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TRANSMITTAL

DATE: January 27, 2011

REFERENCE NO.: 240612

PROJECT NAME: 1784 150th Avenue, San Leandro

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

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Alameda County
Environmental Health

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QUANTITY	DESCRIPTION
1	Soil Vapor Probe Installation and Sampling Report

- ☐ As Requested
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- ☐
- ☐

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

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

Completed by: Peter Schaefer Signed: John Schaefer

Filing: **Correspondence File**

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

Re: Shell-branded Service Station
1784 150th Avenue
San Leandro, California
SAP Code 136019
Incident No. 98996068
ACEH Case No. RO0000367

Dear Mr. Wickham:

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

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

Sincerely,

Denis L. Brown
Senior Program Manager

SOIL VAPOR PROBE INSTALLATION AND SAMPLING REPORT

SHELL-BRANDED SERVICE STATION
1784 150TH AVENUE
SAN LEANDRO, CALIFORNIA

SAP CODE	136019
INCIDENT NO.	98996068
AGENCY NO.	RO0000367

Prepared by:
Conestoga-Rovers & Associates

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JANUARY 27, 2011
REF. NO. 240612 (19)
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TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF TABLES
(Following Text)

LIST OF APPENDICES

EXECUTIVE SUMMARY

- Two soil vapor probes (SVP-6 and SVP-7) were installed, and one soil vapor probe was reinstalled (SVP-4).
- No constituents of concern were detected in the soil vapor samples from SVP-6 and SVP-7.
- SVP-4 could not be sampled due to water in the sampling tubing.
- Based on these results, no further soil vapor monitoring is warranted.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent soil vapor probe installation and sampling. The purpose of the investigation was to assess the potential for soil gas migration to indoor air during the air sparging and soil vapor extraction (AS/SVE) pilot test and to reinstall soil vapor probe SVP-4. This report presents details of the probe installations and analytical results from our baseline sampling event. CRA followed the scope of work and procedures presented in our July 28, 2010 *Soil Vapor Probe Installation and Soil Vapor Sampling Work Plan*, which was approved by Alameda County Environmental Health in their August 19, 2010 letter.

The site is an operating Shell-branded service station located at the southern corner of 150th Avenue and Freedom Avenue in San Leandro, California (Figure 1). The area surrounding the site is mixed commercial and residential. The site layout includes three fuel underground storage tanks (USTs), a station building, and two dispenser islands (Figure 2).

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

2.0 SOIL VAPOR PROBE INSTALLATION AND SAMPLING

2.1 PERMIT

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

2.2 FIELD DATES

October 1, 2010 (soil vapor probe installation) and November 2, 2010 (baseline soil vapor probe sampling).

2.3 DRILING COMPANY

Gregg Drilling & Testing, Inc.

2.4 PERSONNEL PRESENT

Staff scientist Kari Dupler directed the probe installation working under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHODS

Air- and water-knife.

2.6 NUMBER OF PROBES

CRA installed two soil vapor probes (SVP-6 and SVP-7) and reinstalled one soil vapor probe (SVP-4). Soil vapor probe SVP-7 could not be installed at the planned depth of 5 feet below grade (fbg) due to concrete rubble encountered at 3.6 fbg. The probe was installed above the cement rubble. The probe specifications and soil types encountered are described on the boring logs contained in Appendix C. The probe locations are shown on Figure 2.

2.7 VAPOR PROBE MATERIALS

CRA constructed the vapor probes using ¼-inch diameter Teflon® tubing attached to 1-inch length plastic screen intervals, and #2/12 Monterey sand filter pack. Probe diagrams are provided with boring logs for SVP-6 and SVP-7 in Appendix C. No boring log is provided for SVP-4 since it was reinstalled with the same specifications.

2.8 SCREENED INTERVALS

SVP-6: 5.00 to 5.08 fbg, SVP-7: 3.25 to 3.33 fbg.

2.9 SOIL VAPOR SAMPLING PROCEDURE

On November 2, 2010, CRA sampled soil vapor probes SVP-6 and SVP-7 and attempted to sample SVP-4. During the sampling event, SVP-4 could not be sampled because water was present in the probe's Teflon® tubing. Several attempts were made to clear the water from SVP-4 without success.

Prior to sampling, CRA purged at least three tubing volumes of air from each vapor probe using a vacuum pump. Immediately after purging, CRA collected a soil vapor sample using a laboratory-supplied Tedlar® bag. During sampling, CRA connected the Teflon® tubing for each vapor probe to a lung box containing the Tedlar® bag, and the lung box chamber was connected to the vacuum pump. CRA then drew the sample into the Tedlar® bag by reducing the pressure in the lung box with the vacuum pump. Each sample was labeled, documented on a chain-of-custody, and submitted to Calscience Environmental Laboratories, Inc. of Garden Grove, California for analysis within 72 hours.

To check the system for leaks, CRA placed a containment unit (or shroud) over the soil vapor probe surface casing and sampling manifold. Prior to soil vapor probe purging, CRA introduced helium into the containment unit to obtain a minimum 50 percent helium content level. CRA confirmed the helium content within the containment unit using a helium meter. The helium meter readings are presented in Section 3.2. All samples were analyzed by the laboratory for helium, and CRA presents the results in Section 3.2 and on Table 1.

2.10 SOIL VAPOR SAMPLING ANALYSES

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

2.11 WASTE DISPOSAL

Soil and water-knifing sludge generated during field activities were stored on site in 55-gallon drums, sampled, and profiled for disposal. The laboratory analytical report is presented in Appendix D. The soil was transported by American Integrated Services, Inc. (AIS) to Keller Canyon Landfill in Pittsburg, California for disposal. The water-knifing sludge from was transported by AIS to Crosby & Overton, Inc. in Long Beach, California for disposal. The waste disposal manifests are presented in Appendix E.

3.0 FINDINGS

3.1 SOIL VAPOR

The soil vapor chemical analytical data are summarized in Table 1, and TPHg and BTEX analytical results are presented on Figure 2. SVP-4 could not be sampled due to water in the sampling tubing. The laboratory analytical report is presented in Appendix D.

3.2 LEAK TESTING

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

Probe ID	*Helium concentration in sample (%v)*	*Helium detected in shroud (%v)*	*Maximum acceptable helium concentration in sample (%v)*
SVP-6	<0.0100	65	6.5
SVP-7	<0.0100	50	5.0

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

4.0 CONCLUSIONS AND RECOMMENDATIONS

TPHg and BTEX were not detected in soil vapor samples from soil vapor probes SVP-6 and SVP-7.

Additional soil vapor sampling from these probes was conducted during CRA's November 2010 AS/SVE pilot test, and analytical results will be presented by January 31, 2011 under separate cover in our pilot test report.

No further soil vapor investigation is warranted.

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

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

11/03/08

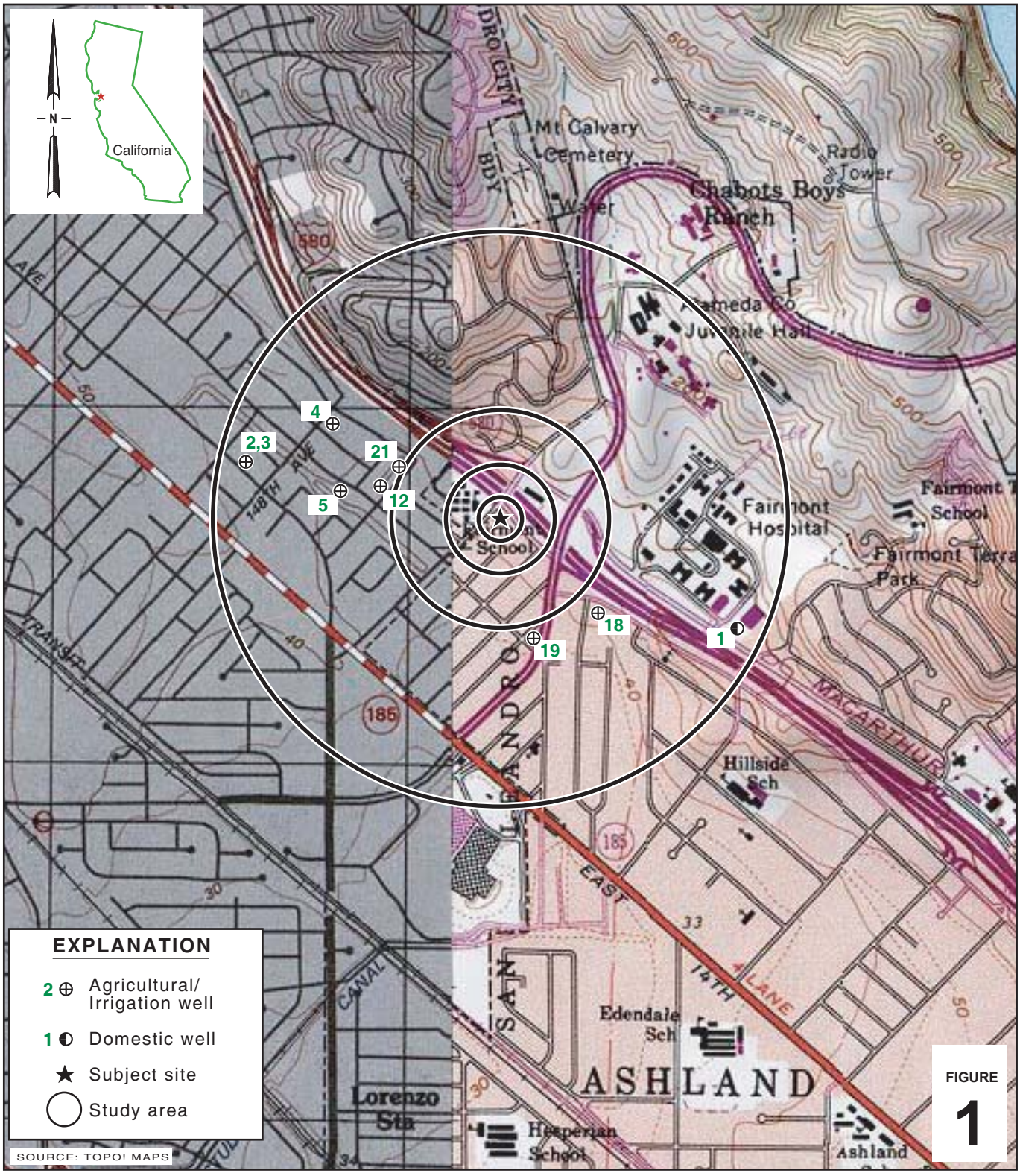

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FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Shell-branded Service Station

1784 150th Avenue

San Leandro, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

01/24/2011

EXPLANATION

SVE-1	Soil vapor extraction well location
SVP-6	Soil vapor probe location
AS-1	Air sparge well location
P-1A	Piezometer location
P-1B	Deeper piezometer location
EW-1	Extraction well location
MW-3	Monitoring well location
MW-1B	Deeper monitoring well location
MW-1	Destroyed well location
B-1	Soil boring location (9/14/2007)
CPT-1	CPT location (8/29-30/2007)
SVP-1	Soil vapor probe location (8/28/2007 & 10/1/2010)
1	Dispenser number
	Product piping (P)
	Water line (W)

Sample ID	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes
SVP-6	<7,000	<16	<19	<22	<43

Notes:
Soil sample ID and concentrations in micrograms per cubic meter
TPHg = Total petroleum hydrocarbons as gasoline
<X = Not detected at reporting limit X

Sample ID	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes
SVP-6	<7,000	<16	<19	<22	<43

Sample ID	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes
SVP-7	<7,000	<16	<19	<22	<43

PORTOFINO CIRCLE
PORTOFINO DRIVE
150TH AVENUE
FREEDOM AVENUE
I-580
Brick Sound Wall
Residential
Residential
Residential
Residential
Residential
(Townhouses)
Residential
(Townhouses)
Residential
(Townhouses)
Storm Drain
Manhole (MH, typ.)
Private Driveway
Shell Station
1784 150th Ave.
Former Dispenser Island
Dispenser Islands
USTs
Station Building
Former W/O UST
Air Comp.
Storage
Parking Lot
Denny's Restaurant
15015 Freedom Ave.
SB-12
BH-5
SB-13
MW-9
SB-25/
MW-13
SB-11
MW-7
SVP-5
SB-24/MW-12
MW-4
MW-8
MW-10
CPT-3
MW-2B
P-4B
P-4A
AS-1
MW-2
P-3A
CPT-2
P-3B
MW-11
EW-2
SVP-1
SVE-1
SVP-6
SVP-7
SVP-2
P-1B
P-1A
EW-1
CPT-1
MW-1
P-2B
SVP-3
P-2A
MW-1B
MW-1A
B-1
SB-23
SVP-4
MW-3
SB-18
SB-17
CPT-5
BH-7
MW-5
CPT-6
MW-6

0 20 40 80
Scale (ft)

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Site Plan

CONESTOGA-ROVERS & ASSOCIATES

Shell-branded Service Station
1784 150th Avenue
San Leandro, California

FIGURE
2

TABLE

TABLE 1

SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
1784 150TH AVENUE, SAN LEANDRO, CALIFORNIA

Sample ID	*Date*	*TPHg* $\mu g/m^3$	*Benzene* $\mu g/m^3$	*Toluene* $\mu g/m^3$	*Ethylbenzene* $\mu g/m^3$	*Total Xylenes* $\mu g/m^3$	*MTBE* $\mu g/m^3$	*Butane*[a] $\mu g/m^3$	*Isobutane*[a] $\mu g/m^3$	*Propane*[a] $\mu g/m^3$	*Methane* %v	*Carbon Dioxide* %v	*Oxygen + Argon* %v	*Helium*[a] %v
SVP-1	9/25/2007	**12,000**	<17	7,000	120	300	<19	67	ND	ND	NA	NA	NA	NA
SVP-1	3/5/2008	<17,000	8.2	1,300	41	95	<10	ND	70.12	ND	NA	NA	NA	NA
SVP-1 DUP[c]	3/5/2008	<18,000	7.9	400	32	65	<11	ND	62.99	ND	NA	NA	NA	NA
SVP-1	5/20/2008	620	<3.9	<4.6	<5.2	<5.2	<4.4	ND	ND	ND	NA	NA	NA	NA
SVP-1	9/17/2008	<270	<4.2	5.7	<5.7	<5.7	<4.8	ND	ND	ND	NA	NA	NA	NA
SVP-1	1/17/2009	<9,800	<2.7	<3.2	<3.7	<15	<12	<20	<20	<46	NA	NA	NA	NA
SVP-2	9/25/2007	760	11	90	14	56	24	ND	ND	ND	NA	NA	NA	NA
SVP-2	3/5/2008	<19,000	<2.7	<3.1	<3.6	<7.3	<12	ND	ND	ND	NA	NA	NA	NA
SVP-2	5/20/2008	830	<6.4	<7.6	<8.8	<8.8	<7.3	ND	ND	ND	NA	NA	NA	NA
SVP-2	9/17/2008	<240	<3.8	<4.5	<5.2	<5.2	<4.3	ND	ND	ND	NA	NA	NA	NA
SVP-2 DUP[c]	9/17/2008	<230	<3.6	<4.3	<5.0	<5.0	<4.1	ND	ND	ND	NA	NA	NA	NA
SVP-2	1/17/2009	<9,400	<2.6	<3.1	<3.6	<14	<12	<19	25	<44	NA	NA	NA	NA
SVP-3	9/25/2007	300	<4.4	<5.2	<6.0	<6.0	<5.0	ND	ND	ND	NA	NA	NA	NA
SVP-3 DUP[c]	9/25/2007	<260	<4.1	<4.9	<5.6	<5.6	<4.6	ND	ND	ND	NA	NA	NA	NA
SVP-3	3/5/2008	<20,000	3.9	32	7.8	38	13	ND	ND	ND	NA	NA	NA	NA
SVP-3	5/20/2008	380	<3.9	<4.6	<5.4	<5.4	<4.4	ND	ND	ND	NA	NA	NA	NA
SVP-3	9/17/2008	<340	<5.4	<6.3	<7.3	<7.3	<6.1	ND	ND	ND	NA	NA	NA	NA
SVP-3	1/17/2009	<9,200	<2.6	<3.0	<3.5	<14	<12	<19	60	<43	NA	NA	NA	NA
SVP-4	9/25/2007	**12,000**	<3.9	13	6.3	31	<4.4	713	ND	ND	NA	NA	NA	NA
SVP-5	9/25/2007	**70,000**	<56	<66	<76	<76	<63	ND	ND	ND	NA	NA	NA	NA
SVP-5	3/5/2008	<17,000	<2.3	2.7	<3.1	<6.3	<10	ND	22.11	ND	NA	NA	NA	NA
SVP-5	9/17/2008	**280,000**	**260**	780	**14,000**	**48,000**	290	8,600[b]	880[b]	ND	NA	NA	NA	NA
SVP-5 (200 ml/min flow)	1/17/2009	<9,100	<2.5	<3.0	<3.4	<14	36	<19	<19	<43	NA	NA	NA	NA
SVP-5 (100 ml/min flow)	1/17/2009	<9,100	<2.5	<3.0	<3.4	<14	51	<19	<19	<43	NA	NA	NA	NA
SVP-5 DUP[c] (200 ml/min flow)	1/17/2009	<9,000	<2.5	<3.0	<3.4	<14	59	<19	<19	<42	NA	NA	NA	NA
SVP-5	10/1/2009	NA	4.6	<19	17	<8.7	NA	NA	NA	NA	NA	NA	NA	<0.0100
SVP-6	11/2/2010	<7,000	<16	<19	<22	<43	NA	NA	NA	NA	<0.500	1.45	20.3	<0.0100
SVP-7	11/2/2010	<7,000	<16	<19	<22	<43	NA	NA	NA	NA	<0.500	<0.500	21.1	<0.0100
Residential Land Use ESL[e]		10,000	84	63,000	980	21,000	9,400	—	—	—	—	—	—	—
Commercial/Industrial Land Use ESL[e]		29,000	280	180,000	3,300	58,000	31,000	—	—	—	—	—	—	—

TABLE 1

SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
1784 150TH AVENUE, SAN LEANDRO, CALIFORNIA

Notes:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method TO-3 GC/FID
Benzene, toluene, ethylbenzene and total xylenes by modified EPA Method TO-15 GC/FID Full Scan
MTBE = Methyl tertiary-butyl ether by modified EPA Method TO-15 GC/FID Full Scan
Butane, isobutane, and propane by modified EPA Method TO-15 GC/FID Full Scan
Methane, carbon dioxide, and oxygen+argon analyzed by ASTM D-1946
Helium analyzed by ASTM D-1946(M)
$\mu g/m^3$ = Micrograms per cubic meter
%v = Percentage by volume.
ND = Not detected; no reporting limit provided.
NA = Not analyzed.
ESL = Environmental screening level
--- = No applicable ESL

a = Compounds not listed in Regional Water Quality Control Board (RWQCB) ESLs; detected quantities estimated by laboratory for 2007 and 2008 samples.
b = The identification is based on presumptive evidence; estimated value
c = Field duplicate
d = San Francisco Bay RWQCB ESLs for shallow soil gas (Table E)

APPENDIX A

SITE HISTORY

SITE HISTORY

1986 Waste Oil Tank Removal: In November 1986, Petroleum Engineering of Santa Rosa, California removed a 550-gallon waste-oil tank. Blaine Tech Services, Inc. (Blaine) of San Jose, California collected soil samples (Soil #1 and Soil #2) beneath the former tank at 8 and 11 feet below grade (fbg). The soil samples contained up to 196 milligrams per kilogram (mg/kg) oil and grease. The tank pit was over-excavated to a total depth of 16 fbg, but no additional soil samples were collected. Groundwater was not encountered in the tank excavation. A new 550-gallon fiberglass waste-oil tank was installed in the same location. Details of the tank removal and sampling are summarized in Weiss Associates' (Weiss') October 13, 1989 letter to Shell Oil Products US (Shell).

1990 Well Installation: In March 1990, Weiss drilled one soil boring (BH-A) adjacent to the waste-oil tank which was completed as groundwater monitoring well (MW-1). A soil sample collected at 29 fbg contained 35 mg/kg total petroleum hydrocarbons as gasoline (TPHg) and 0.23 mg/kg benzene. Details of this investigation are presented in Weiss' July 31, 1990 letter.

1992 Well Installations: In February 1992, Weiss drilled two soil borings (BH-B and BH-C), which were completed as monitoring wells (MW-2 and MW-3). A soil sample collected near the water table from boring BH-B (21.5 fbg) contained 79 mg/kg TPHg. Soil samples from boring BH-C, located over 100 feet cross-gradient of the tanks, contained up to 68 mg/kg TPHg at 31.5 fbg. Details of this investigation are presented in Weiss' April 27, 1992 letter report.

1992 Well Survey: In 1992, Weiss reviewed the California Department of Water Resources (DWR) and Alameda County records to identify water wells within a ½-mile radius of the site. A total of 21 wells were identified: 12 monitoring wells, 8 irrigation wells, and 1 domestic well. No municipal wells were identified. The eight irrigation wells and one domestic well are more than 1,000 feet from the site.

1994 Subsurface Investigation: In June 1994, Weiss advanced six soil borings (BH-1 through BH-6) on and off site. No hydrocarbons were detected in soil samples, with the exception of 0.013 mg/kg benzene in boring BH-3 at 16 fbg. No hydrocarbons were detected in grab groundwater samples from borings BH-1, BH-4, BH-5, and BH-6. The grab groundwater sample collected from boring BH-3 contained 20,000 micrograms per liter (µg/l) TPHg and 25,000 µg/l benzene. Details of this investigation are presented in Weiss' October 13, 1994 *Subsurface Investigation* report.

1995 Well Installation: In February and March 1995, Weiss drilled four soil borings (BH-7 through BH-10) and converted BH-10 to monitoring well MW-4. No petroleum hydrocarbons were detected in soil samples from the borings. Grab groundwater samples from BH-7 and BH-9 contained up to 100 µg/l TPHg and 1.0 µg/l benzene. No TPHg or benzene was detected in the grab groundwater sample from BH-10. Groundwater was not encountered in soil boring BH-8. Details of this investigation are presented in Weiss' June 13, 1995 *Subsurface Investigation Report and First Quarter 1995 Monitoring Results.*

1996 Soil Vapor Survey and Soil Sampling: In July 1996, Weiss conducted a subsurface investigation to obtain site-specific data for a risk-based corrective action (RBCA) evaluation of the site. Soil vapor and soil samples were collected from the vadose zone at 10 on- and off-site locations (SVS-1 through SVS-10). The highest soil vapor hydrocarbon concentrations were detected near the northwest corner of the UST complex (sample SVS-5 at 3.0 fbg, which contained 24,000 micrograms per cubic meter [µg/m^3] benzene). No TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), or methyl tertiary-butyl ether (MTBE) were detected in soil samples, with the exception for 1.1 mg/kg TPHg detected in sample SVS-5 at 18 to 20 fbg. Weiss concluded that depleted oxygen concentrations and elevated carbon dioxide and methane concentrations in the vadose zone indicated that biodegradation was occurring. Details of the investigation are presented in Weiss' February 7, 1997 *Soil Vapor Survey Report.*

1997 RBCA Evaluation: In 1997, Weiss prepared a RBCA evaluation which indicated that BTEX, MTBE, 1,2-dichloroethane, and tetrachloroethylene concentrations detected in soil and groundwater beneath the site did not exceed a target risk level of 10^{-5} for residential indoor or outdoor air exposure pathways. However, a risk threshold exceedance was identified associated with ingestion of groundwater from a hypothetical well 25 feet down gradient of the source. Details of this evaluation are presented in Weiss' October 13, 1994 *RBCA Summary Report.*

1997 Dispenser and Turbine Sump Upgrade: In December 1997, Paradiso Mechanical upgraded dispensers and turbine sumps. Cambria Environmental Technology, Inc. (Cambria) collected soil samples Disp-A through Disp-D from beneath the dispenser islands during upgrade activities. Soil samples contained up to 590 mg/kg TPHg (Disp-C at 4.5 fbg), 1.8 mg/kg benzene (Disp-C at 2.0 fbg), and 1.4 mg/kg MTBE (Disp-C at 2.0 fbg). Details of this investigation are presented in Cambria's March 17, 1998 *Dispenser Soil Sampling* report.

1998 Soil Vapor Survey and Soil Sampling: In November 1998, Cambria conducted a subsurface investigation to obtain site-specific data for an updated RBCA evaluation of the site. Soil samples, soil vapor samples, and grab groundwater samples were collected from the vadose zone at three on-site and three off-site locations (SVS-11 through SVS-16). Soil vapor samples contained up to 2.7 parts per million by volume (ppmv) TPHg (C5+ hydrocarbons; SVS-14) and 0.17 ppmv TPHg (C2-C4 hydrocarbons; SVS-15), and 32 $\mu g/m^3$ benzene (SVS-16 at 5 fbg). Soil samples from boring SVS-11 at 19.5 fbg contained 1.6 mg/kg TPHg and 0.0050 mg/kg benzene. No TPHg or benzene was detected in other soil samples. Grab groundwater samples contained up to 130,000 µg/l TPHg and 18,000 µg/l benzene. Details of the investigation are presented in Cambria's September 17, 1999 *Risk-Based Corrective Action* report.

1999 RBCA Evaluation: In September 1999, Cambria prepared a RBCA evaluation for the site. Cambria analyzed the following potential exposure pathways: off-site ingestion of groundwater, on-site ingestion of surficial soil, volatilization of benzene from soil or groundwater into on-site or off-site indoor air, and migration of benzene soil vapor to on-site or off-site outdoor air. Results of Tier 1 and Tier 2 RBCA analyses indicated that contaminants within soil and groundwater did not present significant health risks. Details of this evaluation are presented in Cambria's September 17, 1999 *Risk-Based Corrective Action* report.

2001 Off-Site Monitoring Well Installation: In October 2001, Cambria installed two monitoring wells (MW-5 and MW-6) off site to the southwest. No TPHg, BTEX, or MTBE was detected in soil samples from well boring MW-5. Soil samples from well boring MW-6 contained up to 0.012 mg/kg MTBE with no TPHg or BTEX. This data corroborated Cambria's 1998 subsurface investigation results, which found no TPHg or benzene and only low MTBE concentrations in soil from three borings (SVS-14 through SVS-16) along the private driveway. Details of this investigation are presented in Cambria's December 20, 2001 *Offsite Monitoring Well Installation Report.*

2002-2004 Mobile Groundwater Extraction (GWE): From July 2002 to March 2004, Cambria conducted semi-monthly GWE using monitoring well MW-2. Beginning in March 2004, Cambria conducted semi-monthly GWE alternating between wells MW-2 and MW-11. Beginning in May 2004, Cambria increased the GWE frequency to weekly from both MW-2 and MW-11. Mobile GWE suspended on August 24, 2004. Approximately 19.6 pounds of TPHg, 3.45 pounds of benzene, and 5.12 pounds of MTBE were removed during these activities. The mobile GWE activities are summarized in Cambria's groundwater monitoring reports for this period.

2002 Off-Site Monitoring Well Installation: In October 2002, Cambria drilled one soil boring (SB-9) and installed two monitoring wells (MW-7 and MW-8) in 150th Avenue northwest of the site. Soil samples contained up to 68 mg/kg TPHg (MW-7@30') and 0.072 mg/kg benzene (MW-8@25'). Grab groundwater samples contained up 83,000 µg/l TPHg (MW-8) and 2,200 µg/l benzene (MW-9). Details of this investigation are presented in Cambria's November 18, 2002 *Offsite Monitoring Well Installation Report.*

2003 Soil and Groundwater Investigation: In June 2003, Cambria drilled six soil borings (SB-10 through SB-14 and SB-16) to the northwest of the site in both 150th Avenue and Portofino Circle and one boring (SB-15) on site. Grab groundwater samples contained up to 67,000 µg/l TPHg (SB-14-W), 530 µg/l benzene (SB-15-W), and 40 µg/l MTBE (SB-15-W). TPHg was detected in only two soil samples (SB-11-30' and SB-15-36') at concentrations up to 650 mg/kg. Benzene was detected in only one soil sample (SB-15-35') at 0.10 mg/kg. Based on typical groundwater depths in nearby well MW-7, it was determined that samples SB-11-30' and SB-15-36' were saturated, and results may be more indicative of chemical concentrations in groundwater. Details of this investigation are presented in Cambria's August 28, 2003 *Soil and Water Investigation Report and Work Plan.*

2003 Sensitive Receptor Survey (SRS): In October 2003, Cambria completed an SRS. The SRS targeted the following as potential sensitive receptors: basements within 200 feet; surface water and sensitive habitats within 500 feet; hospitals, residential care, and childcare facilities within 1,000 feet; and water wells within ½-mile. No basements, surface water, sensitive habitats, or educational and childcare facilities were identified within the search radius. The Fairmont Hospital campus, located at 15400 Foothill Boulevard, is located approximately 1,100 feet from the site, just outside the target radius of 1,000 feet.

To update the 1992 well survey performed by Weiss, Cambria researched DWR records in September 2003 and located no additional well records for locations within ½-mile of the site. The closest identified water well potentially used for drinking water was a well installed in 1952 and listed as a "domestic well." This well is located at Fairmont Hospital, approximately 2,445 feet east-southeast of the site. The well is reportedly 138 feet deep and has a screened interval between 62 and 95 fbg. The well's status and operation frequency are unknown. Due to the well's distance from the site and the site's observed groundwater flow directions, it is unlikely that this well would be impacted by groundwater from the site.

2003 Monitoring Well Installation: In November 2003, Cambria installed two on-site (MW-10 and MW-11) and one off-site groundwater monitoring wells (MW-9). MTBE

was detected in two soil samples (MW-11-20' and MW-11-24.5') at concentrations up to 1.4 mg/kg. TPHg was detected in four soil samples (MW-10-30', MW-10-31.5', MW-11-20', and MW-11-24.5') at concentrations up to 330 mg/kg. All soil samples with detectable petroleum hydrocarbon and MTBE concentrations were saturated soil samples, so identified results appeared more indicative of chemical concentrations in groundwater than soil. Details of this investigation are presented in Cambria's January 12, 2004 *Soil and Water Investigation and Monitoring Well Installation Report.*

2004 Off-Site Investigation: In September 2004, Cambria drilled two soil borings (SB-17 and SB-18) southeast of the site to further delineate the extent of soil and groundwater impacts. No TPHg, BTEX, or fuel oxygenates were detected in soil samples from the borings. Grab groundwater samples collected contained up to 55 µg/l TPHg with no benzene or fuel oxygenates. Results of the investigation are reported in Cambria's December 17, 2004 *Soil and Water Investigation Report.*

2004 Temporary GWE System Installation: From September to November 2004, Cambria operated of a temporary GWE system from wells MW-1, MW-2, and MW-11 as an interim remedial measure to address the elevated petroleum hydrocarbon and MTBE concentrations in groundwater near the west corner of the site. In November 2004, Cambria suspended temporary GWE operations to conduct interim remediation by dual-phase extraction (DPE). During these temporary GWE activities approximately 0.448 pounds of TPHg, 0.036 pounds of benzene, and 0.121 pounds of MTBE were removed. Temporary GWE details are provided in Cambria's June 23, 2005 *Interim Remediation Report.*

2004 DPE: In November 2004, Cambria conducted DPE in on-site wells MW-2 and MW-11 as an interim remedial action to reduce hydrocarbon concentrations in groundwater near the western corner of the site and to progress the site. Based on operating parameters and vapor sample analytical results, vapor-phase mass removed was approximately 165 pounds TPHg, 0.291 pounds benzene, and 0.063 pounds MTBE. The total liquid-phase mass removed was approximately 5.31 pounds TPHg, 0.193 pounds benzene, and 0.143 pounds MTBE. DPE details are provided in Cambria's June 23, 2005 *Interim Remediation Report.*

2005 Temporary GWE System: Between January 10 and April 13, 2005, Cambria operated a temporary GWE system from MW-11. During these activities, approximately 19.04 pounds of TPHg, 1.69 pounds of benzene, and 3.94 pounds of MTBE were removed from the subsurface. Results of the remediation are reported in Cambria's June 23, 2005 *Interim Remediation Report.*

2005 Fuel System Upgrade: Between March and May 2005, Armer Norman replaced the fuel dispensers and piping and upgraded UST sumps. On March 22 and April 4, 2005, Cambria collected soil samples from beneath each of the four dispensers and the product piping joints. Up to 4,100 mg/kg TPHg (P-4-5.0) was detected in 11 samples, 11 mg/kg benzene (P-4-2.5) was detected in six samples, 0.18 mg/kg MTBE (D-1-3.5) was detected in five samples, and 75.7 mg/kg lead (D-1-3.5) was detected in four samples. Tertiary-butyl alcohol (TBA) was detected in sample D-3-3.5 at a concentration of 0.023 mg/kg. Results of the investigation are reported in Cambria's June 1, 2005 *Dispenser and Piping Upgrade Sampling Report.*

2005 Periodic GWE Restart: In September 2005, Cambria re-instated monthly GWE using monitoring well MW-11, and because of the observed presence of SPH in well MW-1, bimonthly extraction from MW-1 was initiated in September 2006. These activities are continued through August 2007 and are reported in the quarterly groundwater monitoring reports for this period.

2006 Waste Oil Tank Removal: On May 25, 2006, Wayne Perry, Inc. removed one 550-gallon, dual-wall fiberglass waste oil UST. Cambria collected one soil sample (WO-1-6.5) from the sidewall of the UST excavation at a depth of 6.5 fbg. The soil sample contained 45 mg/kg oil and grease, 4.3 mg/kg total petroleum hydrocarbons as diesel, 25.4 mg/kg chromium, 7.09 mg/kg lead, 19.0 mg/kg nickel, and 58.4 mg/kg zinc. Based on these concentrations, Shell submitted an Underground Storage Tank Unauthorized Release (Leak)/Site Contamination Report (Unauthorized Release Report) on June 6, 2006. All detections were below San Francisco Bay Regional Water Quality Control Board environmental screening levels (ESLs) for shallow soil (fewer than 3 meters below grade) where groundwater is a current or potential drinking water source with residential land use. [1] Based on these results, no further investigation of waste oil UST excavation was conducted. Results of the investigation are reported in Cambria's August 4, 2006 *Underground Storage Tank Removal Report.*

2006 Subsurface Investigation: In May 2006, Cambria drilled seven soil borings (SB-19 through SB-25) and installed groundwater monitoring wells (MW-12 and MW-13) in two of the borings to further investigate the vertical and horizontal extent of soil and groundwater impacts. Shallow soil samples collected from borings SB-19, SB-20, SB-21, SB-22, and SB-24 did not contain TPHg or BTEX concentrations exceeding ESLs. Up to 1,060 mg/kg TPHg and 1.38 mg/kg benzene were detected in soil samples collected from the capillary fringe zone in borings SB-19, SB-20, SB-21, SB-23, and SB-24. These

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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]

detections are considered to be more indicative of groundwater conditions. Fuel oxygenate concentrations were near or below their respective reporting limits in all soil samples collected, and none of the low detections exceeded applicable ESLs. Based on this, the horizontal extent of petroleum hydrocarbons has been adequately defined at the site, and the vertical extent has been defined to the typical groundwater table. TPHg, BTEX, and fuel oxygenate concentrations in grab groundwater samples collected from approximately 20 and 31 fbg in boring SB-25 were below ESLs. Based on this, the vertical extent of petroleum hydrocarbons in groundwater northwest of the site is adequately defined. Results of the investigation are reported in Cambria's July 26, 2006 *Subsurface Investigation Report.*

2007 Agency Response with Proposed Future Actions: In February 2007, Cambria responded to Alameda County Environmental Health's August 29, 2006 letter which requested updated cross-sections and discussion of other issues. Cambria provided revised cross-sections A-A' and C-C', a discussion of delineation of the extent of petroleum hydrocarbons in soil and groundwater, and a risk evaluation based on these delineations. In addition, Cambria proposed delineation of the vertical extent of petroleum hydrocarbons in groundwater and a shallow soil vapor investigation at the site. The complete report is provided in Cambria's February 17, 2007 *Agency Response with Proposed Future Actions.*

2007 Subsurface Investigation: In August and September 2007, Conestoga-Rovers & Associates (CRA) drilled five cone penetrometer test borings (CPT-1 through CPT-3, CPT-5, and CPT-6) to delineate the vertical extent of petroleum hydrocarbons in groundwater, drilled one hollow-stem auger boring (B-1) to delineate the vertical extent of petroleum hydrocarbons in soil adjacent to the UST complex, and installed and sampled five soil vapor probes (SVP-1 through SVP-5). Soil samples from SVP-1 through SVP-3 and SVP-5 did not contain detectable levels of TPHg, BTEX, or MTBE. Soil samples from SVP-4 and B-1 contained concentrations below ESLs for shallow and deep soil where groundwater is not a potential source of drinking water with residential land use. Groundwater grab sample results were all below the ESLs. Based on the results from this investigation, the horizontal extent of petroleum hydrocarbons was adequately defined to below ESLs, and the vertical extent was found to be confined to the shallower groundwater intervals. All soil vapor sample results for TPHg, BTEX, and MTBE were below ESLs for residential land use, with the exception of TPHg in SVP-1, SVP-4, and SVP-5. The result from SVP-5 also exceeded the commercial ESL. Details of this investigation are presented in CRA's December 19, 2007 *Supplemental Subsurface Investigation Report.*

2008-2009 Soil Vapor Probe Sampling: CRA resampled soil vapor probes SVP-1 through SVP-3 and SVP-5 in March, May, and September 2008 and in January 2009 and soil vapor probe SVP-5 in July, and October 2009. SVP-4 could not be sampled due to water in the probe's tubing during the March, May, and September 2008 and January 2009 events, and SVP-5 contained water during the July 2009 event. All soil vapor sample concentrations were below ESLs for residential and commercial land use, with the exception of TPHg, benzene, ethylbenzene, and xylenes in the sample from SVP-5 in September 2008. Cumulative soil vapor sampling results are presented in CRA's December 7, 2009 *Soil Vapor Sampling Report.*

2008 Subsurface Investigation: In September and October 2008, CRA destroyed groundwater monitoring wells (MW-1 and MW-2) because their excessive screen length provided a potential conduit to deeper groundwater, installed three groundwater monitoring wells (MW-1A, MW-1B, and MW-2B) to replace MW-1 and MW-2, and installed two DPE wells (EW-1 and EW-2) and eight piezometers (P-1A through P-4A and P-1B through P-4B) for use in groundwater pump tests and a DPE pilot test. Soil samples did not contain benzene, MTBE, or TBA concentrations above ESLs. Four soil samples contained TPHg, ethylbenzene, and xylenes concentrations which exceed ESLs (P-3B at 27 fbg, EW-1 at 30 fbg, EW-2 at 27 fbg, and P-1B at 30 fbg). Toluene was detected at a concentration above the ESL in one sample (P-3B at 27 fbg). Based on the sample depths, these detections were likely related to groundwater. This investigation is detailed in CRA's February 5, 2009 *Subsurface Investigation Report.*

2008 Multi-Phase Extraction Pilot Test: In November 2008, CRA performed an aquifer pumping test and a multi-phase extraction test to assist in the selection of an appropriate remedial option to address dissolved-phase petroleum hydrocarbons detected in groundwater. This investigation is detailed in CRA's February 5, 2009 *Aquifer Pumping Test and Multi-Phase Extraction Pilot Test Report.*

Groundwater Monitoring Program: Groundwater sampling began in March 1990. Historically, separate phase hydrocarbons (SPHs) were observed intermittently in wells MW-1 and MW-2; however, since the September 2007 sampling event, no SPHs have been observed. Groundwater is currently monitored and sampled semiannually during the first and third quarters.

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: 09/21/2010 By jamesy

Permit Numbers: W2010-0691 to W2010-0692
Permits Valid from 10/01/2010 to 10/01/2010

Application Id:	1283989953282	**City of Project Site:** San Leandro
Site Location:	1784 150th ST / Shell Station	
Project Start Date:	10/01/2010	**Completion Date:** 10/01/2010
Assigned Inspector:	Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org	
Applicant:	Conestoga-Rovers and Associates - Peter Schaefer 5900 Hollis St. Suite A, Emeryville, CA 94608	**Phone:** 510-420-0700
Property Owner:	Shell Shell Oil Products US 20945 S Wilmington Ave, Carson, CA 90810	**Phone:** --
Client:	** same as Property Owner **	
Contact:	Kari Dupler	**Phone:** 707-933-2370 **Cell:** 510-459-6454

Total Due: $530.00
Receipt Number: WR2010-0317 **Total Amount Paid:** $530.00
Payer Name : Conestoga-Rovers and Associates Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Remediation Well Construction-Vapor Remediation Well - 1 Wells
Driller: Greg Drilling and Testing - Lic #: 485165 - Method: hstem **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0691	09/21/2010	12/30/2010	SVE-1	10.00 in.	4.00 in.	8.00 ft	23.00 ft

Specific Work Permit Conditions

1. 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.

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

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

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours

prior to drilling.

5. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).

6. Minimum surface seal thickness is two inches of cement grout placed by tremie

7. 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.

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

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0692	09/21/2010	12/30/2010	SVP-4	4.00 in.	0.25 in.	5.00 ft	5.10 ft
W2010-0692	09/21/2010	12/30/2010	SVP-6	4.00 in.	0.25 in.	5.00 ft	5.10 ft
W2010-0692	09/21/2010	12/30/2010	SVP-7	4.00 in.	0.25 in.	5.00 ft	5.10 ft

Specific Work Permit Conditions

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

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

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

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

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

permits and requirements have been approved or obtained.

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

7. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

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

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

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

APPENDIX C

BORING LOGS

Boring/Well Log Legend

KEY TO SYMBOLS/ABBREVIATIONS

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

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

fbg = Feet below grade

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

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

msl = Mean sea level

Soils logged according to the USCS.

UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

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

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

CONESTOGA-ROVERS & ASSOCIATES

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

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-6
JOB/SITE NAME	Shell-branded Service Station	**DRILLING STARTED**	01-Oct-10
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	01-Oct-10
PROJECT NUMBER	240612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Airknife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	4"	**SCREENED INTERVALS**	5 to 5.08 fbg
LOGGED BY	K. Dupler	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY	P. Schaefer PG #5612	**DEPTH TO WATER (Static)**	NA ▼
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Grass	0.1	
					SM		**Silty SAND with Gravel (SM)**; reddish brown (5YR 4/4); dry; 15% silt, 60% sand, 25% gravel; non-plastic.		Portland Type I/II
				5	CL		**CLAY (CL)**; dark greenish gray (5GY 4/1); moist; 80% clay, 20% silt; medium plasticity.	4.5 5.3	Bentonite Seal Monterey Sand #2/12 1/4" diam. screen, High Density Polyethylene Bottom of Boring @ 5.33 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2406--\240612~1\244BE8~1\240612 GINT (2).GPJ DEFAULT.GDT 1/24/11

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

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	SVP-7
JOB/SITE NAME	Shell-branded Service Station	**DRILLING STARTED**	01-Oct-10
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	01-Oct-10
PROJECT NUMBER	240612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Airknife	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	4"	**SCREENED INTERVALS**	3.25 to 3.33 fbg
LOGGED BY	K. Dupler	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	P. Schaefer PG #5612	**DEPTH TO WATER (Static)**	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
					SM		**Grass** **Silty SAND with Gravel (SM)**; brown (7.5YR 5/3); dry; 15% silt, 50% sand, 35% gravel; non-plastic.	0.1	Portland Type I/II
					GM		**Silty GRAVEL with Sand (GM)**; brown (7.5YR 4/3); dry; 15% silt, 40% sand, 45% coarse gravel; non-plastic.	2.5 3.6	Bentonite Seal Monterey Sand #2/12 1/4" diam. screen, High Density Polyethylene Bottom of Boring @ 3.6 fbg

APPENDIX D

CERTIFIED ANALYTICAL REPORTS

Calscience
Environmental
Laboratories, Inc.

November 15, 2010

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

Subject: **Calscience Work Order No.: 10-11-0227**
Client Reference: 1784 150th Ave., San Leandro, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 11/3/2010 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

FOR

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 11/03/10
Work Order No: 10-11-0227
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-6	10-11-0227-1-A	11/02/10 11:58	Air	GC 36	N/A	11/03/10 11:25	101103L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	20.3	0.500	1	
Carbon Dioxide	1.45	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7	10-11-0227-2-A	11/02/10 11:32	Air	GC 36	N/A	11/03/10 11:44	101103L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	21.1	0.500	1	
Carbon Dioxide	ND	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-03-002-1,169	N/A	Air	GC 36	N/A	11/03/10 08:51	101103L01

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 11/03/10
Work Order No: 10-11-0227
Preparation: N/A
Method: EPA TO-3M

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-6	10-11-0227-1-A	11/02/10 11:58	Air	GC 13	N/A	11/03/10 11:52	101103L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7	10-11-0227-2-A	11/02/10 11:32	Air	GC 13	N/A	11/03/10 12:03	101103L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	098-01-005-2,713	N/A	Air	GC 13	N/A	11/03/10 09:23	101103L01

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 11/03/10
Work Order No: 10-11-0227
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-6	10-11-0227-1-A	11/02/10 11:58	Air	GC 55	N/A	11/03/10 00:00	101103L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7	10-11-0227-2-A	11/02/10 11:32	Air	GC 55	N/A	11/03/10 00:00	101103L01

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

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-872-56	N/A	Air	GC 55	N/A	11/03/10 00:00	101103L01

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

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received:	11/03/10
Work Order No:	10-11-0227
Preparation:	N/A
Method:	EPA 8260B (M)
Units:	ug/m3

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-6	10-11-0227-1-A	11/02/10 11:58	Air	GC/MS V	N/A	11/03/10 14:12	101103L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		1,1-Difluoroethane	ND	5.4	1	
Ethylbenzene	ND	22	1		Isopropanol	ND	12	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	99	47-156			1,2-Dichloroethane-d4	97	47-156		
Toluene-d8	93	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVP-7	10-11-0227-2-A	11/02/10 11:32	Air	GC/MS V	N/A	11/03/10 15:00	101103L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		1,1-Difluoroethane	ND	5.4	1	
Ethylbenzene	ND	22	1		Isopropanol	ND	12	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	113	47-156			1,2-Dichloroethane-d4	104	47-156		
Toluene-d8	91	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-13-041-249	N/A	Air	GC/MS V	N/A	11/03/10 13:06	101103L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		1,1-Difluoroethane	ND	5.4	1	
Ethylbenzene	ND	22	1		Isopropanol	ND	12	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	92	47-156			1,2-Dichloroethane-d4	88	47-156		
Toluene-d8	92	47-156							

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

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

Conestoga-Rovers & Associates	Date Received: 11/03/10
5900 Hollis Street, Suite A	Work Order No: 10-11-0227
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA TO-3M

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
10-11-0226-2	Air	GC 13	N/A	11/03/10	101103D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
TPH as Gasoline	660000	660000	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-11-0227
Preparation: N/A
Method: ASTM D-1946

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,169	Air	GC 36	N/A	11/03/10	101103L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon Dioxide	98	98	80-120	0	0-30	
Oxygen + Argon	90	90	80-120	0	0-30	
Nitrogen	90	90	80-120	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates	Date Received: N/A
5900 Hollis Street, Suite A	Work Order No: 10-11-0227
Emeryville, CA 94608-2008	Preparation: N/A
	Method: ASTM D-1946 (M)

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-56	Air	GC 55	N/A	11/03/10	101103L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Helium	104	105	80-120	2	0-30	
Hydrogen	100	103	80-120	3	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Conestoga-Rovers & Associates	Date Received: N/A
5900 Hollis Street, Suite A	Work Order No: 10-11-0227
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 8260B (M)

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-249	Air	GC/MS V	N/A	11/03/10	101103L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	100	102	60-156	2	0-40	
Toluene	102	103	56-146	1	0-43	
Ethylbenzene	106	108	52-154	2	0-38	
Xylenes (total)	100	102	52-148	2	0-38	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 10-11-0227

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

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

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

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

Please Check Appropriate Box:

☐ ENV. SERVICES | ☐ MOTIVA RETAIL | ☐ SHELL RETAIL
☐ MOTIVA SD&CM | ☑ CONSULTANT | ☐ LUBES
☐ SHELL PIPELINE | ☐ OTHER _____

Print Bill To Contact Name: Peter Schaefer

INCIDENT # (ENV SERVICES): 9 8 9 9 6 0 6 8 ☐ CHECK IF NO INCIDENT # APPLIES

DATE: ~~10/27/2010~~ 11/2/10

PAGE: 1 of 1

PO #

SAP #: 1 3 6 0 1 9

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 1784 150th Street, San Leandro	State: CA	GLOBAL ID NO.: TO600101230
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: 240612-95-10.10
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		SAMPLER NAME(S) (Print): Erin Reinhart-Koylu	LAB USE ONLY: 10-11-0227
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com	

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

please report EPA 8260 results in µg/m³ & ASTM 1946 results in %v

Helium used as Tracer Gas

☑ 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.	TPHg & BTEX by Method 8260 (report results in µg/m3)	He, CO2, CH4, O2 by ASTM 1946 (report results in % by volume)	TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes
	[redacted]	[redacted]		[redacted]						[redacted]				[redacted]
1	SVP-6	~~11/2/10~~	11:58	Vapor air						1	X	X		Tedlar Bag
2	SVP-7	~~11/2/10~~	11:32	Vapor air						1	X	X		Tedlar Bag

Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 11/2/10	Time: 1640
Relinquished by: (Signature) 11-2-10 1730	Received by: (Signature)	Date: 11/3/10	Time: 10:30
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

0227

GSO

WebShip > > > > >

800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
ERI

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515279070

NPS

ORC

D

GARDEN GROVE

D92843A

86005055

Print Date : 11/02/10 15:45 PM

Package 1 of 1

Send Label To Printer ☑ Print All Edit Shipment Finish

LABEL INSTRUCTIONS:

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

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

ADDITIONAL OPTIONS:

Send Label Via Email Create Return Label

TERMS AND CONDITIONS:

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-11-0227

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: CRA DATE: 11/03/10

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

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

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

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

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

Ambient Temperature: ☑ Air ☐ Filter **Initial:** RS

CUSTODY SEALS INTACT:

☑ Box ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** RS

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

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

CONTAINER TYPE:

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

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

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

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

Preservative: h: HCL n: HNO_3 na$_2$: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** LWS

Calscience Environmental Laboratories, Inc.

October 15, 2010

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

Subject: **Calscience Work Order No.: 10-10-0344**
Client Reference: 1784 150th Ave., San Leandro, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/6/2010 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

for

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates		Date Received:	10/06/10
5900 Hollis Street, Suite A		Work Order No:	10-10-0344
Emeryville, CA 94608-2008		Preparation:	EPA 3550B
		Method:	EPA 8015B

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-A	10-10-0344-4-A	10/01/10 00:00	Solid	GC 47	10/06/10	10/07/10 13:27	101006B11

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	99	61-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-025-1,442	N/A	Solid	GC 47	10/06/10	10/07/10 11:00	101006B11

Parameter	Result	RL	DF	Qual	Units
Diesel Range Organics	ND	5.0	1		mg/kg
Surrogates:	**REC (%)**	**Control Limits**		**Qual**	
Decachlorobiphenyl	90	61-145			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received:	10/06/10
Work Order No:	10-10-0344
Preparation:	EPA 3550B
Method:	EPA 8015B (M)

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-A	10-10-0344-4-A	10/01/10 00:00	Solid	GC 47	10/06/10	10/07/10 13:27	101006B12

Parameter	Result	RL	DF	Qual	Units
TPH as Motor Oil	ND	25	1		mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	99	61-145	

Method Blank	099-12-254-1,574	N/A	Solid	GC 47	10/06/10	10/07/10 11:00	101006B12

Parameter	Result	RL	DF	Qual	Units
TPH as Motor Oil	ND	25	1		mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	90	61-145	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	10/06/10
5900 Hollis Street, Suite A	Work Order No:	10-10-0344
Emeryville, CA 94608-2008	Preparation:	EPA 5030C
	Method:	LUFT GC/MS / EPA 8260B
	Units:	mg/kg

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-A	10-10-0344-4-A	10/01/10 00:00	Solid	GC/MS UU	10/06/10	10/07/10 14:12	101007L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Xylenes (total)	ND	0.0050	1	
Ethylbenzene	ND	0.0050	1		TPPH	ND	0.50	1	
Toluene	ND	0.0050	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	93	63-141			1,2-Dichloroethane-d4	89	62-146		
Toluene-d8	97	80-120			1,4-Bromofluorobenzene	90	60-132		
Toluene-d8-TPPH	98	87-111							

Method Blank	099-12-798-1,206	N/A	Solid	GC/MS UU	10/07/10	10/07/10 13:19	101007L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Xylenes (total)	ND	0.0050	1	
Ethylbenzene	ND	0.0050	1		TPPH	ND	0.50	1	
Toluene	ND	0.0050	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	97	63-141			1,2-Dichloroethane-d4	97	62-146		
Toluene-d8	96	80-120			1,4-Bromofluorobenzene	96	60-132		
Toluene-d8-TPPH	98	87-111							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 10/06/10
Work Order No: 10-10-0344
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-A	10-10-0344-4-A	10/01/10 00:00	Solid	ICP 5300	10/07/10	10/07/10 20:16	101007L02

Comment(s): -Mercury analysis was performed on 10/07/10 16:14 with batch 101007L03.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Mercury	ND	0.0835	1	
Arsenic	ND	0.750	1		Molybdenum	ND	0.250	1	
Barium	78.3	0.500	1		Nickel	60.9	0.250	1	
Beryllium	ND	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	55.2	0.250	1		Thallium	ND	0.750	1	
Cobalt	18.1	0.250	1		Vanadium	21.2	0.250	1	
Copper	28.4	0.500	1		Zinc	55.2	1.00	1	
Lead	3.68	0.500	1						

Method Blank	099-04-007-7,517	N/A	Solid	Mercury	10/07/10	10/07/10 13:44	101007L03

Comment(s): -Preparation/analysis for Mercury was performed by EPA 7471A.

Parameter	Result	RL	DF	Qual
Mercury	ND	0.0835	1	

Method Blank	097-01-002-14,137	N/A	Solid	ICP 5300	10/07/10	10/07/10 16:25	101007L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Lead	ND	0.500	1	
Arsenic	ND	0.750	1		Molybdenum	ND	0.250	1	
Barium	ND	0.500	1		Nickel	ND	0.250	1	
Beryllium	ND	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	ND	0.250	1		Thallium	ND	0.750	1	
Cobalt	ND	0.250	1		Vanadium	ND	0.250	1	
Copper	ND	0.500	1		Zinc	ND	1.00	1	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Conestoga-Rovers & Associates	Date Received:	10/06/10
5900 Hollis Street, Suite A	Work Order No:	10-10-0344
Emeryville, CA 94608-2008	Preparation:	T22.11.5. All
	Method:	EPA 6010B

Project: 1784 150th Ave., San Leandro, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CRA-A	10-10-0344-4-A	10/01/10 00:00	Solid	ICP 5300	10/08/10	10/11/10 18:43	101011LA6

Parameter	Result	RL	DF	Qual	Units
Chromium	0.334	0.100	1		mg/L

Method Blank	097-05-006-5,358	N/A	Aqueous	ICP 5300	10/08/10	10/12/10 13:10	101011LA6

Parameter	Result	RL	DF	Qual	Units
Chromium	ND	0.100	1		mg/L

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 10/06/10
Work Order No: 10-10-0344
Preparation: EPA 3050B
Method: EPA 6010B

Project 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-10-0458-1	Solid	ICP 5300	10/07/10	10/07/10	101007S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	11	10	50-115	2	0-20	3
Arsenic	93	93	75-125	0	0-20	
Barium	4X	4X	75-125	4X	0-20	Q
Beryllium	94	97	75-125	3	0-20	
Cadmium	93	95	75-125	3	0-20	
Chromium	100	104	75-125	2	0-20	
Cobalt	97	104	75-125	5	0-20	
Copper	100	104	75-125	2	0-20	
Lead	97	94	75-125	2	0-20	
Molybdenum	83	83	75-125	0	0-20	
Nickel	97	101	75-125	2	0-20	
Selenium	72	75	75-125	5	0-20	3
Silver	90	93	75-125	4	0-20	
Thallium	46	66	75-125	36	0-20	3,4
Vanadium	101	106	75-125	2	0-20	
Zinc	106	123	75-125	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 10/06/10
Work Order No: 10-10-0344
Preparation: EPA 3050B
Method: EPA 6010B

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-10-0458-1	Solid	ICP 5300	10/07/10	10/07/10	101007S02

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	88	91	75-125	3	0-20	
Arsenic	95	97	75-125	2	0-20	
Barium	4X	4X	75-125	4X	0-20	Q
Beryllium	94	97	75-125	3	0-20	
Cadmium	91	93	75-125	2	0-20	
Chromium	95	98	75-125	1	0-20	
Cobalt	96	98	75-125	1	0-20	
Copper	107	110	75-125	1	0-20	
Lead	96	97	75-125	1	0-20	
Molybdenum	97	98	75-125	1	0-20	
Nickel	99	101	75-125	1	0-20	
Selenium	85	89	75-125	4	0-20	
Silver	92	95	75-125	3	0-20	
Thallium	90	92	75-125	2	0-20	
Vanadium	100	104	75-125	1	0-20	
Zinc	83	83	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 10/06/10
Work Order No: 10-10-0344
Preparation: T22.11.5. All
Method: EPA 6010B

Project 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-09-2178-1	Solid	ICP 5300	10/08/10	10/12/10	101011SA6

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium	103	103	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates	Date Received:	10/06/10
5900 Hollis Street, Suite A	Work Order No:	10-10-0344
Emeryville, CA 94608-2008	Preparation:	EPA 3550B
	Method:	EPA 8015B

Project 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-10-0303-3	Solid	GC 47	10/06/10	10/07/10	101006S11

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Diesel Range Organics	31	180	64-130	68	0-15	3,4

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 10/06/10
Work Order No: 10-10-0344
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-10-0303-3	Solid	GC 47	10/06/10	10/07/10	101006S12

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	292	221	64-130	18	0-15	3,4

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Conestoga-Rovers & Associates	Date Received: 10/06/10
5900 Hollis Street, Suite A	Work Order No: 10-10-0344
Emeryville, CA 94608-2008	Preparation: EPA 7471A Total
	Method: EPA 7471A

Project 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-10-0163-4	Solid	Mercury	10/07/10	10/07/10	101007S03

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	100	99	71-137	1	0-14	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 10/06/10
Work Order No: 10-10-0344
Preparation: EPA 5030C
Method: LUFT GC/MS / EPA 8260B

Project 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
CRA-A	Solid	GC/MS UU	10/06/10	10/07/10	101007S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	85	91	61-127	7	0-20	
Ethylbenzene	92	100	57-129	9	0-22	
Toluene	88	96	63-123	9	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-10-0344
Preparation: EPA 3050B
Method: EPA 6010B

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-14,137	Solid	ICP 5300	10/07/10	10/07/10	101007L02

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Antimony	97	98	80-120	73-127	1	0-20	
Arsenic	98	100	80-120	73-127	2	0-20	
Barium	101	103	80-120	73-127	2	0-20	
Beryllium	93	96	80-120	73-127	3	0-20	
Cadmium	99	99	80-120	73-127	0	0-20	
Chromium	98	99	80-120	73-127	1	0-20	
Cobalt	107	107	80-120	73-127	0	0-20	
Copper	100	101	80-120	73-127	1	0-20	
Lead	101	103	80-120	73-127	1	0-20	
Molybdenum	100	100	80-120	73-127	0	0-20	
Nickel	106	108	80-120	73-127	1	0-20	
Selenium	93	94	80-120	73-127	1	0-20	
Silver	94	96	80-120	73-127	2	0-20	
Thallium	101	101	80-120	73-127	0	0-20	
Vanadium	97	98	80-120	73-127	1	0-20	
Zinc	103	103	80-120	73-127	0	0-20	

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

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates	Date Received:	N/A
5900 Hollis Street, Suite A	Work Order No:	10-10-0344
Emeryville, CA 94608-2008	Preparation:	T22.11.5. All
	Method:	EPA 6010B

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-05-006-5,358	Aqueous	ICP 5300	10/08/10	10/12/10	101011LA6

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium	106	106	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received: N/A
Work Order No: 10-10-0344
Preparation: EPA 3550B
Method: EPA 8015B

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-025-1,442	Solid	GC 47	10/06/10	10/07/10	101006B11

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Diesel Range Organics	100	91	75-123	10	0-12	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: N/A
Work Order No: 10-10-0344
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-254-1,574	Solid	GC 47	10/06/10	10/07/10	101006B12

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	87	90	75-123	4	0-12	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: N/A
Work Order No: 10-10-0344
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-007-7,517	Solid	Mercury	10/07/10	10/07/10	101007L03

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	100	100	85-121	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Date Received:	N/A
Work Order No:	10-10-0344
Preparation:	EPA 5030C
Method:	LUFT GC/MS / EPA 8260B

Project: 1784 150th Ave., San Leandro, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-798-1,206	Solid	GC/MS UU	10/07/10	10/07/10	101007L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	95	97	78-120	2	0-20	
Ethylbenzene	98	100	76-120	2	0-20	
Toluene	97	98	77-120	1	0-20	
TPPH	86	85	65-135	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 10-10-0344

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

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [x] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [ ] OTHER (_____)

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

Print Bill To Contact Name: Peter Schaefer

INCIDENT # (ENV SERVICES): 98960108 [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 10-1-10

PO #:

SAP #: 136019

PAGE: 1 of 2

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City:

State: CA

GLOBAL ID NO: T0600101230

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

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

PHONE NO: 510-420-3343

E-mail: shelledf@craworld.com

CONSULTANT PROJECT NO: 240012-93-10.C

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

TELEPHONE: 510-420-0700

FAX: 510-420-9170

E-MAIL: PSchaefer@craworld.

SAMPLER NAME(S) (Print): Kari Dupler

LAB USE ONLY: 10-0344

TURNAROUND TIME (CALENDAR DAYS):
- [x] 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 and Shell.Lab.Billing@craworld.com

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

Call composite sample ID and field point name: CRA-A

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH - MO (8015M)	CAM17 Metals - Total (6010)	SVOCs (8270C)	VOCs (8260)	PCBs (8082)			TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	CRA-3A	10/1	1115	SO						1	X	X	X											X	X						Please call
2	CRA-4A	↓	1157	↓						↓	X	X	X											X	X						composite
3	CRA-5A	↓	1202	↓						↓	X	X	X											X	X						sample
																															CRA-A

Relinquished by: (Signature) Kari Dupler	Received by: (Signature) SECURE LOCATION	Date: 10-1-10	Time: 1850
Relinquished by: (Signature)	Received by: (Signature) Tom O'Malley CEC	Date: 10 05 10	Time: 0940
Relinquished by: (Signature) TO (GSD) 10-5-10 1730	Received by: (Signature)	Date: 10/6/10	Time: 1030

05/2/06 Revision

0344

Contingent analyses

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

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

0314H

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
BTS, CRA, STANTEC, STRATUS

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515087069

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GARDEN GROVE

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Print Date : 10/05/10 15:03 PM

Package 1 of 1

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LABEL INSTRUCTIONS:

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

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

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-10-0354

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CRA

DATE: 10/06/10

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

Temperature 2.6 °C + 0.5 °C (CF) = 3.1 °C ☑ Blank ☐ Sample

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

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

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

Ambient Temperature: ☐ Air ☐ Filter Initial: JP

CUSTODY SEALS INTACT:

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

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

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

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☑Sleeve (5) ☐EnCores® ☐TerraCores® ☐_____

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

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

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

Preservative: h: HCL n: HNO_3 na$_2$: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** JP

APPENDIX E

WASTE DISPOSAL MANIFESTS

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	215823

GENERATOR

5. Generator's Name and Mailing Address
Shell Oil Products US
One Shell Plaza, 910 Louisiana, Room #673, Houston, TX 77002

Generator's Site Address (if different than mailing address)
1784 150th
San Leandro, CA, 94578

Generator's Phone

6. Transporter 1 Company Name: American Integrated Services, Inc.
U.S. EPA ID Number: CAR000146338

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

8. Designated Facility Name and Site Address
Keller Canyon Landfill
901 Bailey Road
Pittsburg, CA 94565 925-458-8200
Facility's Phone:
U.S. EPA ID Number: Not Required

9a.	9b. U.S. DOT Description (including Proper Shipping Name)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non-Hazardous Waste Solid (Soil)	3	DM	1150	P	
	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.

RIPR#: 95630
SAP#: 138019
Incident#: 98999083
Profile#: 4212107702
Project #: 90955.11

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: AIS on behalf of SOPUS - J Sherman
Signature:
Month: 10 Day: 19 Year: 10

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 Acknowledgement of Receipt of Materials

Transporter 1 Printed/Typed Name: Rigo Valencia
Signature:
Month: 10 Day: 19 Year: 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNED 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

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

Printed/Typed Name: Felipe Cornejo
Signature:
Month: 10 Day: 20 Year: 10

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone	4. Waste Tracking Number
NOT REQUIRED		800-424-9300	215824

5. Generator's Name and Mailing Address
Shell Oil Products US
One Shell Plaza, 910 Louisiana, Room #673, Houston, TX 77002

Generator's Site Address (if different than mailing address)
1784 150th
San Leandro, CA 94578

Generator's Phone

6. Transporter 1 Company Name
American Integrated Services, Inc.

U.S. EPA ID Number
CAR000146336

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 16th Street
Long Beach, CA 90813 562-432-6445

U.S. EPA ID Number
CAD028409019

Facility's Phone

9a	9b. U.S. DOT Description (including Proper Shipping Name)	10. Containers No	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non-Hazardous Waste Liquid (Sludge)	2	DM	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) 424-8300 Chemtrec

RRP#: 05R01
SAP#: 1360119
Incident#: 09508009
Profile#: 27578

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Generator's/Offeror's Printed/Typed Name
AIS on behalf of SORUS - J Sherman

Signature

Month Day Year

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

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

16. Transporter Acknowledgement of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

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

H45

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

Printed/Typed Name

Signature

Month Day Year

GENERATOR — TRANSPORTER INTL — DESIGNED FACILITY

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #1