CONESTOGA-ROVERS & ASSOCIATES

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TRANSMITTAL

DATE: July 19, 2012

REFERENCE NO.: 240781

PROJECT NAME: 2703 Martin Luther King Jr. Way, Oakland

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

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QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

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

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

Copy to: Denis Brown, Shell Oil Products US (electronic copy)

Rodney & Janet Kwan (property owner), Auto Tech West, 2703 Martin Luther King Jr. Way, Oakland, CA 94612

Wilfrid Kintonouza (adjacent property owner), 729 31st Street, Oakland, CA 94609-2924

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

SUBSURFACE INVESTIGATION REPORT

FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY
OAKLAND, CALIFORNIA

SAP CODE	129449
INCIDENT NO.	97093397
AGENCY NO.	RO0000145

Prepared by:
Conestoga-Rovers & Associates

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JULY 19, 2012
REF. NO. 240781 (23)
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EXECUTIVE SUMMARY

- Five soil borings (HA-14 through HA-18) were drilled during this investigation to evaluate soil conditions in the area adjacent to the former waste oil AST.
- Only the lead soil detections (up to 4,200 mg/kg) in surface soil samples from each boring and at 1 fbg in HA-14 and HA-18 exceed the September 2006 OEHHA revised CHHSL (September 2006) for residential soil.
- CRA recommends drilling seven additional borings to 2.5 fbg and proceeding with excavation of lead in surface soils.

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 subsurface investigation at 663 28th Street, Oakland. The purpose of the investigation was to evaluate soil conditions near the former waste oil above ground storage tank (AST). CRA followed the scope of work and procedures for hand auger borings presented in our October 5, 2010 *Subsurface Investigation Work Plan,* which was approved by the Alameda County Environmental Health (ACEH) in their November 1, 2010 letter.

The subject site is a former service station located on the northwest corner of Martin Luther King Jr. Way and 27th Street in a mixed commercial and residential area of Oakland, California (Figure 1). Currently, the site is occupied by Auto Tech West and is used as an automotive repair shop (Figures 2 through 4).

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

2.0 INVESTIGATION RESULTS

2.1 PERMIT

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

2.2 DRILLING DATES

April 18, 2012.

2.3 DRILLING COMPANY

Vapor Tech Services.

2.4 CRA PERSONNEL

Geologist Belew Yifru directed the drilling activities under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHODS

Hand auger.

2.6 NUMBER OF BORINGS

Five soil borings (HA-14 through HA-18) were drilled during this investigation.

The boring specifications and soil types encountered are described on the boring logs contained in Appendix C. The boring locations are shown on Figures 2 through 4.

2.7 BORING DEPTHS

5 feet below grade (fbg).

2.8 SOIL DISPOSAL

Sludge generated during field activities was stored on the former Shell Service Station site in 55-gallon drums, sampled, and profiled for disposal. The sludge was transported by American Integrated Services, Inc. to Crosby & Overton, Inc. in Long Beach, California for disposal as non-hazardous waste on May 23, 2012. The waste disposal manifest is included in Appendix D, and the laboratory analytical report is included in Appendix E.

3.0 FINDINGS

The soil chemical analytical data are summarized in Table 1, and total petroleum hydrocarbons as motor oil (TPHmo), total petroleum hydrocarbons as diesel (TPHd), and lead analytical results are presented on Figures 2 through 4. The laboratory analytical report is presented in Appendix E.

4.0 CONCLUSIONS

All detections of TPHmo, TPHd, and PAHs in soil samples are below Regional Water Quality Control Board environmental screening levels (ESLs)[1] for shallow soil with residential land use. The soil boring data indicate that the lead impacts in shallow soils (0-0.5 fbg) near the former AST and in some deeper samples exceed the revised California Human Health Screening Level (CHHSL) for total lead in soil with residential land use developed by the California Office of Environmental Health Hazard Assessment (OEHHA; September 23, 2010).

5.0 RECOMMENDATIONS

CRA recommends drilling and sampling seven additional soil borings to 2.5 fbg to further delineate the extent of lead in shallow soils. We will follow the procedures for hand auger borings presented in our October 5, 2010 *Subsurface Investigation Work Plan* with the following exceptions:

- The hand auger borings will be advanced to 2.5 fbg instead of 5 fbg,
- Soil samples will be collected at 0-0.5 fbg, 1-1.5 fbg, and 2-2.5 fbg, and
- Soil samples will be analyzed for total lead by EPA Method 6010B only.

CRA also recommends proceeding with the shallow soil excavation proposed in our March 4, 2011 *Subsurface Investigation Report and Revised Remedial Action Plan*, with an expanded excavation area as shown in Figures 2 through 4. As discussed in CRA's June 20, 2012 telephone conversation with ACEH, the residential screening level for total lead will be revised to the OEHHA CHHSL.

---

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

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

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

09/16/10

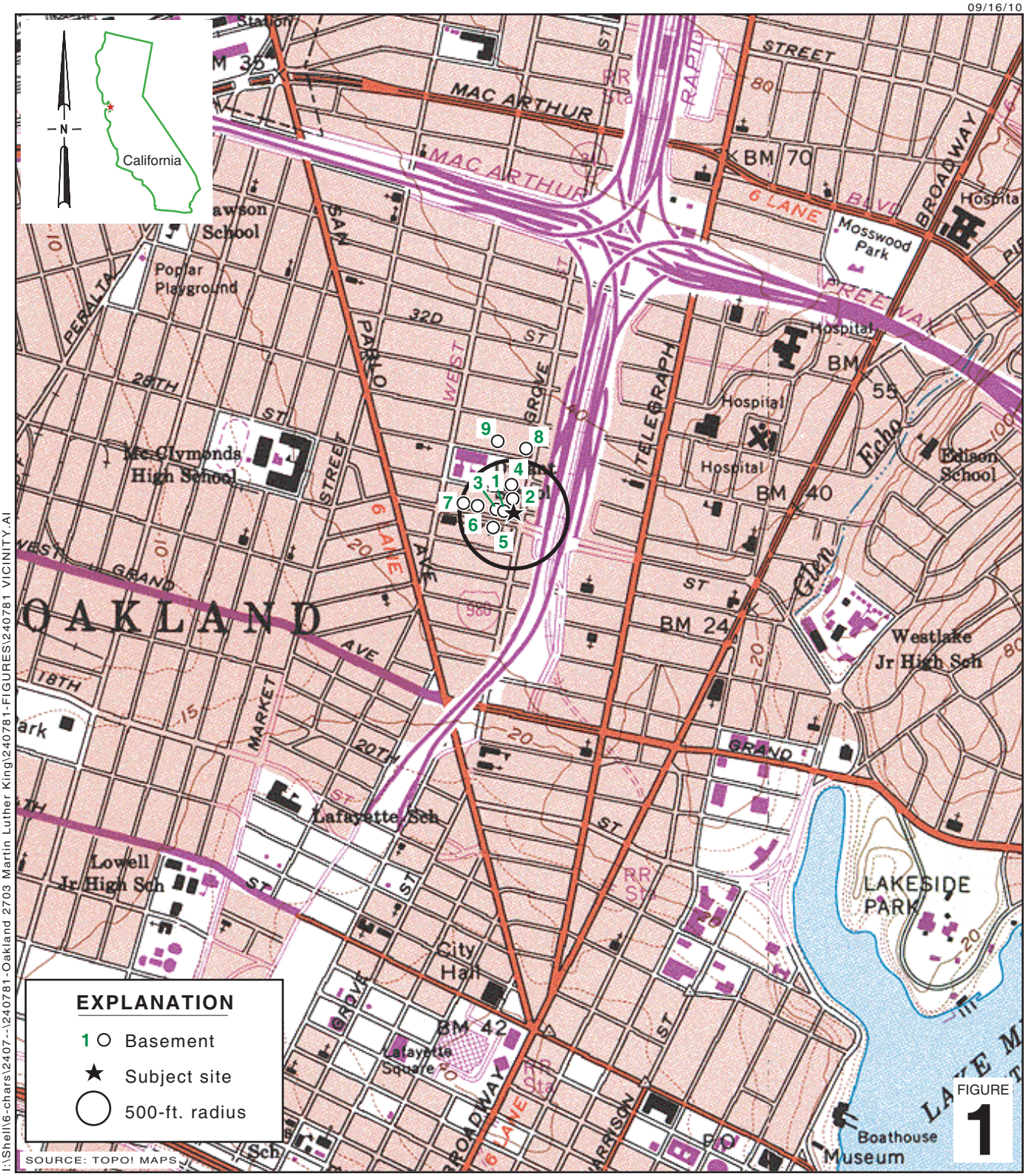

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FIGURE 1

Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

07/10/2012

TPHmo, TPHd, and Lead in Soil Concentration Map

0 - 0.7 Feet Below Grade

EXPLANATION

- Proposed hand auger location
- HA-9 — Hand auger location (12/2010, 4/2012)
- HA-1 — Hand auger boring location (4/2009)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)
- Electrical line (E)
- Telecommunication line (T)
- Gas line (G)

ID	Date	Depth	TPHmo	TPHd	Lead
HA-1	04/08/2009	0.7	7,900	1,300	24.5

Notes:
Soil sample ID, date, depth in feet below grade (fbg), and concentrations in milligrams per kilogram (mg/kg)
TPHmo = Total petroleum hydrocarbons as motor oil
TPHd = Total petroleum hydrocarbons as diesel
<X = Not detected at reporting limit X
Results in **BOLD** equal or exceed applicable ESL

N

0 5 10 20

Scale (ft)

Residential
665 28th St.

ID	Date	Depth	TPHmo	TPHd	Lead
HA-13	12/13/2010	0	920	210	3,940

ID	Date	Depth	TPHmo	TPHd	Lead
HA-14-0	04/18/2012	0	69	47	1,800

ID	Date	Depth	TPHmo	TPHd	Lead
HA-12	12/13/2010	0	120	39	4,550

ID	Date	Depth	TPHmo	TPHd	Lead
HA-11	12/13/2010	0	340	120	1,950

ID	Date	Depth	TPHmo	TPHd	Lead
HA-17-0	04/18/2012	0	81	50	4,200

ID	Date	Depth	TPHmo	TPHd	Lead
HA-10	12/13/2010	0	370	150	1,240

ID	Date	Depth	TPHmo	TPHd	Lead
HA-9	12/13/2010	0	470	140	1,410

ID	Date	Depth	TPHmo	TPHd	Lead
HA-15-0	04/18/2012	0	<10	23	1,400

ID	Date	Depth	TPHmo	TPHd	Lead
HA-18-0	04/18/2012	0	61	53	1,000

ID	Date	Depth	TPHmo	TPHd	Lead
HA-4	04/08/2009	0.7	7,800	4,500	43.5

ID	Date	Depth	TPHmo	TPHd	Lead
HA-16-0	04/18/2012	0	75	89	1,100

ID	Date	Depth	TPHmo	TPHd	Lead
HA-5	04/08/2009	0.7	5,800	700	46.0

ID	Date	Depth	TPHmo	TPHd	Lead
HA-6	04/08/2009	0.7	7,400	1,800	40.3

ID	Date	Depth	TPHmo	TPHd	Lead
HA-7	04/08/2009	0.7	11,000	910	37.1

ID	Date	Depth	TPHmo	TPHd	Lead
HA-3	04/08/2009	0.7	6,300	570	59.9

ID	Date	Depth	TPHmo	TPHd	Lead
HA-8	04/08/2009	0.7	9,600	810	32.8

ID	Date	Depth	TPHmo	TPHd	Lead
HA-2	04/08/2009	0.7	6,700	560	44.0

ID	Date	Depth	TPHmo	TPHd	Lead
HA-1	04/08/2009	0.7	7,900	1,300	24.5

HA-14 HA-13 HA-12 HA-11 HA-10 HA-9 HA-15 HA-17 HA-18 HA-4 HA-16 HA-5 HA-6 HA-3 HA-2 HA-1 HA-7 HA-8

Proposed Excavation (0-2 fbg)

Former W/O AST

Former Vent Lines

Trench

Building

Wooden Carport

Former USTs

Former Dispensers

Former Shell Station
2703 Martin Luther King

Residential
666 27th St.

Residential
664 27th St.

FIGURE
2

Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 SITE PLAN (F2. TPH SOIL 0-1 FBG).DWG

07/10/2012

TPHmo, TPHd, and Lead in Soil Concentration Map

1 - 1.5 Feet Below Grade

EXPLANATION

- Proposed hand auger location
- HA-9 — Hand auger location (12/2010, 4/2012)
- HA-1 — Hand auger boring location (4/2009)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)
- Electrical line (E)
- Telecommunication line (T)
- Gas line (G)

ID	Date	Depth	TPHmo	TPHd	Lead
HA-1	04/08/2009	1.5	<25	<5.0	7.73

Notes:
Soil sample ID, date, depth in feet below grade (fbg), and concentrations in milligrams per kilogram (mg/kg)
TPHmo = Total petroleum hydrocarbons as motor oil
TPHd = Total petroleum hydrocarbons as diesel
<X = Not detected at reporting limit X
Results in **BOLD** equal or exceed applicable ESL

N

0 5 10 20

Scale (ft)

Residential
665 28th St.

ID	Date	Depth	TPHmo	TPHd	Lead
HA-13	12/13/2010	1	<25	7.8	291

ID	Date	Depth	TPHmo	TPHd	Lead
HA-12	12/13/2010	1	130	39	**1,150**

ID	Date	Depth	TPHmo	TPHd	Lead
HA-14-1	04/18/2012	1	<5.0	<5.0	87

ID	Date	Depth	TPHmo	TPHd	Lead
HA-11	12/13/2010	1	<25	<5.0	166

ID	Date	Depth	TPHmo	TPHd	Lead
HA-17-1	04/18/2012	1	<10	<10	38

ID	Date	Depth	TPHmo	TPHd	Lead
HA-10	12/13/2010	1	1,200	**430**	529

ID	Date	Depth	TPHmo	TPHd	Lead
HA-9	12/13/2010	1	26	11	357

ID	Date	Depth	TPHmo	TPHd	Lead
HA-15-1	04/18/2012	1	<10	11	40

ID	Date	Depth	TPHmo	TPHd	Lead
HA-18-1	04/18/2012	1	8.3	7.3	410

ID	Date	Depth	TPHmo	TPHd	Lead
HA-4	04/08/2009	1.5	<25	<5.0	10.1

ID	Date	Depth	TPHmo	TPHd	Lead
HA-16-1	04/18/2012	1	10	7.3	220

ID	Date	Depth	TPHmo	TPHd	Lead
HA-5	04/08/2009	1.5	<25	<5.0	8.14

ID	Date	Depth	TPHmo	TPHd	Lead
HA-6	04/08/2009	1.5	290	**110**	11.3

ID	Date	Depth	TPHmo	TPHd	Lead
HA-7	04/08/2009	1.5	<25	<5.0	8.82

ID	Date	Depth	TPHmo	TPHd	Lead
HA-3	04/08/2009	1.5	50	<5.0	20.8

ID	Date	Depth	TPHmo	TPHd	Lead
HA-8	04/08/2009	1.5	74	11	**1,060**

ID	Date	Depth	TPHmo	TPHd	Lead
HA-1	04/08/2009	1.5	<25	<5.0	7.73

ID	Date	Depth	TPHmo	TPHd	Lead
HA-2	04/08/2009	1.5	<25	<5.0	29.5

HA-14, HA-13, HA-12, HA-11, HA-10, HA-9, HA-15, HA-17, HA-18, HA-4, HA-16, HA-5, HA-6, HA-3, HA-2, HA-1, HA-7, HA-8

Proposed Excavation (0-2 fbg)

Former W/O AST

Former Vent Lines

Trench

Building

Wooden Carport

Former USTs

Former Dispensers

Former Shell Station
2703 Martin Luther King

Residential
666 27th St.

Residential
664 27th St.

SAN, W, E, T, ?

FIGURE
3

Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 SITE PLAN (F3, TPH SOIL 1-2 FBG).DWG

07/10/2012

TPHmo, TPHd, and Lead in Soil Concentration Map

4.5 - 5 Feet Below Grade

EXPLANATION

- Proposed hand auger location
- HA-9 — Hand auger location (12/2010, 4/2012)
- HA-1 — Hand auger boring location (4/2009)
- Sanitary sewer line (SAN)
- Water line (W)
- Unknown utility line (?)
- Electrical line (E)
- Telecommunication line (T)
- Gas line (G)

ID	Date	Depth	TPHmo	TPHd	Lead
HA-1	04/08/2009	5	97	19	7.74

Notes:
Soil sample ID, date, depth in feet below grade (fbg), and concentrations in milligrams per kilogram (mg/kg)
TPHmo = Total petroleum hydrocarbons as motor oil
TPHd = Total petroleum hydrocarbons as diesel
<X = Not detected at reporting limit X
Results in **BOLD** equal or exceed applicable ESL

N

0 5 10 20

Scale (ft)

Residential
665 28th St.

ID	Date	Depth	TPHmo	TPHd	Lead
HA-13	12/13/2010	4.5	<25	<5.0	498

ID	Date	Depth	TPHmo	TPHd	Lead
HA-12	12/13/2010	4.5	<25	<5.0	9.25

ID	Date	Depth	TPHmo	TPHd	Lead
HA-14-4.5	04/18/2012	4.5	<5.0	<5.0	7.7

ID	Date	Depth	TPHmo	TPHd	Lead
HA-11	12/13/2010	4.5	<25	<5.0	73.2

ID	Date	Depth	TPHmo	TPHd	Lead
HA-17-4.5	04/18/2012	4.5	<5.0	<5.0	14

ID	Date	Depth	TPHmo	TPHd	Lead
HA-10	12/13/2010	4.5	<25	<5.0	7.39

ID	Date	Depth	TPHmo	TPHd	Lead
HA-9	12/13/2010	4.5	<25	<5.0	5.53

ID	Date	Depth	TPHmo	TPHd	Lead
HA-15-4.5	04/18/2012	4.5	<5.0	<5.0	6.4

ID	Date	Depth	TPHmo	TPHd	Lead
HA-18-4.5	04/18/2012	4.5	<5.0	<5.0	11

ID	Date	Depth	TPHmo	TPHd	Lead
HA-4	04/08/2009	5	<25	<5.0	5.81

ID	Date	Depth	TPHmo	TPHd	Lead
HA-16-4.5	04/18/2012	4.5	<5.0	<5.0	150

ID	Date	Depth	TPHmo	TPHd	Lead
HA-5	04/08/2009	5	<25	<5,0	7,85

ID	Date	Depth	TPHmo	TPHd	Lead
HA-6	04/08/2009	5	230	**130**	12.1

ID	Date	Depth	TPHmo	TPHd	Lead
HA-1	04/08/2009	5	97	19	7.74

ID	Date	Depth	TPHmo	TPHd	Lead
HA-2	04/08/2009	5	<25	<5.0	19.4

ID	Date	Depth	TPHmo	TPHd	Lead
HA-8	04/08/2009	5	190	35	19.7

ID	Date	Depth	TPHmo	TPHd	Lead
HA-3	04/08/2009	5	<25	<5.0	6.65

ID	Date	Depth	TPHmo	TPHd	Lead
HA-7	04/08/2009	5	<25	<5.0	7.45

HA-14, HA-13, HA-12, HA-11, HA-10, HA-9, HA-15, HA-17, HA-18, HA-4, HA-3, HA-2, HA-1, HA-16, HA-5, HA-7, HA-8, HA-6

Proposed Excavation (0-2 fbg)

Former W/O AST

Former Vent Lines

Trench

Building

Wooden Carport

Former USTs

Former Dispensers

Former Shell Station
2703 Martin Luther King

Residential
668 27th St.

Residential
664 27th St.

SAN, W, E, T

FIGURE

4

Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\2407--\240781-Oakland 2703 Martin Luther King\240781-FIGURES\240781 SITE PLAN (F4, TPH SOIL 2-5 FBG).DWG

TABLE

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHmo, TPHd, PAHs, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*
HA-1-0.7'	4/8/2009	0.7	**7,900**	**1,300 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.18**	<0.040	<0.040	<0.040	<0.040	24.5
HA-1-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.73
HA-1-5'	4/8/2009	5	97	19 a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.74
HA-2-0.7'	4/8/2009	0.7	**6,700**	**560 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	**0.19**	<0.040	<0.040	<0.040	<0.040	44.0
HA-2-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	29.5
HA-2-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	19.4
HA-3-0.7'	4/8/2009	0.7	**6,300**	**570 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.070	<0.040	<0.040	**0.16**	<0.040	<0.040	<0.040	<0.040	59.9
HA-3-1.5'	4/8/2009	1.5	50	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	20.8
HA-3-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	6.65
HA-4-0.7'	4/8/2009	0.7	**7,800**	**4,500 a**	1.2	<1.0	<1.0	1.6	1.7	8.5	2.6	7.9	8.1	**3.6**	4.0	**7.1**	<1.0	**4.2**	1.6	**2.2**	<1.0	<1.0	43.5
HA-4-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	10.1
HA-4-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	5.81
HA-5-0.7'	4/8/2009	0.7	**5,800**	**700 a**	<0.040	<0.040	<0.040	<0.040	<0.040	0.25	0.075	0.39	0.98	0.29	0.48	0.61	0.56	**0.51**	0.18	0.16	0.048	<0.040	46.0
HA-5-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	8.14
HA-5-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.85
HA-6-0.7'	4/8/2009	0.7	7,400	**1,800 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.077	<0.040	0.12	<0.040	<0.040	**0.21**	0.077	<0.040	<0.040	<0.040	40.3
HA-6-1.5'	4/8/2009	1.5	290	**110 a**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	11.3
HA-6-5'	4/8/2009	5	230	**130 a**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	12.1
HA-7-0.7'	4/8/2009	0.7	**11,000**	**910 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.091	<0.040	<0.040	**0.18**	<0.040	<0.040	<0.040	<0.040	37.1
HA-7-1.5'	4/8/2009	1.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	8.82
HA-7-5'	4/8/2009	5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.45

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHmo, TPHd, PAHs, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*
HA-8-0.7'	4/8/2009	0.7	**9,600**	**810 a**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.079	<0.040	<0.040	**0.17**	<0.040	<0.040	<0.040	<0.040	32.8
HA-8-1.5'	4/8/2009	1.5	74	11 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.10	0.027	0.29	0.31	0.17	0.18	0.18	0.15	**0.20**	0.045	0.061	<0.020	<0.020	**1,060**
HA-8-5'	4/8/2009	5	190	35 a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	19.7
HA-9-0	12/13/2010	0	470	140a	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	0.19	0.23	0.12	0.15	0.10	0.12	**0.14**	0.15	0.10	<0.10	<0.10	**1,410**
HA-9-1	12/13/2010	1	26	11 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.091	0.027	0.14	0.14	0.093	0.10	0.062	0.071	0.092	0.057	0.044	<0.020	<0.020	**357**
HA-9-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	5.53
HA-10-0	12/13/2010	0	370a	150a	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.10	0.17	0.22	0.11	0.17	0.11	0.15	**0.14**	0.22	0.14	<0.10	<0.10	**1,240**
HA-10-1	12/13/2010	1	1,200	**430a**	0.020	<0.020	<0.020	<0.020	<0.020	0.098	0.030	0.20	0.24	0.12	0.15	0.094	0.11	**0.16**	0.14	0.10	0.022	<0.020	**529**
HA-10-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7.39
HA-11-0	12/13/2010	0	340a	120a	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.19	0.27	0.11	0.17	0.10	0.14	**0.16**	0.18	0.12	<0.10	<0.10	**1,950**
HA-11-1	12/13/2010	1	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	0.048	<0.020	0.074	0.070	0.047	0.052	0.035	0.027	0.043	0.024	<0.020	<0.020	<0.020	**166**
HA-11-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	73.2
HA-12-0	12/13/2010	0	120	39 a	0.059	0.042	0.048	<0.020	<0.020	0.26	0.055	0.41	0.55	0.20	0.25	0.17	0.18	**0.26**	0.21	0.15	0.035	0.029	**4,550**
HA-12-1	12/13/2010	1	130	39 a	<0.020	<0.020	<0.020	<0.020	<0.020	0.089	0.026	0.086	0.088	0.050	0.057	0.040	0.035	0.045	0.035	0.025	<0.020	<0.020	**1,150**
HA-12-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	9.25
HA-13-0	12/13/2010	0	920	**210a**	<0.10	<0.10	<0.10	<0.10	<0.10	0.26	<0.10	0.38	0.42	0.22	0.25	0.19	0.18	**0.24**	0.19	0.15	<0.10	<0.10	**3,940**
HA-13-1	12/13/2010	1	<25	7.8a	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**291**
HA-13-4.5	12/13/2010	4.5	<25	<5.0	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**498**
HA-14-0	4/18/2012	0	69	47	<0.18	---	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	0.27	<0.18	<0.18	<0.18	0.25	**0.22**	0.20	<0.18	<0.18	---	**1,800**
HA-14-1	4/18/2012	1	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	**87**
HA-14-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	7.7

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA FOR TPHmo, TPHd, PAHs, AND LEAD
FORMER SHELL SERVICE STATION
2703 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*
HA-15-0	4/18/2012	0	<10	23	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	0.054	0.080	<0.45	<0.45	<0.45	0.058	<0.45	<0.45	<0.45	<0.45	---	**1,400**
HA-15-1	4/18/2012	1	<10	11	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	40
HA-15-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	6.4
HA-16-0	4/18/2012	0	75	89	<0.18	---	<0.18	<0.18	<0.18	0.19	<0.18	<0.18	0.26	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	---	**1,100**
HA-16-1	4/18/2012	1	10	7.3	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**220**
HA-16-4.5	4/18/2012	4.5	<5.0	<5.0	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**150**
HA-17-0	4/18/2012	0	81	50	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	---	**4,200**
HA-17-1	4/18/2012	1	<10	<10	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	38
HA-17-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	14
HA-18-0	4/18/2012	0	61	53	<0.45	---	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	---	**1,000**
HA-18-1	4/18/2012	1	8.3	7.3	<0.045	---	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	---	**410**
HA-18-4.5	4/18/2012	4.5	<5.0	<5.0	<0.030	---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	---	11
Shallow Soils (≤10 fbg) Screening Level:			2500 b	180 b	2.8 b	0.25 b	13 b	19 b	8.9 b	11 b	2.8 b	40 b	85 b	1.3 b	23 b	1.3 b	1.3 b	0.13 b	27 b	2.1 b	0.21 b	NA	80 c

Notes:
TPHmo = Total petroleum hydrocarbons as motor oil analyzed by EPA Method 8015B (M)
TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B
Polycyclic aromatic hydrocarbons (PAHs) analyzed by EPA Method 8270C SIM PAHS. Individual constituents tabulated.
Lead analyzed by EPA Method 6010B
fbg = feet below grade
mg/kg = Milligrams per kilogram
<x = Not detected at reporting limit x
--- = Not analyzed

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Sample ID	*Date*	*Depth (fbg)*	*TPHmo (mg/kg)*	*TPHd (mg/kg)*	*Naphthalene (mg/kg)*	*2-Methylnaphthalene (mg/kg)*	*Acenaphthylene (mg/kg)*	*Acenaphthene (mg/kg)*	*Fluorene (mg/kg)*	*Phenanthrene (mg/kg)*	*Anthracene (mg/kg)*	*Fluoranthene (mg/kg)*	*Pyrene (mg/kg)*	*Benzo(a) Anthracene (mg/kg)*	*Chrysene (mg/kg)*	*Benzo(k) Fluoranthene (mg/kg)*	*Benzo(b) Fluoranthene (mg/kg)*	*Benzo(a) Pyrene (mg/kg)*	*Benzo(g,h,i) Perylene (mg/kg)*	*Indeno(1,2,3-c,d) Pyrene (mg/kg)*	*Dibenz(a,h) Anthracene (mg/kg)*	*1-Methylnaphthalene (mg/kg)*	*Lead (mg/kg)*

ESLs = Environmental screening levels
CHHSL = California human health screening level
NA = No applicable ESL
Results in **bold** equal or exceed applicable screening level

a = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
b = San Francisco Bay Regional Water Quality Control Board ESL for shallow soil where groundwater is not a current or potential source of drinking water with residential land use (Table A in Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater -Interim Final -November 2007 [Revised May 2008]).
c = 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 residential land use.

APPENDIX A

SITE HISTORY

SITE HISTORY

1979 Underground Storage Tank (UST) Removal: Prior to vacating the property in 1979, Shell Oil Products US (Shell) reportedly removed three fuel USTs and a waste oil storage tank.

1994 UST Removal: In October 1994, KTW & Associates removed a 2,000-gallon UST on behalf of Auto Tech West (ATW). Two soil samples (TP-1-N and TP-2-S) collected from beneath the tank contained up to 18,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 100 mg/kg benzene.

1995 Phase I Environmental Site Assessment (ESA): In August and September 1995, Enviros Inc. (Enviros) performed a Phase I ESA. The Phase I ESA indicated that the site was occupied by housing prior to approximately 1959.

During a site survey conducted in conjunction with the Phase I ESA, an excavation was observed near the southwest corner of the service building. The excavation's location was consistent with the location of the 2,000-gallon UST removed in 1994 by ATW, with a large concrete slab observed in aerial photographs taken in 1971 and 1973, and with a smaller concrete slab observed in aerial photographs taken in 1981 and 1985. The concrete slabs observed in the aerial photographs were likely covering the USTs operated by Shell from 1959 to 1979, and after 1979 by Acme Ambulance Company (Acme).

1995 Phase II ESA: On May 23, 1995, ACC Environmental Consultants (ACC) drilled nine soil borings (B-1 through B-9) using a pneumatic sampling tool in the vicinity of the UST excavation and the product dispenser islands. Soil samples contained up to 830 mg/kg TPHg and 1.8 mg/kg benzene. Separate phase hydrocarbons (SPHs) were identified in grab groundwater samples collected from four of the soil borings (B-1, B-5, B-6, and B-9). Grab groundwater samples collected from borings without SPH contained up to 89,000 micrograms per liter (µg/L) TPHg and 21,000 µg/L benzene. Results of the investigation are presented in ACC's June 1995 *Phase II- Environmental Site Investigation* report.

1996 Over-Excavation: On March 19, 1996, Acme's former UST excavation was over-excavated and backfilled. The excavation, originally left open to 9 feet below grade (fbg), was over-excavated to approximately 11 fbg. Two soil samples (TP-3-W and TP-4-E) were collected after over-excavation was completed. The soil samples contained up to 2,700 mg/kg TPHg and 3.1 mg/kg benzene. Soil sampling and backfilling are documented in Enviros' May 10, 1996 correspondence.

1996 Subsurface Investigation: In July 1996, Enviros drilled six exploratory borings (B-10, B-11, B-12, B-13, V-1, and V-2). Borings B-11 and B-12 were completed as groundwater monitoring wells MW-1 and MW-2, and borings V-1 and V-2 were completed as soil vapor extraction wells V-1 and V-2. TPHg and benzene were not detected in soil samples collected from B-11, B-12, and B-13. Soil samples collected from B-10 and V-2 contained up to 110 mg/kg TPHg and 0.29 mg/kg benzene. Grab groundwater samples collected from borings B-10, B-12, and B-13 contained up to 290,000 µg/L TPHg and 34,000 µg/L benzene. Enviros' October 30, 1996 *Soil Boring and Well Installation Report* details the investigation results.

1997 Modified Phase I ESA: In February 1997, Enviros performed a modified Phase I ESA for the subject facility. A review of aerial photographs (1952 to 1994), city directories (1967 to 1993) and Sanborn maps (1912 to 1970) did not reveal evidence of an off-site source of petroleum hydrocarbons which would have impacted groundwater on site. The properties located north and west of the subject facility appear to have been occupied by residential houses from at least 1912 to the present. The nearest gasoline stations identified in the vicinity of the subject facility were a former Chevron station (740 27th Street at West Street) approximately 450 feet to the west, a former station (26th Street and Martin Luther King Jr. Way) approximately 300 feet to the south, and a former Mobil station (554 27th Street) approximately 950 feet to the east.

2000 Sensitive Receptor Survey (SRS): In 2000, Cambria Environmental Technology, Inc. (Cambria) performed an SRS to identify wells and underground utility conduits. Cambria identified the local sanitary and storm sewer systems as the only utility conduits which may act as preferential pathways for groundwater and soil vapor migration. Conduits identified in the area are located at depths of approximately 3.5 to 9 fbg. Cambria concluded that the potential does exist for groundwater to flow within these conduit trenches since groundwater depth on site historically ranges from approximately 4.5 to 10 fbg. However, since the typical groundwater flow direction on site has generally been to the south, it is likely that any contaminant migration within the utility conduits would be limited, since the utility conduits located to the south of the site are the shallowest of all the conduits identified adjacent to the site at depths of 3.5 to 5.5 fbg.

Cambria also obtained well installation and destruction records from the California Department of Water Resources (DWR) to identify any active water-producing wells within one-half mile of the site. DWR records did not identify any existing wells within the search area. Cambria's May 16, 2001 *Subsurface Investigation Report* provides SRS details.

2000 Subsurface Investigation: In November 2000, Cambria drilled three soil borings (B-17, B-18, and B-19) and installed three groundwater monitoring wells (MW-3, MW-4, and MW-5). Soil samples contained up to 2,100 mg/kg TPHg and 3.3 mg/kg benzene. Methyl tertiary-butyl ether (MTBE) was detected in one soil sample at a concentration of 0.0070 mg/kg. Tertiary-butyl alcohol (TBA) was detected in two soil samples at concentrations up to 0.0079 mg/kg. No SPHs were observed during the investigation. Grab groundwater samples collected from borings B-17 through B-19 contained up to 190,000 µg/L TPHg, 13,000 µg/L benzene, and 300 µg/L MTBE. TBA was detected at a concentration of 240 µg/L in B-19. Investigation results are presented in Cambria's May 16, 2001 *Subsurface Investigation Report.*

2001 Oxygen Releasing Compound (ORC) Installation: On May 2, 2001, Blaine Tech Services, Inc. (Blaine) installed ORC socks in wells V-1 and V-2. The ORC socks were removed during the fourth quarter 2001 monitoring event. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the second through the fourth quarter of 2001.

2002 Subsurface Investigation: In April 2002, Cambria drilled borings B-20 through B-22. MTBE was not detected in any of the soil or grab groundwater samples. Soil samples contained up to 380 mg/kg TPHg and 0.17 mg/kg benzene. Grab groundwater samples contained up to 160,000 µg/L TPHg and 18,000 µg/L benzene. Results of the investigation are presented in Cambria's June 21, 2002 *Site Investigation Report.*

2003 - 2005 ORC Installation: Blaine installed ORC socks in wells MW-5 and V-2 during first quarter of 2003. The ORCs were replaced on a semiannual basis. The use of ORC was discontinued during the first quarter 2005. Details of the ORC installation activities are presented in Cambria's quarterly groundwater monitoring reports for the first quarter 2003 through the first quarter of 2005.

2005 Subsurface Investigation: In August 2005, Cambria drilled 10 soil borings (GP-1 through GP-10). Soil samples contained up to 3,300 mg/kg TPHg and 15 mg/kg benzene. Grab groundwater samples contained up to 140,000 µg/L TPHg and 17,000 µg/L benzene. Soil vapor samples contained up to 71,000,000 micrograms per cubic meter (µg/m^3) TPHg and 170,000 µg/m^3 benzene. Details of these activities are included in Cambria's November 15, 2005 *Site Investigation Report.*

2005 Doo- to-Door Survey: Cambria conducted a door-to-door survey within 300 feet of the subject site for wells, basements, and foundation type to identify building construction and potential vapor receptors. Questionnaires were sent to 110 properties and responses for 25 properties were received as of January 13, 2006. Of the 25 responses received, none of the properties had basements. Three properties were

denoted as vacant; nine properties contained buildings constructed with slab-on-grade foundations; three contained buildings constructed with perimeter foundations. Tabulated data and a list of properties included in the survey are included in Cambria's January 15, 2006 *Door to Door Survey Report, Access Agreement Update, and Status/Schedule Update.*

2006 Subsurface Investigation: In January 2006, Cambria installed three monitoring wells (MW-6 through MW-8), drilled one soil boring (B-23), and installed six soil vapor probes (VP-1 through VP-6). Soil samples contained up to 3,800 mg/kg TPHg and 33 mg/kg benzene. Cambria's April 14, 2006 *Site Investigation Report, and First Quarter 2006 – Groundwater Monitoring Report* presents investigation results.

2006 Dual-Phase Extraction (DPE) Pilot Test: In January 2006, Cambria conducted a 5-day DPE pilot test on wells V-1, V-2, MW-6, MW-7, MW-4, MW-5, and MW-8 and a constant vacuum DPE test on well MW-6. The report concluded 1) the absence of vapor-phase concentrations (and groundwater concentrations) from well V-1 indicates that the former UST excavation does not contain residual source material; 2) high sustained and increasing vapor concentrations suggest source material is present in the vicinity of wells V-2, MW-5, and MW-8; 3) variability in extraction flow rates across the site may reflect heterogeneities in subsurface soils or may suggest preferential pathways; and 4) the extremely high effective radius of influence calculated for wells MW-5 and MW-8 during DPE testing on well MW-7 supports the presence of a preferential pathway in the vicinity of these wells. The data from the DPE pilot test suggests that DPE is feasible at this site. The groundwater table was effectively drawn down by DPE, and moderate vapor extraction flow rates were yielded from some of the extraction points. Although DPE is deemed feasible, Cambria did not recommend implementing DPE at this site. The extraction points that yielded the highest vapor concentrations did not yield an effective vapor extraction flow rate. Conversely, low vapor concentrations were yielded from the extraction point that did yield an effective vapor extraction flow rate. Therefore, DPE is not considered feasible in the target areas at this site. The pilot test details and results are presented in Cambria's March 14, 2006 *Pilot Test Report.*

2006 Subsurface Investigation: In February 2006, Cambria installed two monitoring wells (MW-12 and MW-14) on off-site properties. TPHg, benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected in soil samples from well boring MW-12. Soil samples from MW-14 contained up to 970 mg/kg TPHg and 2.3 mg/kg benzene. Cambria's May 25, 2006 *Subsurface Investigation Report* documents the well installations.

2006 Site Visit: During the site visit in April 2006, Cambria identified two bathrooms inside the former station building. A floor drain was observed in the northern-most

bathroom. Standing liquid was present in the floor drain and automotive parts and cleaners were stored in this area. A water sample from the floor drain contained carbon disulfide (3.69 µg/L), ethylbenzene (0.610 µg/L), and toluene (0.770 µg/L). This information is reported in Cambria's May 25, 2006 *Subsurface Investigation Report.*

2006 Geophysical Survey: In May 2006, Norcal Geophysical Consultants, Inc. (Norcal) conducted a geophysical survey to determine if a waste oil UST was present in the northwest portion of the property and to evaluate the presence of subsurface utilities in this area that could act as preferential pathways. This included the mapping of the sewer line from the floor drain found inside the northwest corner of the building during the April 19, 2006 site inspection. Norcal did not locate a UST in the northwest corner of the site, but did find a vent line located behind the northeast corner of the station building. A subsurface electric line was traced from the station building to the western property boundary, and an unidentified subsurface utility was traced from the northwest corner of the station building to the southwest, near MW-5 and toward MW-6. The presence of the unknown utility line in the northwest corner confirms the observations of a possible preferential pathway in this area based on the DPE pilot test performed in January 2006. Based on a ground-penetrating radar (GPR) survey that was performed to try to locate a non-metallic sewer line, Norcal concluded that the sewer line from the bathroom could be more than 4 fbg since the GPR was unable to identify the line. Cambria's July 25, 2006 *Status Update, Report of Geophysical Survey, and Request for Agency Meeting* documents this survey.

2006 Subsurface Investigation and Vapor Probe Installation: In October 2006, Cambria drilled five cone-penetrometer test (CPT) borings (CPT-1 through CPT-5) and installed six soil vapor probes (VP-1 through VP-6). Grab groundwater samples contained up to 25,000 µg/L TPHg and 1,100 µg/L benzene (both in CPT-5 at 16 to 20 fbg). Grab groundwater sample results from between 31-37 fbg confirmed significant attenuation of contaminants by at least one order of magnitude from the interval monitored by the site wells (5-20 fbg). Comparison of data from 1995, 2000, and 2006 in similar locations (B-6, B-9, B-19, and CPT-5) demonstrated attenuation of contaminant concentrations over time was occurring. These activities are documented in Cambria's January 31, 2007 *CPT Investigation and Vapor Probe Installation Report.*

2007 Subsurface Investigation and Vapor Probe Installation: In May and June 2007, Conestoga-Rovers & Associates (CRA) drilled two CPT borings (CPT-6 and CPT-7) within 27th Street southwest of the site, drilled one CPT boring (CPT-10) on the Marcus-Foster school property northwest of the site, and installed two soil vapor probes (VP-7 and VP-8) on private properties west-northwest of the site. Three soil samples from the borings contained up to 0.0020 mg/kg benzene, and TPHg was not detected in the samples. Grab groundwater samples contained up to 38,000 µg/L TPHg and

1,600 µg/L benzene (both in CPT-10 at 13 to 17 fbg). Results of the investigation are presented in CRA's August 27, 2007 *Plume Delineation and Soil Vapor Sampling Report.*

2007-2010 Soil Vapor Monitoring: Vapor monitoring was conducted between May 2007 and September 2010. BTEX concentrations in off-site soil vapor samples were consistently below residential environmental screening levels (ESLs).

2008 Site Conceptual Model (SCM) and Feasibility Study/Corrective Action Plan (FS/CAP): CRA submitted a February 2, 2008 SCM and FS/CAP for the site. Excavation of source material followed by installation of a bio-sparge curtain to assist biodegradation was the recommended remedial action for the site. CRA's May 28, 2008 *Remedial Action Plan* details plans for conducting the excavation and installing the bio-sparge system.

2008 Subsurface Investigation: In June 2008, CRA installed one off-site soil vapor probe (VP-9) at 2721 Martin Luther King Jr. Way. No TPHg, benzene, or MTBE was detected in a soil sample from the probe boring at 4.5 fbg. CRA's September 16, 2008 *Site Investigation Report and Soil Vapor Monitoring Report – Third Quarter 2008* provides soil vapor probe installation details.

2009 Subsurface Investigation: In April 2009, CRA drilled eight hand-auger borings (HA-1 through HA-8) behind the former station building to assess the extent hydrocarbon and lead concentrations in the vicinity of a former waste oil aboveground storage tank (AST) located behind the former station building. Up to 1,060 mg/kg total lead, 4,500 mg/kg total petroleum hydrocarbons as diesel (TPHd), and 11,000 mg/kg total petroleum hydrocarbons as motor oil (TPHmo) were detected in soil samples from the hand-auger borings. Maximum concentrations were all detected in samples from less than 2 fbg. Results of the investigation are presented in CRA's May 12, 2009 *Subsurface Investigation Report.*

2010 Door- to-Door Survey Addendum: CRA conducted a door-to-door survey of four properties near the site, which did not respond to the previous door to door surveys for wells, basements, or sumps. Questionnaires were sent to the four properties, and CRA received responses for three of the properties. Of the three responses received, two of the properties had basements. None reported wells or sumps. CRA's September 22, 2010 *Door to Door Survey Report Addendum* provides details of the survey responses.

2010 Subsurface Investigations and Remedial Action Plan (RAP): In August 2010, CRA installed three off-site groundwater monitoring wells (MW-9 through MW-11) and one soil vapor probe (VP-10) down gradient of the site. No benzene was detected in any soil

samples. Soil samples contained up to 1,200 mg/kg TPHg. CRA's October 27, 2010 *Subsurface Investigation and Third Quarter 2010 Groundwater Monitoring Report* presents well installation details and our October 27, 2010 *Soil Vapor Probe Installation and Soil Vapor Sampling Report* provides vapor probe Installation details.

In December 2010, CRA drilled 25 soil borings (B-24 through B-48) on site to evaluate soil conditions in the area of the former UST complex and fuel delivery system. Five soil borings (HA-9 through HA-13) were drilled off site to evaluate soil conditions near the former waste oil AST. Soil samples from the on-site soil borings contained up to 28,000 mg/kg TPHg and 72 mg/kg benzene. Soil samples from the off-site borings contained up to 1,200 mg/kg TPHmo, 430 mg/kg TPHd, 4,550 mg/kg total lead, and 0.26 mg/kg benzo(a)pyrene. No other polycyclic aromatic hydrocarbons were detected at concentrations exceeding San Francisco Bay Regional Water Quality Control Board ESLs for soil where groundwater is not a drinking water source with residential land use[1]. CRA's March 4, 2011 *Subsurface Investigation Report and Revised Remedial Action Plan* presents these investigation results and includes a revised RAP which recommended a shallow excavation to remove residual petroleum hydrocarbon and lead impacts in soils in the northern portion of the subject site and the adjacent property to the north.

Groundwater Monitoring: Groundwater monitoring has been conducted since August 1996. Fuel oxygenates are not a significant component of the groundwater plume. Generally, groundwater flow direction is to the west, with some components to the northwest and southwest. Historically, monitoring wells MW-1, MW-2, MW-3, MW-11, and MW-12 have shown little or no impact from petroleum hydrocarbons.

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]

APPENDIX B

PERMIT

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 02/01/2012 By jamesy

Permit Numbers: W2012-0088
Permits Valid from 02/14/2012 to 02/15/2012

Application Id:	1327617654509	**City of Project Site:** Oakland
Site Location:	663 28th Street Oakland CA. Related to the 2703 Martin Luther Jr. Way Oakland CA enviromental case.	
Project Start Date:	02/14/2012	**Completion Date:** 02/15/2012
Assigned Inspector:	Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org	
Applicant:	Conestoga Rovers & Associates - Belew Yifru 5900 Hollis Street, Suite A, Emeryville, CA 94608	**Phone:** 510-420-3356 x156
Property Owner:	Wilfrid Kintonouza 729 31st Street, Oakland, CA 94609	**Phone:** --
Client:	Denis Brown 20945 S. Wilmington Ave., Carson, CA 90810	**Phone:** 707-865-0251
Contact:	Belew Yifru	**Phone:** 510-420-3356 x156 **Cell:** 510-385-0307

Total Due: $265.00
Receipt Number: WR2012-0036 **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
W2012-0088	02/01/2012	05/14/2012	5	3.00 in.	5.00 ft

Specific Work Permit Conditions

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

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

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

4. 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 C

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**	HA-14
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	18-Apr-12
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	18-Apr-12
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	B. Yifru	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY	P. Schaefer PG 5621	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Located at 663 28th Street.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		HA-14 -0					**SILT (ML)**; dark gray (2.5Y 4/1); moist; 20% clay, 70% silt, 10% fine sand; medium plasticity.		
0		HA-14 -1			ML				Portland Type I/II
0		HA-14 -4.5		5				5.0	Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240781~1\240781~4\240781.GPJ DEFAULT.GDT 5/7/12

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**	HA-15
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	18-Apr-12
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	18-Apr-12
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	B. Yifru	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG 5621	**DEPTH TO WATER (Static)**	NA
REMARKS	Located at 663 28th Street.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		HA-15 -0					**SILT (ML)**; dark gray (2.5Y 4/1); moist; 20% clay, 70% silt, 10% fine sand; medium plasticity.		
0		HA-15 -1			ML				Portland Type I/II
0		HA-15 -4.5		5				5.0	Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240781-1\240781~4\240781.GPJ DEFAULT.GDT 5/7/12

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**	HA-16
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	18-Apr-12
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	18-Apr-12
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	B. Yifru	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG 5621	**DEPTH TO WATER (Static)**	NA
REMARKS	Located at 663 28th Street. 1.5 feet of compost removed to reach top of soil.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		HA-16 -0					**SILT (ML)**; dark gray (2.5Y 4/1); moist; 20% clay, 70% silt, 10% fine sand; medium plasticity.		
0		HA-16 -1			ML				Portland Type I/II
0		HA-16 -4.5		5				5.0	Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240781-1\240781-4\240781.GPJ DEFAULT.GDT 5/7/12

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**	HA-17
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	18-Apr-12
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	18-Apr-12
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	B. Yifru	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG 5621	**DEPTH TO WATER (Static)**	NA
REMARKS	Located at 663 28th Street.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		HA-17 -0					**SILT (ML)**; dark gray (2.5Y 4/1); moist; 20% clay, 70% silt, 10% fine sand; medium plasticity.		
0		HA-17 -1			ML				Portland Type I/II
0		HA-17 -4.5		5				5.0	Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240781-1\240781-4\240781.GPJ DEFAULT.GDT 5/10/12

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**	HA-18
JOB/SITE NAME	Former Shell Service Station	**DRILLING STARTED**	18-Apr-12
LOCATION	2703 Martin Luther King Jr. Way, Oakland, CA	**DRILLING COMPLETED**	18-Apr-12
PROJECT NUMBER	240781	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3.5"	**SCREENED INTERVALS**	NA
LOGGED BY	B. Yifru	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY	P. Schaefer PG 5621	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Located at 663 28th Street. 0.5 feet of compost removed to reach top of soil.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		HA-18 -0					**SILT (ML)**; dark gray (2.5Y 4/1); moist; 20% clay, 70% silt, 10% fine sand; medium plasticity.		
0		HA-18 -1			ML				Portland Type I/II
0		HA-18 -4.5		5				5.0	Bottom of Boring @ 5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240781-\1240781~4\240781.GPJ DEFAULT.GDT 5/7/12

APPENDIX D

WASTE DISPOSAL MANIFEST

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NOT REQUIRED	1	800-424-9300	0702582

GENERATOR

5. Generator's Name and Mailing Address

Shell Oil Products US
One Shell Plaza, 910 Louisiana, Room #855, Houston, TX 77002

Generator's Site Address (if different than mailing address)

2703 Martin Luther King Way
Oakland, CA 94612

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

American Integrated Services, Inc. — CAR000148338

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Crosby & Overton, Inc.
1630 W. 16th Street — CAD028409019

Facility's Phone: Long Beach, CA 90813 562-432-5445

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Hazardous Waste Liquid (Sludge)	01	~~TM~~ TT	50	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Wear protective equipment while handling. Weights or volumes are approximate. 24 hour emergency number (800) 424-9300 Chemtrec.

D165931 H15386

RIP#: 93682
SAP#: 120449
Incident#:
Profit#: 27578
Project #: 72006-2-53 CRA# 240781

1 Drum

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: AIS on behalf of SOPUS - K Dupler — Signature: Kai Dupler — Month: 5 — Day: 23 — Year: 12

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARCO MARILO — Signature: — Month: 5 — Day: 23 — Year: 12

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

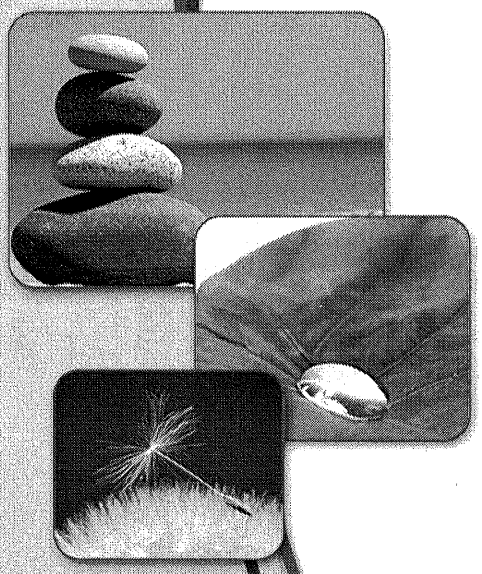
H1386

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: JBelleza — Signature: — Month: 06 — Day: 11 — Year: 12

APPENDIX E

TEST AMERICA – LABORATORY REPORT S



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: 440-9459-1
Client Project/Site: 2703 MLK Jr. Way, Oakland, CA

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

Attn: Peter Schaefrer

Philip Sanelle

Authorized for release by:
5/4/2012 11:21:02 AM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9459-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-9459-1	HA-17-0	Solid	04/18/12 09:10	04/19/12 17:45
440-9459-2	HA-17-1	Solid	04/18/12 09:15	04/19/12 17:45
440-9459-3	HA-17-4.5	Solid	04/18/12 09:25	04/19/12 17:45
440-9459-4	HA-14-0	Solid	04/18/12 09:35	04/19/12 17:45
440-9459-5	HA-14-1	Solid	04/18/12 09:40	04/19/12 17:45
440-9459-6	HA-14-4.5	Solid	04/18/12 09:50	04/19/12 17:45
440-9459-7	HA-15-0	Solid	04/18/12 10:05	04/19/12 17:45
440-9459-8	HA-15-1	Solid	04/18/12 10:10	04/19/12 17:45
440-9459-9	HA-15-4.5	Solid	04/18/12 10:20	04/19/12 17:45
440-9459-10	HA-16-0	Solid	04/18/12 10:45	04/19/12 17:45
440-9459-11	HA-16-1	Solid	04/18/12 10:55	04/19/12 17:45
440-9459-12	HA-16-4.5	Solid	04/18/12 11:05	04/19/12 17:45
440-9459-13	HA-18-0	Solid	04/18/12 11:15	04/19/12 17:45
440-9459-14	HA-18-1	Solid	04/18/12 11:20	04/19/12 17:45
440-9459-15	HA-18-4.5	Solid	04/18/12 11:35	04/19/12 17:45

Job ID: 440-9459-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-9459-1

Comments
No additional comments.

Receipt
The samples were received on 4/21/2012 10:50 AM; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.60 C.

GC/MS Semi VOA
Method(s) 8270C SIM: The following sample(s) was diluted due to the abundance of non-target analytes: HA-17-0 (440-9459-1). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: The following sample(s) was diluted due to the abundance of non-target analytes: HA-14-0 (440-9459-4). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: The following sample(s) was diluted due to the nature of the sample matrix: HA-15-0 (440-9459-7). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: The following sample(s) was diluted due to the nature of the sample matrix: HA-15-1 (440-9459-8). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: The following sample(s) was diluted due to the nature of the sample matrix: HA-16-0 (440-9459-10). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: The following sample(s) was diluted due to the nature of the sample matrix: HA-16-1 (440-9459-11), HA-16-4.5 (440-9459-12). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: HA-17-0 (440-9459-1).

Method(s) 8270C SIM: The following sample(s) was diluted due to the nature of the sample matrix: HA-18-0 (440-9459-13). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: The following sample(s) was diluted due to the nature of the sample matrix: HA-18-1 (440-9459-14). Elevated reporting limits (RLs) are provided.

Method(s) 8270C SIM: Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: HA-18-0 (440-9459-13).

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 9459 were outside control limits due to matrix interference. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
Method(s) 3546: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: HA-14-0 (440-9459-4), HA-16-0 (440-9459-10), HA-17-0 (440-9459-1). The reporting limits (RLs) are elevated proportionately.

Job ID: 440-9459-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

Method(s) 3546: The following samples were diluted prior to extraction due to the nature of the sample matrix: HA-14-0 (440-9459-4), HA-15-0 (440-9459-7), HA-16-0 (440-9459-10), HA-16-1 (440-9459-11), HA-16-4.5 (440-9459-12), HA-17-0 (440-9459-1). Elevated reporting limits (RLs) are provided.

Method(s) 3546: The following sample(s) was diluted due to the nature of the sample matrix: HA-18-0 (440-9459-13), HA-18-1 (440-9459-14). Elevated reporting limits (RLs) are provided.

Method(s) 3546: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: HA-18-0 (440-9459-13). The reporting limits (RLs) are elevated proportionately.

Method(s) CA LUFT: The following sample(s) was diluted prior to extraction due to the nature of the sample matrix: HA-15-0 (440-9459-7), HA-17-0 (440-9459-1), HA-17-1 (440-9459-2). Elevated reporting limits (RLs) are provided.

Method(s) CA LUFT: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: HA-14-0 (440-9459-4), HA-17-0 (440-9459-1). The reporting limits (RLs) are elevated proportionately.

Method(s) CA LUFT: The following sample(s) was diluted prior to extraction due to the nature of the sample matrix: HA-15-1 (440-9459-8). Elevated reporting limits (RLs) are provided.

Method(s) CA LUFT: Due to the matrix, the following sample(s) could not be concentrated to the final method required volume: (440-9459-10 MS), (440-9459-10 MSD), HA-16-0 (440-9459-10), HA-18-0 (440-9459-13). The reporting limits (RLs) are elevated proportionately.

No other analytical or quality issues were noted.

Client Sample ID: HA-17-0

Lab Sample ID: 440-9459-1

Date Collected: 04/18/12 09:10
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Acenaphthylene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Anthracene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Benzo[a]anthracene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Benzo[a]pyrene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Benzo[b]fluoranthene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Benzo[g,h,i]perylene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Benzo[k]fluoranthene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Chrysene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Dibenz(a,h)anthracene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Fluoranthene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Fluorene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Indeno[1,2,3-cd]pyrene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Naphthalene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Phenanthrene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5
Pyrene	ND		0.45		mg/Kg		04/25/12 14:06	04/26/12 16:31	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*35 - 120*	*04/25/12 14:06*	*04/26/12 16:31*	*5*
Nitrobenzene-d5	*75*		*30 - 120*	*04/25/12 14:06*	*04/26/12 16:31*	*5*
Terphenyl-d14	*82*		*40 - 135*	*04/25/12 14:06*	*04/26/12 16:31*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**50**		20		mg/Kg		04/26/12 10:56	04/28/12 01:46	1
ORO (C29-C40)	**81**		20		mg/Kg		04/26/12 10:56	04/28/12 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*82*		*40 - 140*	*04/26/12 10:56*	*04/28/12 01:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4200**		3.9		mg/Kg		04/26/12 16:47	05/03/12 10:36	10

Client Sample ID: HA-17-1

Lab Sample ID: 440-9459-2

Date Collected: 04/18/12 09:15
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Acenaphthylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Benzo[a]anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Benzo[a]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Chrysene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Fluorene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1

Client Sample ID: HA-17-1

Lab Sample ID: 440-9459-2

Date Collected: 04/18/12 09:15
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Naphthalene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Phenanthrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1
Pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*35 - 120*	*04/25/12 14:06*	*04/26/12 16:52*	*1*
Nitrobenzene-d5	*62*		*30 - 120*	*04/25/12 14:06*	*04/26/12 16:52*	*1*
Terphenyl-d14	*80*		*40 - 135*	*04/25/12 14:06*	*04/26/12 16:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		10		mg/Kg		04/26/12 10:56	04/28/12 02:59	1
ORO (C29-C40)	ND		10		mg/Kg		04/26/12 10:56	04/28/12 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*90*		*40 - 140*	*04/26/12 10:56*	*04/28/12 02:59*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	38		2.0		mg/Kg		04/26/12 16:47	05/02/12 20:40	5

Client Sample ID: HA-17-4.5

Lab Sample ID: 440-9459-3

Date Collected: 04/18/12 09:25
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Acenaphthylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Benzo[a]anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Benzo[a]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Chrysene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Fluorene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Naphthalene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Phenanthrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1
Pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*35 - 120*	*04/25/12 14:06*	*04/26/12 17:13*	*1*
Nitrobenzene-d5	*70*		*30 - 120*	*04/25/12 14:06*	*04/26/12 17:13*	*1*
Terphenyl-d14	*89*		*40 - 135*	*04/25/12 14:06*	*04/26/12 17:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/26/12 10:56	04/28/12 00:58	1

Client Sample ID: HA-17-4.5

Lab Sample ID: 440-9459-3

Date Collected: 04/18/12 09:25
Matrix: Solid
Date Received: 04/19/12 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ORO (C29-C40)	ND		5.0		mg/Kg		04/26/12 10:56	04/28/12 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*94*		*40 - 140*	*04/26/12 10:56*	*04/28/12 00:58*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**14**		2.0		mg/Kg		04/26/12 16:47	05/02/12 20:42	5

Client Sample ID: HA-14-0

Lab Sample ID: 440-9459-4

Date Collected: 04/18/12 09:35
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Acenaphthylene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Anthracene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Benzo[a]anthracene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Benzo[a]pyrene	**0.22**		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Benzo[b]fluoranthene	**0.25**		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Benzo[g,h,i]perylene	**0.20**		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Benzo[k]fluoranthene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Chrysene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Dibenz(a,h)anthracene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Fluoranthene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Fluorene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Indeno[1,2,3-cd]pyrene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Naphthalene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Phenanthrene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2
Pyrene	**0.27**		0.18		mg/Kg		04/25/12 14:06	04/26/12 17:34	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*35 - 120*	*04/25/12 14:06*	*04/26/12 17:34*	*2*
Nitrobenzene-d5	*69*		*30 - 120*	*04/25/12 14:06*	*04/26/12 17:34*	*2*
Terphenyl-d14	*92*		*40 - 135*	*04/25/12 14:06*	*04/26/12 17:34*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**47**		10		mg/Kg		04/26/12 10:56	04/28/12 12:08	1
ORO (C29-C40)	**69**		10		mg/Kg		04/26/12 10:56	04/28/12 12:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*86*		*40 - 140*	*04/26/12 10:56*	*04/28/12 12:08*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1800**		2.0		mg/Kg		04/26/12 16:47	05/02/12 20:44	5

Client Sample ID: HA-14-1

Lab Sample ID: 440-9459-5

Date Collected: 04/18/12 09:40
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Acenaphthylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Benzo[a]anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Benzo[a]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Chrysene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Fluorene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Naphthalene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Phenanthrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1
Pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*35 - 120*	*04/25/12 14:06*	*04/26/12 17:56*	*1*
Nitrobenzene-d5	*64*		*30 - 120*	*04/25/12 14:06*	*04/26/12 17:56*	*1*
Terphenyl-d14	*80*		*40 - 135*	*04/25/12 14:06*	*04/26/12 17:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/26/12 10:56	04/28/12 10:06	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/26/12 10:56	04/28/12 10:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*94*		*40 - 140*	*04/26/12 10:56*	*04/28/12 10:06*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**87**		2.0		mg/Kg		04/26/12 16:47	05/02/12 20:53	5

Client Sample ID: HA-14-4.5

Lab Sample ID: 440-9459-6

Date Collected: 04/18/12 09:50
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Acenaphthylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Benzo[a]anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Benzo[a]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Chrysene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Fluorene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1

Client Sample ID: HA-14-4.5

Lab Sample ID: 440-9459-6

Date Collected: 04/18/12 09:50
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Naphthalene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Phenanthrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1
Pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*35 - 120*	*04/25/12 14:06*	*04/26/12 18:17*	*1*
Nitrobenzene-d5	*61*		*30 - 120*	*04/25/12 14:06*	*04/26/12 18:17*	*1*
Terphenyl-d14	*81*		*40 - 135*	*04/25/12 14:06*	*04/26/12 18:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 17:17	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*89*		*40 - 140*	*04/26/12 10:56*	*04/27/12 17:17*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**7.7**		2.0		mg/Kg		04/26/12 16:47	05/02/12 20:55	5

Client Sample ID: HA-15-0

Lab Sample ID: 440-9459-7

Date Collected: 04/18/12 10:05
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Acenaphthylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Benzo[a]anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Benzo[a]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Benzo[b]fluoranthene	**0.058**		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Benzo[g,h,i]perylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Benzo[k]fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Chrysene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Dibenz(a,h)anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Fluoranthene	**0.054**		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Fluorene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Indeno[1,2,3-cd]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Naphthalene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Phenanthrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1
Pyrene	**0.080**		0.045		mg/Kg		04/25/12 14:06	04/26/12 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*35 - 120*	*04/25/12 14:06*	*04/26/12 18:38*	*1*
Nitrobenzene-d5	*69*		*30 - 120*	*04/25/12 14:06*	*04/26/12 18:38*	*1*
Terphenyl-d14	*86*		*40 - 135*	*04/25/12 14:06*	*04/26/12 18:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**23**		10		mg/Kg		04/26/12 10:56	04/28/12 07:56	1

Client Sample ID: HA-15-0

Lab Sample ID: 440-9459-7

Date Collected: 04/18/12 10:05
Matrix: Solid
Date Received: 04/19/12 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ORO (C29-C40)	ND		10		mg/Kg		04/26/12 10:56	04/28/12 07:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*88*		*40 - 140*	*04/26/12 10:56*	*04/28/12 07:56*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1400**		2.0		mg/Kg		04/26/12 16:47	05/02/12 20:57	5

Client Sample ID: HA-15-1

Lab Sample ID: 440-9459-8

Date Collected: 04/18/12 10:10
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Acenaphthylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Benzo[a]anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Benzo[a]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Benzo[b]fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Benzo[g,h,i]perylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Benzo[k]fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Chrysene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Dibenz(a,h)anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Fluorene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Indeno[1,2,3-cd]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Naphthalene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Phenanthrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1
Pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*35 - 120*	*04/25/12 14:06*	*04/26/12 19:00*	*1*
Nitrobenzene-d5	*63*		*30 - 120*	*04/25/12 14:06*	*04/26/12 19:00*	*1*
Terphenyl-d14	*91*		*40 - 135*	*04/25/12 14:06*	*04/26/12 19:00*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**11**		10		mg/Kg		04/27/12 11:30	04/28/12 13:00	1
ORO (C29-C40)	ND		10		mg/Kg		04/27/12 11:30	04/28/12 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*95*		*40 - 140*	*04/27/12 11:30*	*04/28/12 13:00*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**40**		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:00	5

Client Sample ID: HA-15-4.5

Lab Sample ID: 440-9459-9

Date Collected: 04/18/12 10:20
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Acenaphthylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Benzo[a]anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Benzo[a]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Chrysene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Fluorene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Naphthalene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Phenanthrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1
Pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*35 - 120*	*04/25/12 14:06*	*04/26/12 19:21*	*1*
Nitrobenzene-d5	*53*		*30 - 120*	*04/25/12 14:06*	*04/26/12 19:21*	*1*
Terphenyl-d14	*93*		*40 - 135*	*04/25/12 14:06*	*04/26/12 19:21*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/27/12 11:30	04/28/12 12:40	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/27/12 11:30	04/28/12 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*91*		*40 - 140*	*04/27/12 11:30*	*04/28/12 12:40*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**6.4**		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:02	5

Client Sample ID: HA-16-0

Lab Sample ID: 440-9459-10

Date Collected: 04/18/12 10:45
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Acenaphthylene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Anthracene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Benzo[a]anthracene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Benzo[a]pyrene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Benzo[b]fluoranthene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Benzo[g,h,i]perylene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Benzo[k]fluoranthene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Chrysene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Dibenz(a,h)anthracene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Fluoranthene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Fluorene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2

Client Sample ID: HA-16-0

Lab Sample ID: 440-9459-10

Date Collected: 04/18/12 10:45
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Naphthalene	ND		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Phenanthrene	**0.19**		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2
Pyrene	**0.26**		0.18		mg/Kg		04/25/12 14:06	04/26/12 19:42	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*35 - 120*	*04/25/12 14:06*	*04/26/12 19:42*	*2*
Nitrobenzene-d5	*63*		*30 - 120*	*04/25/12 14:06*	*04/26/12 19:42*	*2*
Terphenyl-d14	*91*		*40 - 135*	*04/25/12 14:06*	*04/26/12 19:42*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**89**		10		mg/Kg		04/27/12 11:30	04/28/12 10:37	1
ORO (C29-C40)	**75**		10		mg/Kg		04/27/12 11:30	04/28/12 10:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*90*		*40 - 140*	*04/27/12 11:30*	*04/28/12 10:37*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1100**		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:05	5

Client Sample ID: HA-16-1

Lab Sample ID: 440-9459-11

Date Collected: 04/18/12 10:55
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Acenaphthylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Benzo[a]anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Benzo[a]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Benzo[b]fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Benzo[g,h,i]perylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Benzo[k]fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Chrysene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Dibenz(a,h)anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Fluorene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Indeno[1,2,3-cd]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Naphthalene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Phenanthrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1
Pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*35 - 120*	*04/25/12 14:06*	*04/26/12 20:04*	*1*
Nitrobenzene-d5	*64*		*30 - 120*	*04/25/12 14:06*	*04/26/12 20:04*	*1*
Terphenyl-d14	*75*		*40 - 135*	*04/25/12 14:06*	*04/26/12 20:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**7.3**		5.0		mg/Kg		04/27/12 11:30	04/28/12 13:21	1

Client Sample ID: HA-16-1

Lab Sample ID: 440-9459-11

Date Collected: 04/18/12 10:55
Matrix: Solid
Date Received: 04/19/12 17:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ORO (C29-C40)	10		5.0		mg/Kg		04/27/12 11:30	04/28/12 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*82*		*40 - 140*	*04/27/12 11:30*	*04/28/12 13:21*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	220		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:07	5

Client Sample ID: HA-16-4.5

Lab Sample ID: 440-9459-12

Date Collected: 04/18/12 11:05
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Acenaphthylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Benzo[a]anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Benzo[a]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Benzo[b]fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Benzo[g,h,i]perylene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Benzo[k]fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Chrysene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Dibenz(a,h)anthracene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Fluoranthene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Fluorene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Indeno[1,2,3-cd]pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Naphthalene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Phenanthrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1
Pyrene	ND		0.045		mg/Kg		04/25/12 14:06	04/26/12 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*35 - 120*	*04/25/12 14:06*	*04/26/12 20:25*	*1*
Nitrobenzene-d5	*61*		*30 - 120*	*04/25/12 14:06*	*04/26/12 20:25*	*1*
Terphenyl-d14	*86*		*40 - 135*	*04/25/12 14:06*	*04/26/12 20:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/27/12 11:30	04/28/12 14:02	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/27/12 11:30	04/28/12 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*83*		*40 - 140*	*04/27/12 11:30*	*04/28/12 14:02*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	150		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:10	5

Client Sample ID: HA-18-0

Lab Sample ID: 440-9459-13

Date Collected: 04/18/12 11:15

Matrix: Solid

Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Acenaphthylene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Anthracene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Benzo[a]anthracene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Benzo[a]pyrene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Benzo[b]fluoranthene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Benzo[g,h,i]perylene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Benzo[k]fluoranthene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Chrysene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Dibenz(a,h)anthracene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Fluoranthene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Fluorene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Indeno[1,2,3-cd]pyrene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Naphthalene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Phenanthrene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5
Pyrene	ND		0.45		mg/Kg		05/01/12 18:40	05/03/12 00:55	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*35 - 120*	*05/01/12 18:40*	*05/03/12 00:55*	*5*
Nitrobenzene-d5	*52*		*30 - 120*	*05/01/12 18:40*	*05/03/12 00:55*	*5*
Terphenyl-d14	*65*		*40 - 135*	*05/01/12 18:40*	*05/03/12 00:55*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**53**		10		mg/Kg		04/27/12 11:30	04/28/12 14:23	1
ORO (C29-C40)	**61**		10		mg/Kg		04/27/12 11:30	04/28/12 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*83*		*40 - 140*	*04/27/12 11:30*	*04/28/12 14:23*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1000**		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:12	5

Client Sample ID: HA-18-1

Lab Sample ID: 440-9459-14

Date Collected: 04/18/12 11:20

Matrix: Solid

Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Acenaphthylene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Anthracene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Benzo[a]anthracene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Benzo[a]pyrene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Benzo[b]fluoranthene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Benzo[g,h,i]perylene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Benzo[k]fluoranthene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Chrysene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Dibenz(a,h)anthracene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Fluoranthene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Fluorene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1

Client Sample ID: HA-18-1

Lab Sample ID: 440-9459-14

Date Collected: 04/18/12 11:20
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Naphthalene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Phenanthrene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1
Pyrene	ND		0.045		mg/Kg		05/01/12 18:40	05/03/12 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*35 - 120*	*05/01/12 18:40*	*05/03/12 01:16*	*1*
Nitrobenzene-d5	*52*		*30 - 120*	*05/01/12 18:40*	*05/03/12 01:16*	*1*
Terphenyl-d14	*71*		*40 - 135*	*05/01/12 18:40*	*05/03/12 01:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**7.3**		5.0		mg/Kg		04/27/12 11:30	04/28/12 15:04	1
ORO (C29-C40)	**8.3**		5.0		mg/Kg		04/27/12 11:30	04/28/12 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*45*		*40 - 140*	*04/27/12 11:30*	*04/28/12 15:04*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**410**		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:14	5

Client Sample ID: HA-18-4.5

Lab Sample ID: 440-9459-15

Date Collected: 04/18/12 11:35
Matrix: Solid
Date Received: 04/19/12 17:45

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Acenaphthylene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Anthracene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Benzo[a]anthracene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Benzo[a]pyrene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Chrysene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Fluoranthene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Fluorene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Naphthalene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Phenanthrene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1
Pyrene	ND		0.030		mg/Kg		05/01/12 18:40	05/03/12 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*65*		*35 - 120*	*05/01/12 18:40*	*05/03/12 01:37*	*1*
Nitrobenzene-d5	*57*		*30 - 120*	*05/01/12 18:40*	*05/03/12 01:37*	*1*
Terphenyl-d14	*71*		*40 - 135*	*05/01/12 18:40*	*05/03/12 01:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/27/12 11:30	05/01/12 12:59	1

Client Sample ID: HA-18-4.5
Date Collected: 04/18/12 11:35
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-15
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ORO (C29-C40)	ND		5.0		mg/Kg		04/27/12 11:30	05/01/12 12:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*104*		*40 - 140*	*04/27/12 11:30*	*05/01/12 12:59*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		2.0		mg/Kg		04/26/12 16:47	05/02/12 21:23	5

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9459-1

Client Sample ID: HA-17-0

Lab Sample ID: 440-9459-1

Date Collected: 04/18/12 09:10

Matrix: Solid

Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.03 g	2 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		5			22103	04/26/12 16:31	UP	TAL IRV
Total/NA	Prep	CA LUFT			15.01 g	2 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/28/12 01:46	ES	TAL IRV
Total/NA	Prep	3050B			2.04 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		10			23528	05/03/12 10:36	DP	TAL IRV

Client Sample ID: HA-17-1

Lab Sample ID: 440-9459-2

Date Collected: 04/18/12 09:15

Matrix: Solid

Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.03 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 16:52	UP	TAL IRV
Total/NA	Prep	CA LUFT			15.04 g	1 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/28/12 02:59	ES	TAL IRV
Total/NA	Prep	3050B			1.97 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 20:40	TK	TAL IRV

Client Sample ID: HA-17-4.5

Lab Sample ID: 440-9459-3

Date Collected: 04/18/12 09:25

Matrix: Solid

Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.04 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 17:13	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.04 g	1 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/28/12 00:58	ES	TAL IRV
Total/NA	Prep	3050B			2.00 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 20:42	TK	TAL IRV

Client Sample ID: HA-14-0

Lab Sample ID: 440-9459-4

Date Collected: 04/18/12 09:35

Matrix: Solid

Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.04 g	2 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		2			22103	04/26/12 17:34	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.02 g	2 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/28/12 12:08	ES	TAL IRV
Total/NA	Prep	3050B			2.00 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 20:44	TK	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9459-1

Client Sample ID: HA-14-1

Date Collected: 04/18/12 09:40
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-5
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	3546			15.04 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 17:56	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.00 g	1 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/28/12 10:06	ES	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 20:53	TK	TAL IRV

Client Sample ID: HA-14-4.5

Date Collected: 04/18/12 09:50
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-6
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	3546			15.07 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 18:17	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.04 g	1 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/27/12 17:17	ES	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 20:55	TK	TAL IRV

Client Sample ID: HA-15-0

Date Collected: 04/18/12 10:05
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-7
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	3546			10.06 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 18:38	UP	TAL IRV
Total/NA	Prep	CA LUFT			15.04 g	1 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/28/12 07:56	ES	TAL IRV
Total/NA	Prep	3050B			2.00 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 20:57	TK	TAL IRV

Client Sample ID: HA-15-1

Date Collected: 04/18/12 10:10
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-8
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	3546			10.02 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 19:00	UP	TAL IRV
Total/NA	Prep	CA LUFT			15.05 g	1 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22500	04/28/12 13:00	CP	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:00	TK	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9459-1

Client Sample ID: HA-15-4.5

Lab Sample ID: 440-9459-9

Date Collected: 04/18/12 10:20
Matrix: Solid
Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.04 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 19:21	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.03 g	1 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22500	04/28/12 12:40	CP	TAL IRV
Total/NA	Prep	3050B			1.99 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:02	TK	TAL IRV

Client Sample ID: HA-16-0

Lab Sample ID: 440-9459-10

Date Collected: 04/18/12 10:45
Matrix: Solid
Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.02 g	2 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		2			22103	04/26/12 19:42	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.00 g	2 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22500	04/28/12 10:37	CP	TAL IRV
Total/NA	Prep	3050B			1.99 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:05	TK	TAL IRV

Client Sample ID: HA-16-1

Lab Sample ID: 440-9459-11

Date Collected: 04/18/12 10:55
Matrix: Solid
Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.00 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 20:04	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.01 g	1 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22500	04/28/12 13:21	CP	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:07	TK	TAL IRV

Client Sample ID: HA-16-4.5

Lab Sample ID: 440-9459-12

Date Collected: 04/18/12 11:05
Matrix: Solid
Date Received: 04/19/12 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			10.01 g	1 mL	21886	04/25/12 14:06	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			22103	04/26/12 20:25	UP	TAL IRV
Total/NA	Prep	CA LUFT			30.02 g	1 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22500	04/28/12 14:02	CP	TAL IRV
Total/NA	Prep	3050B			2.04 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:10	TK	TAL IRV

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9459-1

Client Sample ID: HA-18-0

Date Collected: 04/18/12 11:15
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-13

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	3546			10.02 g	2 mL	23116	05/01/12 18:40	AG	TAL IRV
Total/NA	Analysis	8270C SIM		5			23419	05/03/12 00:55	AI	TAL IRV
Total/NA	Prep	CA LUFT			30.01 g	2 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22500	04/28/12 14:23	CP	TAL IRV
Total/NA	Prep	3050B			1.99 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:12	TK	TAL IRV

Client Sample ID: HA-18-1

Date Collected: 04/18/12 11:20
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-14

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	3546			10.06 g	1 mL	23116	05/01/12 18:40	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			23419	05/03/12 01:16	AI	TAL IRV
Total/NA	Prep	CA LUFT			30.03 g	1 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22500	04/28/12 15:04	CP	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:14	TK	TAL IRV

Client Sample ID: HA-18-4.5

Date Collected: 04/18/12 11:35
Date Received: 04/19/12 17:45

Lab Sample ID: 440-9459-15

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	3546			15.03 g	1 mL	23116	05/01/12 18:40	AG	TAL IRV
Total/NA	Analysis	8270C SIM		1			23419	05/03/12 01:37	AI	TAL IRV
Total/NA	Prep	CA LUFT			30.00 g	1 mL	22389	04/27/12 11:30	TM	TAL IRV
Total/NA	Analysis	8015B		1			22859	05/01/12 12:59	ES	TAL IRV
Total/NA	Prep	3050B			1.99 g	50 mL	22211	04/26/12 16:47	DT	TAL IRV
Total/NA	Analysis	6010B		5			23476	05/02/12 21:23	TK	TAL IRV

Laboratory References:

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

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-21886/1-A
Matrix: Solid
Analysis Batch: 22103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Acenaphthylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Benzo[a]anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Benzo[a]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Chrysene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Fluoranthene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Fluorene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Naphthalene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Phenanthrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1
Pyrene	ND		0.030		mg/Kg		04/25/12 14:06	04/26/12 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*35 - 120*	*04/25/12 14:06*	*04/26/12 11:44*	*1*
Nitrobenzene-d5	*63*		*30 - 120*	*04/25/12 14:06*	*04/26/12 11:44*	*1*
Terphenyl-d14	*79*		*40 - 135*	*04/25/12 14:06*	*04/26/12 11:44*	*1*

Lab Sample ID: LCS 440-21886/2-A
Matrix: Solid
Analysis Batch: 22103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.0667	0.0492		mg/Kg		74	50 - 120
Acenaphthylene	0.0667	0.0484		mg/Kg		73	50 - 120
Anthracene	0.0667	0.0565		mg/Kg		85	55 - 120
Benzo[a]anthracene	0.0667	0.0543		mg/Kg		81	55 - 120
Benzo[a]pyrene	0.0667	0.0529		mg/Kg		79	50 - 125
Benzo[b]fluoranthene	0.0667	0.0541		mg/Kg		81	45 - 125
Benzo[g,h,i]perylene	0.0667	0.0503		mg/Kg		75	35 - 130
Benzo[k]fluoranthene	0.0667	0.0559		mg/Kg		84	45 - 125
Chrysene	0.0667	0.0545		mg/Kg		82	55 - 120
Dibenz(a,h)anthracene	0.0667	0.0507		mg/Kg		76	40 - 135
Fluoranthene	0.0667	0.0556		mg/Kg		83	55 - 120
Fluorene	0.0667	0.0497		mg/Kg		75	55 - 120
Indeno[1,2,3-cd]pyrene	0.0667	0.0511		mg/Kg		77	30 - 135
Naphthalene	0.0667	0.0446		mg/Kg		67	45 - 120
Phenanthrene	0.0667	0.0532		mg/Kg		80	50 - 120
Pyrene	0.0667	0.0558		mg/Kg		84	45 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*70*		*35 - 120*
Nitrobenzene-d5	*60*		*30 - 120*
Terphenyl-d14	*78*		*40 - 135*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 440-9656-A-11-A MS
Matrix: Solid
Analysis Batch: 22103

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21886

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		0.0664	0.0472		mg/Kg		71	45 - 120
Acenaphthylene	ND		0.0664	0.0460		mg/Kg		69	45 - 120
Anthracene	ND		0.0664	0.0529		mg/Kg		80	55 - 120
Benzo[a]anthracene	ND		0.0664	0.0536		mg/Kg		81	50 - 120
Benzo[a]pyrene	ND		0.0664	0.0508		mg/Kg		77	45 - 125
Benzo[b]fluoranthene	ND		0.0664	0.0515		mg/Kg		78	45 - 125
Benzo[g,h,i]perylene	ND		0.0664	0.0492		mg/Kg		74	25 - 130
Benzo[k]fluoranthene	ND		0.0664	0.0540		mg/Kg		81	45 - 125
Chrysene	ND		0.0664	0.0527		mg/Kg		79	55 - 120
Dibenz(a,h)anthracene	ND		0.0664	0.0493		mg/Kg		74	25 - 135
Fluoranthene	ND		0.0664	0.0531		mg/Kg		80	45 - 120
Fluorene	ND		0.0664	0.0461		mg/Kg		70	50 - 120
Indeno[1,2,3-cd]pyrene	ND		0.0664	0.0491		mg/Kg		74	20 - 130
Naphthalene	ND		0.0664	0.0438		mg/Kg		66	40 - 120
Phenanthrene	ND		0.0664	0.0497		mg/Kg		75	50 - 120
Pyrene	ND		0.0664	0.0558		mg/Kg		84	40 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*69*		*35 - 120*
Nitrobenzene-d5	*65*		*30 - 120*
Terphenyl-d14	*79*		*40 - 135*

Lab Sample ID: 440-9656-A-11-B MSD
Matrix: Solid
Analysis Batch: 22103

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21886

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		0.0666	0.0515		mg/Kg		77	45 - 120	9	25
Acenaphthylene	ND		0.0666	0.0482		mg/Kg		72	45 - 120	5	20
Anthracene	ND		0.0666	0.0503		mg/Kg		76	55 - 120	5	25
Benzo[a]anthracene	ND		0.0666	0.0538		mg/Kg		81	50 - 120	0	25
Benzo[a]pyrene	ND		0.0666	0.0518		mg/Kg		78	45 - 125	2	25
Benzo[b]fluoranthene	ND		0.0666	0.0547		mg/Kg		82	45 - 125	6	30
Benzo[g,h,i]perylene	ND		0.0666	0.0494		mg/Kg		74	25 - 130	0	30
Benzo[k]fluoranthene	ND		0.0666	0.0543		mg/Kg		82	45 - 125	0	30
Chrysene	ND		0.0666	0.0502		mg/Kg		75	55 - 120	5	25
Dibenz(a,h)anthracene	ND		0.0666	0.0496		mg/Kg		75	25 - 135	1	30
Fluoranthene	ND		0.0666	0.0488		mg/Kg		73	45 - 120	8	25
Fluorene	ND		0.0666	0.0487		mg/Kg		73	50 - 120	5	25
Indeno[1,2,3-cd]pyrene	ND		0.0666	0.0494		mg/Kg		74	20 - 130	1	30
Naphthalene	ND		0.0666	0.0453		mg/Kg		68	40 - 120	3	25
Phenanthrene	ND		0.0666	0.0455		mg/Kg		68	50 - 120	9	25
Pyrene	ND		0.0666	0.0615		mg/Kg		92	40 - 125	10	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*71*		*35 - 120*
Nitrobenzene-d5	*69*		*30 - 120*
Terphenyl-d14	*82*		*40 - 135*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 440-23116/1-A
Matrix: Solid
Analysis Batch: 23419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Acenaphthylene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Anthracene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Benzo[a]anthracene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Benzo[a]pyrene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Benzo[b]fluoranthene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Benzo[g,h,i]perylene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Benzo[k]fluoranthene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Chrysene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Dibenz(a,h)anthracene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Fluoranthene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Fluorene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Indeno[1,2,3-cd]pyrene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Naphthalene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Phenanthrene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1
Pyrene	ND		0.030		mg/Kg		05/01/12 18:40	05/02/12 23:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*35 - 120*	*05/01/12 18:40*	*05/02/12 23:06*	*1*
Nitrobenzene-d5	*60*		*30 - 120*	*05/01/12 18:40*	*05/02/12 23:06*	*1*
Terphenyl-d14	*79*		*40 - 135*	*05/01/12 18:40*	*05/02/12 23:06*	*1*

Lab Sample ID: LCS 440-23116/2-A
Matrix: Solid
Analysis Batch: 23419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.0667	0.0436		mg/Kg		65	50 - 120
Acenaphthylene	0.0667	0.0421		mg/Kg		63	50 - 120
Anthracene	0.0667	0.0480		mg/Kg		72	55 - 120
Benzo[a]anthracene	0.0667	0.0456		mg/Kg		68	55 - 120
Benzo[a]pyrene	0.0667	0.0451		mg/Kg		68	50 - 125
Benzo[b]fluoranthene	0.0667	0.0422		mg/Kg		63	45 - 125
Benzo[g,h,i]perylene	0.0667	0.0440		mg/Kg		66	35 - 130
Benzo[k]fluoranthene	0.0667	0.0509		mg/Kg		76	45 - 125
Chrysene	0.0667	0.0468		mg/Kg		70	55 - 120
Dibenz(a,h)anthracene	0.0667	0.0451		mg/Kg		68	40 - 135
Fluoranthene	0.0667	0.0453		mg/Kg		68	55 - 120
Fluorene	0.0667	0.0424		mg/Kg		64	55 - 120
Indeno[1,2,3-cd]pyrene	0.0667	0.0451		mg/Kg		68	30 - 135
Naphthalene	0.0667	0.0386		mg/Kg		58	45 - 120
Phenanthrene	0.0667	0.0455		mg/Kg		68	50 - 120
Pyrene	0.0667	0.0520		mg/Kg		78	45 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*66*		*35 - 120*
Nitrobenzene-d5	*57*		*30 - 120*
Terphenyl-d14	*70*		*40 - 135*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 440-10043-A-15-B MS
Matrix: Solid
Analysis Batch: 23419

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 23116

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		0.0667	0.0468		mg/Kg		70	45 - 120
Acenaphthylene	ND		0.0667	0.0421		mg/Kg		63	45 - 120
Anthracene	ND		0.0667	0.0529		mg/Kg		79	55 - 120
Benzo[a]anthracene	ND		0.0667	0.0460		mg/Kg		69	50 - 120
Benzo[a]pyrene	ND		0.0667	0.0461		mg/Kg		69	45 - 125
Benzo[b]fluoranthene	ND		0.0667	0.0428		mg/Kg		64	45 - 125
Benzo[g,h,i]perylene	ND		0.0667	0.0409		mg/Kg		61	25 - 130
Benzo[k]fluoranthene	ND		0.0667	0.0503		mg/Kg		75	45 - 125
Chrysene	ND		0.0667	0.0508		mg/Kg		76	55 - 120
Dibenz(a,h)anthracene	ND		0.0667	0.0429		mg/Kg		64	25 - 135
Fluoranthene	ND		0.0667	0.0510		mg/Kg		76	45 - 120
Fluorene	ND		0.0667	0.0459		mg/Kg		69	50 - 120
Indeno[1,2,3-cd]pyrene	ND		0.0667	0.0436		mg/Kg		65	20 - 130
Naphthalene	ND		0.0667	0.0408		mg/Kg		61	40 - 120
Phenanthrene	ND		0.0667	0.0481		mg/Kg		72	50 - 120
Pyrene	ND		0.0667	0.0575		mg/Kg		86	40 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*67*		*35 - 120*
Nitrobenzene-d5	*59*		*30 - 120*
Terphenyl-d14	*77*		*40 - 135*

Lab Sample ID: 440-10043-A-15-C MSD
Matrix: Solid
Analysis Batch: 23419

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 23116

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		0.0666	0.0469		mg/Kg		70	45 - 120	0	25
Acenaphthylene	ND		0.0666	0.0437		mg/Kg		66	45 - 120	4	20
Anthracene	ND		0.0666	0.0470		mg/Kg		71	55 - 120	12	25
Benzo[a]anthracene	ND		0.0666	0.0456		mg/Kg		68	50 - 120	1	25
Benzo[a]pyrene	ND		0.0666	0.0458		mg/Kg		69	45 - 125	1	25
Benzo[b]fluoranthene	ND		0.0666	0.0434		mg/Kg		65	45 - 125	1	30
Benzo[g,h,i]perylene	ND		0.0666	0.0429		mg/Kg		64	25 - 130	5	30
Benzo[k]fluoranthene	ND		0.0666	0.0523		mg/Kg		78	45 - 125	4	30
Chrysene	ND		0.0666	0.0503		mg/Kg		75	55 - 120	1	25
Dibenz(a,h)anthracene	ND		0.0666	0.0458		mg/Kg		69	25 - 135	7	30
Fluoranthene	ND		0.0666	0.0468		mg/Kg		70	45 - 120	9	25
Fluorene	ND		0.0666	0.0436		mg/Kg		66	50 - 120	5	25
Indeno[1,2,3-cd]pyrene	ND		0.0666	0.0455		mg/Kg		68	20 - 130	4	30
Naphthalene	ND		0.0666	0.0436		mg/Kg		65	40 - 120	7	25
Phenanthrene	ND		0.0666	0.0449		mg/Kg		68	50 - 120	7	25
Pyrene	ND		0.0666	0.0550		mg/Kg		83	40 - 125	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*70*		*35 - 120*
Nitrobenzene-d5	*60*		*30 - 120*
Terphenyl-d14	*74*		*40 - 135*

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

Lab Sample ID: MB 440-22101/1-A
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22101

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 14:51	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*90*		*40 - 140*	*04/26/12 10:56*	*04/27/12 14:51*	*1*

Lab Sample ID: LCS 440-22101/2-A
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22101

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	33.3	28.2		mg/Kg		85	45 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*87*		*40 - 140*

Lab Sample ID: 440-9432-A-7-A MS
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22101

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	110		33.3	148		mg/Kg		111	40 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*79*		*40 - 140*

Lab Sample ID: 440-9432-A-7-B MSD
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 22101

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	110		33.3	134		mg/Kg		66	40 - 120	11	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*78*		*40 - 140*

Lab Sample ID: MB 440-22389/1-A
Matrix: Solid
Analysis Batch: 22500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22389

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/27/12 11:30	04/28/12 08:55	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/27/12 11:30	04/28/12 08:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*84*		*40 - 140*	*04/27/12 11:30*	*04/28/12 08:55*	*1*

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

Lab Sample ID: LCS 440-22389/2-A
Matrix: Solid
Analysis Batch: 22500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	33.3	25.5		mg/Kg		77	45 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*80*		*40 - 140*

Lab Sample ID: 440-9459-10 MS
Matrix: Solid
Analysis Batch: 22500

Client Sample ID: HA-16-0
Prep Type: Total/NA
Prep Batch: 22389

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	89		33.3	234	F	mg/Kg		434	40 - 120

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

Lab Sample ID: 440-9459-10 MSD
Matrix: Solid
Analysis Batch: 22500

Client Sample ID: HA-16-0
Prep Type: Total/NA
Prep Batch: 22389

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	89		33.3	209	F	mg/Kg		359	40 - 120	11	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*96*		*40 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-22211/1-A ^5
Matrix: Solid
Analysis Batch: 23476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0		mg/Kg		04/26/12 16:47	05/02/12 20:26	5

Lab Sample ID: LCS 440-22211/2-A ^5
Matrix: Solid
Analysis Batch: 23476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	49.3	56.9		mg/Kg		115	80 - 120

Lab Sample ID: 440-9459-1 MS
Matrix: Solid
Analysis Batch: 23528

Client Sample ID: HA-17-0
Prep Type: Total/NA
Prep Batch: 22211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4200		50.5	3150	4	mg/Kg		-2147	75 - 125

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

Lab Sample ID: 440-9459-1 MSD
Matrix: Solid
Analysis Batch: 23528

Client Sample ID: HA-17-0
Prep Type: Total/NA
Prep Batch: 22211

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	4200		49.3	1820	4 F	mg/Kg		-4907	75 - 125	54	20

GC/MS Semi VOA

Prep Batch: 21886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-1	HA-17-0	Total/NA	Solid	3546	
440-9459-2	HA-17-1	Total/NA	Solid	3546	
440-9459-3	HA-17-4.5	Total/NA	Solid	3546	
440-9459-4	HA-14-0	Total/NA	Solid	3546	
440-9459-5	HA-14-1	Total/NA	Solid	3546	
440-9459-6	HA-14-4.5	Total/NA	Solid	3546	
440-9459-7	HA-15-0	Total/NA	Solid	3546	
440-9459-8	HA-15-1	Total/NA	Solid	3546	
440-9459-9	HA-15-4.5	Total/NA	Solid	3546	
440-9459-10	HA-16-0	Total/NA	Solid	3546	
440-9459-11	HA-16-1	Total/NA	Solid	3546	
440-9459-12	HA-16-4.5	Total/NA	Solid	3546	
440-9656-A-11-A MS	Matrix Spike	Total/NA	Solid	3546	
440-9656-A-11-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
LCS 440-21886/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 440-21886/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 22103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-1	HA-17-0	Total/NA	Solid	8270C SIM	21886
440-9459-2	HA-17-1	Total/NA	Solid	8270C SIM	21886
440-9459-3	HA-17-4.5	Total/NA	Solid	8270C SIM	21886
440-9459-4	HA-14-0	Total/NA	Solid	8270C SIM	21886
440-9459-5	HA-14-1	Total/NA	Solid	8270C SIM	21886
440-9459-6	HA-14-4.5	Total/NA	Solid	8270C SIM	21886
440-9459-7	HA-15-0	Total/NA	Solid	8270C SIM	21886
440-9459-8	HA-15-1	Total/NA	Solid	8270C SIM	21886
440-9459-9	HA-15-4.5	Total/NA	Solid	8270C SIM	21886
440-9459-10	HA-16-0	Total/NA	Solid	8270C SIM	21886
440-9459-11	HA-16-1	Total/NA	Solid	8270C SIM	21886
440-9459-12	HA-16-4.5	Total/NA	Solid	8270C SIM	21886
440-9656-A-11-A MS	Matrix Spike	Total/NA	Solid	8270C SIM	21886
440-9656-A-11-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8270C SIM	21886
LCS 440-21886/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	21886
MB 440-21886/1-A	Method Blank	Total/NA	Solid	8270C SIM	21886

Prep Batch: 23116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-13	HA-18-0	Total/NA	Solid	3546	
440-9459-14	HA-18-1	Total/NA	Solid	3546	
440-9459-15	HA-18-4.5	Total/NA	Solid	3546	
440-10043-A-15-B MS	Matrix Spike	Total/NA	Solid	3546	
440-10043-A-15-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
LCS 440-23116/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 440-23116/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 23419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-13	HA-18-0	Total/NA	Solid	8270C SIM	23116
440-9459-14	HA-18-1	Total/NA	Solid	8270C SIM	23116
440-9459-15	HA-18-4.5	Total/NA	Solid	8270C SIM	23116
440-10043-A-15-B MS	Matrix Spike	Total/NA	Solid	8270C SIM	23116

GC/MS Semi VOA (Continued)

Analysis Batch: 23419 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-10043-A-15-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270C SIM	23116
LCS 440-23116/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	23116
MB 440-23116/1-A	Method Blank	Total/NA	Solid	8270C SIM	23116

GC Semi VOA

Prep Batch: 22101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9432-A-7-A MS	Matrix Spike	Total/NA	Solid	CA LUFT	
440-9432-A-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	CA LUFT	
440-9459-1	HA-17-0	Total/NA	Solid	CA LUFT	
440-9459-2	HA-17-1	Total/NA	Solid	CA LUFT	
440-9459-3	HA-17-4.5	Total/NA	Solid	CA LUFT	
440-9459-4	HA-14-0	Total/NA	Solid	CA LUFT	
440-9459-5	HA-14-1	Total/NA	Solid	CA LUFT	
440-9459-6	HA-14-4.5	Total/NA	Solid	CA LUFT	
440-9459-7	HA-15-0	Total/NA	Solid	CA LUFT	
LCS 440-22101/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-22101/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Analysis Batch: 22374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9432-A-7-A MS	Matrix Spike	Total/NA	Solid	8015B	22101
440-9432-A-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	22101
440-9459-1	HA-17-0	Total/NA	Solid	8015B	22101
440-9459-2	HA-17-1	Total/NA	Solid	8015B	22101
440-9459-3	HA-17-4.5	Total/NA	Solid	8015B	22101
440-9459-4	HA-14-0	Total/NA	Solid	8015B	22101
440-9459-5	HA-14-1	Total/NA	Solid	8015B	22101
440-9459-6	HA-14-4.5	Total/NA	Solid	8015B	22101
440-9459-7	HA-15-0	Total/NA	Solid	8015B	22101
LCS 440-22101/2-A	Lab Control Sample	Total/NA	Solid	8015B	22101
MB 440-22101/1-A	Method Blank	Total/NA	Solid	8015B	22101

Prep Batch: 22389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-8	HA-15-1	Total/NA	Solid	CA LUFT	
440-9459-9	HA-15-4.5	Total/NA	Solid	CA LUFT	
440-9459-10	HA-16-0	Total/NA	Solid	CA LUFT	
440-9459-10 MS	HA-16-0	Total/NA	Solid	CA LUFT	
440-9459-10 MSD	HA-16-0	Total/NA	Solid	CA LUFT	
440-9459-11	HA-16-1	Total/NA	Solid	CA LUFT	
440-9459-12	HA-16-4.5	Total/NA	Solid	CA LUFT	
440-9459-13	HA-18-0	Total/NA	Solid	CA LUFT	
440-9459-14	HA-18-1	Total/NA	Solid	CA LUFT	
440-9459-15	HA-18-4.5	Total/NA	Solid	CA LUFT	
LCS 440-22389/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-22389/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Analysis Batch: 22500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-8	HA-15-1	Total/NA	Solid	8015B	22389

GC Semi VOA (Continued)

Analysis Batch: 22500 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-9	HA-15-4.5	Total/NA	Solid	8015B	22389
440-9459-10	HA-16-0	Total/NA	Solid	8015B	22389
440-9459-10 MS	HA-16-0	Total/NA	Solid	8015B	22389
440-9459-10 MSD	HA-16-0	Total/NA	Solid	8015B	22389
440-9459-11	HA-16-1	Total/NA	Solid	8015B	22389
440-9459-12	HA-16-4.5	Total/NA	Solid	8015B	22389
440-9459-13	HA-18-0	Total/NA	Solid	8015B	22389
440-9459-14	HA-18-1	Total/NA	Solid	8015B	22389
LCS 440-22389/2-A	Lab Control Sample	Total/NA	Solid	8015B	22389
MB 440-22389/1-A	Method Blank	Total/NA	Solid	8015B	22389

Analysis Batch: 22859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-15	HA-18-4.5	Total/NA	Solid	8015B	22389

Metals

Prep Batch: 22211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-1	HA-17-0	Total/NA	Solid	3050B	
440-9459-1 MS	HA-17-0	Total/NA	Solid	3050B	
440-9459-1 MSD	HA-17-0	Total/NA	Solid	3050B	
440-9459-2	HA-17-1	Total/NA	Solid	3050B	
440-9459-3	HA-17-4.5	Total/NA	Solid	3050B	
440-9459-4	HA-14-0	Total/NA	Solid	3050B	
440-9459-5	HA-14-1	Total/NA	Solid	3050B	
440-9459-6	HA-14-4.5	Total/NA	Solid	3050B	
440-9459-7	HA-15-0	Total/NA	Solid	3050B	
440-9459-8	HA-15-1	Total/NA	Solid	3050B	
440-9459-9	HA-15-4.5	Total/NA	Solid	3050B	
440-9459-10	HA-16-0	Total/NA	Solid	3050B	
440-9459-11	HA-16-1	Total/NA	Solid	3050B	
440-9459-12	HA-16-4.5	Total/NA	Solid	3050B	
440-9459-13	HA-18-0	Total/NA	Solid	3050B	
440-9459-14	HA-18-1	Total/NA	Solid	3050B	
440-9459-15	HA-18-4.5	Total/NA	Solid	3050B	
LCS 440-22211/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-22211/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 23476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-2	HA-17-1	Total/NA	Solid	6010B	22211
440-9459-3	HA-17-4.5	Total/NA	Solid	6010B	22211
440-9459-4	HA-14-0	Total/NA	Solid	6010B	22211
440-9459-5	HA-14-1	Total/NA	Solid	6010B	22211
440-9459-6	HA-14-4.5	Total/NA	Solid	6010B	22211
440-9459-7	HA-15-0	Total/NA	Solid	6010B	22211
440-9459-8	HA-15-1	Total/NA	Solid	6010B	22211
440-9459-9	HA-15-4.5	Total/NA	Solid	6010B	22211
440-9459-10	HA-16-0	Total/NA	Solid	6010B	22211
440-9459-11	HA-16-1	Total/NA	Solid	6010B	22211
440-9459-12	HA-16-4.5	Total/NA	Solid	6010B	22211

Metals (Continued)

Analysis Batch: 23476 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-13	HA-18-0	Total/NA	Solid	6010B	22211
440-9459-14	HA-18-1	Total/NA	Solid	6010B	22211
440-9459-15	HA-18-4.5	Total/NA	Solid	6010B	22211
LCS 440-22211/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	22211
MB 440-22211/1-A ^5	Method Blank	Total/NA	Solid	6010B	22211

Analysis Batch: 23528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9459-1	HA-17-0	Total/NA	Solid	6010B	22211
440-9459-1 MS	HA-17-0	Total/NA	Solid	6010B	22211
440-9459-1 MSD	HA-17-0	Total/NA	Solid	6010B	22211

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
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
RL	Reporting Limit
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: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9459-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 12.002r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

4404454

137847

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 Nam: Denis Brown

INCIDENT # (ENV SERVICES): 97093937

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4/18/2012

PAGE: 1 of 2

PO #:

SAP #:

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 2703 Martin Luther King Jr. Way, Oakland, CA

State:

GLOBAL ID NO.: T0600101876

ADDRESS: 5900 Hollis St., Suite A, Emeryville, CA

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.: 240781-95-12.05

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

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pshcaefer@craworld.com

SAMPLER NAME(S) (Print): Belew Yifru

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 :

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

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C°: 3.2°C

3.0C

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPHmo (EPA 8015B)	TPH -D (8015B)	Total Lead (EPA 6010B)	Polycyclic aromatic hydrocarbons (8270C SIM PAHS)	Container PID Readings or Laboratory Notes
	HA-17-0	4/18/12	910	Soil				X		1	X	X	X	X	
	HA-17-1	4/18/12	915	SOIL				X		1	X	X	X	X	
	HA-17-4.5	4/18/12	925	SOIL				X		1	X	X	X	X	
	HA-14-0	4/18/12	935	SOIL				X		1	X	X	X	X	
	HA-14-1	4/18/12	940	SOIL				X		1	X	X	X	X	
	HA-14-4.5	4/18/12	950	SOIL				X		1	X	X	X	X	
	HA-15-0	4/18/12	1005	SOIL				X		1	X	X	X	X	
	HA-15-1	4/18/12	1010	SOIL				X		1	X	X	X	X	
	HA-15-4.5	4/18/12	1020	SOIL				X		1	X	X	X	X	
														1	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	SECURE LOCATION EMERYVILL OFFICE	4/18/2012	14:15
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4-19-12	1440
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	TASP	4-19-12	1745

Tom Mueller 1600 4-20-12

04/24/12 10:30

05/2/06 Revision

5/4/2012

Shell Oil Products Chain Of Custody Record

137847

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: Denis Brown

INCIDENT # (ENV SERVICES): 9 7 0 9 3 3 9 7 ☐ CHECK IF NO INCIDENT # APPLIES

PO #:
SAP #:

DATE: 4/18/2012
PAGE: 2 of 2

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

SITE ADDRESS: Street and City: 2703 Martin Luther King Jr. Way, Oakland, CA
State:
GLOBAL ID NO.: T0600101876
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: 240781-95-12.05
SAMPLER NAME(S) (Print): Belew Yifru
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 :
- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C°: 3.4°C

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPHmo (EPA 8015B)	TPH -D (8015B)	Total Lead (EPA 6010B)	Polycyclic aromatic hydrocarbons (8270C SIM PAHS)	Container PID Readings or Laboratory Notes
	HA-16-0	4/18/12	1045	Soil				X		1	X	X	X	X	
	HA-16-1	4/18/12	1055	SOIL				X		1	X	X	X	X	
	HA-16-4.5	4/18/12	1105	SOIL				X		1	X	X	X	X	
	HA-18-0	4/18/12	1115	SOIL				X		1	X	X	X	X	
	HA-18-1	4/18/12	1120	SOIL				X		1	X	X	X	X	
	HA-18-4.5	4/18/12	1135	SOIL				X		1	X	X	X	X	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	SECURE LOCATION EMERYVILLE OFFICE	4/18/2012	14:15
[signature]	[signature]	4-19-12	1440
[signature]	[signature] TASF	4-19-12	1745

05/2/08 Revision

[signature] 1600 4-20-12

[signature] 04/21/12 10:50 (B)

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5/4/2012

Login Sample Receipt Checklist

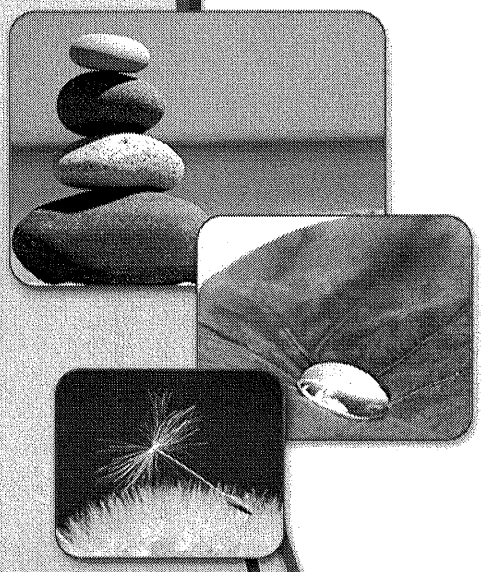
Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-9459-1

Login Number: 9459
List Number: 1
Creator: Robb, Kathleen

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	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	
There are no discrepancies between the sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	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: 440-9460-1
Client Project/Site: 2703 MLK Jr. Way, Oakland, CA

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

Attn: Peter Schaefrer

Philip Sanelle

Authorized for release by:
5/1/2012 5:25:34 PM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9460-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-9460-1	CRA-A	Solid	04/18/12 12:00	04/21/12 10:50

Job ID: 440-9460-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-9460-1

Comments
No additional comments.

Receipt
The sample was received on 4/21/2012 10:50 AM; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.60 C.

GC/MS VOA
No analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 21794 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample ID: CRA-A
Date Collected: 04/18/12 12:00
Date Received: 04/21/12 10:50

Lab Sample ID: 440-9460-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.099		mg/Kg			04/27/12 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*80 - 125*		*04/27/12 13:35*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*04/27/12 13:35*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/27/12 13:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00099		mg/Kg			04/27/12 13:35	1
Ethylbenzene	ND		0.00099		mg/Kg			04/27/12 13:35	1
Toluene	ND		0.00099		mg/Kg			04/27/12 13:35	1
Xylenes, Total	ND		0.0020		mg/Kg			04/27/12 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/27/12 13:35*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 125*		*04/27/12 13:35*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/27/12 13:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 23:46	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*99*		*40 - 140*	*04/26/12 10:56*	*04/27/12 23:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Arsenic	**3.5**		2.1		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Barium	**200**		1.0		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Beryllium	**0.57**		0.52		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Cadmium	ND		0.52		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Chromium	**37**		1.0		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Cobalt	**21**		1.0		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Copper	**17**		2.1		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Lead	**9.6**		2.1		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Molybdenum	ND		2.1		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Nickel	**48**		2.1		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Selenium	ND	L	2.1		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Thallium	ND		10		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Vanadium	**29**		1.0		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Zinc	**33**		5.2		mg/Kg		04/25/12 08:27	04/26/12 15:16	5
Silver	ND		1.0		mg/Kg		04/25/12 08:27	04/26/12 15:16	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.028**		0.020		mg/Kg		04/23/12 16:23	04/25/12 18:30	1

Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9460-1

Client Sample ID: CRA-A
Date Collected: 04/18/12 12:00
Date Received: 04/21/12 10:50

Lab Sample ID: 440-9460-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.04 g	10 mL	22299	04/27/12 13:35	WC	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.04 g	10 mL	22300	04/27/12 13:35	YK	TAL IRV
Total/NA	Prep	CA LUFT			30.01 g	1 mL	22101	04/26/12 10:56	TM	TAL IRV
Total/NA	Analysis	8015B		1			22374	04/27/12 23:46	ES	TAL IRV
Total/NA	Prep	7471A			0.49 g	50 mL	21382	04/23/12 16:23	SN	TAL IRV
Total/NA	Analysis	7471A		1			21971	04/25/12 18:30	MP	TAL IRV
Total/NA	Prep	3050B			1.93 g	50 mL	21794	04/25/12 08:27	DT	TAL IRV
Total/NA	Analysis	6010B		5			22186	04/26/12 15:16	VS	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 440-22299/4
Matrix: Solid
Analysis Batch: 22299

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			04/27/12 09:21	1
Ethylbenzene	ND		0.0010		mg/Kg			04/27/12 09:21	1
m,p-Xylene	ND		0.0020		mg/Kg			04/27/12 09:21	1
o-Xylene	ND		0.0010		mg/Kg			04/27/12 09:21	1
Toluene	ND		0.0010		mg/Kg			04/27/12 09:21	1
Xylenes, Total	ND		0.0020		mg/Kg			04/27/12 09:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*		*04/27/12 09:21*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 125*		*04/27/12 09:21*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*04/27/12 09:21*	*1*

Lab Sample ID: LCS 440-22299/5
Matrix: Solid
Analysis Batch: 22299

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	0.0532		mg/Kg		106	65 - 120
Ethylbenzene	0.0500	0.0516		mg/Kg		103	70 - 125
m,p-Xylene	0.100	0.109		mg/Kg		109	70 - 125
o-Xylene	0.0500	0.0562		mg/Kg		112	70 - 125
Toluene	0.0500	0.0510		mg/Kg		102	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 125*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: 440-9416-A-2 MS
Matrix: Solid
Analysis Batch: 22299

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0498	0.0506		mg/Kg		102	65 - 130
Ethylbenzene	ND		0.0498	0.0494		mg/Kg		99	70 - 135
m,p-Xylene	ND		0.0996	0.107		mg/Kg		107	70 - 130
o-Xylene	ND		0.0498	0.0542		mg/Kg		109	65 - 130
Toluene	ND		0.0498	0.0494		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 125*
Toluene-d8 (Surr)	*105*		*80 - 120*

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

Lab Sample ID: 440-9416-A-2 MSD
Matrix: Solid
Analysis Batch: 22299

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		0.0495	0.0503		mg/Kg		102	65 - 130	1	20
Ethylbenzene	ND		0.0495	0.0491		mg/Kg		99	70 - 135	1	25
m,p-Xylene	ND		0.0990	0.105		mg/Kg		106	70 - 130	2	25
o-Xylene	ND		0.0495	0.0539		mg/Kg		109	65 - 130	1	25
Toluene	ND		0.0495	0.0489		mg/Kg		99	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 125*
Toluene-d8 (Surr)	*106*		*80 - 120*

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

Lab Sample ID: MB 440-22300/4
Matrix: Solid
Analysis Batch: 22300

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			04/27/12 09:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*80 - 125*		*04/27/12 09:21*	*1*
4-Bromofluorobenzene (Surr)	*109*		*75 - 120*		*04/27/12 09:21*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*04/27/12 09:21*	*1*

Lab Sample ID: LCS 440-22300/6
Matrix: Solid
Analysis Batch: 22300

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	1.04		mg/Kg		104	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*80 - 125*
4-Bromofluorobenzene (Surr)	*111*		*75 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: 440-9416-A-2 MS
Matrix: Solid
Analysis Batch: 22300

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.44	2.95		mg/Kg		86	55 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*80 - 125*

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

Lab Sample ID: 440-9416-A-2 MS
Matrix: Solid
Analysis Batch: 22300

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: 440-9416-A-2 MSD
Matrix: Solid
Analysis Batch: 22300

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		3.42	2.91		mg/Kg		85	55 - 140	2	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*80 - 125*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

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

Lab Sample ID: MB 440-22101/1-A
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22101

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 14:51	1
ORO (C29-C40)	ND		5.0		mg/Kg		04/26/12 10:56	04/27/12 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*90*		*40 - 140*	*04/26/12 10:56*	*04/27/12 14:51*	*1*

Lab Sample ID: LCS 440-22101/2-A
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22101

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	33.3	28.2		mg/Kg		85	45 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*87*		*40 - 140*

Lab Sample ID: 440-9432-A-7-A MS
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22101

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28)	110		33.3	148		mg/Kg		111	40 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*79*		*40 - 140*

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

Lab Sample ID: 440-9432-A-7-B MSD
Matrix: Solid
Analysis Batch: 22374

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 22101

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28)	110		33.3	134		mg/Kg		66	40 - 120	11	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*78*		*40 - 140*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-21794/1-A ^5
Matrix: Solid
Analysis Batch: 22186

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Arsenic	ND		2.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Barium	ND		1.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Beryllium	ND		0.51		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Cadmium	ND		0.51		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Chromium	ND		1.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Cobalt	ND		1.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Copper	ND		2.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Lead	ND		2.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Molybdenum	ND		2.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Nickel	ND		2.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Selenium	ND		2.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Thallium	ND		10		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Vanadium	ND		1.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Zinc	ND		5.1		mg/Kg		04/25/12 08:27	04/26/12 14:18	5
Silver	ND		1.0		mg/Kg		04/25/12 08:27	04/26/12 14:18	5

Lab Sample ID: LCS 440-21794/2-A ^5
Matrix: Solid
Analysis Batch: 22186

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	49.3	45.1		mg/Kg		92	80 - 120
Arsenic	49.3	45.1		mg/Kg		92	80 - 120
Barium	49.3	47.0		mg/Kg		96	80 - 120
Beryllium	49.3	46.7		mg/Kg		95	80 - 120
Cadmium	49.3	45.7		mg/Kg		93	80 - 120
Chromium	49.3	48.2		mg/Kg		98	80 - 120
Cobalt	49.3	45.9		mg/Kg		93	80 - 120
Copper	49.3	46.1		mg/Kg		94	80 - 120
Lead	49.3	52.0		mg/Kg		105	80 - 120
Molybdenum	49.3	48.7		mg/Kg		99	80 - 120
Nickel	49.3	46.8		mg/Kg		95	80 - 120
Selenium	49.3	43.6		mg/Kg		89	80 - 120
Thallium	49.3	46.9		mg/Kg		95	80 - 120
Vanadium	49.3	46.4		mg/Kg		94	80 - 120
Zinc	49.3	44.1		mg/Kg		90	80 - 120

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

Lab Sample ID: LCS 440-21794/2-A ^5
Matrix: Solid
Analysis Batch: 22186

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	24.6	23.4		mg/Kg		95	80 - 120

Lab Sample ID: 440-9523-A-2-C MS ^5
Matrix: Solid
Analysis Batch: 22186

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21794

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		49.3	12.4	F	mg/Kg		25	75 - 125
Arsenic	12		49.3	50.7		mg/Kg		79	75 - 125
Barium	200		49.3	221	4	mg/Kg		46	75 - 125
Beryllium	0.61		49.3	42.7		mg/Kg		85	75 - 125
Cadmium	1.2		49.3	41.2		mg/Kg		81	75 - 125
Chromium	120		49.3	216	F	mg/Kg		196	75 - 125
Cobalt	12		49.3	53.5		mg/Kg		85	75 - 125
Copper	55		49.3	146	F	mg/Kg		186	75 - 125
Lead	11		49.3	54.4		mg/Kg		88	75 - 125
Molybdenum	ND		49.3	40.0		mg/Kg		81	75 - 125
Nickel	27		49.3	61.5	F	mg/Kg		71	75 - 125
Selenium	ND		49.3	37.1		mg/Kg		75	75 - 125
Thallium	ND		49.3	35.9	F	mg/Kg		73	75 - 125
Vanadium	47		49.3	89.1		mg/Kg		85	75 - 125
Zinc	58		49.3	96.2		mg/Kg		77	75 - 125
Silver	ND		24.6	20.5		mg/Kg		83	75 - 125

Lab Sample ID: 440-9523-A-2-D MSD ^5
Matrix: Solid
Analysis Batch: 22186

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21794

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		50.5	12.9	F	mg/Kg		26	75 - 125	4	20
Arsenic	12		50.5	50.9		mg/Kg		78	75 - 125	1	20
Barium	200		50.5	210	F	mg/Kg		25	75 - 125	5	20
Beryllium	0.61		50.5	43.9		mg/Kg		86	75 - 125	3	20
Cadmium	1.2		50.5	41.4		mg/Kg		80	75 - 125	1	20
Chromium	120		50.5	293	F	mg/Kg		342	75 - 125	30	20
Cobalt	12		50.5	55.7		mg/Kg		87	75 - 125	4	20
Copper	55		50.5	259	F	mg/Kg		404	75 - 125	56	20
Lead	11		50.5	71.2	F	mg/Kg		119	75 - 125	27	20
Molybdenum	ND		50.5	41.3		mg/Kg		82	75 - 125	3	20
Nickel	27		50.5	78.3	F	mg/Kg		102	75 - 125	24	20
Selenium	ND		50.5	36.4	F	mg/Kg		72	75 - 125	2	20
Thallium	ND		50.5	37.3	F	mg/Kg		74	75 - 125	4	20
Vanadium	47		50.5	88.6		mg/Kg		82	75 - 125	1	20
Zinc	58		50.5	120	F	mg/Kg		122	75 - 125	22	20
Silver	ND		25.3	20.8		mg/Kg		82	75 - 125	2	20

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

Lab Sample ID: 440-9523-A-1-A DU ^5
Matrix: Solid
Analysis Batch: 22186

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 21794

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony			ND		mg/Kg			
Arsenic			6.28		mg/Kg			
Barium			112		mg/Kg			
Beryllium			ND		mg/Kg			
Cadmium			ND		mg/Kg			
Chromium			734		mg/Kg			
Cobalt			9.71		mg/Kg			
Copper			1120		mg/Kg			
Lead			4.70		mg/Kg			
Molybdenum			ND		mg/Kg			
Nickel			35.8		mg/Kg			
Selenium			ND		mg/Kg			
Thallium			ND		mg/Kg			
Vanadium			33.4		mg/Kg			
Zinc			52.7		mg/Kg			
Silver			ND		mg/Kg			

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-21382/1-A
Matrix: Solid
Analysis Batch: 21971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/23/12 16:23	04/25/12 17:29	1

Lab Sample ID: LCS 440-21382/2-A
Matrix: Solid
Analysis Batch: 21971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21382

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.732		mg/Kg		92	80 - 120

Lab Sample ID: 440-9090-A-1-D MS
Matrix: Solid
Analysis Batch: 21971

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21382

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.784	0.634		mg/Kg		78	70 - 130

Lab Sample ID: 440-9090-A-1-E MSD
Matrix: Solid
Analysis Batch: 21971

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21382

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.784	0.643		mg/Kg		80	70 - 130	1	20

GC/MS VOA

Analysis Batch: 22299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9416-A-2 MS	Matrix Spike	Total/NA	Solid	8260B	
440-9416-A-2 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	
440-9460-1	CRA-A	Total/NA	Solid	8260B	
LCS 440-22299/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 440-22299/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 22300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9416-A-2 MS	Matrix Spike	Total/NA	Solid	8260B/CA_LUFT MS	
440-9416-A-2 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B/CA_LUFT MS	
440-9460-1	CRA-A	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-22300/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-22300/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 22101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9432-A-7-A MS	Matrix Spike	Total/NA	Solid	CA LUFT	
440-9432-A-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	CA LUFT	
440-9460-1	CRA-A	Total/NA	Solid	CA LUFT	
LCS 440-22101/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-22101/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Analysis Batch: 22374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9432-A-7-A MS	Matrix Spike	Total/NA	Solid	8015B	22101
440-9432-A-7-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	22101
440-9460-1	CRA-A	Total/NA	Solid	8015B	22101
LCS 440-22101/2-A	Lab Control Sample	Total/NA	Solid	8015B	22101
MB 440-22101/1-A	Method Blank	Total/NA	Solid	8015B	22101

Metals

Prep Batch: 21382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9090-A-1-D MS	Matrix Spike	Total/NA	Solid	7471A	
440-9090-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	
440-9460-1	CRA-A	Total/NA	Solid	7471A	
LCS 440-21382/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 440-21382/1-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 21794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9460-1	CRA-A	Total/NA	Solid	3050B	
440-9523-A-1-A DU ^5	Duplicate	Total/NA	Solid	3050B	
440-9523-A-2-C MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-9523-A-2-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 21794 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-21794/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-21794/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 21971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9090-A-1-D MS	Matrix Spike	Total/NA	Solid	7471A	21382
440-9090-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	21382
440-9460-1	CRA-A	Total/NA	Solid	7471A	21382
LCS 440-21382/2-A	Lab Control Sample	Total/NA	Solid	7471A	21382
MB 440-21382/1-A	Method Blank	Total/NA	Solid	7471A	21382

Analysis Batch: 22186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-9460-1	CRA-A	Total/NA	Solid	6010B	21794
440-9523-A-1-A DU ^5	Duplicate	Total/NA	Solid	6010B	21794
440-9523-A-2-C MS ^5	Matrix Spike	Total/NA	Solid	6010B	21794
440-9523-A-2-D MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	21794
LCS 440-21794/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	21794
MB 440-21794/1-A ^5	Method Blank	Total/NA	Solid	6010B	21794

Qualifiers

Metals

Qualifier	Qualifier Description
L	A negative instrument reading had an absolute value greater than the reporting limit
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
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
RL	Reporting Limit
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: 2703 MLK Jr. Way, Oakland, CA

TestAmerica Job ID: 440-9460-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 12.002r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

4460 - 4460

137846

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: Denis Brown

INCIDENT # (ENV SERVICES): 97093397 ☐ CHECK IF NO INCIDENT # APPLIES

PO #:

SAP #:

DATE: 4/18/2012

PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 2703 Marthin Luther King Jr. way, Oakland

State: CA

GLOBAL ID NO.: T0600101876

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.: 240781-95-10.05

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

TELEPHONE: 510-420-3319

FAX: 510-420-9170

E-MAIL: pshcaefer@craworld.com

SAMPLER NAME(S) (Print): Belew Yifru

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 :

cc: Kari Dupler, kdupler@craworld.com

call composite ID and field point name: CRA-A

- ☑ 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 - 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)			Container PID Readings or Laboratory Notes
	CRA-A	4/18/2012	12:00	soil						1	X	X	X											X	X						Please create 4-pt composite sample. please call composite sample CRA-A

TEMPERATURE ON RECEIPT C°: 3.2°C 3.4°C

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	SECURE LOCATION EMERYVILLE OFFICE	4/18/2012	14:15
		4-19-12	1440
		4-19-12	1745

4-20-12 1600

04/21/12 10:10

05/2/06 Revision

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5/1/2012

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-9460-1

Login Number: 9460
List Number: 1
Creator: Robb, Kathleen

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	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	
There are no discrepancies between the sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	