/4" OD Teflon Tubing Monterey Sand 1" Stainless Steel Mesh Vapor Probe</p>
0				5	CL		Sandy CLAY ; brown (10YR 4/3); moist; 55% clay, 10% silt, 35% fine-medium sand; low plasticity.	4.5 5.0	
									Bottom of Boring @ 5 fbg



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BORING / WELL LOG

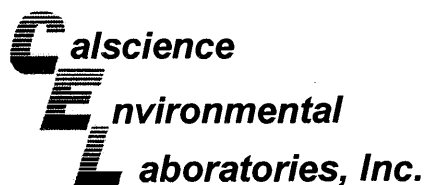
CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-8
JOB/SITE NAME	Former Shell service station	DRILLING STARTED	16-Feb-11
LOCATION	4255 MacArthur Boulevard, Oakland, California	DRILLING COMPLETED	16-Feb-11
PROJECT NUMBER	240524	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	2.91-3' & 4.66-4.75'
LOGGED BY	E. Swan	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	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0						FILL ; grayish brown (10YR 5/2); dry; 100% crushed concrete fill; non-plastic.		<p>Portland Type I/II</p> <p>Bentonite Seal</p> <p>Monterey Sand 1" Stainless Steel Mesh Vapor Probe</p> <p>1/4" OD Teflon Tubing</p> <p>Monterey Sand 1" Stainless Steel Mesh Vapor Probe</p> <p>Bottom of Boring @ 5 fbg</p>
0				CL		Sandy CLAY ; brown (10YR 4/3); moist; 55% clay, 10% silt, 35% fine-medium sand; low plasticity, with concrete pieces.	4.0	
			5				5.0	

WELL LOG (PID) I:\SHELL\6-CHARS\2405-240524-1244DE7-14255.GPJ DEFAULT.GDT 4/18/11

APPENDIX C

CERTIFIED ANALYTICAL REPORTS



Supplemental Report 2

April 19, 2011

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

Subject: **Calscience Work Order No.: 11-03-0833**
Client Reference: **4255 Mac Arthur Blvd., Oakland, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 3/11/2011 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Xuan Dang", is written over a faint, illegible printed name.

Calscience Environmental
Laboratories, Inc.
Xuan Dang
Project Manager

Case Narrative

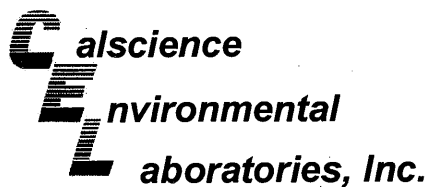
Work Order # 11-03-0833

Modified EPA 8260 in Air

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

Comparison of 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 Analyte $\leq 30\%$, 10% of analytes allowed $\leq 40\%$	Allowable % RSD for each Target Analyte $\leq 30\%$, 10% of analytes allowed $\leq 40\%$
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 - $\leq 30\%D$
Daily Calibration Verification (CCV)	Full List Analysis: Allowable % Difference for each CCC analyte is $\leq 30\%$	BTEX and MTBE only - $\leq 30\%D$
	Target List Analysis: Allowable % Difference for each target analytes is $\leq 30\%$	
Daily Calibration Verification (CCV) - Internal Standard Area Response	Allowable +/- 50% (Range: 50% to 150%)	Allowable +/- 50% (Range: 50% to 150%)
Method Blank, Laboratory Control Sample and Sample - Internal Standard Area Response	Allowable +/- 50% of the mean area response of most recent Calibration Verification (Range: 50% to 150%)	Allowable +/- 50% of the mean area response of the most recent Calibration Verification (Range: 50% to 150%)
Surrogates	1,4-Bromofluorobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S	1,4-Bromofluorobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S



Analytical Report



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

Date Received: 03/11/11
Work Order No: 11-03-0833
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4255 Mac Arthur Blvd., Oakland, CA

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3	11-03-0833-1-A	03/09/11 12:51	Air	GC 36	N/A	03/11/11 11:26	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	20.7	0.500	1	
Carbon Dioxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3	11-03-0833-2-A	03/09/11 12:13	Air	GC 36	N/A	03/11/11 11:43	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	20.9	0.500	1	
Carbon Dioxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-5	11-03-0833-3-A	03/09/11 12:30	Air	GC 36	N/A	03/11/11 11:59	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	19.9	0.500	1	
Carbon Dioxide	1.36	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-3	11-03-0833-4-A	03/09/11 11:25	Air	GC 36	N/A	03/11/11 12:16	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	0.664	0.500	1		Oxygen + Argon	17.4	0.500	1	
Carbon Dioxide	1.42	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-5	11-03-0833-5-A	03/09/11 11:42	Air	GC 36	N/A	03/11/11 12:33	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	3.10	0.500	1		Oxygen + Argon	2.28	0.500	1	
Carbon Dioxide	7.02	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-3	11-03-0833-6-A	03/09/11 10:48	Air	GC 36	N/A	03/11/11 12:50	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5	11-03-0833-7-A	03/09/11 11:07	Air	GC 36	N/A	03/11/11 13:16	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	12.3	0.500	1		Oxygen + Argon	2.52	0.500	1	
Carbon Dioxide	5.89	0.500	1						

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

Analytical Report



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

Date Received: 03/11/11
 Work Order No: 11-03-0833
 Preparation: N/A
 Method: ASTM D-1946
 Units: %v

Project: 4255 Mac Arthur Blvd., Oakland, CA

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-3	11-03-0833-8-A	03/09/11 09:58	Air	GC 36	N/A	03/11/11 13:32	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	17.3	0.500	1	
Carbon Dioxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-5	11-03-0833-9-A	03/09/11 10:15	Air	GC 36	N/A	03/11/11 13:57	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	12.6	0.500	1		Oxygen + Argon	3.34	0.500	1	
Carbon Dioxide	4.02	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-3	11-03-0833-10-A	03/09/11 14:18	Air	GC 36	N/A	03/11/11 14:14	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	19.7	0.500	1	
Carbon Dioxide	ND	0.500	1						

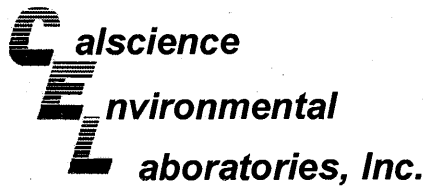
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-5	11-03-0833-11-A	03/09/11 14:38	Air	GC 36	N/A	03/11/11 14:32	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	19.3	0.500	1	
Carbon Dioxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-03-002-1,252	N/A	Air	GC 36	N/A	03/11/11 08:53	110311L01

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

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



Analytical Report



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

Date Received: 03/11/11
Work Order No: 11-03-0833
Preparation: N/A
Method: EPA TO-3M

Project: 4255 Mac Arthur Blvd., Oakland, CA

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3	11-03-0833-1-A	03/09/11 12:51	Air	GC 13	N/A	03/11/11 12:06	110311L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	9900	7000	1		ug/m3

SVP-3-3	11-03-0833-2-A	03/09/11 12:13	Air	GC 13	N/A	03/11/11 12:18	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	13000	7000	1		ug/m3

SVP-3-5	11-03-0833-3-A	03/09/11 12:30	Air	GC 13	N/A	03/11/11 12:28	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	25000	7000	1		ug/m3

SVP-4-3	11-03-0833-4-A	03/09/11 11:25	Air	GC 13	N/A	03/11/11 12:38	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	1800000	7000	1		ug/m3

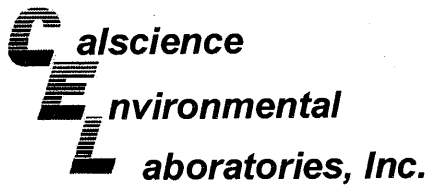
SVP-4-5	11-03-0833-5-A	03/09/11 11:42	Air	GC 13	N/A	03/11/11 14:41	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	8600000	70000	10		ug/m3

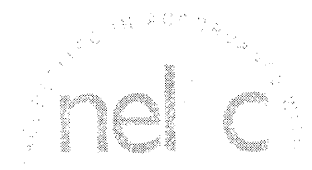
SVP-5-3	11-03-0833-6-A	03/09/11 10:48	Air	GC 13	N/A	03/11/11 13:13	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	920000	7000	1		ug/m3

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



Analytical Report



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

Date Received: 03/11/11
Work Order No: 11-03-0833
Preparation: N/A
Method: EPA TO-3M

Project: 4255 Mac Arthur Blvd., Oakland, CA

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5	11-03-0833-7-A	03/09/11 11:07	Air	GC 13	N/A	03/11/11 14:54	110311L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	76000000	350000	50		ug/m3

SVP-7-3	11-03-0833-8-A	03/09/11 09:58	Air	GC 13	N/A	03/11/11 16:47	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	130000	7000	1		ug/m3

SVP-7-5	11-03-0833-9-A	03/09/11 10:15	Air	GC 13	N/A	03/11/11 15:49	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	270000000	1400000	200		ug/m3

SVP-8-3	11-03-0833-10-A	03/09/11 14:18	Air	GC 13	N/A	03/11/11 17:01	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	29000	7000	1		ug/m3

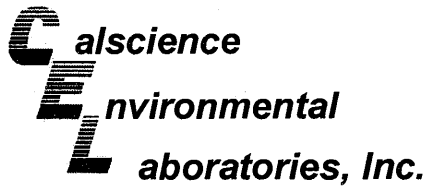
SVP-8-5	11-03-0833-11-A	03/09/11 14:38	Air	GC 13	N/A	03/11/11 17:19	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	33000	7000	1		ug/m3

Method Blank	098-01-005-2,983		N/A	Air	GC 13	N/A	03/11/11 08:51	110311L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1		ug/m3

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



Analytical Report



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

Date Received: 03/11/11
Work Order No: 11-03-0833
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 4255 Mac Arthur Blvd., Oakland, CA

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3	11-03-0833-1-A	03/09/11 12:51	Air	GC 55	N/A	03/11/11 13:29	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3	11-03-0833-2-A	03/09/11 12:13	Air	GC 55	N/A	03/11/11 14:02	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-5	11-03-0833-3-A	03/09/11 12:30	Air	GC 55	N/A	03/11/11 15:16	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-3	11-03-0833-4-A	03/09/11 11:25	Air	GC 55	N/A	03/11/11 15:38	110311L01

Parameter	Result	RL	DF	Qual	Units
Helium	1.00	0.0100	1		%v

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-5	11-03-0833-5-A	03/09/11 11:42	Air	GC 55	N/A	03/11/11 16:00	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-3	11-03-0833-6-A	03/09/11 10:48	Air	GC 55	N/A	03/11/11 16:20	110311L01

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

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

Analytical Report



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

Date Received: 03/11/11
 Work Order No: 11-03-0833
 Preparation: N/A
 Method: ASTM D-1946 (M)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5	11-03-0833-7-A	03/09/11 11:07	Air	GC 55	N/A	03/11/11 16:42	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-3	11-03-0833-8-A	03/09/11 09:58	Air	GC 55	N/A	03/11/11 17:07	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-5	11-03-0833-9-A	03/09/11 10:15	Air	GC 55	N/A	03/11/11 17:28	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-3	11-03-0833-10-A	03/09/11 14:18	Air	GC 55	N/A	03/11/11 17:52	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-5	11-03-0833-11-A	03/09/11 14:38	Air	GC 55	N/A	03/11/11 18:14	110311L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-872-84	N/A	Air	GC 55	N/A	03/11/11 11:50	110311L01

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

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

Analytical Report



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

Date Received: 03/11/11
 Work Order No: 11-03-0833
 Preparation: N/A
 Method: EPA 8260B (M)
 Units: ug/m3

Project: 4255 Mac Arthur Blvd., Oakland, CA

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-2-3	11-03-0833-1-A	03/09/11 12:51	Air	GC/MS II	N/A	03/11/11 14:50	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	30	16	1		Xylenes (total)	120	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	130	22	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	96	47-156			1,2-Dichloroethane-d4	104	47-156		
Toluene-d8	102	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-3	11-03-0833-2-A	03/09/11 12:13	Air	GC/MS II	N/A	03/11/11 15:41	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	38	16	1		Xylenes (total)	120	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	140	22	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	95	47-156			1,2-Dichloroethane-d4	99	47-156		
Toluene-d8	94	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-3-5	11-03-0833-3-A	03/09/11 12:30	Air	GC/MS II	N/A	03/11/11 16:32	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	28	16	1		Xylenes (total)	210	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	220	22	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	98	47-156			1,2-Dichloroethane-d4	97	47-156		
Toluene-d8	67	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-3	11-03-0833-4-A	03/09/11 11:25	Air	GC/MS II	N/A	03/12/11 03:47	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	320	20		Xylenes (total)	ND	870	20	
Toluene	ND	380	20		Methyl-t-Butyl Ether (MTBE)	ND	720	20	
Ethylbenzene	460	430	20						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	120	47-156			1,2-Dichloroethane-d4	96	47-156		
Toluene-d8	41	47-156		2					

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

Analytical Report



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

Date Received: 03/11/11
 Work Order No: 11-03-0833
 Preparation: N/A
 Method: EPA 8260B (M)
 Units: ug/m3

Project: 4255 Mac Arthur Blvd., Oakland, CA

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-4-5	11-03-0833-5-A	03/09/11 11:42	Air	GC/MS II	N/A	03/12/11 04:32	110311L01

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	640	40		Xylenes (total)	ND	1700	40	
Toluene	ND	750	40		Methyl-t-Butyl Ether (MTBE)	ND	1400	40	
Ethylbenzene	ND	870	40						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	143	47-156			1,2-Dichloroethane-d4	89	47-156		
Toluene-d8	32	47-156		2					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-3	11-03-0833-6-A	03/09/11 10:48	Air	GC/MS II	N/A	03/11/11 17:17	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	640	40		Xylenes (total)	ND	1700	40	
Toluene	ND	750	40		Methyl-t-Butyl Ether (MTBE)	4600	1400	40	
Ethylbenzene	ND	870	40						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	101	47-156			1,2-Dichloroethane-d4	94	47-156		
Toluene-d8	80	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-5-5	11-03-0833-7-A	03/09/11 11:07	Air	GC/MS II	N/A	03/12/11 03:02	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	49000	26000	1600		Xylenes (total)	ND	69000	1600	
Toluene	ND	30000	1600		Methyl-t-Butyl Ether (MTBE)	ND	58000	1600	
Ethylbenzene	ND	35000	1600						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	100	47-156			1,2-Dichloroethane-d4	96	47-156		
Toluene-d8	78	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-3	11-03-0833-8-A	03/09/11 09:58	Air	GC/MS II	N/A	03/11/11 20:30	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	590	130	8		Xylenes (total)	1500	350	8	
Toluene	ND	150	8		Methyl-t-Butyl Ether (MTBE)	ND	290	8	
Ethylbenzene	2000	170	8						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	98	47-156			1,2-Dichloroethane-d4	94	47-156		
Toluene-d8	94	47-156							

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

Analytical Report



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

Date Received: 03/11/11
 Work Order No: 11-03-0833
 Preparation: N/A
 Method: EPA 8260B (M)
 Units: ug/m3

Project: 4255 Mac Arthur Blvd., Oakland, CA

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7-5	11-03-0833-9-A	03/09/11 10:15	Air	GC/MS II	N/A	03/11/11 21:21	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	650000	260000	16000		Xylenes (total)	ND	690000	16000	
Toluene	ND	300000	16000		Methyl-t-Butyl Ether (MTBE)	ND	580000	16000	
Ethylbenzene	420000	350000	16000						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	96	47-156			1,2-Dichloroethane-d4	93	47-156		
Toluene-d8	96	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-3	11-03-0833-10-A	03/09/11 14:18	Air	GC/MS II	N/A	03/11/11 22:09	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	26	1.6		Xylenes (total)	70	69	1.6	
Toluene	ND	30	1.6		Methyl-t-Butyl Ether (MTBE)	ND	58	1.6	
Ethylbenzene	70	35	1.6						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	96	47-156			1,2-Dichloroethane-d4	92	47-156		
Toluene-d8	99	47-156							

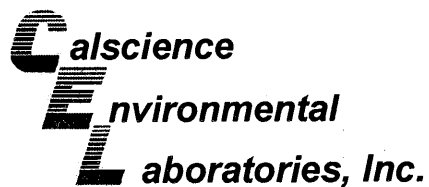
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-8-5	11-03-0833-11-A	03/09/11 14:38	Air	GC/MS II	N/A	03/11/11 22:56	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	36	32	2		Xylenes (total)	160	87	2	
Toluene	ND	38	2		Methyl-t-Butyl Ether (MTBE)	ND	72	2	
Ethylbenzene	170	43	2						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	98	47-156			1,2-Dichloroethane-d4	92	47-156		
Toluene-d8	96	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-13-041-408	N/A	Air	GC/MS II	N/A	03/11/11 13:09	110311L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	97	47-156			1,2-Dichloroethane-d4	105	47-156		
Toluene-d8	100	47-156							

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



Quality Control - Duplicate



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

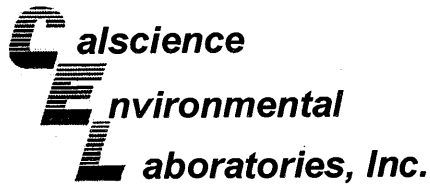
Date Received: 03/11/11
Work Order No: 11-03-0833
Preparation: N/A
Method: EPA TO-3M

Project: 4255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SVP-4-3	Air	GC 13	N/A	03/11/11	110311D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
TPH as Gasoline	1809000	1787000	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

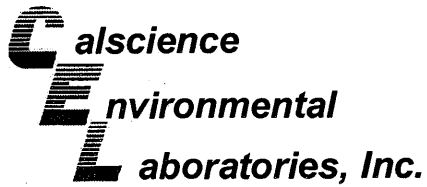
Date Received: N/A
Work Order No: 11-03-0833
Preparation: N/A
Method: ASTM D-1946

Project: 4255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1.252	Air	GC 36	N/A	03/11/11	110311L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon Dioxide	105	103	80-120	2	0-30	
Oxygen + Argon	90	90	80-120	0	0-30	
Nitrogen	93	93	80-120	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

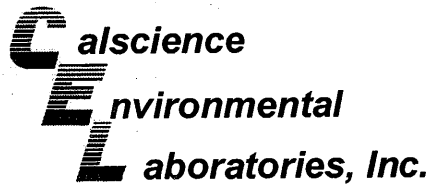
Date Received: N/A
Work Order No: 11-03-0833
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 4255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-84	Air	GC 55	N/A	03/11/11	110311L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Helium	102	103	80-120	1	0-30	
Hydrogen	101	101	80-120	0	0-30	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



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

Date Received: N/A
Work Order No: 11-03-0833
Preparation: N/A
Method: EPA 8260B (M)

Project: 4255 Mac Arthur Blvd., Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-408	Air	GC/MS II	N/A	03/11/11	110311L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	109	108	60-156	1	0-40	
Toluene	108	109	56-146	1	0-43	
Ethylbenzene	118	118	52-154	1	0-38	
Xylenes (total)	118	119	52-148	1	0-38	

RPD - Relative Percent Difference, CL - Control Limit



Work Order Number: 11-03-0833

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

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

LAB (LOCATION)

- CALSCIENCE ()
- SPL ()
- XIENCO ()
- TEST AMERICA ()
- OTHER ()



Shell Oil Products Chain Of Custody Record

Please Check Appropriate Box:

<input checked="" type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER _____	

Print Bill To Contact Name: Peter Schaefer

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

PO #: _____ **SAP #:** _____

CHECK IF NO INCIDENT # APPLIES:

DATE: 3/9/11

PAGE: 1 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 42255 Mac Arthur Blvd, Oakland, CA

State: CA **GLOBAL ID NO.:** TO600101261

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

PHONE NO.: 510-420-3343 **E-MAIL:** shelledf@craworld.com

CONSULTANT PROJECT NO.: 240524-95

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

SAMPLER NAME(S) (Print): Erin Swan

LAB USE ONLY: 11-03-0833

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:

Must be analysis within 72 hours.

SHELL CONTRACT RATE APPLIES

STATE REIMBURSEMENT RATE APPLIES

EDD NOT NEEDED

RECEIPT VERIFICATION REQUESTED

Please report results in µg/m3 for 8260, and report results in % by volume for ASTM D 1946(M).

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	TPHg (8260B)	BTEX & MTBE (8260B)	Oxygen plus argon, Carbon Dioxide, Methane, & Helium (ASTM D 1946 M)	TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes
		DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER						
	SVP-1-3'	3/9/11	12:00	Vapor											
	SVP-4-5'	3/9/11	12:00	Vapor											
1	SVP-2-3'	3/9/11	12:51	Vapor					X	1	X	X	X		
	SVP-2-5'	3/9/11	12:00	Vapor					X	1	X	X	X		
2	SVP-3-3'	3/9/11	12:13	Vapor					X	1	X	X	X		
3	SVP-3-5'	3/9/11	12:30	Vapor					X	1	X	X	X		
4	SVP-4-3'	3/9/11	11:25	Vapor					X	1	X	X	X		
5	SVP-4-5'	3/9/11	11:42	Vapor					X	1	X	X	X		
6	SVP-5-3'	3/9/11	10:48	Vapor					X	1	X	X	X		
7	SVP-5-5'	3/9/11	11:07	Vapor					X	1	X	X	X		

Relinquished by: (Signature) <i>Erin Swan</i>	Received by: (Signature) <i>Secure Location</i>	Date: 3/9/11	Time: 5:30
Relinquished by: (Signature) <i>Tom O'Malley</i>	Received by: (Signature) <i>Tom O'Malley CER</i>	Date: 3/10/11	Time: 1220
Relinquished by: (Signature) <i>Tom O'Malley to GSO 3/10/11 1730</i>	Received by: (Signature) <i>Wobath CER</i>	Date: 3/11/11	Time: 1000

LAB (LOCATION)



Shell Oil Products Chain Of Custody Record

- CALSCIENCE ()
- SPL ()
- XENCO ()
- TEST AMERICA ()
- OTHER ()

Please Check Appropriate Box:

<input checked="" type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER _____	

Print Bill To Contact Name: Peter Schaefer

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

PO #: _____ **SAP #:** _____

DATE: 3/9/11 **PAGE:** 2 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates **LOG CODE:** CRAW

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

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

TELEPHONE: 510-420-3319 **FAX:** 510-420-9170 **EMAIL:** pschaefer@croworld.com

SITE ADDRESS: Street and City: 42255 Mac Arthur Blvd, Oakland, CA **State:** CA **GLOBAL ID NO.:** TO600101261

EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville **PHONE NO.:** 510-420-3343 **EMAIL:** shelledf@croworld.com **CONSULTANT PROJECT NO.:** 240524-95

SAMPLER NAME(S) (Print): Erin Swan **LAB USE ONLY:** 11-03-0834

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: Must be analysis within 72 hours.

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

Please report results in µg/m3 for 8260, and report results in % by volume for ASTM D 1946(M).

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	TPHg (8260B)	BTEX & MTBE (8260B)	Oxygen plus argon, Carbon Dioxide, Methane, & Helium (ASTM D 1946 M)	TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes	
		DATE	TIME		HCL	HN03	H2SO4	NONE	OTHER							
	SVP-6-3'	3/9/11	9:58	Vapor						X	1	X	X	X		Tedlar Bag
	SVP-6-5'	3/9/11	10:15	Vapor						X	1	X	X	X		
8	SVP-7-3'	3/9/11	9:58	Vapor						X	1	X	X	X		
9	SVP-7-5'	3/9/11	10:15	Vapor						X	1	X	X	X		
10	SVP-8-3'	3/9/11	2:18	Vapor						X	1	X	X	X		
11	SVP-8-5'	3/9/11	2:38	Vapor						X	1	X	X	X		
		3/9/11		Vapor						X	1	X	X	X		
		3/9/11		Vapor						X	1	X	X	X		
		3/9/11		Vapor						X	1	X	X	X		

Relinquished by: (Signature) <i>Erin Swan</i>	Received by: (Signature) <i>Secure location</i>	Date: 3/9/11	Time: 5:30
Relinquished by: (Signature) <i>To Amalley to GSO</i>	Received by: (Signature) <i>To Amalley</i>	Date: 3/10/11	Time: 1220
Relinquished by: (Signature) <i>To Amalley to GSO</i>	Received by: (Signature) <i>Webster</i>	Date: 3/11/11	Time: 1000

0833



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 #: 516123944



NPS

ORC

D

GARDEN GROVE

D92843A



89361930

Print Date : 03/10/11 16:59 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.

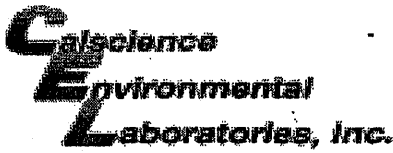
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

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 are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.



WORK ORDER #: 11-03-0833

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA

DATE: 03/11/11

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

Temperature ____ °C + 0.5°C (CF) = ____ °C [] Blank [] Sample

- [] Sample(s) outside temperature criteria (PM/APM contacted by: ____).
[] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

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

Ambient Temperature: [x] Air [] Filter

Initial: UWB

CUSTODY SEALS INTACT:

- [x] Cooler [] No (Not Intact) [] Not Present [] N/A
[] Sample [] No (Not Intact) [x] Not Present

Initial: UWB

Initial: UWB

SAMPLE CONDITION:

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

CONTAINER TYPE:

- Solid: [] 4ozCGJ [] 8ozCGJ [] 16ozCGJ [] Sleeve (____) [] EnCores® [] TerraCores® [] ____
Water: [] VOA [] VOA h [] VOAna2 [] 125AGB [] 125AGBh [] 125AGBp [] 1AGB [] 1AGBna2 [] 1AGBs
[] 500AGB [] 500AGJ [] 500AGJs [] 250AGB [] 250CGB [] 250CGBs [] 1PB [] 500PB [] 500PBna
[] 250PB [] 250PBn [] 125PB [] 125PBzanna [] 100PJ [] 100PJna2 [] ____ [] ____ [] ____

Air: [x] Tedlar® [] Summa® Other: [] Trip Blank Lot#: Labeled/Checked by: UWB

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

Preservative: h: HCL n: HNO3 na2: Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: NC

LABORATORY REPORT

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

Project: 4255 MacArthur Blvd., Oakland,
CA

Sampled: 02/16/11
Received: 02/23/11
Issued: 03/09/11 09:43

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

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID

IUB2540-01

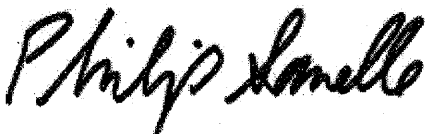
CLIENT ID

CRA-1

MATRIX

Soil

Reviewed By:



TestAmerica Irvine

Philip Sanelle
Project Manager

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

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB2540-01 (CRA-1 - Soil)								
Reporting Units: mg/kg								
DRO (C10-C28)	EPA 8015B	11B3528	12	ND	2.48	2/28/2011	3/1/2011	
ORO (C29-C40)	EPA 8015B	11B3528	12	ND	2.48	2/28/2011	3/1/2011	
Surrogate: n-Octacosane (40-140%)				116 %				
Surrogate: n-Octacosane (40-140%)				116 %				

TestAmerica Irvine

Philip Sanelle
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IUB2540 <Page 2 of 16>

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

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

VOLATILE FUEL HYDROCARBONS BY GC/MS (CA LUFT)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB2540-01 (CRA-1 - Soil)								
Reporting Units: mg/kg								
Volatile Fuel Hydrocarbons (C4-C12)	TPH by GC/MS	11C0221	0.20	ND	0.992	3/2/2011	3/2/2011	
Surrogate: Dibromofluoromethane (80-125%)				105 %				
Surrogate: Toluene-d8 (80-120%)				102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)				90 %				

TestAmerica Irvine

Philip Sanelle
Project Manager

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IUB2540 <Page 3 of 16>

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

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB2540-01 (CRA-1 - Soil)								
Reporting Units: mg/kg								
Benzene	EPA 8260B	11C0221	0.00099	ND	0.992	3/2/2011	3/2/2011	
Ethylbenzene	EPA 8260B	11C0221	0.00099	ND	0.992	3/2/2011	3/2/2011	
Toluene	EPA 8260B	11C0221	0.00099	ND	0.992	3/2/2011	3/2/2011	
Xylenes, Total	EPA 8260B	11C0221	0.0020	ND	0.992	3/2/2011	3/2/2011	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>				90 %				
<i>Surrogate: Dibromofluoromethane (80-125%)</i>				105 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>				102 %				

TestAmerica Irvine

Philip Sanelle
Project Manager

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IUB2540 <Page 4 of 16>

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

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB2540-01 (CRA-1 - Soil)								
Reporting Units: mg/kg								
Mercury	EPA 7471A	11C0131	0.020	0.11	1	3/1/2011	3/1/2011	
Antimony	EPA 6010B	11B3138	9.8	ND	0.98	2/24/2011	2/26/2011	
Arsenic	EPA 6010B	11B3138	2.0	2.8	0.98	2/24/2011	2/26/2011	
Barium	EPA 6010B	11B3138	0.98	160	0.98	2/24/2011	2/25/2011	
Beryllium	EPA 6010B	11B3138	0.49	ND	0.98	2/24/2011	2/25/2011	
Cadmium	EPA 6010B	11B3138	0.49	ND	0.98	2/24/2011	2/25/2011	
Chromium	EPA 6010B	11B3138	0.98	37	0.98	2/24/2011	2/25/2011	
Cobalt	EPA 6010B	11B3138	0.98	8.2	0.98	2/24/2011	2/25/2011	
Copper	EPA 6010B	11B3138	2.0	27	0.98	2/24/2011	2/25/2011	
Lead	EPA 6010B	11B3138	2.0	20	0.98	2/24/2011	2/25/2011	
Molybdenum	EPA 6010B	11B3138	2.0	ND	0.98	2/24/2011	2/25/2011	
Nickel	EPA 6010B	11B3138	2.0	32	0.98	2/24/2011	2/25/2011	
Selenium	EPA 6010B	11B3138	2.0	ND	0.98	2/24/2011	2/25/2011	
Silver	EPA 6010B	11B3138	0.98	ND	0.98	2/24/2011	2/26/2011	
Thallium	EPA 6010B	11B3138	9.8	ND	0.98	2/24/2011	2/25/2011	
Vanadium	EPA 6010B	11B3138	0.98	48	0.98	2/24/2011	2/25/2011	
Zinc	EPA 6010B	11B3138	4.9	69	0.98	2/24/2011	2/26/2011	

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

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

ORGANIC LEAD BY GFAA (HML 939-M)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUB2540-01 (CRA-1 - Soil)								
Reporting Units: mg/kg								
Organic Lead	HML 939-M	11C0807	0.025	ND	1	3/6/2011	3/7/2011	H-1

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Emeryville, CA 94608
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11
Received: 02/23/11

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11B3528 Extracted: 02/28/11										
Blank Analyzed: 03/01/2011 (11B3528-BLK1)										
DRO (C10-C28)	ND	5.0	mg/kg							
ORO (C29-C40)	ND	5.0	mg/kg							
EFH (C10 - C28)	ND	5.0	mg/kg							
EFH (C10 - C28)	ND	5.0	mg/kg							
Surrogate: n-Octacosane	6.09		mg/kg	6.67		91	40-140			
Surrogate: n-Octacosane	6.09		mg/kg	6.67		91	40-140			
LCS Analyzed: 03/01/2011 (11B3528-BS1)										
DRO (C10-C28)	28.4	5.0	mg/kg	33.3		85	45-115			
EFH (C10 - C28)	28.4	5.0	mg/kg	33.3		85	45-115			
EFH (C10 - C28)	28.4	5.0	mg/kg	33.3		85	45-115			
Surrogate: n-Octacosane	6.31		mg/kg	6.67		95	40-140			
Surrogate: n-Octacosane	6.31		mg/kg	6.67		95	40-140			
Matrix Spike Analyzed: 03/01/2011 (11B3528-MS1)										
					Source: IUB2732-01					
EFH (C10 - C28)	59.9	5.0	mg/kg	33.3	30.4	89	40-120			
EFH (C10 - C28)	59.9	5.0	mg/kg	33.3	30.4	89	40-120			
Surrogate: n-Octacosane	9.93		mg/kg	6.67		149	40-140			ZX
Surrogate: n-Octacosane	9.93		mg/kg	6.67		149	40-140			ZX
Matrix Spike Dup Analyzed: 03/01/2011 (11B3528-MSD1)										
					Source: IUB2732-01					
EFH (C10 - C28)	59.5	5.0	mg/kg	33.3	30.4	87	40-120	0.8	30	
EFH (C10 - C28)	59.5	5.0	mg/kg	33.3	30.4	87	40-120	0.8	30	
Surrogate: n-Octacosane	10.2		mg/kg	6.67		153	40-140			ZX
Surrogate: n-Octacosane	10.2		mg/kg	6.67		153	40-140			ZX

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Report Number: IUB2540

Sampled: 02/16/11
Received: 02/23/11

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS BY GC/MS (CA LUFT)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C0221 Extracted: 03/02/11										
Blank Analyzed: 03/02/2011 (11C0221-BLK1)										
Volatile Fuel Hydrocarbons (C4-C12)	ND	0.20	mg/kg							
Surrogate: Dibromofluoromethane	0.0513		mg/kg	0.0500		103	80-125			
Surrogate: Toluene-d8	0.0519		mg/kg	0.0500		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.0466		mg/kg	0.0500		93	80-120			
LCS Analyzed: 03/02/2011 (11C0221-BS2)										
Volatile Fuel Hydrocarbons (C4-C12)	0.830	0.20	mg/kg	1.00		83	60-135			
Surrogate: Dibromofluoromethane	0.0539		mg/kg	0.0500		108	80-125			
Surrogate: Toluene-d8	0.0522		mg/kg	0.0500		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.0478		mg/kg	0.0500		96	80-120			
Matrix Spike Analyzed: 03/02/2011 (11C0221-MS1)										
					Source: IUB2644-03					
Volatile Fuel Hydrocarbons (C4-C12)	2.31	0.20	mg/kg	3.45	ND	67	50-140			
Surrogate: Dibromofluoromethane	0.0572		mg/kg	0.0500		114	80-125			
Surrogate: Toluene-d8	0.0485		mg/kg	0.0500		97	80-120			
Surrogate: 4-Bromofluorobenzene	0.0445		mg/kg	0.0500		89	80-120			
Matrix Spike Dup Analyzed: 03/02/2011 (11C0221-MSD1)										
					Source: IUB2644-03					
Volatile Fuel Hydrocarbons (C4-C12)	2.21	0.20	mg/kg	3.43	ND	64	50-140	4	25	
Surrogate: Dibromofluoromethane	0.0547		mg/kg	0.0497		110	80-125			
Surrogate: Toluene-d8	0.0497		mg/kg	0.0497		100	80-120			
Surrogate: 4-Bromofluorobenzene	0.0458		mg/kg	0.0497		92	80-120			

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 Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11
 Received: 02/23/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 11C0221 Extracted: 03/02/11										
Blank Analyzed: 03/02/2011 (11C0221-BLK1)										
Benzene	ND	0.0010	mg/kg							
Ethylbenzene	ND	0.0010	mg/kg							
Toluene	ND	0.0010	mg/kg							
m,p-Xylenes	ND	0.0020	mg/kg							
o-Xylene	ND	0.0010	mg/kg							
Xylenes, Total	ND	0.0020	mg/kg							
Surrogate: 4-Bromofluorobenzene	0.0466		mg/kg	0.0500		93	80-120			
Surrogate: Dibromofluoromethane	0.0513		mg/kg	0.0500		103	80-125			
Surrogate: Toluene-d8	0.0519		mg/kg	0.0500		104	80-120			
LCS Analyzed: 03/02/2011 (11C0221-BS1)										
Benzene	0.0502	0.0010	mg/kg	0.0500		100	65-120			
Ethylbenzene	0.0482	0.0010	mg/kg	0.0500		96	70-125			
Toluene	0.0509	0.0010	mg/kg	0.0500		102	70-125			
m,p-Xylenes	0.0990	0.0020	mg/kg	0.100		99	70-125			
o-Xylene	0.0509	0.0010	mg/kg	0.0500		102	70-125			
Xylenes, Total	0.150	0.0020	mg/kg	0.150		100	70-125			
Surrogate: 4-Bromofluorobenzene	0.0479		mg/kg	0.0500		96	80-120			
Surrogate: Dibromofluoromethane	0.0535		mg/kg	0.0500		107	80-125			
Surrogate: Toluene-d8	0.0523		mg/kg	0.0500		105	80-120			
Matrix Spike Analyzed: 03/02/2011 (11C0221-MS1)										
Source: IUB2644-03										
Benzene	0.0605	0.0010	mg/kg	0.0500	ND	121	65-130			
Ethylbenzene	0.0534	0.0010	mg/kg	0.0500	ND	107	70-135			
Toluene	0.0572	0.0010	mg/kg	0.0500	ND	114	70-130			
m,p-Xylenes	0.109	0.0020	mg/kg	0.100	ND	109	70-130			
o-Xylene	0.0565	0.0010	mg/kg	0.0500	ND	113	65-130			
Xylenes, Total	0.166	0.0020	mg/kg	0.150	ND	110	70-125			
Surrogate: 4-Bromofluorobenzene	0.0445		mg/kg	0.0500		89	80-120			
Surrogate: Dibromofluoromethane	0.0572		mg/kg	0.0500		114	80-125			
Surrogate: Toluene-d8	0.0485		mg/kg	0.0500		97	80-120			

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Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 11C0221 Extracted: 03/02/11										
Matrix Spike Dup Analyzed: 03/02/2011 (11C0221-MSD1)					Source: IUB2644-03					
Benzene	0.0544	0.00099	mg/kg	0.0497	ND	109	65-130	11		20
Ethylbenzene	0.0505	0.00099	mg/kg	0.0497	ND	102	70-135	6		25
Toluene	0.0541	0.00099	mg/kg	0.0497	ND	109	70-130	6		20
m,p-Xylenes	0.103	0.0020	mg/kg	0.0994	ND	104	70-130	6		25
o-Xylene	0.0527	0.00099	mg/kg	0.0497	ND	106	65-130	7		25
Xylenes, Total	0.156	0.0020	mg/kg	0.149	ND	104	70-125	6		25
Surrogate: 4-Bromofluorobenzene	0.0458		mg/kg	0.0497		92	80-120			
Surrogate: Dibromofluoromethane	0.0547		mg/kg	0.0497		110	80-125			
Surrogate: Toluene-d8	0.0497		mg/kg	0.0497		100	80-120			

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Report Number: IUB2540

Sampled: 02/16/11
 Received: 02/23/11

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11B3138 Extracted: 02/24/11										
Blank Analyzed: 02/25/2011-02/26/2011 (11B3138-BLK1)										
Antimony	ND	9.8	mg/kg							
Arsenic	ND	2.0	mg/kg							
Barium	ND	0.98	mg/kg							
Beryllium	ND	0.49	mg/kg							
Cadmium	ND	0.49	mg/kg							
Chromium	ND	0.98	mg/kg							
Cobalt	ND	0.98	mg/kg							
Copper	ND	2.0	mg/kg							
Lead	ND	2.0	mg/kg							
Molybdenum	ND	2.0	mg/kg							
Nickel	ND	2.0	mg/kg							
Selenium	ND	2.0	mg/kg							
Silver	ND	0.98	mg/kg							
Thallium	ND	9.8	mg/kg							
Vanadium	ND	0.98	mg/kg							
Zinc	ND	4.9	mg/kg							
LCS Analyzed: 02/25/2011-02/26/2011 (11B3138-BS1)										
Antimony	44.6	10	mg/kg	49.8		90	80-120			
Arsenic	44.8	2.0	mg/kg	49.8		90	80-120			
Barium	48.5	1.0	mg/kg	49.8		98	80-120			
Beryllium	46.7	0.50	mg/kg	49.8		94	80-120			
Cadmium	45.6	0.50	mg/kg	49.8		92	80-120			
Chromium	47.1	1.0	mg/kg	49.8		95	80-120			
Cobalt	45.0	1.0	mg/kg	49.8		90	80-120			
Copper	46.7	2.0	mg/kg	49.8		94	80-120			
Lead	46.3	2.0	mg/kg	49.8		93	80-120			
Molybdenum	43.7	2.0	mg/kg	49.8		88	80-120			
Nickel	44.4	2.0	mg/kg	49.8		89	80-120			
Selenium	42.6	2.0	mg/kg	49.8		86	80-120			
Silver	22.2	1.0	mg/kg	24.9		89	80-120			
Thallium	46.3	10	mg/kg	49.8		93	80-120			
Vanadium	47.6	1.0	mg/kg	49.8		96	80-120			
Zinc	43.6	5.0	mg/kg	49.8		88	80-120			

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Emeryville, CA 94608
Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11B3138 Extracted: 02/24/11										
Matrix Spike Analyzed: 02/25/2011-02/26/2011 (11B3138-MS1)					Source: IUB2224-01					
Antimony	18.8	10	mg/kg	50.0	ND	38	75-125			M2
Arsenic	50.3	2.0	mg/kg	50.0	3.70	93	75-125			
Barium	134	1.0	mg/kg	50.0	76.9	114	75-125			
Beryllium	48.9	0.50	mg/kg	50.0	0.435	97	75-125			
Cadmium	45.9	0.50	mg/kg	50.0	0.691	90	75-125			
Chromium	68.7	1.0	mg/kg	50.0	16.2	105	75-125			
Cobalt	49.4	1.0	mg/kg	50.0	5.43	88	75-125			
Copper	59.7	2.0	mg/kg	50.0	10.3	99	75-125			
Lead	49.0	2.0	mg/kg	50.0	3.52	91	75-125			
Molybdenum	44.8	2.0	mg/kg	50.0	1.83	86	75-125			
Nickel	55.4	2.0	mg/kg	50.0	14.1	83	75-125			
Selenium	44.9	2.0	mg/kg	50.0	ND	90	75-125			
Silver	21.5	1.0	mg/kg	25.0	ND	86	75-125			
Thallium	46.3	10	mg/kg	50.0	ND	93	75-125			
Vanadium	92.7	1.0	mg/kg	50.0	32.3	121	75-125			
Zinc	92.4	5.0	mg/kg	50.0	52.0	81	75-125			
Matrix Spike Dup Analyzed: 02/25/2011-02/26/2011 (11B3138-MSD1)					Source: IUB2224-01					
Antimony	17.5	10	mg/kg	50.0	ND	35	75-125	7	20	M2
Arsenic	49.2	2.0	mg/kg	50.0	3.70	91	75-125	2	20	
Barium	220	1.0	mg/kg	50.0	76.9	286	75-125	49	20	MI, R-3
Beryllium	45.8	0.50	mg/kg	50.0	0.435	91	75-125	6	20	
Cadmium	44.3	0.50	mg/kg	50.0	0.691	87	75-125	4	20	
Chromium	66.8	1.0	mg/kg	50.0	16.2	101	75-125	3	20	
Cobalt	46.9	1.0	mg/kg	50.0	5.43	83	75-125	5	20	
Copper	59.6	2.0	mg/kg	50.0	10.3	99	75-125	0.04	20	
Lead	46.0	2.0	mg/kg	50.0	3.52	85	75-125	6	20	
Molybdenum	42.1	2.0	mg/kg	50.0	1.83	81	75-125	6	20	
Nickel	59.5	2.0	mg/kg	50.0	14.1	91	75-125	7	20	
Selenium	41.6	2.0	mg/kg	50.0	ND	83	75-125	8	20	
Silver	22.4	1.0	mg/kg	25.0	ND	90	75-125	4	20	
Thallium	43.3	10	mg/kg	50.0	ND	87	75-125	7	20	
Vanadium	92.5	1.0	mg/kg	50.0	32.3	120	75-125	0.2	20	
Zinc	96.6	5.0	mg/kg	50.0	52.0	89	75-125	4	20	

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Attention: Peter Schaefer

Project ID: 4255 MacArthur Blvd., Oakland, CA

Report Number: IUB2540

Sampled: 02/16/11

Received: 02/23/11

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 11C0131 Extracted: 03/01/11										
Blank Analyzed: 03/01/2011 (11C0131-BLK1)										
Mercury	ND	0.020	mg/kg							
LCS Analyzed: 03/01/2011 (11C0131-BS1)										
Mercury	0.846	0.020	mg/kg	0.800		106	80-120			
Matrix Spike Analyzed: 03/01/2011 (11C0131-MS1)										
Mercury	0.841	0.020	mg/kg	0.800	0.0353	101	70-130			
Matrix Spike Dup Analyzed: 03/01/2011 (11C0131-MSD1)										
Mercury	0.856	0.020	mg/kg	0.800	0.0353	103	70-130	2	20	

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METHOD BLANK/QC DATA

ORGANIC LEAD BY GFAA (HML 939-M)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C0807 Extracted: 03/06/11										
Blank Analyzed: 03/07/2011 (11C0807-BLK1)										
Organic Lead	ND	0.025	mg/kg							
LCS Analyzed: 03/07/2011 (11C0807-BS1)										
Organic Lead	0.109	0.025	mg/kg	0.100		109	80-120			
Matrix Spike Analyzed: 03/07/2011 (11C0807-MS1)										
Organic Lead	0.113	0.025	mg/kg	0.100	ND	113	80-120			
Matrix Spike Dup Analyzed: 03/07/2011 (11C0807-MSD1)										
Organic Lead	0.120	0.025	mg/kg	0.100	ND	120	80-120	5	20	

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Sampled: 02/16/11

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DATA QUALIFIERS AND DEFINITIONS

- H-1** Sample analysis performed past the method-specified holding time per client's approval.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- R-3** The RPD exceeded the acceptance limit due to sample matrix effects.
- ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For Volatile Fuel Hydrocarbons (C4-C12):

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

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO):

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica Irvine

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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 6010B	Soil	X	X
EPA 7471A	Soil	X	X
EPA 8015B	Soil	X	X
EPA 8260B	Soil	X	X
HML 939-M	Soil	N/A	X
TPH by GC/MS	Soil	X	X

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

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LAB (LOCATION)



Shell Oil Products Chain Of Custody Record

- CALSCIENCE ()
- SPL ()
- XENCC ()
- TEST AMERICA ()
- OTHER ()

Please Check Appropriate Box:

<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SDA&M	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER _____	

INCIDENT # (ENV SERVICES):		<input type="checkbox"/> CHECK IF NO INCIDENT # APPLIES	
Peter Schaefer 240000		9	8 9 9 5 7 5 8
PO #		SAP #	
		1	3 5 7 0 1

DATE: 2/16/11
PAGE: 1 of 2

SAMPLING COMPANY: **Conestoga-Rovers & Associates**

LOG CODE: **CRAW**

ADDRESS: **5900 Hollis Street, Suite A, Emeryville, CA 94608**

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

TELEPHONE: **510-420-3319** FAX: **510-420-9170** EMAIL: **pschaefer@croworld.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** EMAIL: **shelledf@croworld.com** CONSULTANT PROJECT NO: **240524-95-10.09**

SAMPLER NAME(S) (Print): **Erin Swan**

LAB USE ONLY
IVB2540

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:

REQUESTED ANALYSIS

TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)	TEMPERATURE ON RECEIPT
																		3.4°C

SPECIAL INSTRUCTIONS OR NOTES:

cc: Derek Eisman, DEisman@croworld.com and Shell.Lab.Billing@croworld.com

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

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

Follow the Contingent Analyses Form

LAB USE ONLY	Field Sample Identification			SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	ANALYSIS													Container PID Readings or Laboratory Notes										
	ID	DATE	TIME	HCL	HN03		H2SO4	NONE	OTHER	TPH - Purgeable (8260B)	TPH - Extractable (8015M)		BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM17 Metals - Total (6010)		SVOCs (8270C)	VOCs (8260)	PCBs (8082)							
	CRA-	2/16/11	3:00							X	X	X											X	X												
	CRA																																			
	CRA																																			

MS
2/22/11
12:10

Relinquished by: (Signature) <i>Erin Swan</i>	Received by: (Signature) <i>Secure location</i>	Date: 2/16/11	Time: 6:50 pm
Relinquished by: (Signature) <i>Erin Swan</i>	Received by: (Signature) <i>[Signature]</i>	Date: 2/22/11	Time: 1030
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: 2/22/11	Time: 1150

Herold Meyer 2-22-11 16:00

VuBank

2/23/11 10:35 (S) 3.8

22/103

1/9/08 Revision

Contingent analyses

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

Metal	Trigger level TTLC (mg/kg)	Requirement
Antimony	150	STLC required if TTLC ≥ 150 mg/kg
Arsenic	50/100	STLC required if TTLC ≥ 50 mg/kg; STLC and TCLP required if TTLC ≥ 100 mg/kg
Barium	1,000/2,000	STLC required if TTLC $\geq 1,000$ mg/kg; STLC and TCLP required if TTLC $\geq 2,000$ mg/kg
Beryllium	7.5	STLC required if TTLC ≥ 7.5 mg/kg
Cadmium	10/20	STLC required if TTLC ≥ 10 mg/kg; STLC and TCLP required if TTLC ≥ 20 mg/kg
Chromium	50/100	STLC required if TTLC ≥ 50 mg/kg; STLC and TCLP required if TTLC ≥ 100 mg/kg
Cobalt	800	STLC required if TTLC ≥ 800 mg/kg
Copper	250	STLC required if TTLC ≥ 250 mg/kg
Lead	50/100	STLC required if TTLC ≥ 50 mg/kg; STLC and TCLP required if TTLC ≥ 100 mg/kg
Mercury	2/4	STLC required if TTLC ≥ 2 mg/kg; STLC and TCLP required if TTLC ≥ 4 mg/kg
Molybdenum	350	STLC required if TTLC ≥ 350 mg/kg
Nickel	200	STLC required if TTLC ≥ 200 mg/kg
Selenium	10/20	STLC required if TTLC ≥ 10 mg/kg; STLC and TCLP required if TTLC ≥ 20 mg/kg
Silver	50/100	STLC required if TTLC ≥ 50 mg/kg; STLC and TCLP required if TTLC ≥ 100 mg/kg
Thallium	70	STLC required if TTLC ≥ 70 mg/kg
Vanadium	240	STLC required if TTLC ≥ 240 mg/kg
Zinc	2,500	STLC required if TTLC $\geq 2,500$ mg/kg

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