CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: October 3, 2012

REFERENCE NO.: 240523

PROJECT NAME: 4212 First Street, Pleasanton

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

RECEIVED
11:09 am, Oct 11, 2012
Alameda County
Environmental Health

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- ☐ Prints
- ☒ Final
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QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

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

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

Copy to:
Denis Brown, Shell Oil Products US (electronic copy)
Douglas E. & Mary M. Safreno (property owners), 1627 Vineyard Avenue, Pleasanton, CA 94566-6389
Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street, Pleasanton, CA 94566-6267
Colleen Winey, Zone 7 Water Agency (electronic copy)
Clint Mercer (lessee), SC Fuels, 1800 West Katella Avenue, Orange, CA 92867
Aaron O'Brien, Tamalpais Environmental Consultants (electronic copy)

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

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

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

Re: Shell-branded Service Station
4212 First Street
Pleasanton, California
SAP Code 135782
Incident No. 98995840
ACEH Case No. RO0000360

Dear Mr. Wickham:

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

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

Sincerely,

Denis L. Brown
Senior Program Manager

SUBSURFACE INVESTIGATION REPORT

SHELL-BRANDED SERVICE STATION
4212 FIRST STREET
PLEASANTON, CALIFORNIA

SAP CODE	135782
INCIDENT NO.	98995840
AGENCY NO.	RO0000360

Prepared by:
Conestoga-Rovers & Associates

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

Office: (510) 420-0700
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web: http://www.CRAworld.com

OCTOBER 3, 2012
REF. NO. 240523 (15)
This report is printed on recycled paper.

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EXECUTIVE SUMMARY

- Eight soil vapor probes (SV-1 through SV-8) were installed.
- No constituents of concern were detected in any soil vapor samples, with the exception of up to 53 $\mu g/m^3$ toluene. All toluene concentrations are below residential ESLs.
- Based on these soil vapor results, no further soil vapor investigation 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. CRA followed the scope of work and procedures presented in our May 8, 2012 *Subsurface Investigation Work Plan*, which was conditionally approved by Alameda County Environmental Health in their June 26, 2012 letter.

The subject site is an active Shell-branded Service Station located on the southeastern corner of the First Street and Vineyard Avenue intersection in a mixed residential and commercial area of Pleasanton, California (Figure 1). The site layout includes three current fuel underground storage tanks (USTs), a former fuel UST complex, two fuel dispenser islands, a former waste oil UST, and a station building (Figure 2).

A summary of previous work performed at the site and additional background information is contained in CRA's May 8, 2012 *Air Sparge/Soil Vapor Extraction Pilot Test Work Plan* and is not repeated herein.

2.0 INVESTIGATION ACTIVITIES

2.1 PERMIT

CRA obtained a drilling permit from Zone 7 Water Agency (Appendix A).

2.2 FIELD DATES

August 14 and 15, 2012 (soil vapor probe installation) and September 5, 2012 (soil vapor probe sampling).

2.3 DRILLING COMPANY

Gregg Drilling & Testing, Inc.

2.4 CRA PERSONNEL

Geologist Scott Lewis directed the probe installation working under the supervision of California Professional Geologist Peter Schaefer.

2.5 DRILLING METHOD

Air-knife.

2.6 NUMBER OF PROBES

CRA installed eight soil vapor probes (SV-1 through SV-8). The probe specifications and soil types encountered are described on the boring logs contained in Appendix B. The probe locations are shown on Figure 2.

2.7 VAPOR PROBE MATERIALS

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

2.8 SCREENED INTERVALS

5.0 to 5.1 feet below grade.

2.9 SOIL VAPOR SAMPLING PROCEDURE

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-3M; for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method 8260B (M); 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 generated during field activities was stored on site in 55-gallon drums, sampled, and profiled for disposal. Waste disposal confirmation documentation is pending and will be provided by CRA upon request.

3.0 FINDINGS

3.1 SOIL VAPOR

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

3.2 LEAK TESTING

CRA performed leak testing as described above, and helium was not detected in any of the samples. As shown in the following table, the reporting limit for helium (0.0100 percent by volume [%*v*]) is less than 10% 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)*
SV-1	<0.0100	66.7	6.67
SV-2	<0.0100	59.3	5.93
SV-3	<0.0100	65.1	6.51
SV-4	<0.0100	61.3	6.13
SV-5	<0.0100	61.5	6.15
SV-6	<0.0100	70.1	7.01
SV-7	<0.0100	54.3	5.43
SV-8	<0.0100	62.0	6.20

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

4.0 CONCLUSIONS

TPHg, benzene, ethylbenzene, total xylenes, and MTBE were not detected in any soil vapor samples collected during this investigation. Toluene was detected in soil vapor samples from all the probes at concentrations ranging from 21 to 53 micrograms per cubic meter ($\mu g/m^3$). All toluene concentrations are below San Francisco Bay Regional Water Quality Control Board environmental screening levels[1] for residential land use (63,000 $\mu g/m^3$).

5.0 RECOMMENDATIONS

Based on soil vapor results, no further soil vapor investigation is warranted.

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

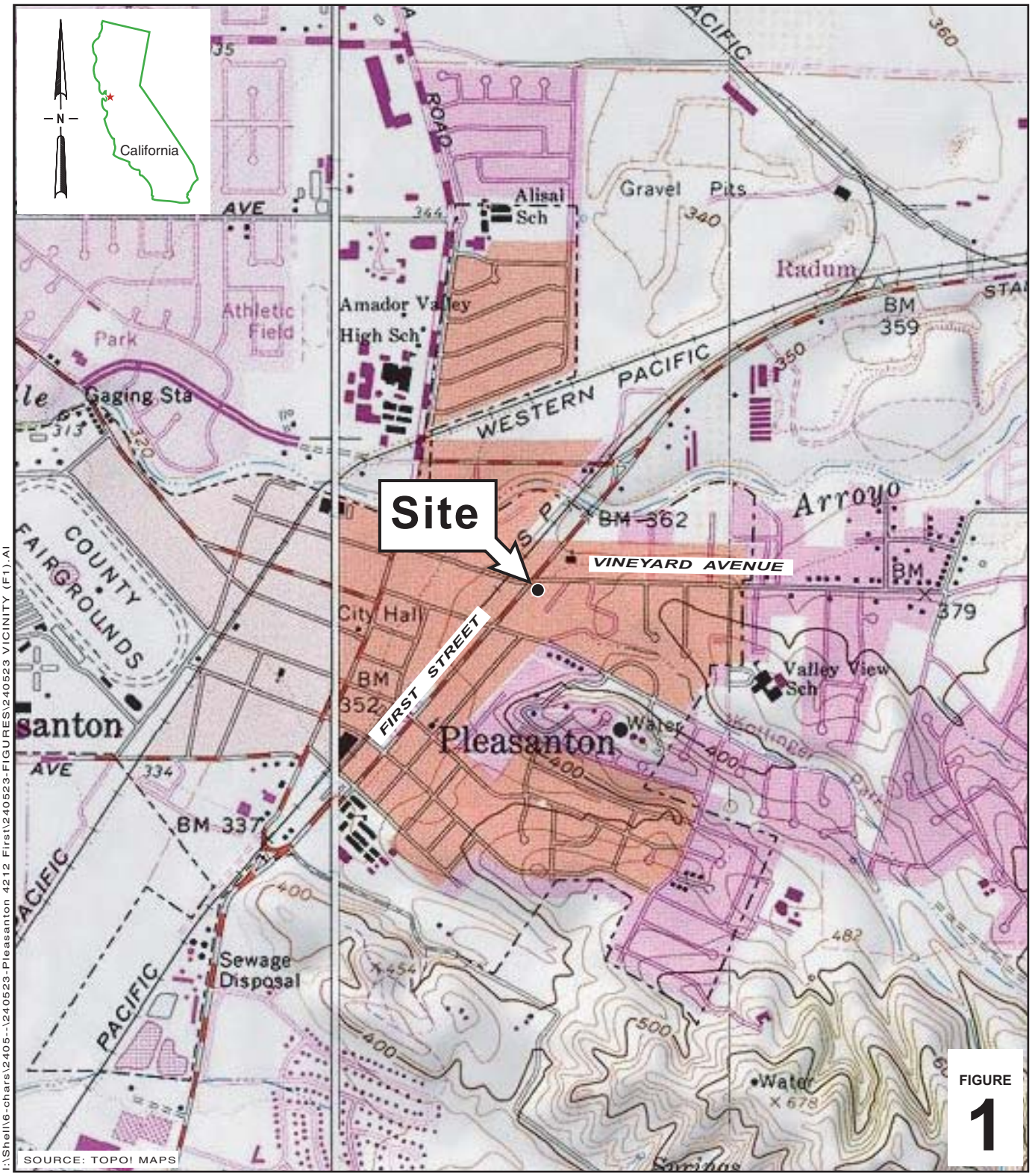
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

01/18/2011



I:\Shell\6-chars\2405-\240523-Pleasanton 4212 First\240523-FIGURES\240523 VICINITY (F1).AI

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

FIGURE 1

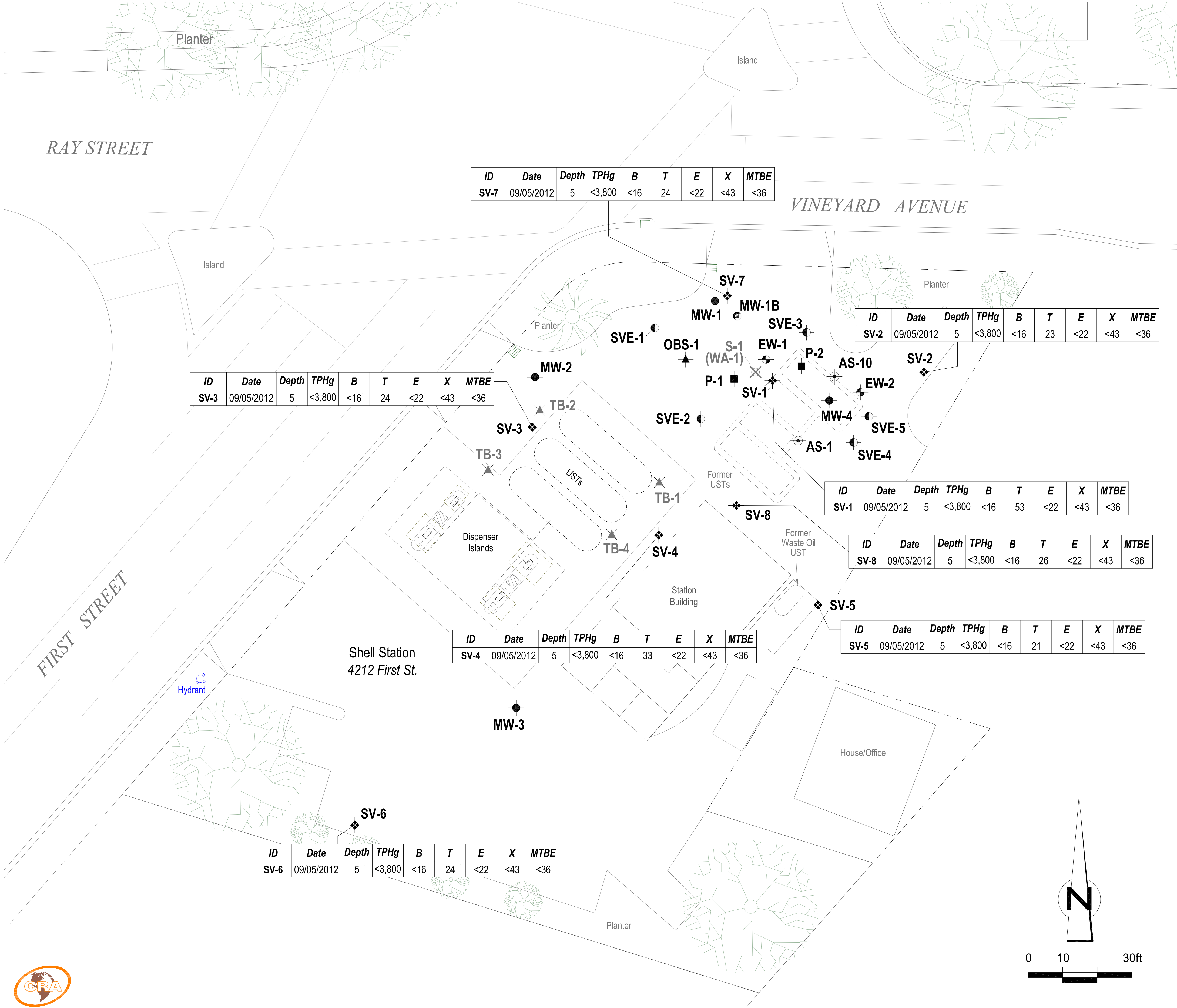
Shell-branded Service Station

4212 First Street

Pleasanton, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-7	09/05/2012	5	<3,800	<16	24	<22	<43	<36

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-2	09/05/2012	5	<3,800	<16	23	<22	<43	<36

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-3	09/05/2012	5	<3,800	<16	24	<22	<43	<36

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-1	09/05/2012	5	<3,800	<16	53	<22	<43	<36

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-8	09/05/2012	5	<3,800	<16	26	<22	<43	<36

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-4	09/05/2012	5	<3,800	<16	33	<22	<43	<36

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-5	09/05/2012	5	<3,800	<16	21	<22	<43	<36

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-6	09/05/2012	5	<3,800	<16	24	<22	<43	<36

EXPLANATION

SV-1 Soil vapor probe
EW-1 Groundwater extraction well location
P-1 Piezometer well location
MW-1 Monitoring well location
MW-1B Deeper monitoring well location
OBS-1 Observation well location
SVE-1 Soil vapor extraction well location
AS-1 Air sparge well location
TB-1 Destroyed observation well location
S-1 Destroyed well location

ID	Date	Depth	TPHg	B	T	E	X	MTBE
SV-1	09/05/2012	5	<3,800	<16	53	<22	<43	<36

Notes:
Soil sample ID, date, depth in feet below grade, and concentrations in micrograms per cubic meter
TPHg = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary-butyl ether
<X = Not detected at reporting limit X
- Values in **bold** are above the Environmental Screening Level (ESL)

Figure 2

Soil Vapor Concentration Map
Shell-branded Service Station
4212 First Street
Pleasanton, California

I:\Shell\6-chars\2405--\240523-Pleasanton 4212 First\240523-FIGURES\240523 SITE PLAN.DWG (09/17/2012)

TABLE

TABLE 1

SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
4212 FIRST STREET, PLEASANTON, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*	*Methane (%v)*	*Carbon Dioxide (%v)*	*Oxygen + Argon (%v)*	*Helium (%v)*
SV-1	9/5/2012	5	<3,800	<16	53	<22	<43	<36	<0.500	12.9	7.66	<0.0100
SV-2	9/5/2012	5	<3,800	<16	23	<22	<43	<36	<0.500	6.85	15.5	<0.0100
SV-3	9/5/2012	5	<3,800	<16	24	<22	<43	<36	<0.500	7.44	11.8	<0.0100
SV-4	9/5/2012	5	<3,800	<16	33	<22	<43	<36	<0.500	5.22	15.1	<0.0100
SV-5	9/5/2012	5	<3,800	<16	21	<22	<43	<36	<0.500	2.44	19.4	<0.0100
SV-6	9/5/2012	5	<3,800	<16	24	<22	<43	<36	<0.500	4.08	18.7	<0.0100
SV-7	9/5/2012	5	<3,800	<16	24	<22	<43	<36	<0.500	11.4	9.66	<0.0100
SV-8	9/5/2012	5	<3,800	<16	26	<22	<43	<36	<0.500	5.50	15.5	<0.0100
Residential land use ESLs[a]:			***10,000***	***84***	***63,000***	***980***	***21,000***	***9,400***	***NA***	***NA***	***NA***	***NA***
Commercial land use ESLs[a]:			***29,000***	***280***	***180,000***	***3,300***	***58,000***	***31,000***	***NA***	***NA***	***NA***	***NA***

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260B (M)
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)
Methane, carbon dioxide, and oxygen + argon analyzed by ASTM D-1946
Helium analyzed by ASTM D-1946 (M)
fbg = Feet below grade
$\mu g/m^3$ = Micrograms per cubic meter
%v = Percent by volume
<x = Not detected at reporting limit x
ESL = Environmental screening level
NA = No applicable ESL

SOIL VAPOR ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
4212 FIRST STREET, PLEASANTON, CALIFORNIA

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

APPENDIX A

PERMIT

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 4212 First Street, Pleasanton, CA

Coordinates Source _____ ft. Accuracy _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN 94-95-25-3

CLIENT
Name Shell Oil Products US
Address 20945 South Wilmington Ave Phone 707-865-0251
City Carson, CA Zip 90810

APPLICANT
Name Cornerstone Earth Group
Email slewis@cramworld.com Fax 707-935-6649
Address 19449 Riverside Drive, Suite 230 Phone 707-933-2369
City Sonoma, CA Zip 95476

TYPE OF PROJECT:

Well Construction	X	Geotechnical Investigation	—
Well Destruction	—	Contamination Investigation	—
Cathodic Protection	—	Other Vapor probe	X

PROPOSED WELL USE:

Domestic	—	Irrigation	—
Municipal	—	Remediation	—
Industrial	—	Groundwater Monitoring	X
Dewatering	—	Other _____	—

DRILLING METHOD:

Mud Rotary	—	Air Rotary	—	Hollow Stem Auger	X
Cable Tool	—	Direct Push	—	Other Air knife	X

DRILLING COMPANY Gregg Drilling, 950 Howe Road Martinez, CA 94553
DRILLER'S LICENSE NO. 485165

WELL SPECIFICATIONS:
Drill Hole Diameter 8 + 10 in. Maximum
Casing Diameter 2" + 4" in. Depth 46 ft.
Surface Seal Depth 8 + 28 ft. Number 6"

Vapor probes
Number of Borings 8 Maximum
Hole Diameter 3.5 in. Depth 5.5 ft.
Tubing 0.25" Teflon tube
ESTIMATED STARTING DATE August 2012
ESTIMATED COMPLETION DATE August 2012

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Scott Lewis Date 7-16-12

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2012069
WELL NUMBER 3S/1E-21C62 to 21C67 (P-1, P-2, EW-1, EW-2, AS-1 & SVE-5)
APN 094-0095-025-03

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original **Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.**
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

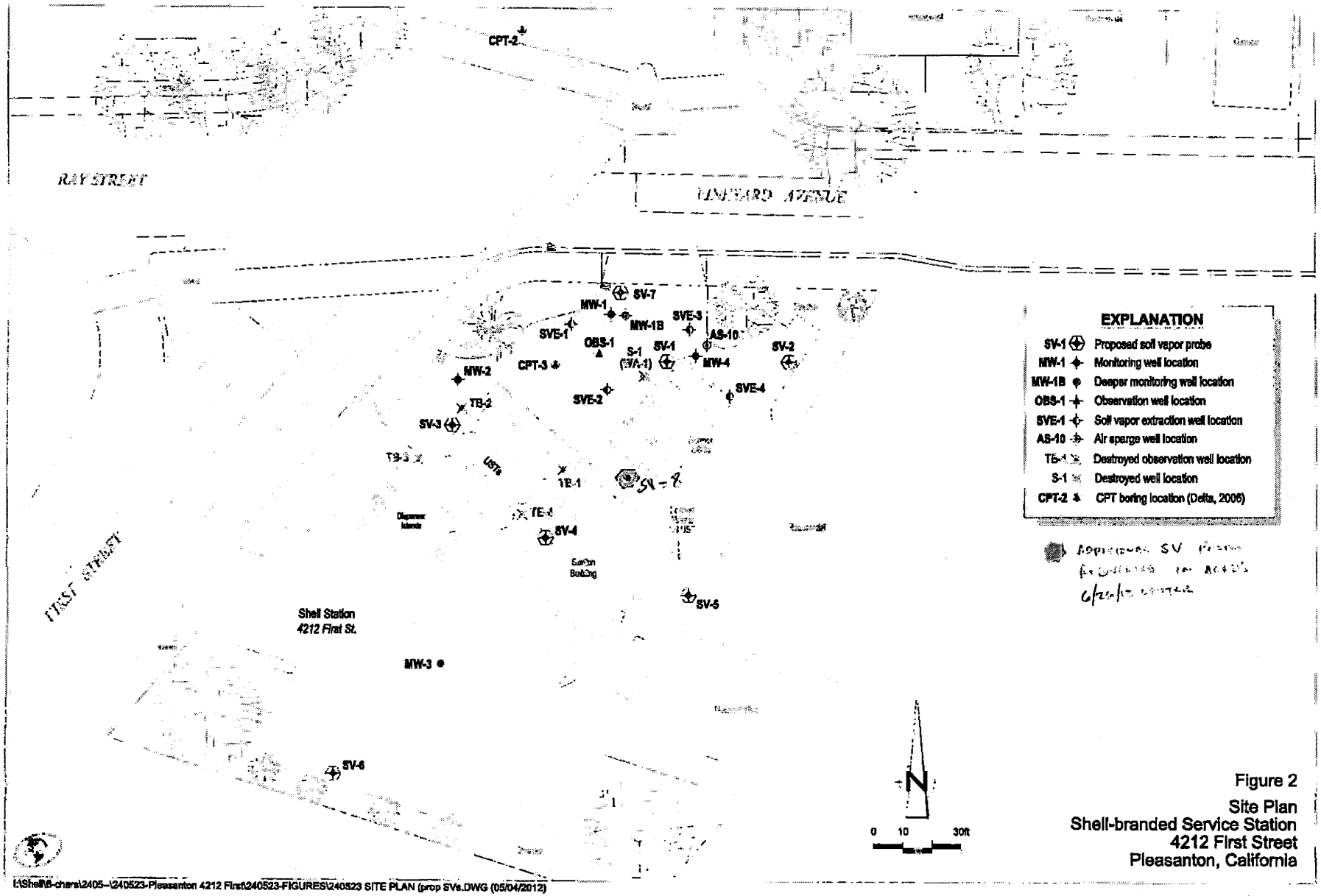
E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

(G.) SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

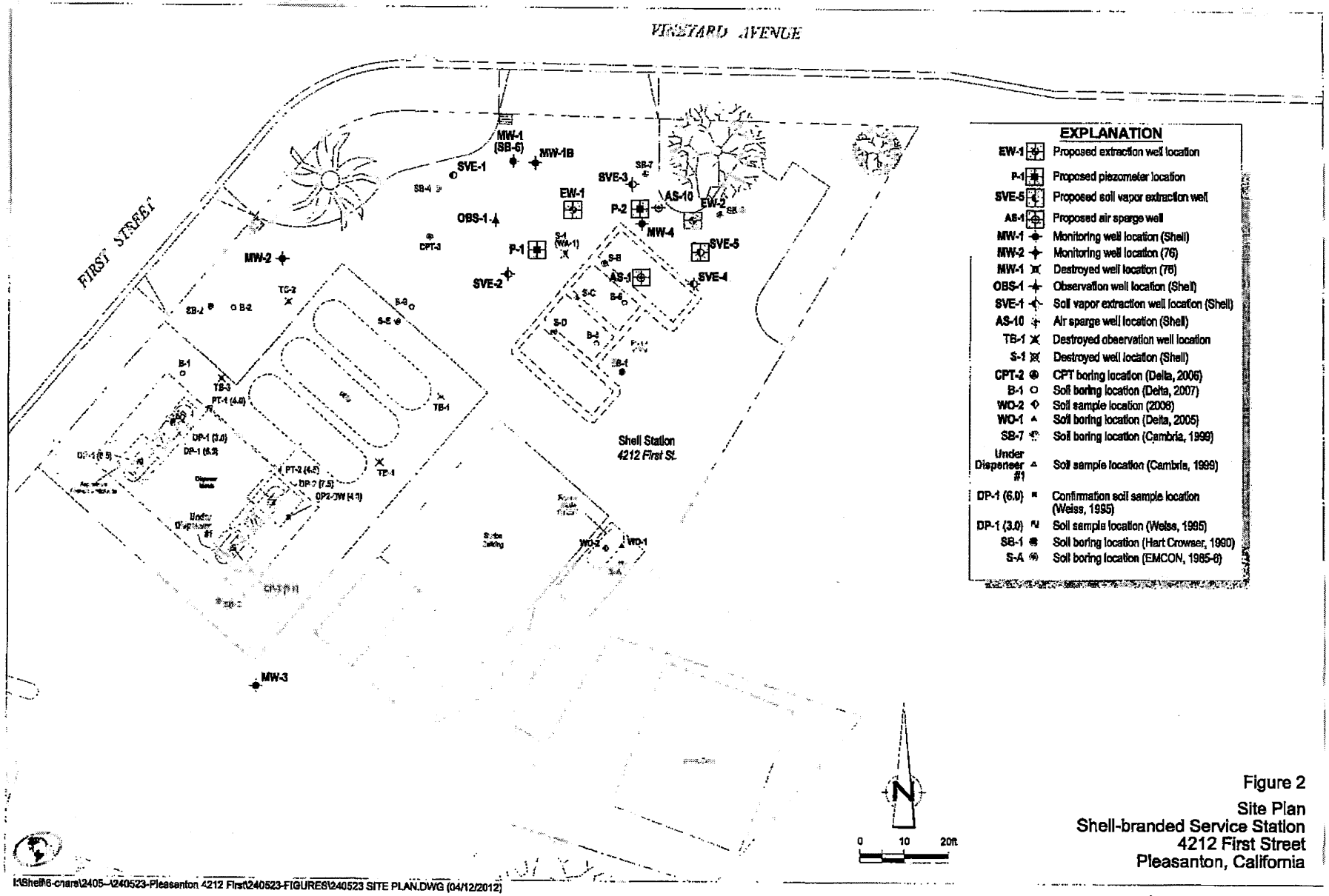
Approved Wyman Hong Date 7/17/12
Wyman Hong

Revised: January 4, 2010



I:\Shell\S-chars\2405--\240523-Pleasanton 4212 First\240523-FIGURES\240523 SITE PLAN (prop SVs.DWG (05/04/2012)

Figure 2
Site Plan
Shell-branded Service Station
4212 First Street
Pleasanton, California



EXPLANATION

EW-1	Proposed extraction well location
P-1	Proposed piezometer location
SVE-5	Proposed soil vapor extraction well
AS-1	Proposed air sparge well
MW-1	Monitoring well location (Shell)
MW-2	Monitoring well location (76)
MW-1	Destroyed well location (76)
OBS-1	Observation well location (Shell)
SVE-1	Soil vapor extraction well location (Shell)
AS-10	Air sparge well location (Shell)
TB-1	Destroyed observation well location
S-1	Destroyed well location (Shell)
CPT-2	CPT boring location (Delta, 2006)
B-1	Soil boring location (Delta, 2007)
WO-2	Soil sample location (2006)
WO-1	Soil boring location (Delta, 2005)
SB-7	Soil boring location (Cambria, 1999)
Under Dispenser #1	Soil sample location (Cambria, 1999)
DP-1 (6.0)	Confirmation soil sample location (Weiss, 1995)
DP-1 (3.0)	Soil sample location (Weiss, 1995)
SB-1	Soil boring location (Hart Crowser, 1990)
S-A	Soil boring location (EMCON, 1985-6)

Figure 2
Site Plan
Shell-branded Service Station
4212 First Street
Pleasanton, California

5/9/12 AS/SVE PT WP

APPENDIX B

BORING LOGS

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA
Telephone: 510-420-3300
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-1
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	14-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	14-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	372.96 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3.5"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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
							ASPHALT	0.3	Portland Type I/II
					GM		**Silty GRAVEL with Sand (GM)**; very dark grayish brown (10YR 3/2); dry; 20% silt, 25% fine to coarse sand, 55% fine gravel.	1.0	
					ML		**SILT (ML)**; brown (10YR 4/3); moist; 5% clay, 85% silt, 5% fine to medium sand, 5% fine gravel. @3' - 5% clay, 85% silt, 10% fine to medium sand.		Bentonite Seal
				5				5.3	Monterey Sand #2/12 .5" diam., 0.25" Teflon Tubing Bottom of Boring @ 5.25 fbg

WELL LOG (PID) C:\DOCUME~1\MDUTRA\DESKTOP\240523-GINT.GPJ DEFAULT.GDT 9/18/12

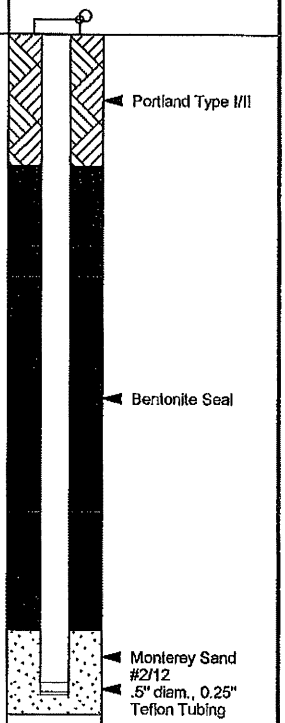
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA
Telephone: 510-420-3300
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-2
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	15-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	15-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	373.32 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3.5"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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)
							ASPHALT	0.3
					GM		**Silty GRAVEL with Sand (GM)**; brown (10YR 5/3); dry; 20% silt, 25% fine to coarse sand, 55% fine gravel.	1.0
				5	ML		**SILT (ML)**; dark grayish brown (10YR 4/2); dry to moist; 5% clay, 85% silt, 10% fine to medium sand.	5.3

WELL DIAGRAM



Bottom of Boring @ 5.25 fbg

WELL LOG (PID) C:\DOCUME~1\MDUTRA\DESKTOP\240523-GINT.GPJ DEFAULT.GDT 9/18/12

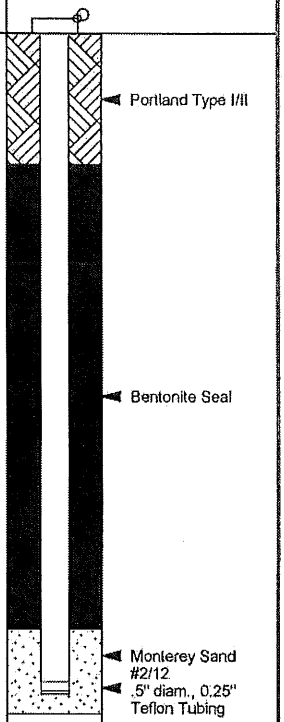
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-3
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	15-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	15-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	373.25 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3.5"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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)
							ASPHALT	0.3
					GM		**Silty GRAVEL with Sand (GM)** ; very dark grayish brown (10YR 3/2); moist; 5% clay, 25% silt, 15% fine to coarse sand, 55% fine gravel.	1.0
					ML		**SILT with Sand (ML)** ; very dark gray (10YR 3/1); moist; 5% clay, 80% silt, 15% fine to medium sand. @2' - **SILT (ML)** ; brown (10YR 4/3); moist; 5% clay, 90% silt, 5% sand. @4' - 10% clay, 85% silt, 5% fine to medium sand; low plasticity.	5.3
				5				

WELL DIAGRAM



Bottom of Boring @ 5.25 fbg

WELL LOG (PID) C:\DOCUME~1\MDUTRA\DESKTOP\240523-GINT.GPJ DEFAULT.GDT 9/27/12

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA
Telephone: 510-420-3300
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-4
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	14-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	14-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	375.18 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	4"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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
							CONCRETE	0.5	Portland Type I/II
					ML		SILT (ML) ; very dark grayish brown (10YR 3/2); moist; 5% clay, 85% silt, 10% fine to medium sand.		Bentonite Seal
				5				5.2	Monterey Sand #2/12 .5" diam., 0.25" Teflon Tubing Bottom of Boring @ 5.2 fbg

WELL LOG (PID) C:\DOCUME~1\MDUTRA\DESKTOP\240523-GINT.GPJ DEFAULT.GDT 9/18/12

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA
Telephone: 510-420-3300
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-5
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	14-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	14-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	375.29 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3.5"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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)
							ASPHALT	0.5
					GM		**Silty GRAVEL with Sand (GM)**; brown (10YR 4/3); dry; 20% silt, 25% fine to coarse sand, 55% fine gravel.	1.0
					SM		**Silty SAND with Gravel (SM)**; dry to moist; 20% silt, 65% fine to coarse sand, 15% fine gravel.	2.0
				5	ML		**SILT (ML)**; brown (10YR 4/3); moist; 5% clay, 85% silt, 10% fine to coarse sand.	5.2

WELL DIAGRAM

- Portland Type I/II
- Bentonite Seal
- Monterey Sand #2/12
- .5" diam., 0.25" Teflon Tubing

Bottom of Boring @ 5.2 fbg

WELL LOG (PID) C:\DOCUME~1\MDUTRA\DESKTOP\240523-GINT.GPJ DEFAULT.GDT 9/18/12

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

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-6
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	15-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	15-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	376.63 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3.5"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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
							ASPHALT	0.5	Portland Type I/II
					GM		Silty GRAVEL with Sand (GM); light brownish gray (10YR 6/2); dry; 20% silt, 25% fine to coarse sand; 55% fine gravel.	1.0	
							Sandy SILT with Gravel (ML); brown (10YR 5/3); dry; 10% clay, 55% silt, 20% sand, 15% fine gravel.		Bentonite Seal
					ML				
				5			@4.5' - SILT (ML); brown (10YR 5/3); dry to moist; 10% clay, 85% silt, 5% fine to coarse sand.		Monterey Sand #3
								5.3	.5" diam., 0.25" Teflon Tubing
									Bottom of Boring @ 5.25 fbg

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA
Telephone: 510-420-3300
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-7
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	15-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	15-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	371.68 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3.5"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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)
							ASHPALT	0.3
					GM		**Silty GRAVEL with Sand (GM)**; very dark grayish brown (10YR 3/2); dry to moist; 20% silt, 25% fine to coarse, 55% fine gravel.	1.0
				5	ML		**SILT (ML)**; dark brown (10YR 3/3); moist; 5% clay, 90% silt, 5% fine to medium sand.	5.3

WELL DIAGRAM

- Portland Type I/II
- Bentonite Seal
- Monterey Sand #3
- .5" diam., 0.25" Teflon Tubing

Bottom of Boring @ 5.25 fbg

WELL LOG (PID) C:\DOCUME~1\MDUTRA\DESKTOP\240523-GINT.GPJ DEFAULT.GDT 9/18/12

Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA
Telephone: 510-420-3300
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SV-8
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	14-Aug-12
LOCATION	4212 First Street, Pleasanton, California	DRILLING COMPLETED	14-Aug-12
PROJECT NUMBER	240523	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	375.00 ft above msl
DRILLING METHOD	Airknife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3.5"	SCREENED INTERVALS	5 to 5.1 fbg
LOGGED BY	S. Lewis	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)
							ASPHALT	0.3
					GM		**Silty GRAVEL with Sand (GM)** ; dark grayish brown (10YR 4/2); dry; 20% silt, 25% fine to coarse sand, 55% fine gravel.	1.0
					SM		**Silty SAND with Gravel (SM)** ; dark grayish brown (10YR 4/2); dry to moist; 20% silt, 65% fine to coarse sand, 15% fine gravel.	2.0
				5	ML		**SILT (ML)** ; brown (10YR 4/3); moist; 5% clay, 85% silt, 10% fine to medium sand.	5.2

WELL DIAGRAM

- Portland Type I/II
- Bentonite Seal
- Monterey Sand #2/12
- .5" diam., 0.25" Teflon Tubing

Bottom of Boring @ 5.2 fbg

WELL LOG (PID) C:\DOCUME~1\MDUTRA\DESKTOP\240523-GINT.GPJ DEFAULT.GDT 9/18/12

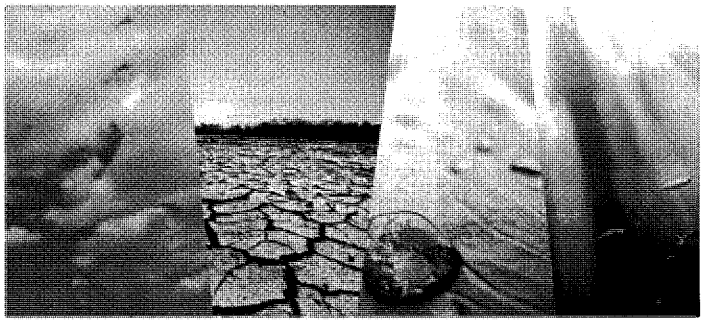
APPENDIX C

CERTIFIED ANALYTICAL REPORT

Calscience Environmental Laboratories, Inc.

CALSCIENCE
WORK ORDER NUMBER: 12-09-0219

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Conestoga-Rovers & Associates

Client Project Name: 4212 First Street, Pleasanton, CA

Attention: Peter Schaefer
5900 Hollis Street, Suite A
Emeryville, CA 94608-2008

Approved for release on 09/12/2012 by:
Xuan Dang
Project Manager

ResultLink ▸

Email your PM ▸

Calscience Environmental Laboratories, Inc. (Calscience) 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 analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: 4212 First Street, Pleasanton, CA
Work Order Number: 12-09-0219

Calscience Environmental Laboratories, Inc.

Case Narrative

Work Order # 12-09-0219

Modified EPA 8260 in Air

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

Comparison of CalscienceTO-15(Modified) versus EPA 8260 (Modified) in Air

Requirement	Calscience TO-15(M)	Calscience EPA 8260(M) in Air
BFB Acceptance Criteria	SW846 Protocol	SW846 Protocol
Initial Calibration	Allowable % RSD for each Target Analyte <= 30%, 10% of analytes allowed <=40%	Allowable % RSD for each Target Analyte <= 30%, 10% of analytes allowed <= 40%
Initial Calibration Verification (ICV) - Second Source Standard (LCS)	Analytes contained in the LCS standard evaluated against historical control limits for the LCS	BTEX and MTBE only - <= 30%D
Daily Calibration Verification (CCV)	**Full List Analysis:** Allowable % Difference for each CCC analyte is <= 30%	BTEX and MTBE only - <= 30%D
	Target List Analysis: Allowable % Difference for each target analytes is <= 30%	
Daily Calibration Verification (CCV) - Internal Standard Area Response	Allowable +/- 50% (Range: 50% to 150%)	Allowable +/- 50% (Range: 50% to 150%)
Method Blank, Laboratory Control Sample and Sample - Internal Standard Area Response	Allowable +/- 50% of the mean area response of most recent Calibration Verification (Range: 50% to 150%)	Allowable +/- 50% of the mean area response of the most recent Calibration Verification (Range: 50% to 150%)
Surrogates	1,4-Bromoflurobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S	1,4-Bromoflurobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Client:	Conestoga-Rovers & Associates	Work Order:	12-09-0219
	5900 Hollis Street, Suite A	Project name:	4212 First Street, Pleasanton, CA
	Emeryville, CA 94608-2008	Received:	09/06/12 10:30
Attn:	Peter Schaefer		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SV-1 (12-09-0219-1)						
Carbon Dioxide	**12.9**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**7.66**		0.500	%v	ASTM D-1946	N/A
Toluene	**53**		19	ug/m3	EPA 8260B (M)	N/A
SV-2 (12-09-0219-2)						
Carbon Dioxide	**6.85**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**15.5**		0.500	%v	ASTM D-1946	N/A
Toluene	**23**		19	ug/m3	EPA 8260B (M)	N/A
SV-3 (12-09-0219-3)						
Carbon Dioxide	**7.44**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**11.8**		0.500	%v	ASTM D-1946	N/A
Toluene	**21**		19	ug/m3	EPA 8260B (M)	N/A
SV-4 (12-09-0219-4)						
Carbon Dioxide	**5.22**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**15.1**		0.500	%v	ASTM D-1946	N/A
Toluene	**33**		19	ug/m3	EPA 8260B (M)	N/A
SV-5 (12-09-0219-5)						
Carbon Dioxide	**2.44**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**19.4**		0.500	%v	ASTM D-1946	N/A
Toluene	**21**		19	ug/m3	EPA 8260B (M)	N/A
SV-6 (12-09-0219-6)						
Carbon Dioxide	**4.08**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**18.7**		0.500	%v	ASTM D-1946	N/A
Toluene	**27**		19	ug/m3	EPA 8260B (M)	N/A
SV-7 (12-09-0219-7)						
Carbon Dioxide	**11.4**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**9.66**		0.500	%v	ASTM D-1946	N/A
Toluene	**24**		19	ug/m3	EPA 8260B (M)	N/A

*MDL is shown.

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Client:	Conestoga-Rovers & Associates	Work Order:	12-09-0219
	5900 Hollis Street, Suite A	Project name:	4212 First Street, Pleasanton, CA
	Emeryville, CA 94608-2008	Received:	09/06/12 10:30
Attn:	Peter Schaefer		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SV-8 (12-09-0219-8)						
Carbon Dioxide	**5.50**		0.500	%v	ASTM D-1946	N/A
Oxygen + Argon	**15.5**		0.500	%v	ASTM D-1946	N/A
Toluene	**26**		19	ug/m3	EPA 8260B (M)	N/A

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-1	**12-09-0219-1-A**	**09/05/12 12:26**	**Air**	**GC 34**	**N/A**	**09/06/12 12:25**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	7.66	0.500	1	
Carbon Dioxide	12.9	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-2	**12-09-0219-2-A**	**09/05/12 11:46**	**Air**	**GC 34**	**N/A**	**09/06/12 12:56**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	15.5	0.500	1	
Carbon Dioxide	6.85	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-3	**12-09-0219-3-A**	**09/05/12 13:22**	**Air**	**GC 34**	**N/A**	**09/06/12 13:29**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	11.8	0.500	1	
Carbon Dioxide	7.44	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-4	**12-09-0219-4-A**	**09/05/12 13:44**	**Air**	**GC 34**	**N/A**	**09/06/12 14:05**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	15.1	0.500	1	
Carbon Dioxide	5.22	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-5	**12-09-0219-5-A**	**09/05/12 11:25**	**Air**	**GC 34**	**N/A**	**09/06/12 14:38**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	19.4	0.500	1	
Carbon Dioxide	2.44	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-6	**12-09-0219-6-A**	**09/05/12 14:06**	**Air**	**GC 34**	**N/A**	**09/06/12 15:11**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	18.7	0.500	1	
Carbon Dioxide	4.08	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-7	**12-09-0219-7-A**	**09/05/12 12:44**	**Air**	**GC 34**	**N/A**	**09/06/12 16:00**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	9.66	0.500	1	
Carbon Dioxide	11.4	0.500	1						

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-8	**12-09-0219-8-A**	**09/05/12 11:03**	**Air**	**GC 34**	**N/A**	**09/06/12 16:32**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1		Oxygen + Argon	15.5	0.500	1	
Carbon Dioxide	5.50	0.500	1						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-03-002-1,638**	**N/A**	**Air**	**GC 34**	**N/A**	**09/06/12 11:28**	**120906L01**

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

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-1	**12-09-0219-1-A**	**09/05/12 12:26**	**Air**	**GC 55**	**N/A**	**09/06/12 13:52**	**120906L01**

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
SV-2	**12-09-0219-2-A**	**09/05/12 11:46**	**Air**	**GC 55**	**N/A**	**09/06/12 14:14**	**120906L01**

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
SV-3	**12-09-0219-3-A**	**09/05/12 13:22**	**Air**	**GC 55**	**N/A**	**09/06/12 14:38**	**120906L01**

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
SV-4	**12-09-0219-4-A**	**09/05/12 13:44**	**Air**	**GC 55**	**N/A**	**09/06/12 15:06**	**120906L01**

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
SV-5	**12-09-0219-5-A**	**09/05/12 11:25**	**Air**	**GC 55**	**N/A**	**09/06/12 15:30**	**120906L01**

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
SV-6	**12-09-0219-6-A**	**09/05/12 14:06**	**Air**	**GC 55**	**N/A**	**09/06/12 15:57**	**120906L01**

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

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-7	**12-09-0219-7-A**	**09/05/12 12:44**	**Air**	**GC 55**	**N/A**	**09/06/12 16:24**	**120906L01**

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
SV-8	**12-09-0219-8-A**	**09/05/12 11:03**	**Air**	**GC 55**	**N/A**	**09/06/12 16:48**	**120906L01**

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	**099-12-872-321**	**N/A**	**Air**	**GC 55**	**N/A**	**09/06/12 13:27**	**120906L01**

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: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-1	**12-09-0219-1-A**	**09/05/12 12:26**	**Air**	**GC/MS YY**	**N/A**	**09/06/12 19:44**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	53	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	102	47-156			1,2-Dichloroethane-d4	103	47-156		
Toluene-d8	100	47-156							

SV-2	**12-09-0219-2-A**	**09/05/12 11:46**	**Air**	**GC/MS YY**	**N/A**	**09/06/12 20:34**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	23	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	105	47-156			1,2-Dichloroethane-d4	101	47-156		
Toluene-d8	100	47-156							

SV-3	**12-09-0219-3-A**	**09/05/12 13:22**	**Air**	**GC/MS YY**	**N/A**	**09/06/12 21:24**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	21	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	104	47-156			1,2-Dichloroethane-d4	101	47-156		
Toluene-d8	100	47-156							

SV-4	**12-09-0219-4-A**	**09/05/12 13:44**	**Air**	**GC/MS YY**	**N/A**	**09/06/12 22:14**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	33	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	104	47-156			1,2-Dichloroethane-d4	101	47-156		
Toluene-d8	99	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-5	**12-09-0219-5-A**	**09/05/12 11:25**	**Air**	**GC/MS YY**	**N/A**	**09/06/12 23:05**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	21	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	102	47-156			1,2-Dichloroethane-d4	98	47-156		
Toluene-d8	100	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-6	**12-09-0219-6-A**	**09/05/12 14:06**	**Air**	**GC/MS YY**	**N/A**	**09/06/12 23:55**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	27	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	102	47-156			1,2-Dichloroethane-d4	98	47-156		
Toluene-d8	101	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-7	**12-09-0219-7-A**	**09/05/12 12:44**	**Air**	**GC/MS YY**	**N/A**	**09/07/12 00:45**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	24	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	103	47-156			1,2-Dichloroethane-d4	100	47-156		
Toluene-d8	100	47-156							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-8	**12-09-0219-8-A**	**09/05/12 11:03**	**Air**	**GC/MS YY**	**N/A**	**09/07/12 01:36**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	26	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	103	47-156			1,2-Dichloroethane-d4	104	47-156		
Toluene-d8	100	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: EPA 8260B (M)
Units: ug/m3

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-13-041-989**	**N/A**	**Air**	**GC/MS YY**	**N/A**	**09/06/12 13:47**	**120906L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	16	1		Xylenes (total)	ND	43	1	
Toluene	ND	19	1		Methyl-t-Butyl Ether (MTBE)	ND	36	1	
Ethylbenzene	ND	22	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	101	47-156			1,2-Dichloroethane-d4	98	47-156		
Toluene-d8	96	47-156							

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: EPA TO-3M

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-1	**12-09-0219-1-A**	**09/05/12 12:26**	**Air**	**GC 38**	**N/A**	**09/06/12 13:55**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-2	**12-09-0219-2-A**	**09/05/12 11:46**	**Air**	**GC 38**	**N/A**	**09/06/12 14:42**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-3	**12-09-0219-3-A**	**09/05/12 13:22**	**Air**	**GC 38**	**N/A**	**09/06/12 15:28**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-4	**12-09-0219-4-A**	**09/05/12 13:44**	**Air**	**GC 38**	**N/A**	**09/06/12 16:10**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-5	**12-09-0219-5-A**	**09/05/12 11:25**	**Air**	**GC 38**	**N/A**	**09/06/12 16:52**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-6	**12-09-0219-6-A**	**09/05/12 14:06**	**Air**	**GC 38**	**N/A**	**09/06/12 18:12**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: EPA TO-3M

Project: 4212 First Street, Pleasanton, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-7	**12-09-0219-7-A**	**09/05/12 12:44**	**Air**	**GC 38**	**N/A**	**09/06/12 18:59**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-8	**12-09-0219-8-A**	**09/05/12 11:03**	**Air**	**GC 38**	**N/A**	**09/06/12 19:47**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-431-70**	**N/A**	**Air**	**GC 38**	**N/A**	**09/06/12 13:14**	**120906L01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	3800	1		ug/m3

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

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 09/06/12
Work Order No: 12-09-0219
Preparation: N/A
Method: EPA TO-3M

Project: 4212 First Street, Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
SV-8	**Air**	**GC 38**	**N/A**	**09/06/12**	**120906D01**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	ND	ND	NA	0-20	X

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: 12-09-0219
Preparation: N/A
Method: ASTM D-1946

Project: 4212 First Street, Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,638	Air	GC 34	N/A	09/06/12	120906L01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	10.12	9.211	91	9.162	91	80-120	1	0-30	
Carbon Dioxide	10.07	9.855	98	9.820	98	80-120	0	0-30	
Carbon Monoxide	9.930	10.43	105	10.40	105	80-120	0	0-30	
Oxygen + Argon	3.500	3.494	100	3.481	99	80-120	0	0-30	
Nitrogen	10.02	9.758	97	9.715	97	80-120	0	0-30	

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: 12-09-0219
Preparation: N/A
Method: ASTM D-1946 (M)

Project: 4212 First Street, Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-321	Air	GC 55	N/A	09/06/12	120906L01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.9729	97	0.9846	98	80-120	1	0-30	
Hydrogen	1.000	1.032	103	1.042	104	80-120	1	0-30	

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: 12-09-0219
Emeryville, CA 94608-2008	Preparation: N/A
	Method: EPA 8260B (M)

Project: 4212 First Street, Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-041-989	Air	GC/MS YY	N/A	09/06/12	120906L01

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	79.87	78.52	98	76.70	96	60-156	44-172	2	0-40	
Toluene	94.21	92.27	98	92.06	98	56-146	41-161	0	0-43	
Ethylbenzene	108.6	102.1	94	99.74	92	52-154	35-171	2	0-38	
Xylenes (total)	325.7	315.1	97	315.5	97	42-156	23-175	0	0-41	
Methyl-t-Butyl Ether (MTBE)	90.13	88.33	98	91.57	102	45-147	28-164	4	0-25	
Tert-Butyl Alcohol (TBA)	151.6	158.3	104	159.2	105	60-140	47-153	1	0-35	
Diisopropyl Ether (DIPE)	104.5	101.9	98	93.47	89	60-140	47-153	9	0-35	
Ethyl-t-Butyl Ether (ETBE)	104.5	107.6	103	108.1	103	60-140	47-153	0	0-35	
Tert-Amyl-Methyl Ether (TAME)	104.5	109.8	105	99.37	95	60-140	47-153	10	0-35	
Ethanol	188.4	164.3	87	168.4	89	47-137	32-152	2	0-35	
1,1-Difluoroethane	67.54	67.12	99	66.34	98	78-156	65-169	1	0-35	
Isopropanol	61.45	63.20	103	63.46	103	78-156	65-169	0	0-35	

Total number of LCS compounds : 12
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 - Laboratory Control Sample

ACCREDITED IN ACCORDANCE WITH nelac

Conestoga-Rovers & Associates		Date Received:	N/A
5900 Hollis Street, Suite A		Work Order No:	12-09-0219
Emeryville, CA 94608-2008		Preparation:	N/A
		Method:	EPA TO-3M

Project: 4212 First Street, Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-14-431-70	**Air**	**GC 38**	**09/06/12**	**12090602**	**120906L01**

Parameter	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Gasoline Range Organics (C6-C12)	382400	406000	106	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-09-0219

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.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
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.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

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 241501
PO #:
INCIDENT # (ENV SERVICES):
SAP #:
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 9/5/2012
PAGE: 1 of 1

SAMPLING COMPANY: Conestoga-Rovers & Associates	LOG CODE: CRAW	SITE ADDRESS: Street and City: 4212 First Street, Pleasanton	State: CA	GLOBAL ID NO.: T0600101259
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.: 240523-95-12.05
PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer		SAMPLER NAME(S) (Print): Scott Lewis		
TELEPHONE: 510-420-3319	FAX: 510-420-9170	E-MAIL: pschaefer@craworld.com		

12-09-0219

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :
Copy final report to Shell.Lab.Billing@craworld.com
Report results in µg/m³

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH -GRO, Purgeable C6-C12 (8260B)	TPH -DRO, Extractable (8015M)	TPHg (8015M)	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (TO-15)	BTEX + 5 OXY's (MTBE, TBA, DIPE, TAME, ETBE) 8260B	Full VOC list (8260B)	Single Compound: _____ (8260B)	1,2-DCA (8260B)	EDB (8260B)	Ethanol (8260B)	CH4 ASTMD 1946	O2 + Argon ASTMD 1946	Helium ASTMD 1946 (M)	CO2 ASTMD 1946	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	SV-1	9/5	1226	Vapor						1	X				X								X	X	X	X	
2	SV-2	9/5	1146	Vapor						1	X				X								X	X	X	X	
3	SV-3	9/5	1322	Vapor						1	X				X								X	X	X	X	
4	SV-4	9/5	1344	Vapor						1	X				X								X	X	X	X	
5	SV-5	9/5	1125	Vapor						1	X				X								X	X	X	X	
6	SV-6	9/5	1406	Vapor						1	X				X								X	X	X	X	
7	SV-7	9/5	1244	Vapor						1	X				X								X	X	X	X	
8	SV-8	9/5	1103	Vapor						1	X				X								X	X	X	X	

Relinquished by: (Signature)	Received by: (Signature)	Date: 9-5-12	Time: 1530
Relinquished by: (Signature) 9/5/12 1730	Received by: (Signature)	Date: 9/6/12	Time: 10:30
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

GSO
GOLDEN STATE OVERNIGHT

WebShip > > > > >
800-322-5555 www.gso.com

0219

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, CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 519919177

NPS

ORC

A

GARDEN GROVE

D92841A

4409606

Print Date : 09/05/12 15:34 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 #: 12-09-0219

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: CRA

DATE: 09/06/12

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature _____.___ °C - 0.3 °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:** RP

CUSTODY SEALS INTACT:

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

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

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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen 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 ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

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

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

Preservative: h: HCL n: HNO_3 na$_2$:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** MC