CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: February 28, 2013

REFERENCE NO.: 240554

PROJECT NAME: 3420 San Pablo Avenue, Oakland

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

RECEIVED
By Alameda County Environmental Health at 2:08 pm, Mar 01, 2013

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QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

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- ☒ For Review and Comment
- ☐
- ☐

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

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Shahriar Almasi, Portola Valley Shell (property owner), 965 Laurel Glen Drive, Palo Alto, CA 94304

Completed by: Peter Schaefer Signed: Anthony Carl

Filing: **Correspondence File**

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

Re: Former Shell Service Station
3420 San Pablo Avenue
Oakland, California
SAP Code 139619
Incident No. 98995748
ACEH Case No. RO0000006

Dear Mr. Wickham:

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

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

Sincerely,

Denis L. Brown
Senior Program Manager

SUBSURFACE INVESTIGATION REPORT

FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

SAP CODE 139619
INCIDENT NO. 98995748
AGENCY NO. RO0000006

Prepared by:
Conestoga-Rovers & Associates

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FEBRUARY 28, 2013
REF. NO. 240554 (16)
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EXECUTIVE SUMMARY

- CRA drilled four soil borings (SB-16 through SB-19) during this investigation to evaluate soil conditions in the area of previous soil borings SB-7, SB-13, SB-14, and SB-15. In addition, CRA drilled one boring (SB-20) behind the station building to determine if the previous lead detections were likely related to regional lead impacts instead of station-related activities.
- Total lead detections exceeded the OEHHA CHHSL in samples collected from SB-16, SB-17, and SB-19 at 1 fbg.
- During the October 2006 and January and May 2012 subsurface investigations, total lead detections exceeded the OEHHA CHHSL in borings SB-1, SB-7, and SB-9 at 2 fbg, in SB-10 at 1 fbg, in SB-13 through SB-15 at 1 fbg, and in SB-13 and SB-15 at 2 fbg.
- Based on the detection of 270 mg/kg lead in the soil sample collected from boring SB-20 at 1 fbg, it appears that elevated lead concentrations are found in shallow soils throughout the site. Very low PID readings from this boring indicate that there is little or no petroleum hydrocarbon present in this area. The distribution of lead in shallow soils does not appear to be related to petroleum hydrocarbon releases and may be part of a regional impact.
- Based on the likely regional nature of lead impacts in shallow soils, no further investigation of lead impacts in shallow soils appears to be warranted.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent subsurface investigation at this site. The purpose of the investigation was to evaluate soil conditions in the area of previous soil borings SB-7, SB-13, SB-14, and SB-15, as proposed in CRA's July 25, 2012 *Subsurface Investigation Report* (report). CRA followed the scope of work outlined in our report and procedures presented in our September 27, 2011 *Subsurface Investigation Work Plan* (work plan), as approved in Alameda County Environmental Health's (ACEH's) August 27, 2012 letter. ACEH's December 12, 2013 electronic correspondence granted an extension for the due date of this report to March 14, 2013.

The subject site is a former Shell service station located at the southeast corner of the San Pablo Avenue and 35th Street intersection in a mixed commercial and residential neighborhood of Oakland, California (Figure 1). Shell sold the station and property in March 2005. The site is currently an operating third-party service station (Figure 2).

A summary of previous work performed at the site and additional background information was presented in our September 27, 2011 work plan and is not repeated herein.

2.0 INVESTIGATION RESULTS

2.1 PERMIT

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

2.2 DRILLING DATE

February 1, 2013.

2.3 DRILLING COMPANY

Vapor Tech Services.

2.4 CRA PERSONNEL

Environmental scientist Scott Lewis directed the drilling activities under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHOD

Water-knife.

2.6 NUMBER OF BORINGS

Five soil borings (SB-16 through SB-20) were drilled during this investigation.

The boring specifications and soil types encountered are described on the boring logs contained in Appendix B. The boring locations are shown on Figure 2.

2.7 BORING DEPTHS

5.5 feet below grade (fbg).

2.8 WASTE DISPOSAL

Sludge generated during field activities was temporarily stored on site in a 55-gallon drum, sampled, and profiled for disposal. The laboratory analytical report is presented in Appendix C. Waste confirmation documentation is pending and will be provided by CRA upon request.

3.0 FINDINGS

3.1 SOIL

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

4.0 CONCLUSIONS

Total lead detections exceeded the California human health screening level (CHHSL) for total lead in soil with commercial land use developed by the California Office of Environmental Health Hazard Assessment (OEHHA) in samples collected from SB-16, SB-17, and SB-19 at 1 fbg. We also note that during the October 2006, January 2012, and May 2012 subsurface investigations, total lead detections exceeded the OEHHA CHHSL in borings SB-1, SB-7, and SB-9 at 2 fbg, in SB-10 at 1 fbg, in SB-13 through SB-15 at 1 fbg, and in SB-13 and SB-15 at 2 fbg.

5.0 RECOMMENDATIONS

Based on the detection of 270 milligrams per kilogram (mg/kg) lead in the soil sample collected from background soil boring SB-20 at 1 fbg, it appears that elevated lead concentrations are found in shallow soils throughout the site. Very low photo ionization detector readings from this boring (only up to 0.7 parts per million by volume) indicate that there is little or no petroleum hydrocarbon present in this area. The distribution of lead in shallow soils does not appear to be related to petroleum hydrocarbon releases and may be part of a regional impact associated with the site's proximity to the Interstate 580 Freeway (built in the 1960s), which operated for many years before leaded gasoline was eliminated in 1986, or due to chipping and peeling of lead-based paint from old buildings in the area. Recent studies have shown that lead concentrations in urban soils can range from 100 mg/kg to 3,000 mg/kg in neighborhoods adjacent to highly-traveled roadways or next to older painted buildings.[1]

Based on the likely regional nature of lead impacts in shallow soils, no further investigation of lead impacts in shallow soils appears to be warranted.

---

1 Craigmill, A. and Harivandi, A., *Home Gardens and Lead*, University of California Agriculture and Natural Resources Publication 8424, September 2010.

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

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

12/02/08

I:\Shell\6-chars\2405--\240554-Oakland 3420 San Pablo\240554-FIGURES\240554 VICINITY.AI

FIGURE
1

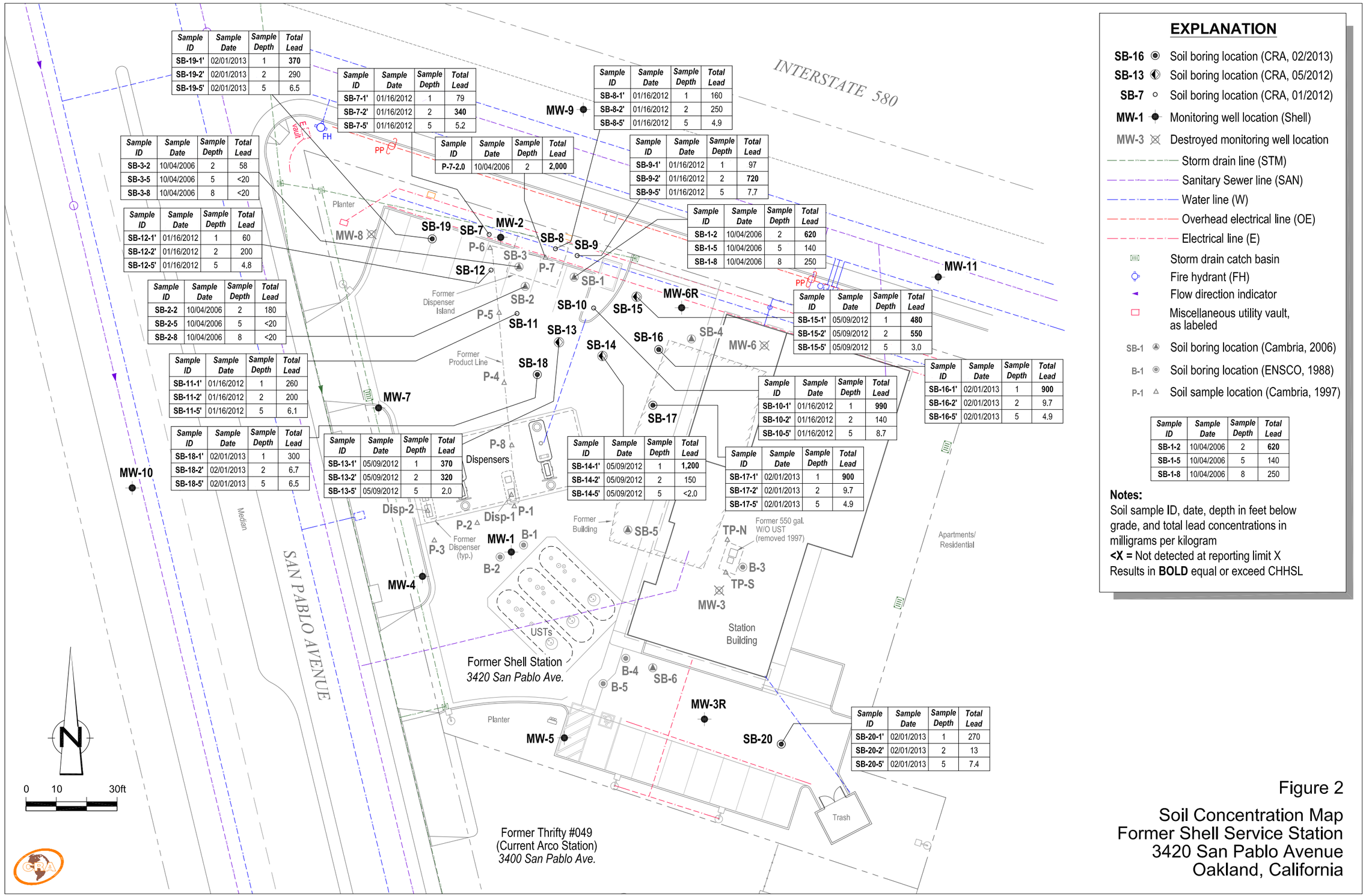
0 1/8 1/4 1/2 1

SCALE (MILES)

Former Shell Service Station
3420 San Pablo Avenue
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



Sample ID	Sample Date	Sample Depth	Total Lead
SB-19-1'	02/01/2013	1	370
SB-19-2'	02/01/2013	2	290
SB-19-5'	02/01/2013	5	6.5

Sample ID	Sample Date	Sample Depth	Total Lead
SB-7-1'	01/16/2012	1	79
SB-7-2'	01/16/2012	2	**340**
SB-7-5'	01/16/2012	5	5.2

Sample ID	Sample Date	Sample Depth	Total Lead
SB-8-1'	01/16/2012	1	160
SB-8-2'	01/16/2012	2	250
SB-8-5'	01/16/2012	5	4.9

Sample ID	Sample Date	Sample Depth	Total Lead
SB-3-2	10/04/2006	2	58
SB-3-5	10/04/2006	5	<20
SB-3-8	10/04/2006	8	<20

Sample ID	Sample Date	Sample Depth	Total Lead
P-7-2.0	10/04/2006	2	**2,000**

Sample ID	Sample Date	Sample Depth	Total Lead
SB-9-1'	01/16/2012	1	97
SB-9-2'	01/16/2012	2	**720**
SB-9-5'	01/16/2012	5	7.7

Sample ID	Sample Date	Sample Depth	Total Lead
SB-12-1'	01/16/2012	1	60
SB-12-2'	01/16/2012	2	200
SB-12-5'	01/16/2012	5	4.8

Sample ID	Sample Date	Sample Depth	Total Lead
SB-1-2	10/04/2006	2	**620**
SB-1-5	10/04/2006	5	140
SB-1-8	10/04/2006	8	250

Sample ID	Sample Date	Sample Depth	Total Lead
SB-2-2	10/04/2006	2	180
SB-2-5	10/04/2006	5	<20
SB-2-8	10/04/2006	8	<20

Sample ID	Sample Date	Sample Depth	Total Lead
SB-15-1'	05/09/2012	1	**480**
SB-15-2'	05/09/2012	2	**550**
SB-15-5'	05/09/2012	5	3.0

Sample ID	Sample Date	Sample Depth	Total Lead
SB-11-1'	01/16/2012	1	260
SB-11-2'	01/16/2012	2	200
SB-11-5'	01/16/2012	5	6.1

Sample ID	Sample Date	Sample Depth	Total Lead
SB-10-1'	01/16/2012	1	**990**
SB-10-2'	01/16/2012	2	140
SB-10-5'	01/16/2012	5	8.7

Sample ID	Sample Date	Sample Depth	Total Lead
SB-16-1'	02/01/2013	1	**900**
SB-16-2'	02/01/2013	2	9.7
SB-16-5'	02/01/2013	5	4.9

Sample ID	Sample Date	Sample Depth	Total Lead
SB-18-1'	02/01/2013	1	300
SB-18-2'	02/01/2013	2	6.7
SB-18-5'	02/01/2013	5	6.5

Sample ID	Sample Date	Sample Depth	Total Lead
SB-13-1'	05/09/2012	1	**370**
SB-13-2'	05/09/2012	2	**320**
SB-13-5'	05/09/2012	5	2.0

Sample ID	Sample Date	Sample Depth	Total Lead
SB-14-1'	05/09/2012	1	**1,200**
SB-14-2'	05/09/2012	2	150
SB-14-5'	05/09/2012	5	<2.0

Sample ID	Sample Date	Sample Depth	Total Lead
SB-17-1'	02/01/2013	1	**900**
SB-17-2'	02/01/2013	2	9.7
SB-17-5'	02/01/2013	5	4.9

Sample ID	Sample Date	Sample Depth	Total Lead
SB-20-1'	02/01/2013	1	270
SB-20-2'	02/01/2013	2	13
SB-20-5'	02/01/2013	5	7.4

EXPLANATION

- SB-16 — Soil boring location (CRA, 02/2013)
- SB-13 — Soil boring location (CRA, 05/2012)
- SB-7 — Soil boring location (CRA, 01/2012)
- MW-1 — Monitoring well location (Shell)
- MW-3 — Destroyed monitoring well location
- Storm drain line (STM)
- Sanitary Sewer line (SAN)
- Water line (W)
- Overhead electrical line (OE)
- Electrical line (E)
- Storm drain catch basin
- Fire hydrant (FH)
- Flow direction indicator
- Miscellaneous utility vault, as labeled
- SB-1 — Soil boring location (Cambria, 2006)
- B-1 — Soil boring location (ENSCO, 1988)
- P-1 — Soil sample location (Cambria, 1997)

Sample ID	Sample Date	Sample Depth	Total Lead
SB-1-2	10/04/2006	2	**620**
SB-1-5	10/04/2006	5	140
SB-1-8	10/04/2006	8	250

Notes:
Soil sample ID, date, depth in feet below grade, and total lead concentrations in milligrams per kilogram
<X = Not detected at reporting limit X
Results in **BOLD** equal or exceed CHHSL

Figure 2

Soil Concentration Map
Former Shell Service Station
3420 San Pablo Avenue
Oakland, California

I:\Shell\6-chars\2405--\240554-Oakland 3420 San Pablo\240554-FIGURES\240554 SITE PLAN.DWG (02/19/2013)

TABLE

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*
B-1	8/8/1988	5 - 5.5	1,400	1.9	42	43	120	---	---
B-1	8/8/1988	9.5 - 10	80	---	---	---	---	---	---
B-1	8/8/1988	15 - 15.5	<5.0	---	---	---	---	---	---
B-1	8/8/1988	20 - 20.5	<5.0	---	---	---	---	---	---
B-2	8/8/1988	5 - 5.5	550	1.5	16	35	33	---	---
B-2	8/8/1988	10 - 10.5	580	0.7	3.3	7.8	48	---	---
B-3	8/8/1988	5, 10, and 15	<5.0	---	---	---	---	---	---
B-4	8/8/1988	5, 10, and 15	<5.0	---	---	---	---	---	---
B-5	8/8/1988	5, 10, and 15	<5.0	---	---	---	---	---	---
MW-1	4/10/1989	5.5 - 6	850	1.2	14	19	100	---	4
MW-1	4/10/1989	10.5 - 11	80	<0.05	1.9	1.9	16	---	3
MW-2	4/10/1989	10.5 - 11	70	0.4	1.5	1.7	1.5	---	8
MW-3	4/10/1989	10.5 - 11	<0.2	<0.002	0.010	0.008	0.069	---	3
MW-4	4/10/1989	10.5 - 11	<0.2	<0.002	0.005	0.004	0.031	---	2
MW-5	1/19/1990	5.5 - 6	5.0	<0.05	<0.1	<0.1	<0.1	---	---
MW-6	1/19/1990	5.5 - 6	<1.0	<0.05	<0.1	<0.1	<0.1	---	---
MW-7	1/19/1990	5.5 - 6	14	0.078	<0.1	0.21	<0.1	---	---
MW-8	1/18/1990	5.5 - 6	<1.0	<0.05	<0.1	<0.1	<0.1	---	---
MW-9	1/18/1990	10.5 - 11	6.1	<0.05	<0.1	0.39	0.14	---	---
MW-10	10/23/1991	5	1.4	0.015	0.006	0.010	0.008	---	---
MW-10	10/23/1991	10	1.8	0.06	<0.0050	0.027	0.0070	---	---
MW-11	10/23/1991	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
MW-11	10/23/1991	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
Disp-1-2.5	6/26/1997	2.5	8.4	0.054	0.046	0.0094	0.21	1.6	5.8
Disp-2-2.0	6/26/1997	2	51	0.075	1.6	0.38	1.6	7.9	9.6
TP-N-7	6/26/1997	7	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<5.0
TP-S-7	6/26/1997	7	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	6.4
P-1-2.5	6/26/1997	2.5	39	0.13	0.051	0.012	0.032	0.82	7.4
P-2-2.5	6/26/1997	2.5	17	0.035	0.079	0.063	0.11	0.33	7.4
P-3-2.5	6/26/1997	2.5	16	0.028	0.059	0.019	0.026	0.092	6.9
P-4-4.0	6/26/1997	4	19	0.041	0.053	<0.010	0.078	<0.050	7.4
P-5-4.0	6/26/1997	4	3.1	0.016	0.0054	<0.0050	0.018	0.028	7.4
P-6-2.5	6/26/1997	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	33

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*
P-7-2.0	6/26/1997	2	4.5	0.040	0.0097	0.0095	0.053	<0.025	**2,000**
P-8-2.5	6/26/1997	2.5	120	<0.12	0.43	0.33	0.42	<0.62	8.2
SB-1-2	10/4/2006	2	<1.0	0.011	<0.0050	0.0058	0.017	0.0096	**620**
SB-1-5	10/4/2006	5	6.9	0.0066	<0.0050	<0.0050	<0.010	<0.0050	140
SB-1-8	10/4/2006	8	**46,000**	<25	<25	<25	<50	<25	250
SB-2-2	10/4/2006	2	**12,000**	**74**	<25	<25	**82**	<25	180
SB-2-5	10/4/2006	5	1.8	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<20
SB-2-8	10/4/2006	8	160	<0.12	<0.12	2.2	1.3	<0.12	<20
SB-3-2	10/4/2006	2	4.7	0.058	0.0075	0.018	0.079	0.15	58
SB-3-5	10/4/2006	5	**11,000**	<25	<25	<25	<50	<25	<20
SB-3-8	10/4/2006	8	27	<0.12	<0.12	<0.12	<0.25	<0.12	<20
SB-4-4.5	10/4/2006	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<5
SB-5-4.5	10/4/2006	4.5	2.9	<0.0050	<0.0050	<0.0050	<0.010	0.059	<5
SB-6-4.5	10/4/2006	4.5	7.2	0.012	0.017	0.018	0.16	<0.0050	29
SB-7-1'	1/16/2012	1	<0.099	0.0020	<0.0020	<0.0020	<0.0040	<0.0050	79
SB-7-2'	1/16/2012	2	<0.12	0.0023	<0.0023	<0.0023	<0.0046	0.0058	**340**
SB-7-5'	1/16/2012	5	<0.20	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	5.2
SB-8-1'	1/16/2012	1	<0.085	0.0023	<0.0017	<0.0017	<0.0034	<0.0043	160
SB-8-2'	1/16/2012	2	<0.096	0.0044	<0.0019	<0.0019	<0.0039	<0.0048	250
SB-8-5'	1/16/2012	5	1.7	<0.00098	<0.00098	<0.00098	<0.0020	<0.0020	4.9
SB-9-1'	1/16/2012	1	0.12	0.0025	0.0023	<0.0018	<0.0036	<0.0045	97
SB-9-2'	1/16/2012	2	<0.083	0.0048	<0.0017	<0.0017	<0.0033	<0.0042	**720**
SB-9-5'	1/16/2012	5	<0.20	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	7.7
SB-10-1'	1/16/2012	1	0.12	0.017	0.0028	<0.0022	<0.0044	<0.0056	**990**
SB-10-2'	1/16/2012	2	0.67	0.0036	<0.0019	<0.0019	<0.0039	<0.0048	140
SB-10-5'	1/16/2012	5	3.1	0.0016	<0.0010	<0.0010	<0.0020	<0.0020	8.7
SB-11-1'	1/16/2012	1	0.72	0.065	0.0070	0.0071	0.022	0.012	260
SB-11-2'	1/16/2012	2	1.7	0.16	0.0070	0.019	0.049	0.021	200
SB-11-5'	1/16/2012	5	2.9	0.10	0.0010	0.042	0.0074	0.030	6.1
SB-12-1'	1/16/2012	1	0.20	0.031	0.0041	0.0040	0.015	0.0061	60
SB-12-2'	1/16/2012	2	2.8	0.20	0.011	0.025	0.097	0.029	200
SB-12-5'	1/16/2012	5	**180**	0.22	<0.050	1.6	<0.10	<0.10	4.8
SB-13-1'	5/9/2012	1	---	---	---	---	---	---	**370**
SB-13-2'	5/9/2012	2	---	---	---	---	---	---	**320**

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*
SB-13-5'	5/9/2012	5	---	---	---	---	---	---	2.0
SB-14-1'	5/9/2012	1	---	---	---	---	---	---	1,200
SB-14-2'	5/9/2012	2	---	---	---	---	---	---	150
SB-14-5'	5/9/2012	5	---	---	---	---	---	---	<2.0
SB-15-1'	5/9/2012	1	---	---	---	---	---	---	480
SB-15-2'	5/9/2012	2	---	---	---	---	---	---	550
SB-15-5'	5/9/2012	5	---	---	---	---	---	---	3.0
SB-16-1'	2/1/2013	1	---	---	---	---	---	---	590
SB-16-2'	2/1/2013	2	---	---	---	---	---	---	7.5
SB-16-5'	2/1/2013	5	---	---	---	---	---	---	6.3
SB-17-1'	2/1/2013	1	---	---	---	---	---	---	900
SB-17-2'	2/1/2013	2	---	---	---	---	---	---	9.7
SB-17-5'	2/1/2013	5	---	---	---	---	---	---	4.9
SB-18-1'	2/1/2013	1	---	---	---	---	---	---	300
SB-18-2'	2/1/2013	2	---	---	---	---	---	---	6.7
SB-18-5'	2/1/2013	5	---	---	---	---	---	---	6.5
SB-19-1'	2/1/2013	1	---	---	---	---	---	---	370
SB-19-2'	2/1/2013	2	---	---	---	---	---	---	290
SB-19-5'	2/1/2013	5	---	---	---	---	---	---	6.5
SB-20-1'	2/1/2013	1	---	---	---	---	---	---	270
SB-20-2'	2/1/2013	2	---	---	---	---	---	---	13
SB-20-5'	2/1/2013	5	---	---	---	---	---	---	7.4
Shallow Soil (≤10 fbg) Screeening Level:			180 a	0.27 a	9.3 a	4.7 a	11 a	8.4 a	320 b
Deep Soil (>10 fbg) Screeening Level:			180 a	2.0 a	9.3 a	4.7 a	11 a	8.4 a	320 b

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to June 26, 1997, analyzed by EPA Method 8015M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to June 26, 1997, analyzed by EPA Method 8020
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B; prior to June 26, 1997, analyzed by EPA Method 8020
Total lead analysis by EPA 6010B; prior to April 11, 1989 analyzed by EPA Method 7420
fbg = Feet below grade
mg/kg = Milligrams per kilogram
<x = Not detected at reporting limit x
--- = Not analyzed
ESL = Environmental screening level
CHHSL = California human health screening level

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*

Results in **bold** equal or exceed applicable ESL or CHHSL

a = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is not a source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

b = Updated CHHSL for total exposure (inhalation, ingestion, and dermal absorption) developed by the California Office of Environmental Health Hazard Assessment (September 23, 2010) for lead in soil with commercial land use.

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: 01/10/2013 By jamesy

Permit Numbers: W2013-0030
Permits Valid from 02/01/2013 to 02/01/2013

Application Id:	1357257766203	**City of Project Site:** Oakland
Site Location:	3420 San Pablo Avenue	
Project Start Date:	02/01/2013	**Completion Date:** 02/01/2013
Assigned Inspector:	Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org	
Applicant:	Conestoga-Rovers & Associates - Scott Lewis 19449 Riverside Drive, Suite 230, Sonoma, CA 95476	**Phone:** 707-933-2369
Property Owner:	Portolla Valley LLC 965 Laural Glen Drive, Palo Alto, CA 94304	**Phone:** --
Client:	Shell Oil Products US 20945 South Wilmington Avenue, Carson, CA 90815	**Phone:** 707-865-0251
Contact:	Scott Lewis	**Phone:** 707-933-2369 **Cell:** 707-249-0697

Total Due: $265.00
Receipt Number: WR2013-0010 **Total Amount Paid:** $265.00
Payer Name : Conestoga-Rovers & Associates Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 5 Boreholes
Driller: Vapor Tech Services - Lic #: 916085 - Method: Hand **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2013-0030	01/10/2013	05/02/2013	5	3.50 in.	5.50 ft

Specific Work Permit Conditions

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

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

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

4. 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.

5. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@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.

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

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

APPENDIX B

BORING LOGS

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**	SB-16
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	01-Feb-13
LOCATION	3420 San Pablo Avenue, Oakland, Ca	**DRILLING COMPLETED**	01-Feb-13
PROJECT NUMBER	240554	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services, C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	P. O'Connell	**DEPTH TO WATER (First Encountered)**	5.00 fbg (01-Feb-13)
REVIEWED BY	P. Schaefer, PG 5612	**DEPTH TO WATER (Static)**	NA
REMARKS	Air-knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.8	
4.6		SB-16 -1			GM		**Silty GRAVEL with Sand (GM):** very dark gray (2.5Y 3/1); 25% silt, 25% fine to coarse sand, 50% fine to coarse gravel; dry.	2.0	
32.6		SB-16 -2			ML		**SILT (ML):** black (2.5Y 2.5/1); 10% clay, 90% silt; moist; low plasticity.		Portland Type I/II
							@ 4' - **SILT with Gravel (ML):** dark gray (2.5Y 4/1); 20% clay, 60% silt, 20% fine gravel; moist; medium plasticity.	4.0	
13.8		SB-16 -5		5			@ 5' - wet. ▽	5.0	
								5.5	Bottom of Boring @ 5.5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2405--\240554~1\2443F7~1\240554-3420_SAN_PABLO.GPJ DEFAULT.GDT 2/21/13

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**	SB-17
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	01-Feb-13
LOCATION	3420 San Pablo Avenue, Oakland, Ca	**DRILLING COMPLETED**	01-Feb-13
PROJECT NUMBER	240554	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services, C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	K. Ward	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer, PG 5612	**DEPTH TO WATER (Static)**	NA
REMARKS	Air-knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	
34.6		SB-17 -1			GM		**Silty GRAVEL with Sand (GM):** very dark brown (10YR 2/2); 25% silt, 25% fine to medium sand, 50% fine gravel; dry.	2.0	
45.8		SB-17 -2			ML		**SILT (ML):** black (10YR 2/1); 10% clay, 80% silt, 10% medium to coarse sand; moist, low plasticity.		Portland Type I/II
160		SB-17 -5		5			@ 5' - **SILT (ML):** dark gray (2.5Y 4/1); 30% clay, 60% silt, 10% medium to coarse sand; moist; low plasticity.	5.0	
								5.5	Bottom of Boring @ 5.5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2405--1240554-1\2443F7~1\1240554-3420_SAN_PABLO.GPJ DEFAULT.GDT 2/21/13

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**	SB-18
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	01-Feb-13
LOCATION	3420 San Pablo Avenue, Oakland, Ca	**DRILLING COMPLETED**	01-Feb-13
PROJECT NUMBER	240554	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services, C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	P. O'Connell	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY	P. Schaefer, PG 5612	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Air-knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.3	
175.1		SB-18 -1			GM		**Silty GRAVEL with Sand (GM):** very dark gray (2.5Y 3/1); 25% silt, 25% fine to coarse sand, 50% fine to coarse gravel; dry.		
204		SB-18 -2			ML		**SILT (ML):** black (2.5Y 2.5/1); 10% clay, 90% silt; moist; low plasticity.	2.0	Portland Type I/II
							@ 4' - **SILT (ML):** dark gray (2.5Y 4/1); 5% clay, 85% silt, 10% fine to coarse sand; moist; low plasticity.	4.0	
160		SB-18 -5		5				5.5	Bottom of Boring @ 5.5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2405--\240554~1\2443F7~1\240554-3420_SAN_PABLO.GPJ DEFAULT.GDT 2/21/13

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**	SB-19
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	01-Feb-13
LOCATION	3420 San Pablo Avenue, Oakland, Ca	**DRILLING COMPLETED**	01-Feb-13
PROJECT NUMBER	240554	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services, C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	K. Ward	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer, PG 5612	**DEPTH TO WATER (Static)**	NA
REMARKS	Air-knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	
105		SB-19-1			SM		**Silty GRAVEL (SM):** black (5YR 2.5/1); 10% clay, 30% silt, 10% sand, 50% coarse gravel; moist.	2.0	
679		SB-19-2			ML		**Gravelly SILT (ML):** black (5YR 2.5/1); 10% clay, 60% silt, 30% coarse gravel; moist; medium plasticity.		Portland Type I/II
501		SB-19-5		5			@ 5' - **SILT with Gravel (ML):** gray (10YR 5/1); 10% clay, 70% silt, 20% gravel; moist; low plasticity.	5.0 5.5	Bottom of Boring @ 5.5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2405--1240554~1\2443F7~1\240554-3420_SAN_PABLO.GPJ DEFAULT.GDT 2/21/13

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510.420.0700
Fax: 510.420.9170

BORING / WELL LOG

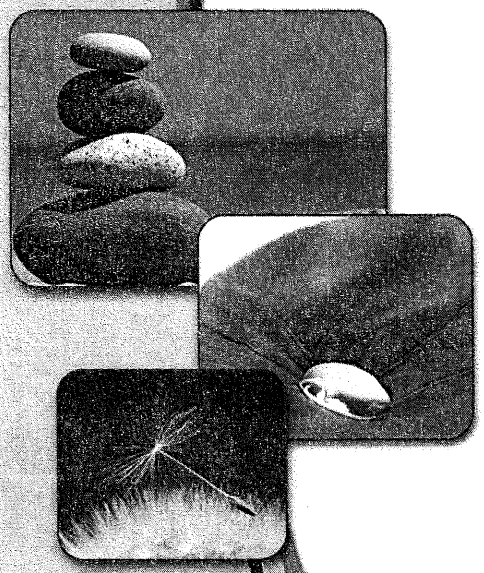
CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SB-20
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	01-Feb-13
LOCATION	3420 San Pablo Avenue, Oakland, Ca	**DRILLING COMPLETED**	01-Feb-13
PROJECT NUMBER	240554	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services, C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	K. Ward	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY	P. Schaefer, PG 5612	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Air-knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	
0.7		SB-20 -1			ML		**Gravelly SILT (ML):** very dark grayish-brown (10YR 3/2); 60% silt, 10% coarse sand, 30% fine gravel; dry; no plasticity.		
0		SB-20 -2					@ 2' - **SILT (ML):** black (10YR 2/1); 30% clay, 60% silt, 10% fine gravel; moist; medium plasticity.	2.0	Portland Type I/II
0		SB-20 -5		5			@ 5' - **SILT with Gravel (ML):** mottled, very dark brown (10YR 2/2) and yellowish-brown (10YR 5/6); 20% clay, 60% silt, 20% coarse gravel; moist; medium plasticity.	5.0 5.5	Bottom of Boring @ 5.5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2405--\240554~1\12443F7~1\240554-3420_SAN_PABLO.GPJ DEFAULT.GDT 2/21/13

APPENDIX C

CERTIFIED ANALYTICAL REPORTS



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-36978-1
Client Project/Site: 3420 San Pablo Ave., Oakland, CA

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Philip Sanelle

Authorized for release by:
2/19/2013 9:43:10 AM

Philip Sanelle
Project Manager I
philip.sanelle@testamericainc.com

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Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36978-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-36978-1	SB-16-1'	Solid	02/01/13 08:25	02/05/13 08:00
440-36978-2	SB-16-2'	Solid	02/01/13 08:35	02/05/13 08:00
440-36978-3	SB-16-5'	Solid	02/01/13 08:45	02/05/13 08:00
440-36978-4	SB-17-1'	Solid	02/01/13 09:28	02/05/13 08:00
440-36978-5	SB-17-2'	Solid	02/01/13 09:35	02/05/13 08:00
440-36978-6	SB-17-5'	Solid	02/01/13 09:44	02/05/13 08:00
440-36978-7	SB-18-1'	Solid	02/01/13 10:47	02/05/13 08:00
440-36978-8	SB-18-2'	Solid	02/01/13 10:55	02/05/13 08:00
440-36978-9	SB-18-5'	Solid	02/01/13 11:08	02/05/13 08:00
440-36978-10	SB-19-1'	Solid	02/01/13 12:40	02/05/13 08:00
440-36978-11	SB-19-2'	Solid	02/01/13 12:50	02/05/13 08:00
440-36978-12	SB-19-5'	Solid	02/01/13 13:00	02/05/13 08:00
440-36978-13	SB-20-1'	Solid	02/01/13 14:17	02/05/13 08:00
440-36978-14	SB-20-2'	Solid	02/01/13 14:32	02/05/13 08:00
440-36978-15	SB-20-5'	Solid	02/01/13 14:45	02/05/13 08:00

Job ID: 440-36978-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-36978-1

Comments
No additional comments.

Receipt
The samples were received on 2/5/2013 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 2.5° C.

Metals
No analytical or quality issues were noted.

Client Sample ID: SB-16-1'
Date Collected: 02/01/13 08:25
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-1
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	590		2.0		mg/Kg		02/12/13 09:46	02/13/13 15:41	5

Client Sample ID: SB-16-2'
Date Collected: 02/01/13 08:35
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-2
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.5		2.0		mg/Kg		02/12/13 09:46	02/13/13 15:43	5

Client Sample ID: SB-16-5'
Date Collected: 02/01/13 08:45
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-3
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.3		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:01	5

Client Sample ID: SB-17-1'
Date Collected: 02/01/13 09:28
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-4
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	900		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:03	5

Client Sample ID: SB-17-2'
Date Collected: 02/01/13 09:35
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-5
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.7		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:04	5

Client Sample ID: SB-17-5'
Date Collected: 02/01/13 09:44
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-6
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.9		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:06	5

Client Sample ID: SB-18-1'
Date Collected: 02/01/13 10:47
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-7
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	300		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:08	5

Client Sample ID: SB-18-2' — **Lab Sample ID: 440-36978-8**
Date Collected: 02/01/13 10:55 — Matrix: Solid
Date Received: 02/05/13 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.7		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:09	5

Client Sample ID: SB-18-5' — **Lab Sample ID: 440-36978-9**
Date Collected: 02/01/13 11:08 — Matrix: Solid
Date Received: 02/05/13 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.5		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:11	5

Client Sample ID: SB-19-1' — **Lab Sample ID: 440-36978-10**
Date Collected: 02/01/13 12:40 — Matrix: Solid
Date Received: 02/05/13 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	370		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:13	5

Client Sample ID: SB-19-2' — **Lab Sample ID: 440-36978-11**
Date Collected: 02/01/13 12:50 — Matrix: Solid
Date Received: 02/05/13 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	290		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:15	5

Client Sample ID: SB-19-5' — **Lab Sample ID: 440-36978-12**
Date Collected: 02/01/13 13:00 — Matrix: Solid
Date Received: 02/05/13 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.5		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:16	5

Client Sample ID: SB-20-1' — **Lab Sample ID: 440-36978-13**
Date Collected: 02/01/13 14:17 — Matrix: Solid
Date Received: 02/05/13 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	270		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:57	5

Client Sample ID: SB-20-2' — **Lab Sample ID: 440-36978-14**
Date Collected: 02/01/13 14:32 — Matrix: Solid
Date Received: 02/05/13 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13		2.0		mg/Kg		02/12/13 09:46	02/13/13 16:59	5

Client Sample ID: SB-20-5'
Date Collected: 02/01/13 14:45
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36978-15
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.4		2.0		mg/Kg		02/12/13 09:46	02/13/13 17:00	5

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36978-1

Client Sample ID: SB-16-1'

Lab Sample ID: 440-36978-1
Matrix: Solid

Date Collected: 02/01/13 08:25
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 15:41	TK	TAL IRV

Client Sample ID: SB-16-2'

Lab Sample ID: 440-36978-2
Matrix: Solid

Date Collected: 02/01/13 08:35
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.99 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 15:43	TK	TAL IRV

Client Sample ID: SB-16-5'

Lab Sample ID: 440-36978-3
Matrix: Solid

Date Collected: 02/01/13 08:45
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.99 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:01	TK	TAL IRV

Client Sample ID: SB-17-1'

Lab Sample ID: 440-36978-4
Matrix: Solid

Date Collected: 02/01/13 09:28
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:03	TK	TAL IRV

Client Sample ID: SB-17-2'

Lab Sample ID: 440-36978-5
Matrix: Solid

Date Collected: 02/01/13 09:35
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:04	TK	TAL IRV

Client Sample ID: SB-17-5'

Lab Sample ID: 440-36978-6
Matrix: Solid

Date Collected: 02/01/13 09:44
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:06	TK	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36978-1

Client Sample ID: SB-18-1'

Lab Sample ID: 440-36978-7

Date Collected: 02/01/13 10:47
Date Received: 02/05/13 08:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:08	TK	TAL IRV

Client Sample ID: SB-18-2'

Lab Sample ID: 440-36978-8

Date Collected: 02/01/13 10:55
Date Received: 02/05/13 08:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.99 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:09	TK	TAL IRV

Client Sample ID: SB-18-5'

Lab Sample ID: 440-36978-9

Date Collected: 02/01/13 11:08
Date Received: 02/05/13 08:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:11	TK	TAL IRV

Client Sample ID: SB-19-1'

Lab Sample ID: 440-36978-10

Date Collected: 02/01/13 12:40
Date Received: 02/05/13 08:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.04 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:13	TK	TAL IRV

Client Sample ID: SB-19-2'

Lab Sample ID: 440-36978-11

Date Collected: 02/01/13 12:50
Date Received: 02/05/13 08:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:15	TK	TAL IRV

Client Sample ID: SB-19-5'

Lab Sample ID: 440-36978-12

Date Collected: 02/01/13 13:00
Date Received: 02/05/13 08:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:16	TK	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36978-1

Client Sample ID: SB-20-1'

Lab Sample ID: 440-36978-13
Matrix: Solid

Date Collected: 02/01/13 14:17
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:57	TK	TAL IRV

Client Sample ID: SB-20-2'

Lab Sample ID: 440-36978-14
Matrix: Solid

Date Collected: 02/01/13 14:32
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 16:59	TK	TAL IRV

Client Sample ID: SB-20-5'

Lab Sample ID: 440-36978-15
Matrix: Solid

Date Collected: 02/01/13 14:45
Date Received: 02/05/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.04 g	50 mL	84521	02/12/13 09:46	DT	TAL IRV
Total/NA	Analysis	6010B		5			85010	02/13/13 17:00	TK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36978-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-84521/1-A ^5
Matrix: Solid
Analysis Batch: 85010

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 84521

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0		mg/Kg		02/12/13 09:46	02/13/13 15:30	5

Lab Sample ID: LCS 440-84521/2-A ^5
Matrix: Solid
Analysis Batch: 85010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 84521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	49.8	46.9		mg/Kg		94	80 - 120

Lab Sample ID: 440-37586-B-1-C MS ^25
Matrix: Solid
Analysis Batch: 85010

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 84521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		49.5	48.8		mg/Kg		85	75 - 125

Lab Sample ID: 440-37586-B-1-D MSD ^25
Matrix: Solid
Analysis Batch: 85010

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 84521

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		49.5	50.3		mg/Kg		88	75 - 125	3	20

Metals

Prep Batch: 84521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36978-1	SB-16-1'	Total/NA	Solid	3050B	
440-36978-2	SB-16-2'	Total/NA	Solid	3050B	
440-36978-3	SB-16-5'	Total/NA	Solid	3050B	
440-36978-4	SB-17-1'	Total/NA	Solid	3050B	
440-36978-5	SB-17-2'	Total/NA	Solid	3050B	
440-36978-6	SB-17-5'	Total/NA	Solid	3050B	
440-36978-7	SB-18-1'	Total/NA	Solid	3050B	
440-36978-8	SB-18-2'	Total/NA	Solid	3050B	
440-36978-9	SB-18-5'	Total/NA	Solid	3050B	
440-36978-10	SB-19-1'	Total/NA	Solid	3050B	
440-36978-11	SB-19-2'	Total/NA	Solid	3050B	
440-36978-12	SB-19-5'	Total/NA	Solid	3050B	
440-36978-13	SB-20-1'	Total/NA	Solid	3050B	
440-36978-14	SB-20-2'	Total/NA	Solid	3050B	
440-36978-15	SB-20-5'	Total/NA	Solid	3050B	
440-37586-B-1-C MS ^25	Matrix Spike	Total/NA	Solid	3050B	
440-37586-B-1-D MSD ^25	Matrix Spike Duplicate	Total/NA	Solid	3050B	
LCS 440-84521/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-84521/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 85010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36978-1	SB-16-1'	Total/NA	Solid	6010B	84521
440-36978-2	SB-16-2'	Total/NA	Solid	6010B	84521
440-36978-3	SB-16-5'	Total/NA	Solid	6010B	84521
440-36978-4	SB-17-1'	Total/NA	Solid	6010B	84521
440-36978-5	SB-17-2'	Total/NA	Solid	6010B	84521
440-36978-6	SB-17-5'	Total/NA	Solid	6010B	84521
440-36978-7	SB-18-1'	Total/NA	Solid	6010B	84521
440-36978-8	SB-18-2'	Total/NA	Solid	6010B	84521
440-36978-9	SB-18-5'	Total/NA	Solid	6010B	84521
440-36978-10	SB-19-1'	Total/NA	Solid	6010B	84521
440-36978-11	SB-19-2'	Total/NA	Solid	6010B	84521
440-36978-12	SB-19-5'	Total/NA	Solid	6010B	84521
440-36978-13	SB-20-1'	Total/NA	Solid	6010B	84521
440-36978-14	SB-20-2'	Total/NA	Solid	6010B	84521
440-36978-15	SB-20-5'	Total/NA	Solid	6010B	84521
440-37586-B-1-C MS ^25	Matrix Spike	Total/NA	Solid	6010B	84521
440-37586-B-1-D MSD ^25	Matrix Spike Duplicate	Total/NA	Solid	6010B	84521
LCS 440-84521/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	84521
MB 440-84521/1-A ^5	Method Blank	Total/NA	Solid	6010B	84521

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36978-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	02-28-13
Hawaii	State Program	9	N/A	02-28-13
Nevada	State Program	9	CA015312007A	07-31-13
New Mexico	State Program	6	N/A	02-28-13
Northern Mariana Islands	State Program	9	MP0002	02-28-13
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

Shell Oil Products Chain Of Custody Record

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

Please Check Appropriate Box:
- ☐ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SOM/OM
- ☑ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER

Print Bill To Contact Name: Peter Schaefer 240554

INCIDENT # (ENV SERVICES):

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 2-1-13

PAGE: 1 of 2

PO #:

SAP #:

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

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

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

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@craworld.com

SITE ADDRESS: Street and City: 3420 San Pablo Avenue, Oakland

State: CA

GLOBAL ID NO.: T0600101253

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

PHONE NO.: 510-420-3343

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

CONSULTANT PROJECT NO.: 240554-95-12.02

SAMPLER NAME(S) (Print): Scott Lewis

LAB USE ONLY

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:

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

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	Total Lead EPA 6010B	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 5 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	Container PID Readings or Laboratory Notes
01	SB-16-1'	2/1/13	0825	Soil						1				X											
02	SB-16-2'	2/1/13	0835	Soil						1				X											
	SB-16-5'	2/1/13	0845	Soil						1				X											
	SB-17-1'	2/1/13	0928	Soil						1				X											
	SB-17-2'	2/1/13	0935	Soil						1				X											
	SB-17-5'	2/1/13	0944	Soil						1				X											
	SB-18-1'	2/1/13	1049	Soil						1				X											
	SB-18-2'	2/1/13	1055	Soil						1				X											
	SB-18-5'	2/1/13	1108	Soil						1				X											
	SB-19-1'	2/1/13	1240	Soil						1				X											

TEMPERATURE ON RECEIPT °C

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Scott Lewis	Sonoma Office	2-1-13	1730
Sonoma Office	Gerald Hayden	2-4-13	10:10
Gerald Hayden 2-4-13 17:00	Olga Orlova	2/5/13	8:00

05/2006 Revision

2/8/2013

268

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer 240554

INCIDENT # (ENV SERVICES): ☐ CHECK IF NO INCIDENT # APPLIES

PO #:

SAP #:

DATE: 2-1-13

PAGE: 2 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 3420 San Pablo Avenue, Oakland

State: CA

GLOBAL ID NO.: T0600101253

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

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

PHONE NO.: 510-420-3343

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

CONSULTANT PROJECT NO.: 240554-95-12.02

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

SAMPLER NAME(S) (Print): Scott Lewis

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pschaefer@craworld.com

LAB USE ONLY

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 :

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

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	Total Lead EPA 6010B	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 6 OXYs (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: _____ (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes
	SB-19-2'	2/1	1250	SOIL						1				X												
	SB-19-5'	2/1	1300	SOIL						1				X												
	SB-20-1'	2/1	1417	SOIL						1				X												
	SB-20-2'	2/1	1432	SOIL						1				X												
	SB-20-5'	2/1	1445	SOIL						1				X												

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Scott Lewis	Sonoma office	2-1-13	1730
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Sonoma office	Heidi Mayla	2-4-13	10:10
Relinquished by: (Signature) 2-4-13 17:06	Received by: (Signature)	Date:	Time:
Heidi Mayla	Olga Ornelas	2/5/13	8:00

26°C

05/2005 Revision

2/5/2013

Login Sample Receipt Checklist

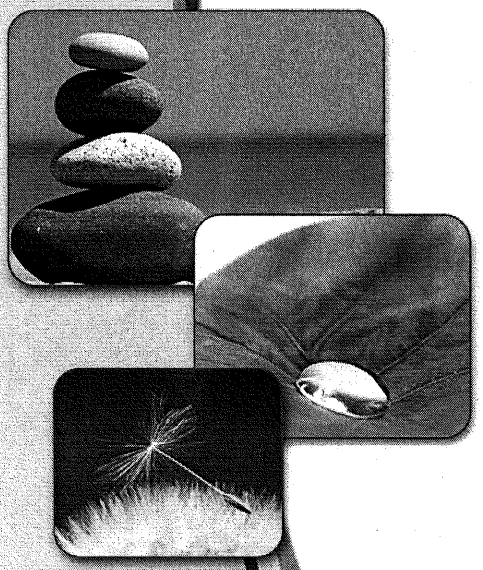
Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-36978-1

Login Number: 36978
List Number: 1
Creator: Avila, Stephanie

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Scott Lewis
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-36975-1
Client Project/Site: 3420 San Pablo Ave., Oakland, CA

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Philip Sanelle

Authorized for release by:
2/20/2013 3:12:02 PM

Philip Sanelle
Project Manager I
philip.sanelle@testamericainc.com

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Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36975-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-36975-3	CRA-A	Solid	02/01/13 14:50	02/05/13 08:00

Job ID: 440-36975-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-36975-1

Comments
No additional comments.

Receipt
The samples were received on 2/5/2013 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

GC/MS VOA
Method(s) 8260B/CA_LUFTMS: The following sample(s) was diluted due to the nature of the sample matrix: biosolid.CRA-A (440-36975-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260B/CA_LUFTMS: Surrogate recovery for the following sample(s) was outside control limits: (440-36837-1 MS), (440-36837-1 MSD), CRA-A (440-36975-3), Dirt-Sand-Line (440-36837-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: (440-36837-1 MS), (440-36837-1 MSD), CRA-A (440-36975-3), Dirt-Sand-Line (440-36837-1). Evidence of matrix interference is present; re-analysis was performed.

Method(s) 8260B: The following sample(s) was diluted due to the nature of the sample matrix: biosolid CRA-A (440-36975-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
Method(s) 6010B: The following sample(s) was diluted due to the nature of the sample matrix: 125976_PNT_S5 (440-37615-3). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Ag,As,Ba,Cd,Co,Mo,Ni,Pb,Sb,Se,Tl,Zn for batch 84799 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 84629 was outside control limits. The associated laboratory control sample / laboratory control (LCS) precision met acceptance criteria.

Method(s) 939-M: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 440-86400. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 939-M: The following sample(s) was prepared and/or analyzed outside the method defined holding time because the request for the test was made after the holding time for the sample expired: CRA-A (440-36975-3).

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample ID: CRA-A

Lab Sample ID: 440-36975-3

Date Collected: 02/01/13 14:50
Date Received: 02/05/13 08:00

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	1.2		0.48		mg/Kg			02/12/13 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*76*	*X*	*80 - 125*		*02/12/13 14:38*	*1*
4-Bromofluorobenzene (Surr)	*80*		*80 - 120*		*02/12/13 14:38*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*02/12/13 14:38*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.028		0.0048		mg/Kg			02/12/13 14:38	1
Ethylbenzene	0.097		0.0048		mg/Kg			02/12/13 14:38	1
Toluene	ND		0.0048		mg/Kg			02/12/13 14:38	1
Xylenes, Total	0.075		0.0095		mg/Kg			02/12/13 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*80 - 120*		*02/12/13 14:38*	*1*
Dibromofluoromethane (Surr)	*76*	*X*	*80 - 125*		*02/12/13 14:38*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*02/12/13 14:38*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	130		5.0		mg/Kg		02/07/13 07:07	02/07/13 19:34	1
ORO (C29-C40)	120		5.0		mg/Kg		02/07/13 07:07	02/07/13 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*79*		*40 - 140*	*02/07/13 07:07*	*02/07/13 19:34*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Arsenic	4.4		2.0		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Barium	190		0.99		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Beryllium	0.54		0.50		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Cadmium	0.51		0.50		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Chromium	35		0.99		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Cobalt	9.1		0.99		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Copper	21		2.0		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Lead	30		2.0		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Molybdenum	ND		2.0		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Nickel	39		2.0		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Selenium	ND		2.0		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Thallium	ND		9.9		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Vanadium	32		0.99		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Zinc	76		5.0		mg/Kg		02/13/13 08:35	02/14/13 12:00	5
Silver	ND		0.99		mg/Kg		02/13/13 08:35	02/14/13 12:00	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18		0.020		mg/Kg		02/14/13 10:15	02/14/13 14:35	1

Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36975-1

Client Sample ID: CRA-A
Date Collected: 02/01/13 14:50
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36975-3
Matrix: Solid

Method: 939-M - Organic Lead (GFAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Organo-Lead	0.36	H	0.10		mg/Kg		02/19/13 23:36	02/20/13 12:29	4

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36975-1

Client Sample ID: CRA-A
Date Collected: 02/01/13 14:50
Date Received: 02/05/13 08:00

Lab Sample ID: 440-36975-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	1.05 g	10 mL	84473	02/12/13 14:38	AT	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	1.05 g	10 mL	84474	02/12/13 14:38	AL	TAL IRV
Total/NA	Prep	CA LUFT			30.01 g	1 mL	83489	02/07/13 07:07	HN	TAL IRV
Total/NA	Analysis	8015B		1			83702	02/07/13 19:34	JR	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	84799	02/13/13 08:35	DT	TAL IRV
Total/NA	Analysis	6010B		5			85232	02/14/13 12:00	TK	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	84958	02/14/13 10:15	MM	TAL IRV
Total/NA	Analysis	7471A		1			85471	02/14/13 14:35	DB	TAL IRV
Total/NA	Prep	939M			50.05 mL	100 mL	86400	02/19/13 23:36	CH	TAL IRV
Total/NA	Analysis	939-M		4			86591	02/20/13 12:29	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-84473/15
Matrix: Solid
Analysis Batch: 84473

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/Kg			02/12/13 12:12	1
Ethylbenzene	ND		0.0010		mg/Kg			02/12/13 12:12	1
Toluene	ND		0.0010		mg/Kg			02/12/13 12:12	1
Xylenes, Total	ND		0.0020		mg/Kg			02/12/13 12:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*02/12/13 12:12*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 125*		*02/12/13 12:12*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*02/12/13 12:12*	*1*

Lab Sample ID: LCS 440-84473/5
Matrix: Solid
Analysis Batch: 84473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0458		mg/Kg		92	65 - 120
Ethylbenzene	0.0500	0.0458		mg/Kg		92	70 - 125
m,p-Xylene	0.100	0.0908		mg/Kg		91	70 - 125
o-Xylene	0.0500	0.0481		mg/Kg		96	70 - 125
Toluene	0.0500	0.0478		mg/Kg		96	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 125*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: 440-36837-A-1 MS
Matrix: Solid
Analysis Batch: 84473

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0499	0.0468		mg/Kg		94	65 - 130
Ethylbenzene	ND		0.0499	0.0491		mg/Kg		98	70 - 135
m,p-Xylene	ND		0.0998	0.0971		mg/Kg		97	70 - 130
o-Xylene	ND		0.0499	0.0519		mg/Kg		104	65 - 130
Toluene	ND		0.0499	0.0587		mg/Kg		118	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*
Dibromofluoromethane (Surr)	*0*	*X*	*80 - 125*
Toluene-d8 (Surr)	*117*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-36837-A-1 MSD
Matrix: Solid
Analysis Batch: 84473

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0497	0.0475		mg/Kg		96	65 - 130	1	20
Ethylbenzene	ND		0.0497	0.0477		mg/Kg		96	70 - 135	3	25
m,p-Xylene	ND		0.0994	0.0932		mg/Kg		94	70 - 130	4	25
o-Xylene	ND		0.0497	0.0499		mg/Kg		100	65 - 130	4	25
Toluene	ND		0.0497	0.0529		mg/Kg		106	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*0*	*X*	*80 - 125*
Toluene-d8 (Surr)	*112*		*80 - 120*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-84474/15
Matrix: Solid
Analysis Batch: 84474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.10		mg/Kg			02/12/13 12:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*80 - 125*		*02/12/13 12:12*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*02/12/13 12:12*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*02/12/13 12:12*	*1*

Lab Sample ID: LCS 440-84474/16
Matrix: Solid
Analysis Batch: 84474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	1.00	1.14		mg/Kg		114	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*80 - 125*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: 440-36837-A-1 MS
Matrix: Solid
Analysis Batch: 84474

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	3.31		mg/Kg		96	55 - 140

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 440-36837-A-1 MS
Matrix: Solid
Analysis Batch: 84474

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	*0*	*X*	*80 - 125*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*
Toluene-d8 (Surr)	*117*		*80 - 120*

Lab Sample ID: 440-36837-A-1 MSD
Matrix: Solid
Analysis Batch: 84474

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	*0*	*X*	*80 - 125*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*112*		*80 - 120*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-83489/1-A
Matrix: Solid
Analysis Batch: 83558

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 83489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		02/07/13 07:07	02/08/13 03:35	1
ORO (C29-C40)	ND		5.0		mg/Kg		02/07/13 07:07	02/08/13 03:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	*85*		*40 - 140*	*02/07/13 07:07*	*02/08/13 03:35*	*1*

Lab Sample ID: LCS 440-83489/2-A
Matrix: Solid
Analysis Batch: 83558

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 83489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	33.3	26.1		mg/Kg		78	45 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	*83*		*40 - 140*

Lab Sample ID: 440-37109-E-2-A MS
Matrix: Solid
Analysis Batch: 83558

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 83489

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	ND		33.3	30.6		mg/Kg		92	40 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane	*99*		*40 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 440-37109-E-2-B MSD
Matrix: Solid
Analysis Batch: 83558

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 83489

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	ND		33.3	29.8		mg/Kg		89	40 - 120	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*91*		*40 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-84799/1-A ^5
Matrix: Solid
Analysis Batch: 85073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 84799

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Arsenic	ND		2.0		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Barium	ND		0.99		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Beryllium	ND		0.49		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Cadmium	ND		0.49		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Chromium	ND		0.99		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Cobalt	ND		0.99		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Copper	ND		2.0		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Lead	ND		2.0		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Molybdenum	ND		2.0		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Nickel	ND		2.0		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Selenium	ND		2.0		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Thallium	ND		9.9		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Vanadium	ND		0.99		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Zinc	ND		4.9		mg/Kg		02/13/13 08:35	02/13/13 18:17	5
Silver	ND		0.99		mg/Kg		02/13/13 08:35	02/13/13 18:17	5

Lab Sample ID: LCS 440-84799/2-A ^5
Matrix: Solid
Analysis Batch: 85073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 84799

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	49.5	47.8		mg/Kg		97	80 - 120
Arsenic	49.5	46.3		mg/Kg		94	80 - 120
Barium	49.5	44.9		mg/Kg		91	80 - 120
Beryllium	49.5	46.5		mg/Kg		94	80 - 120
Cadmium	49.5	45.3		mg/Kg		91	80 - 120
Chromium	49.5	47.5		mg/Kg		96	80 - 120
Cobalt	49.5	45.6		mg/Kg		92	80 - 120
Copper	49.5	46.2		mg/Kg		93	80 - 120
Lead	49.5	48.0		mg/Kg		97	80 - 120
Molybdenum	49.5	44.1		mg/Kg		89	80 - 120
Nickel	49.5	47.7		mg/Kg		96	80 - 120
Selenium	49.5	44.7		mg/Kg		90	80 - 120
Thallium	49.5	46.3		mg/Kg		93	80 - 120
Vanadium	49.5	47.2		mg/Kg		95	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-84799/2-A ^5
Matrix: Solid
Analysis Batch: 85073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 84799

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	49.5	42.8		mg/Kg		86	80 - 120
Silver	24.8	22.9		mg/Kg		92	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-84958/1-A
Matrix: Solid
Analysis Batch: 85471

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 84958

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		02/14/13 10:15	02/14/13 14:20	1

Lab Sample ID: LCS 440-84958/2-A
Matrix: Solid
Analysis Batch: 85471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 84958

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.687		mg/Kg		86	80 - 120

Lab Sample ID: 440-37280-A-2-E MS
Matrix: Solid
Analysis Batch: 85471

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 84958

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.063		0.784	0.917		mg/Kg		109	70 - 130

Lab Sample ID: 440-37280-A-2-F MSD
Matrix: Solid
Analysis Batch: 85471

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 84958

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.063		0.816	0.954		mg/Kg		109	70 - 130	4	20

Method: 939-M - Organic Lead (GFAA)

Lab Sample ID: MB 440-86400/1-B
Matrix: Solid
Analysis Batch: 86591

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 86400

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Organo-Lead	ND		0.025		mg/Kg		02/19/13 23:36	02/20/13 11:35	1

Lab Sample ID: LCS 440-86400/2-B
Matrix: Solid
Analysis Batch: 86591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 86400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Organo-Lead	0.100	0.105		mg/Kg		105	80 - 120

Method: 939-M - Organic Lead (GFAA) (Continued)

Lab Sample ID: LCSD 440-86400/3-B
Matrix: Solid
Analysis Batch: 86591

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 86400

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Organo-Lead	0.0999	0.101		mg/Kg		101	80 - 120	4	20

GC/MS VOA

Analysis Batch: 84473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36837-A-1 MS	Matrix Spike	Total/NA	Solid	8260B	
440-36837-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	
440-36975-3	CRA-A	Total/NA	Solid	8260B	
LCS 440-84473/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-84473/15	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 84474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36837-A-1 MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	
440-36837-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	
440-36975-3	CRA-A	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-84474/16	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-84474/15	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 83489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	CA LUFT	
440-37109-E-2-A MS	Matrix Spike	Total/NA	Solid	CA LUFT	
440-37109-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	CA LUFT	
LCS 440-83489/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-83489/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Analysis Batch: 83558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-37109-E-2-A MS	Matrix Spike	Total/NA	Solid	8015B	83489
440-37109-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	83489
LCS 440-83489/2-A	Lab Control Sample	Total/NA	Solid	8015B	83489
MB 440-83489/1-A	Method Blank	Total/NA	Solid	8015B	83489

Analysis Batch: 83702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	8015B	83489

Metals

Prep Batch: 84799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	3050B	
LCS 440-84799/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-84799/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 84958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 84958 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-37280-A-2-E MS	Matrix Spike	Total/NA	Solid	7471A	
440-37280-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	
LCS 440-84958/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 440-84958/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 85073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-84799/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	84799
MB 440-84799/1-A ^5	Method Blank	Total/NA	Solid	6010B	84799

Analysis Batch: 85232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	6010B	84799

Analysis Batch: 85471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	7471A	84958
440-37280-A-2-E MS	Matrix Spike	Total/NA	Solid	7471A	84958
440-37280-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	84958
LCS 440-84958/2-A	Lab Control Sample	Total/NA	Solid	7471A	84958
MB 440-84958/1-A	Method Blank	Total/NA	Solid	7471A	84958

Prep Batch: 86400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	939M	
LCS 440-86400/2-B	Lab Control Sample	Total/NA	Solid	939M	
LCSD 440-86400/3-B	Lab Control Sample Dup	Total/NA	Solid	939M	
MB 440-86400/1-B	Method Blank	Total/NA	Solid	939M	

Analysis Batch: 86591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-36975-3	CRA-A	Total/NA	Solid	939-M	86400
LCS 440-86400/2-B	Lab Control Sample	Total/NA	Solid	939-M	86400
LCSD 440-86400/3-B	Lab Control Sample Dup	Total/NA	Solid	939-M	86400
MB 440-86400/1-B	Method Blank	Total/NA	Solid	939-M	86400

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 3420 San Pablo Ave., Oakland, CA

TestAmerica Job ID: 440-36975-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	02-28-13
Hawaii	State Program	9	N/A	02-28-13
Nevada	State Program	9	CA015312007A	07-31-13
New Mexico	State Program	6	N/A	02-28-13
Northern Mariana Islands	State Program	9	MP0002	02-28-13
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

Shell Oil Products Chain Of Custody Record

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

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

Print Bill To Contact Name: Peter Schaefer 240554
INCIDENT # (ENV SERVICES): ☐ CHECK IF NO INCIDENT # APPLIES
PO # / SAP #
DATE: 2-1-13
PAGE: 1 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 3420 San Pablo Avenue, Oakland	State: CA
ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608		GLOBAL ID NO.: T0600101253	
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville	PHONE NO.: 510-420-3343
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com	E-MAIL: shelledf@craworld.com
		CONSULTANT PROJECT NO.: 240554-95-12.02	
SAMPLER NAME(S) (Print): Scott Lewis		LAB USE ONLY	

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:
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

cc: Bbarlow@craworld.com, Deisman@craworld.com and Shell.Lab.Billing@craworld.com Call
composite sample IDs and field point names: CRA-A, CRA-B, etc

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)	Test for disposal (See Attached)	Container PID Readings or Laboratory Notes
1 of 20	CRA-1A	2/1/13	1116	SO						1	X	X	X											X	X				X	Please call
	CRA-2A	2/1/13	1430	SO						1	X	X	X											X	X				X	composite sample
																														CRA-A
																														Per Contingency Sheet,
																														for Solids & Liquids;
																														run STLC and / or TCLP
																														as needed.
																														Solids ONLY;
																														* run Fish Toxicity

Relinquished by: (Signature)	Received by: (Signature)	Date: 2-1-13	Time: 1730
Relinquished by: (Signature) Shelton office	Received by: (Signature)	Date: 2-4-13	Time: 10:10
Relinquished by: (Signature) 2-4-13 17:00	Received by: (Signature) Inches	Date: 2/5/13	Time: 8:00

05/2/05 Revision

2.6°C

2/5/2013

California Contingent Analyses - Metals

Metal	Trigger level TTLC (mg/kg)	Requirement (based on CCR 66261.24) [Both Solids and Liquids]
Antimony	150	STLC required if TTLC ≥ 150 mg/kg
Arsenic	50/100	STLC required if TTLC ≥ 50 mg/kg; TCLP required if TTLC ≥ 100 mg/kg
Barium	1,000/2,000	STLC required if TTLC ≥ 1,000 mg/kg; TCLP required if TTLC ≥ 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; TCLP required if TTLC ≥ 20 mg/kg
Chromium	50/100	STLC required if TTLC ≥ 50 mg/kg; 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	**13/50/100**	Organic lead required if TTLC lead ≥ 13 mg/kg STLC required if TTLC ≥ 50 mg/kg; TCLP required if TTLC ≥ 100 mg/kg
Mercury	2/4	STLC required if TTLC ≥ 2 mg/kg; TCLP required if TTLC ≥ 4 mg/kg
Molybdenum	3,500	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; TCLP required if TTLC ≥ 20 mg/kg
Silver	50/100	STLC required if TTLC ≥ 50 mg/kg; 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 ≥ 2,500 mg/kg

California Contingent Analyses - Organics

Organic Constituents	Trigger level TTLC (mg/kg)	Requirement (based on CCR 66261.24) [Both Solids and Liquids]
Pentachlorophenol	1.7	STLC required if TTLC ≥ 1.7
Trichloroethylene	10/204	STLC required if TTLC ≥ 10 mg/kg; TCLP required if TTLC ≥ 204 mg/kg

Organic Constituents	(mg/kg)	Requirements based on TSDF permits **[ONLY for Solids if they meet the below criteria]**
TPHd	20,000	Requires fish bioassay (Acute Aquatic 96 hr LC 50)
TPHg	5,900	Requires fish bioassay (Acute Aquatic 96 hr LC 50)
TPHmo	10,000	Requires fish bioassay (Acute Aquatic 96 hr LC 50)
TRPH (tot rec pet hc)	5,000	Requires fish bioassay (Acute Aquatic 96 hr LC 50)

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-36975-1

Login Number: 36975
List Number: 1
Creator: Avila, Stephanie

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Scott Lewis
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	