



E₂C Remediation

Environmental Engineering,
Consulting and Remediation, Inc.

**PRELIMINARY SITE INVESTIGATION
REPORT OF FINDINGS**

**710-714 Madison Street
Fairfield, California**

**July 29, 2011
Project Number 1963BK43**

PREPARED FOR:

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1.0 INTRODUCTION

E₂C Remediation (E₂C) prepared this report of findings to document preliminary site investigation activities for the Former One Hour Cleaners facility (Site) located at 712 Madison Street in Fairfield, California (Figure 1). E₂C performed the preliminary site investigation on behalf of Lewis Brisbois, Bisgaard & Smith LLP. The work was performed pursuant to the following Inspection Demand document:

NOTICE FOR INSPECTION AND EXAMINATION OF REAL PROPERTY, SUPERIOR COURT OF CALIFORNIA, SOLANO COUNTY, Case No. FCS033636.

This Inspection Demand was submitted by the Isola Law Group, LLP of Lodi, California. The Demand included a Site Investigation Workplan, dated February 2, 2011 that was prepared by Genesis Engineering & Redevelopment (Genesis) of Ripon California (Workplan). Reportedly, the Workplan was not approved by the State of California Regional Water Quality Control Board. A copy of the Demand document is included as Appendix C.

1.1 Site Description

The Site consists of one (1) commercial building divided into three (3) separate units (710, 712 and 714 Madison Street). The 712 Madison Street unit formerly contained a dry cleaning service that operated from the early 1960's until 1998. A nursing school is currently housed in 712 and 714 Madison Street.

2.0 PRELIMINARY SITE INVESTIGATION

In their Workplan (copy included as Appendix C), Genesis selected four locations (OHM-1, OHM-2, OHM-3, and OHM-4) along the eastern side of the 710-714 Madison Street building at which to collect soil, soil vapor and grab-groundwater samples. On May 11, 2011, four borings (OHM-1, OHM-2, OHM-3, and OHM-4) were advanced by PeneCore of Woodland, California (under the supervision of Genesis) to allow for sample collection and logging of geologic materials. The locations of these borings are shown on Figure 2. Genesis obtained the primary sets of soil, soil vapor and grab-groundwater samples at each boring location with E₂C obtaining split and/or co-located soil, soil vapor and grab-groundwater samples at each boring location. Additionally, Ground Zero Analysis, Inc. of Escalon, California obtained split grab-groundwater samples from the borings on behalf of Hunsucker, Goodstein & Nelson PC. Note: only analytical results for samples obtained by E₂C are presented in this report of findings. Descriptions of drilling, sampling and sample handling methodologies are presented in the Workplan (see Appendix C).

2.1 E₂C Sample Descriptions

Descriptions of the split and/or co-located soil, soil vapor and grab-groundwater samples obtained by E₂C on May 11, 2001 are presented below.

Soil samples were:

OHM-1, (3-3.5' depth) obtained at 11:11 am;
OHM-2, (3-3.5' depth) obtained at 10:50 am;
OHM-3, (3-3.5' depth) obtained at 12:50 pm;
OHM-3, (7-7.5' depth) obtained at 1:59 pm; and
OHM-4, (3-3.5' depth) obtained at 11:46 am.

Soil vapor samples were:

OHM-1, (2-3.0' depth) obtained at 11:11 am;
OHM-2, (2-3.0' depth) obtained at 10:22 am;
OHM-3, (2-3.0' depth) obtained at 11:46 am; and
OHM-4, (2-3.0' depth) obtained at 10:47 am.

Grab-groundwater samples were:

OHM-1-10', obtained at 5:40 pm;
OHM-1-20', obtained at 6:25 pm;
OHM-2-10', obtained at 11:55 am;
OHM-2-24', obtained at 1:35 pm;
OHM-3-25', obtained at 1:59 pm; and
OHM-4-25', obtained at 5:15 pm

Note: Each of the grab-groundwater samples contained significant sediment.

Sample information and descriptions of geologic materials encountered in the borings are presented on boring logs contained in Appendix A.

2.2 Preliminary Site Investigation Laboratory Analyses

Soil, soil vapor and grab-groundwater samples obtained at the Site by E₂C on May 11, 2011 were transported under chain-of-custody to California Laboratory Services of Rancho Cordova, California. (California State-Certified analytical laboratory #1233) (CLS). Samples were analyzed in accordance with all relevant State guidelines and EPA protocols for the following constituents of concern (COCs):

2.2.1 Soil Analytical Services

Soil samples: OHM-1, 3-3.5'; OHM-2, 3-3.5'; OHM-3, 3-3.5' and 7-7.5'; and OHM-4, 3-3.5' were chemically analyzed at CLS for volatile organic compounds (VOCs) including tetrachloroethene (PCE) using EPA Method 8260B. Additionally, soil sample OHM-3, 7-7.5' was chemically analyzed at CLS for extractable petroleum hydrocarbons using EPA Method 8015M.

2.2.2 Soil Vapor Analytical Services

CLS submitted soil vapor samples: OHM-1, OHM-2, OHM-3 and OHM-4 to Smart Chemistry Corporation of Sacramento, California, where they were chemically analyzed for VOCs using Method TO-15.

2.2.3 Grab-Groundwater Analytical Services

Grab-groundwater samples: OHM-1-10', OHM-1-20', OHM-2-10', OHM-2-24', OHM-3-25' and OHM-4-25' were chemically analyzed at CLS for VOCs including PCE using EPA Method 8260B.

2.3 Preliminary Site Investigation Analytical Data

Laboratory analytical reports for soil, soil vapor and grab groundwater samples obtained at the Site by E₂C and are presented in Appendix B and are described in the following sections. Copies of sample container clean certificates are also presented in Appendix B.

2.3.1 *Soil Analytical Data*

Soil analytical data are summarized in Table 1 and as follows:

- PCE was reported in three (3) soil samples (OHM-1, 3-3.5'; OHM-2, 3-3.5 and OHM-3, 3-3.5') at concentrations ranging from 0.021 milligrams per kilogram (mg/kg) at OHM-3, 3-3.5' to 0.190 mg/kg at OHM-1, 3-3.5';
- Stoddard solvent was reported in one (1) soil sample (OHM-3, 7-7.5') at a concentration of 61 mg/kg; and
- Mineral oil was reported in one (1) soil sample (OHM-3, 7-7.5') at a concentration of 60 mg/kg.

2.3.2 *Soil Vapor Analytical Data*

Soil vapor analytical data are summarized in Table 2 and as follows:

- PCE was reported in four (4) soil vapor samples (OHM-1 through OHM-4) at concentrations ranging from 116 parts per billion by volume (ppbv) at OHM-4 to 147,000 ppbv at OHM-1; and
- Acetone was reported in one (1) soil vapor sample (OHM-4) at a concentration of 66 ppbv.

2.3.3 *Grab-Groundwater Analytical Data*

Grab-groundwater analytical data are summarized in Table 3 and as follows:

- PCE was reported in five (5) grab-groundwater samples (OHM-1-10', OHM-1-20', OHM-2-10', OHM-2-24', and OHM-3-25') at concentrations ranging from 2.9 micrograms per liter ($\mu\text{g/L}$) at OHM-3-25' to 38,000 $\mu\text{g/L}$ at OHM-1-20';
- Other VOCs at relatively low concentrations were also detected in the grab-groundwater samples (see Table 3).

Note: The grab-groundwater results presented herein may not reflect actual dissolved phase COC concentrations in groundwater at the Site. Grab-groundwater samples are primarily used as a reconnaissance tool to assess whether COCs are present, or absent. Grab-groundwater analytical results can be highly variable due to sediment from unknown locations within a boring being entrained in the grab-groundwater sample.

3.0 CONCLUSIONS

Based on the preliminary site investigation and laboratory analytical reports for May 11, 2011, the following conclusions are made:

- It appears that a release of COCs may have occurred at the Site; and
- The magnitude and extent of the apparent release at the Site and potential releases at other sites are unknown.

4.0 RECOMMENDATIONS

Based on the above conclusions and preliminary site investigation work, E₂C makes the following recommendations:

- Prepare a workplan for CRWQCB review that contains the required elements to complete a more thorough evaluation of site conditions and all possible sources of PCE (and related daughter products) in the vicinity of the site; and
- Upon approval of the workplan by the CRWQCB, proceed with planned site evaluation activities including report of findings preparation.

5.0 LIMITATIONS AND REPORT CERTIFICATION

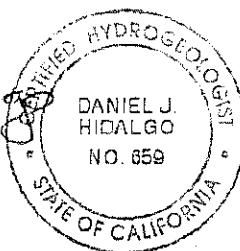
E₂C Remediation performed this investigation in accordance with the generally accepted standards of care that exists in California at this time. It should be recognized that definition and evaluation of geologic conditions is a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with limited knowledge of subsurface conditions present. No warranty, expressed or implied, is made.

This Report has been prepared under the professional supervision of the registered professional whose seal and signature appears herein. The conclusions of this report are based solely on the Scope of Services outlined and the sources of information referenced in this report. Any additional information that becomes available concerning the Site should be submitted to E₂C so that our conclusions may be reviewed and modified, if necessary. This report was prepared for the sole use of Lewis Brisbois Bisgaard & Smith LLP and/or agent(s).

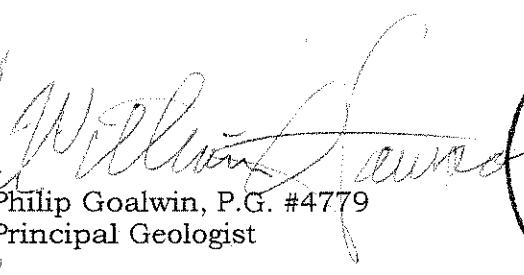
Prepared By:



Daniel J. Hidalgo, CHG 659
Senior Hydrogeologist
Expires June 30, 2013



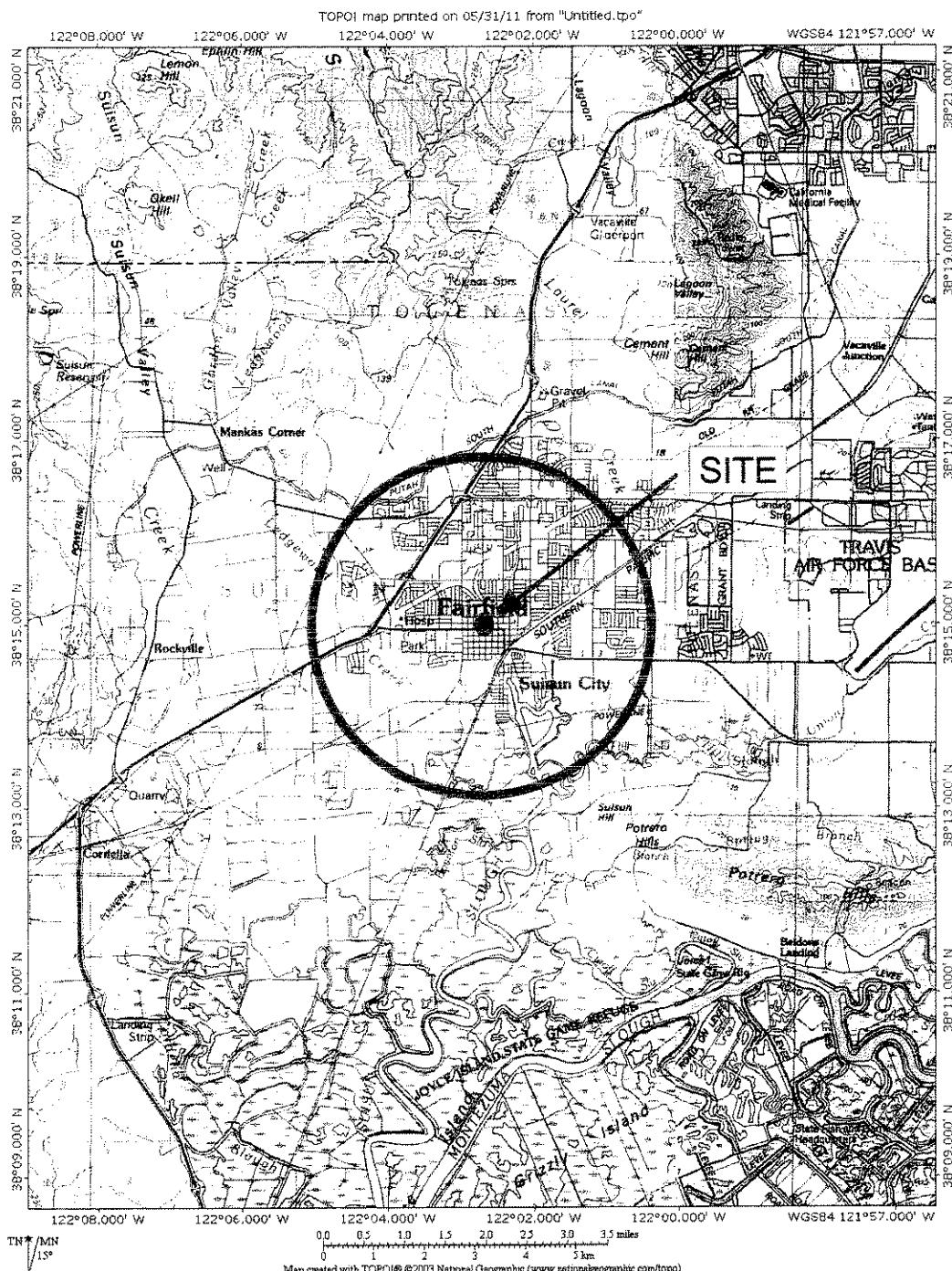
Reviewed By:


Philip Goalwin, P.G. #4779
Principal Geologist

FIGURES

Figure 1 Site Location Map

Figure 2 Site Plan



E₂C Remediation

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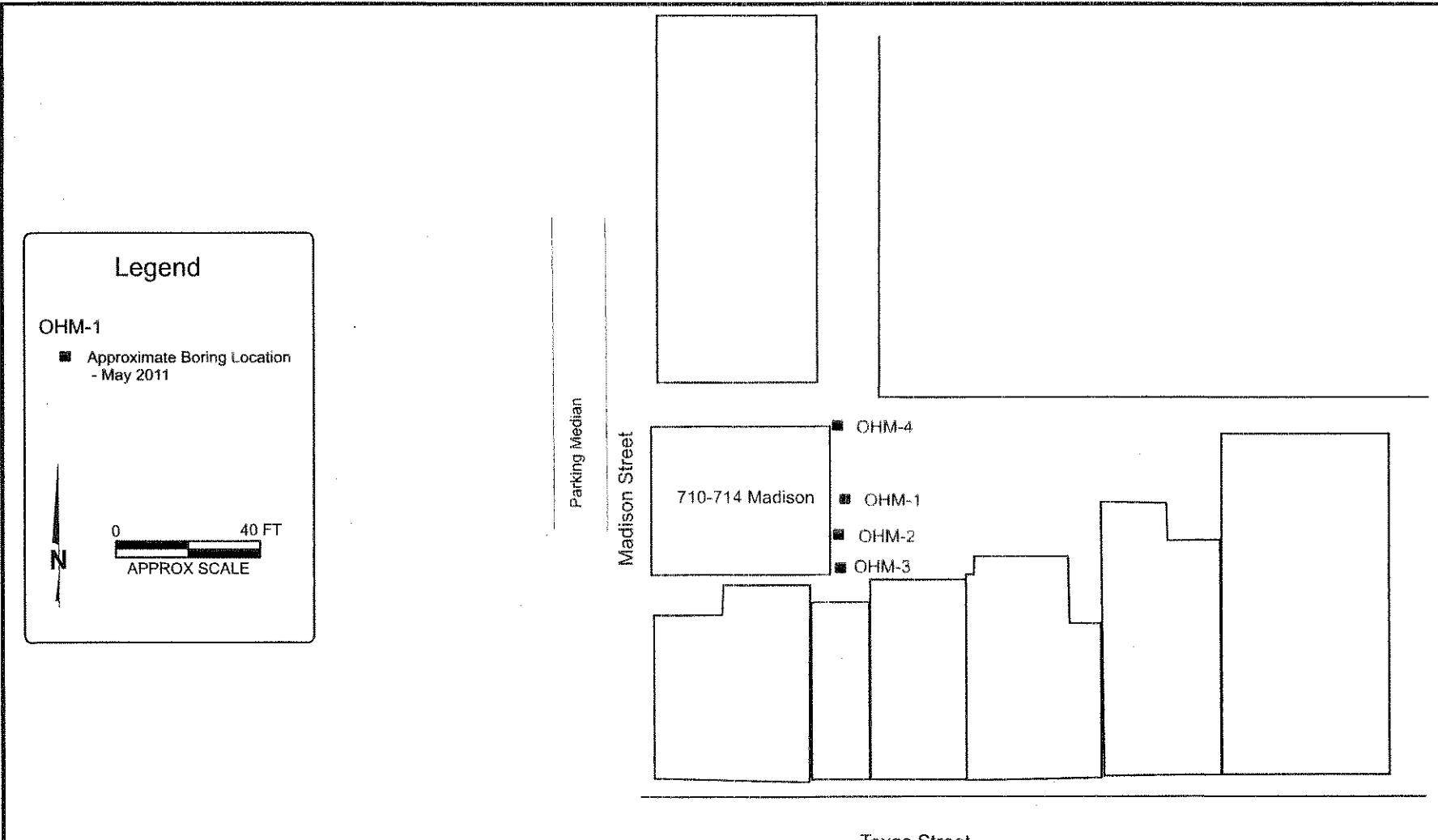
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FORMER ONE HOUR CLEANERS
712 MADISON STREET
FAIRFIELD, CALIFORNIA

SITE LOCATION MAP

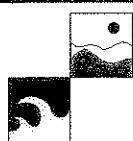
FIGURE

1



FIGURE

2



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FORMER ONE HOUR CLEANERS
712 MADISON STREET
FAIRFIELD, CALIFORNIA

SITE PLAN

TABLES

- Table 1 Summary of Soil Sampling Analytical Data
- Table 2 Summary of Soil Vapor Sampling Analytical Data
- Table 3 Summary of Grab-Groundwater Sampling Analytical Data

TABLE 1
SUMMARY OF SOIL SAMPLING ANALYTICAL DATA
FORMER ONE HOUR CLEANERS
712 Madison Street
Fairfield, California

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH (feet)	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	VC	CF	BEN	TPHd	STOD	MIN
mg/kg													
OHM-1	5/11/2011	3-3.5	0.190	nd<0.005	nd<0.005	nd<0.005	nd<0.005	nd<0.010	nd<0.005	nd<0.005	NA	NA	NA
OHM-2		3-3.5	0.086	nd<0.005	nd<0.005	nd<0.005	nd<0.005	nd<0.010	nd<0.005	nd<0.005	NA	NA	NA
OHM-3		3-3.5	0.021	nd<0.005	nd<0.005	nd<0.005	nd<0.005	nd<0.010	nd<0.005	nd<0.005	NA	NA	NA
OHM-3		7-7.5	nd<0.005	nd<0.005	nd<0.005	nd<0.005	nd<0.005	nd<0.010	nd<0.005	nd<0.005	nd<1.0	61	60
OHM-4		3-3.5	nd<0.005	nd<0.005	nd<0.005	nd<0.005	nd<0.005	nd<0.010	nd<0.005	nd<0.005	NA	NA	NA

NOTES:

Analytical Results in milligrams per kilogram (mg/kg) = parts per million (ppm)

Analytical Methods: VOCs - EPA 8260B; TPHd, STOD, MIN - EPA 8015M

nd = Not reported at or above method detection limit, which is indicated by value

NA = Not Analyzed

PCE = tetrachloroethene

TCE = trichloroethene

cis-1,2-DCE = cis-1,2-dichloroethene

trans-1,2-DCE = trans-1,2-dichloroethene

1,1-DCE = 1,1-dichloroethene

STOD = Stoddard Solvent

TPHd = Total petroleum hydrocarbons as diesel

VC = vinyl chloride

CF = chloroform

BEN = Benzene

MIN = Mineral Oil

TABLE 2
SUMMARY OF SOIL VAPOR SAMPLING ANALYTICAL DATA
FORMER ONE HOUR CLEANERS
712 Madison Street
Fairfield, California

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH (feet)	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	VC	CF	BEN	ACE	MtBE
OHM-1	5/11/2011	2.0-3.0	147,000	nd<31,000	nd<31,000	nd<31,000	nd<31,000	nd<31,000	nd<31,000	nd<31,000	nd<31,000	nd<31,000
OHM-2		2.0-3.0	10,500	nd<960	nd<960	nd<960	nd<960	nd<960	nd<960	nd<1,000	nd<1,000	nd<960
OHM-3		2.0-3.0	8,530	nd<810	nd<810	nd<810	nd<810	nd<810	nd<810	nd<800	nd<800	nd<810
OHM-4		2.0-3.0	116	nd<17	nd<17	nd<17	nd<17	nd<17	nd<17	nd<20	66	nd<17

NOTES:

Analytical Results in parts per billion by volume (ppbv)

Analytical Methods: TO-15

nd = Not reported at or above method detection limit, which is indicated by value

PCE = tetrachloroethene

TCE = trichloroethene

cis-1,2-DCE = cis-1,2-dichloroethene

trans-1,2-DCE = trans-1,2-dichloroethene

1,1-DCE = 1,1-dichloroethene

ACE = acetone

MtBE = methyl tertiary butyl ether

VC = vinyl chloride

CF = chloroform

BEN = Benzene

TABLE 3
SUMMARY OF GRAB-GROUNDWATER ANALYTICAL DATA
FORMER ONE HOUR CLEANERS
712 Madison Street
Fairfield, California
May 11, 2011

SAMPLE ID	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	VC	1,1,2-TCA	1,1,1,2-PCA	CF	NAP	Benzene
	µg/L										
OHM-1-10'	4,200	nd<0.5	nd<0.5	nd<0.5	nd<0.5	nd<1.0	27	nd<0.5	1.5	nd<0.5	nd<0.5
OHM-1-20'	38,000	32	nd<0.5	nd<0.5	1.4	nd<1.0	nd<0.5	0.67	0.89	nd<0.5	nd<0.5
OHM-2-10'	9.7	2.8	6.3	nd<0.5	nd<0.5	1.7	nd<0.5	nd<0.5	1.6	6.5	nd<0.5
OHM-2-24'	19	3.4	3.3	nd<0.5	0.98	3.5	nd<0.5	nd<0.5	nd<0.5	3.5	nd<0.5
OHM-3-25'	2.9	3.9	4.4	4.2	1.1	nd<1.0	nd<0.5	nd<0.5	nd<0.5	nd<0.5	nd<0.5
OHM-4-25'	nd<0.5	nd<0.5	nd<0.5	nd<0.5	nd<0.5	nd<1.0	nd<0.5	nd<0.5	2.6	nd<0.5	nd<0.5

Results in micrograms per liter (µg/L) = parts per billion (ppb)

Analytical Methods: VOCs - EPA 8260B

nd = Not Detected at or above Method Detection Limit which is indicated by number

PCE = tetrachloroethene

1,1,2-TCA = 1,1,2-trichloroethane

TCE = trichloroethene

1,1,1,2-TCA = 1,1,1,2-tetrachloroethane

cis-1,2-DCE = cis-1,2-dichloroethene

VC = vinyl chloride

trans-1,2-DCE = trans-1,2-dichloroethene

CF = chloroform

1,1-DCE = 1,1-dichloroethene

NAP = naphthalene

APPENDICES

- Appendix A Boring Logs
- Appendix B CLS Analytical Laboratory Reports and Sample Container Clean Certificates
- Appendix C GE&R Site Investigation Workplan

APPENDIX A

Boring Logs

FIELD LOCATION OF BORING: OHM-1 located along eastern side of 715-717 Madison building PAGE 1 OF 1

PROJECT NUMBER: 1973 BK

DATES DRILLED: 5-11-11

CLIENT:

DRILLER: Pen e Core

SITE ADDRESS: 717 Madison
Fairfield, CA

LOGGED BY: D. H. Hidalgo

DRILLING METHOD AND EQUIPMENT: Hand Auges and Geotube

BORING DIAMETER: 3 (inches) BORING DEPTH: 20 (feet)

WATER LEVEL

DATE

TIME

Depth (Feet)	SAMPLE NAME	Blow Count	PID	WELL/ BORING DIAGRAM	USCS Symbol	SOIL DESCRIPTION
						0.0-6.0' ASPHALT and BASEMENT
OHM-1; soil vapor sample @ 11:11 am				Temporary well OHM-1		Boring hard, angular 0.5-6.0' 0.5-5.0' CLAYEY TYPE SOIL
5 OHM-1; 3-3.5'(soil) @ 11:30 am				Temporary 1" dia well	CL	5.0-8.0' SILTY CLAY: Moderate Yellowish Brown; moist
OHM-1-10' @ 5:40 pm (water)				screen for grab water sample	ML	8.0-9.5' CLAY SILT: Moderate Yellowish Brown; very moist
10					CL	9.5-10.0' SILTY CLAY: Moderate Yellowish Brown; moist
						10.0-15.0' SILTY CLAY: Pale Brown to Orange Brown; moist
						n 13-13.3' CLAYEY SILT (lens) Moderate Yellowish Brown moist.
15				Temporary 1" dia well screen	CL	15.0-17.5' SILTY CLAY: Pale Brown to Moderate Yellowish Brown; moist; charcoal pieces
OHM-1-20' @ 6:25p (water)					CL	17.5-20.0' SILTY CLAY/CLAYEY SILT: Pale Brown to Moderate Yellowish Brown; moist to very moist.
20						

Well Construction Details: NA

Well Depth: _____ (feet); PVC I.D.: _____ (inches); PVC Schedule: _____;
Screen Interval: _____ to _____ feet, bgs; Slot Size _____ (inch);
Sand (Type: _____); Placed _____ to _____ feet, bgs;
Bentonite (Type: _____); Placed _____ to _____ feet, bgs;
Cement Grout tremied: _____ to _____ feet, bgs.

COMMENTS:

clear, breezy
~ 68°F



E2C Remediation

1020 Winding Creek Road., Suite 110
Roseville, California 95678

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BORING/WELL NAME:

OHM-1

Attorney Client Work Product

FIELD LOCATION OF BORING: OHM-2 located along eastern side of 710-719 Madison building PAGE 1 OF 1

DRILLING METHOD AND EQUIPMENT: Hand Auger and Geo Probe

BORING DIAMETER: 2 (inches) BORING DEPTH: 25 (feet)

PROJECT NUMBER: 1973BK DATES DRILLED: 5-11-11
CLIENT: PenCore DRILLER: PenCore
SITE ADDRESS: 712 Madison Fairfield, CA LOGGED BY: D. Hidalgo

WATER LEVEL		
DATE		
TIME		

Depth (Feet)	SAMPLE NAME	Blow Count	PID	WELL/ BORING DIAGRAM	USCS Symbol	SOIL DESCRIPTION
				Ø		0.0-0.5' ASPHALT and BASE ROCK
OHM-2; Soil vapor				Temporary well screen		Boring hand augered 0.5-5.0'
5 OHM-2; 2-3.5' (soil) @ 10:50 am				1" dia	CL	0.5-5.0' CLAYEY TYPE SOIL
10 OHM-2-10' (water)				Well screen		5.0-10.0' SILTY CLAY: Moderate yellowish brown; moist
15				For water sample		10.0-15.0' SILTY CLAY: Moderate yellowish brown; moist
20 OHM-2-24' @ 1:35 pm (water)				Temporary well screen 1" dia	CL	15.0-20.0' SILTY CLAY: Moderate yellowish brown with rust mottling; moist
25						20.0-24.0' SILTY CLAY: As above (15.0-20.0')
						24.0-24.5' SAND: Moderate yellowish Brown; fine grained; wet
						24.5-25.0' SILTY CLAY: As above (15.0-20.0')

Well Construction Details: NA

Well Depth: _____ (feet); PVC I.D.: _____ (inches); PVC Schedule: _____;
Screen Interval: _____ to _____ feet, bgs; Slot Size _____ (inch);
Sand (Type: _____); Placed _____ to _____ feet, bgs;
Bentonite (Type: _____); Placed _____ to _____ feet, bgs;
Cement Grout tremied: _____ to _____ feet, bgs.

COMMENTS:

clear, breezy
~68° F



E2C Remediation

1020 Winding Creek Road, Suite 110
Roseville, California 95668

Phone: (916) 782-8700
Fax: (916) 782-8049

BORING/WELL NAME:

OHM-2

Attorney Client Work Product

FIELD LOCATION OF BORING: OHM-3 located near southeastern corner of 710-714 Madison building.

PAGE 1 OF 1
DRILLING METHOD AND EQUIPMENT: Hand Auger and Geotube

BORING DIAMETER: 3 (inches) BORING DEPTH: 25 (feet)

PROJECT NUMBER: 1973BK DATES DRILLED: 5-11-11
CLIENT: DRILLER: PenCore
SITE ADDRESS: 712 Madison Folsom, CA LOGGED BY: D. Hidalgo

WATER LEVEL		
DATE		
TIME		

Depth (Feet)	SAMPLE NAME	Blow Count	PID	WELL/BORING DIAGRAM	USCS Symbol	SOIL DESCRIPTION
				∅		0-0-0.5' ASPHALT and BASE ROCK
OHM-3; soil vapor sample @ 11:46am				Temporary well OHM-3		Box inc. hand augered 0.5-5.0'
5 OHM-3; 3-2.5' (soil) @ 12:50pm				CL		0-5-5.0' CLAYEY TYPE SOIL 5.0-6.0' SILTY CLAY: Moderate Yellowish Brown; moist
10				660		6.0-8.0' SILTY CLAY: Olive Gray; moist.
	OHM-3; 7-7.5' (soil) @ 1:59pm					8-9-10.0' SILTY CLAY: Moderate Yellowish Brown; moist.
15						CL 10.0-15.0' SILTY CLAY: Moderate Yellowish Brown with thin silt (ML) layer; moist
20				Temporary 1" dia well screen for grab water sample	ML CL	CL 15.0-20.0' SILTY CLAY: Moderate Yellowish Brown; moist ~17.9' thin silt (ML) layer; wet ~19.0' thin silt (ML) layer; wet ~19.9' thin silt (ML) layer; wet
25	OHM-3-25' (water)					20.0-25.0' CLAYEY SILT to SILTY CLAY: Pale Brown to Moderate Yellowish Brown; moist to very moist.

Well Construction Details: NA

Well Depth: _____ (feet); PVC I.D.: _____ (inches); PVC Schedule: _____;
Screen Interval: _____ to _____ feet, bgs; Slot Size _____ (inch);
Sand (Type: _____); Placed _____ to _____ feet, bgs;
Bentonite (Type: _____); Placed _____ to _____ feet, bgs;
Cement Grout tremied: _____ to _____ feet, bgs.

COMMENTS: clear, breezy
~68° F



E2C Remediation

1020 Winding Creek Road., Suite 110
Roseville, California 95678

Phone: (916) 782-8700
Fax: (916) 782-8049

BORING/WELL NAME:

OHM - 3

Attorney Client Work Product

FIELD LOCATION OF BORING: OHM-4 located near northeastern corner of 710-714 Madison building

PAGE 1 OF 1

PROJECT NUMBER: 1973 BK DATES DRILLED: 5-11-11
CLIENT: PenCore DRILLER: PenCore
SITE ADDRESS: 712 Madison Fairfield, CA LOGGED BY: G. Hidalo

DRILLING METHOD Hand Auger and GeoProbes AND EQUIPMENT:

BORING DIAMETER: 3 (inches) BORING DEPTH: 25 (feet)

WATER LEVEL
DATE
TIME

Depth (Feet)	SAMPLE NAME	Blow Count	PID	WELL/BORING DIAGRAM	USCS Symbol	SOIL DESCRIPTION
				Ø		0.0-0.5' ASPHALT and BASE ROCK
OHM-4; Soil Vapor sample @ 10' 47"				Temporary soil vapor well OHM-4		Boring hand augered 0.0-5.0' 0.5-5.0' CLAYEY TYPE SOIL
5 OHM-4; 3-2.5 (soil) @ 11:10am						5.0-9.0' SILTY CLAY/CLAYEY SILT: Moderate Yellowish Brown; moist.
10					CL	9.0-10.0' SILTY CLAY: Moderate Yellowish Brown; moist
					ML	10.0-14.0' CLAYEY SILT: Pale Brown; very moist.
						11.0-15.0' SILTY CLAY: Pale Brown to orangish Brown; occasional charcoal; damp to very moist
15					CL	15.0-19.0' SILTY CLAY: As above (11.0-15.0)
						19.0-22.5' CLAYEY SILT: Pale Brown to orangish Brown; moist
20				Temporary 1" dia well OHM-4-25" @ 5:15 pm (water)	ML	22.5-23.0' SILTY CLAY: Pale Brown to Moderate Yellowish Brown; moist
				Screen for grab Water Sample	CL	23.0-23.5' SILTY SAND: Dark Yellowish Brown ~60-70% fine coarsened sand; moist
					SM	23.5-23.8' SILT: Mod Yell Brown; moist
					SM	23.8-24.2' SILTY SAND: Same as 23.0-23.5'
25					CL	24.2-25.0' SILTYCLAY: Mod Yell. Brown dark Brown specs; moist

Well Construction Details: NA

Well Depth: _____ (feet); PVC I.D.: _____ (inches); PVC Schedule: _____;
Screen Interval: _____ to _____ feet, bgs; Slot Size _____ (inch);
Sand (Type: _____); Placed _____ to _____ feet, bgs;
Bentonite (Type: _____); Placed _____ to _____ feet, bgs;
Cement Grout tremied: _____ to _____ feet, bgs.

COMMENTS:

clear, breezy
~ 68° F



E2C Remediation

1020 Winding Creek Road, Suite 110
Roseville, California 95678

Phone: (916) 782-8700
Fax: (916) 782-8049

BORING/WELL NAME:

OHM-4

Attorney Client Work Product

APPENDIX B

CLS Analytical Laboratory Reports and Sample Container Clean
Certificates

PRECLEANED CERTIFIED

Certificate of Compliance

The enclosed containers have been chemically cleaned by using the official U.S.P.[®] cleaning procedure for low-level chemical analysis. Representative containers have been tested by independent certified laboratories for their appropriate use. ESS containers meet and exceed the required detection limits established by the USEPA in SPECIFICATIONS AND GUIDANCE FOR CLEAN CONTAINERS FOR SAMPLE CONTAINERS (OWTR Directive #92-060-05A).

TEST RESULTS FOR ANALYTICALLY CLEAN PRECLEANED CONTAINERS													
Analyte	Quantitation Limit (ug/l)	Alpha-Chlordene	<0.005	2-Methylphenol	<1	2-Nitrophenol	<1	Antipyrine	<0.1	Dimethylphthalate	<1	Dimethylphthalate	<1
PESTICIDES/PCPs		Gamma-Chlordene	<0.005	N,N-Dimethyl-p,p'-nitrophenylamine	<1	Dimethylphthalate	<0.2	Fluorene	<0.1	Fluorene	<0.1	Fluorene	<0.1
Alpha-BHC	<0.005	Aroclor-1016	<0.2	4-Nitroanisole	<1	4-Nitrophenol	<0.2	Hydrazine	<0.1	Hydrazine	<0.1	Hydrazine	<0.1
Beta-BHC	<0.005	Aroclor-1221	<0.2	4-Nitroaniline	<1	2,6-Dinitrotoluene	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1
Gamma-BHC	<0.005	Aroclor-1239	<0.2	2-Nitrophenol	<1	4-Nitrotoluene	<0.2	2,4-Dichlorobenzene	<1	2,4-Dichlorobenzene	<1	2,4-Dichlorobenzene	<1
Chlorophenols	<0.005	Aroclor-1242	<0.2	2,3-Dimethylphenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1
Hydroquinone	<0.005	Aroclor-1268	<0.2	2,3,5-Trihydroxyphenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1
Aldrin	<0.005	Aroclor-1254	<0.2	2,3,4-Trihydroxyphenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1
Methyl chloro Endosids	<0.005	Aroclor-1260	<0.2	1,3,4-Trihydroxybenzene	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1
Sediment 1	<0.005	Aroclor-1262	<0.2	4-Nitroaniline	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1	2,4-Dinitrophenol	<1
Octachlor	<0.005	Aroclor-1268	<0.2	2-Chlorobiphenol	<1	2,4-Dinitrophenol	<1	2-(2-Ethoxyethyl) Phthalate	<1	2-(2-Ethoxyethyl) Phthalate	<1	2-(2-Ethoxyethyl) Phthalate	<1
1,4-TCO	<0.005	SEMIVOLATILES		2-Chlorobiphenol	<1	Phenol	<1	Di-n-Octylphthalate	<1	Di-n-Octylphthalate	<1	Di-n-Octylphthalate	<1
Fenuron	<0.005	Murol	<0.1	2-Chlorobiphenol	<1	4-Nitroaniline	<1	Benzofluoranthene	<0.2	Benzofluoranthene	<0.2	Benzofluoranthene	<0.2
Endosulfan II	<0.005	Heptachlor	<0.1	2-Methoxybiphenol	<0.2	4,6-Dinitro-2-Methyphenol	<1	Benzofluoranthene	<0.15	Benzofluoranthene	<0.15	Benzofluoranthene	<0.15
1,4-DD	<0.005	Heptachloroether	<0.1	Heptachloroether	<1	4,4'-(Methoxybiphenol)	<1	4-(Phenyl)-phenol	<0.1	4-(Phenyl)-phenol	<0.1	4-(Phenyl)-phenol	<0.1
Dicofol	<0.005	2,2-Dichloropropyl ether	<0.1	2,2,4-Trichlorobiphenol	<1	4,4'-(Methoxybiphenol)	<1	Indeno[1,2,3- <i>cd</i>]pyrane	<1	Indeno[1,2,3- <i>cd</i>]pyrane	<1	Indeno[1,2,3- <i>cd</i>]pyrane	<1
2,4-JDT	<0.005	2,2-Dichloropropyl ether	<0.1	2,2,5-Tribromoether	<1	4-Bromophenyl Phenylether	<1	Dibenzofluoranthene	<0.15	Dibenzofluoranthene	<0.15	Dibenzofluoranthene	<0.15
Albermarlo	<0.005	2-Chlorophenol	<0.1	2,2,5-Tribromoether	<1	4-Bromophenyl Phenylether	<1	Benzylidene	<0.2	Benzylidene	<0.2	Benzylidene	<0.2
Trans-Pthal	<0.005	2,4-Chloro	<0.1	2,2,5-Tribromoether	<1	4-Bromophenyl Phenylether	<1	Benzylidene	<0.2	Benzylidene	<0.2	Benzylidene	<0.2
Endur Adelyne	<0.005	1,1-Dichloropropene	<0.1	2-Chlorobiphenol	<0.2	Phenolphenol	<0.2	Benzylidene	<0.2	Benzylidene	<0.2	Benzylidene	<0.2

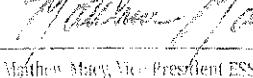
TEST RESULTS FOR ANALYTICALLY CLEAN PRECLEANED CONTAINERS													
Analyte	Quantitation Limit (ug/l)	Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	1,2-Dichloroethane	<0.1	1,2-Dichloroethane	<0.1
Aroclor	<0.2	Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.2	1,2-Dichloroethane	<0.1	1,2-Dichloroethane	<0.1
Dioxane	<0.1	2-Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	1,2-Dichloroethane	<0.1	1,2-Dichloroethane	<0.1
1,4-Dioxane	<0.1	2-Chlorobenzene	<0.1	1,1-Dichloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	1,2-Dichloroethane	<0.1	1,2-Dichloroethane	<0.1
1,4-Dichloroethane	<0.1	2-Chlorobenzene	<0.1	1,2-Dichloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	Vinyl Acetate	<0.5	Vinyl Acetate	<0.5
1,4-Dichloroformate	<0.1	Chloroform	<0.1	1,2-Dichloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	Vinyl Chloride	<0.1	Vinyl Chloride	<0.1
1,4-Dimethylformate	<0.1	Chloroform	<0.1	1,2-Dichloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	Acetyl Isobutyl Ether	<0.1	Acetyl Isobutyl Ether	<0.1
1,4-Dioxane	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	Acetyl Isobutyl Ether	<0.5	Acetyl Isobutyl Ether	<0.5
2,4-Biphenol	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	Chloroethylbutylether	<0.1	Chloroethylbutylether	<0.1
2,4-Biphenol	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	Isobutylchloroether	<0.1	Isobutylchloroether	<0.1
2,4-Biphenol	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	Diisopropylene	<0.1	Diisopropylene	<0.1
2,4-Biphenol	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	tert-butanol	<0.1	tert-butanol	<0.1
2,4-Biphenol	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	o-xylene	<0.1	o-xylene	<0.1
Carbon Tetrachloride	<0.1	1,2-Dibromo-3-Chloropropane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	m-xylene	<0.2	m-xylene	<0.2
Carboxylic acid	<0.1	Dichloro Fluoromethane	<0.1	1,1,2,2-Tetrachloroethane	<0.1	4-Isoxyphenol	<0.1	Trichloroethane	<0.1	p-xylene	<0.1	p-xylene	<0.1

TEST RESULTS FOR ANALYTICALLY CLEAN PRECLEANED CONTAINERS													
Analyte	Detection Limit (ug/l)	Beryllium	<0.01	Boron	<0.01	Lead	<0.01	Nickel	<0.05	Vanadium	<1	Zinc	<0.1
Antimony	<0.5	Cadmium	<0.03	Iron	<0.01	Lead	<0.01	Palladium	<0.5	Vanadium	<1	Zinc	<0.1
Antimony	<0.03	Cadmium	<0.01	Manganese	<0.1	Manganese	<0.1	Selenium	<0.5	Cyanide	<1	Cyanide	<1
Antimony	<0.01	Cadmium	<0.01	Manganese	<0.1	Silver	<0.01	Selenium	<100	Fluoride	<100	Fluoride	<100
Antimony	<0.01	Cadmium	<0.01	Mercury	<0.1	Sodium	<1	Sodium	<1	Nitrate + Nitrite	<50	Nitrate + Nitrite	<50

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Matthew May, Vice President ESSVial
120210



Scientific Products LLC
Where clean is critical

36 E. B.J. Tunell Blvd.
Miami, OK 74354

Dear Customer:

The purpose of this letter is to ensure that you have a complete understanding of EP Scientific Products procedures and quality assurance for Level I preserved containers.

EP Scientific Products quality assurance extends beyond the analytical testing of the pre-cleaned bottles, to the point where we analyze all incoming acids for the analytes which the acid is destined to preserve. We also analyze any dilution we manufacture, such as 1:1 HNO₃; which is used for metals preservation. We also check the preservative in the sample bottle, so you will have assurance that the product you purchase is of the highest quality.

The container Preserving Procedures are as follows:

- Under a fume hood, closure is removed from certified containers to deliver reagent and replaced.
- Color coded paper seal with reagent identification is attached between closure and body of container.
- Certification of container and certification of reagent is included with each case of product, M.S.D.S. is enclosed, and box is custody sealed.

In the past, we have conducted analytical tests with preserved containers stored for two years and found no contamination. As long as the following conditions are met, EP Scientific Products will guarantee the preservative up to one year from the date preserved or the expiration date located on the catalog label. The container is stored upright at room temperature without exposure to contaminants (propane fumes, solvents, pesticides, etc.).

EP Scientific Products' goal is to serve the environmental industry with total integrity. If you have any questions about preserved products, contact our Technical Services for assistance at 800-331-7425 ext. 181. Please refer to the date and/or expiration date on the catalog label for traceability.



Scientific Products
Where clean is critical

OA.57
Rev. 0
12/26/07

36 E. B.J. Tunnell Blvd.
Miami, OK 74354

Certificate of Analysis

QA LEVEL	1	LOT NO	B0265120
DESCRIPTION	40mL Clear w/cap	VOLATILES QUALITY ASSURANCE	

EP Scientific Level 1 products have been tested and found to comply with or to be lower than the EPA detection limits as stated in OSWER Directive # 9240.0-05A "Specifications And Guidance For Contaminant-Free Sample Containers 12/92".

Compound	Quantitation Limit ($\mu\text{g/L}$)	Compound	Quantitation Limit ($\mu\text{g/L}$)
Acetone	< 5.0	Ethylbenzene	< 0.5
Acrylonitrile	< 1.0	Hexachlorobutadiene	< 0.5
Benzene	< 0.5	2-Hexanone	< 5.0
Bromobenzene	< 0.5	Iodomethane	< 0.5
Bromoform	< 0.5	Isopropylbenzene	< 0.5
Bromomethane	< 0.5	m-p Xylenes	< 0.5
2-Butanone	< 5.0	4-Methyl-2-pentanone	< 5.0
Carbon Disulfide	< 0.5	Methyl t-butyl ether (MTBE)	< 0.5
Carbon Tetrachloride	< 0.5	Naphthalene	< 0.5
Chlorobenzene	< 0.5	n-Butylbenzene	< 0.5
Chloroethane	< 0.5	Nitrobenzene	< 0.5
Chloroform	< 0.5	n-Propylbenzene	< 0.5
Chloromethane	< 0.5	o-Xylene	< 0.5
2-Chlorotoluene	< 0.5	p-Isopropyltoluene	< 0.5
4-Chlorotoluene	< 0.5	sec-Butylbenzene	< 0.5
cis-1,2-Dichloroethene	< 0.5	Styrene	< 0.5
cis-1,3-Dichloropropene	< 0.5	tert-Butylbenzene	< 0.5
1,2-Dibromo-3-chloropropane	< 0.02	Tertiary amyl methyl ether (TAME)	< 3.0
Dibromochloromethane	< 0.5	Tertiary butyl alcohol (TBA)	< 2.0
1,2-Dibromoethane (EDB)	< 0.01	1,1,2,2-Tetrachloroethane	< 0.5
Dibromomethane	< 0.5	Tetrachloroethylene	< 0.5
1,2-Dichlorobenzene	< 0.5	Toluene	< 0.5
1,3-Dichlorobenzene	< 0.5	trans-1,2-Dichloroethene	< 0.5
1,4-Dichlorobenzene	< 0.5	trans-1,3-Dichloropropene	< 0.5
Dichlorodifluoromethane (Freon-12)	< 0.5	1,1,2-Trichloro-1,2,2 Trifluoroethane (Freon 113)	< 0.5
1,1-Dichloroethane	< 0.5	1,2,3-Trichlorobenzene	< 0.5
1,2-Dichloroethane	< 0.5	1,2,4-Trichlorobenzene	< 0.5
1,1-Dichloroethene	< 0.5	1,1,1-Trichloroethane	< 0.5
Dichloromethane	< 0.5	1,1,2-Trichloroethane	< 0.5
1,2-Dichloropropane	< 0.5	Trichloroethylene	< 0.5
1,3-Dichloropropane	< 0.5	Trichlorofluoromethane	< 0.5
2,2-Dichloropropane	< 0.5	1,2,3-Trichloropropene	< 0.5
1,1-Dichloropropene	< 0.5	1,2,4-Trimethylbenzene	< 0.5
Ethyl tertiary butyl ether (ETBE)	< 3.0	1,3,5-Trimethylbenzene	< 0.5
Octa methyl cyclo tetrasiloxane	< 5.0	Vinyl Acetate	< 0.5
		Vinyl Chloride	< 0.5
		Deca methyl cyclo pentasiloxane	< 5.0

In addition to the above analytes, 20mL, 40 mL and 60 mL vials are certified for:

Compound	Quantitation Limit ($\mu\text{g/L}$)
Total Organic Carbon	<600

If EP Scientific can be of any further assistance, please call (800) 331-7425 and ask for our technical service department.

Approved By

Kim Meeks
Quality Assurance



Scientific Products LLC
Where clean is critical

QA 91
Rev. 0
4/8/08

200 B.J. Tunell Blvd.
Miami, OK 74354

CERTIFICATE OF ANALYSIS

Identification Hydrochloric Acid LOT NO. 4110040
DESCRIPTION 1:1 HCL

VOLATILES QUALITY ASSURANCE

ANALYTE	CONTRACT REQUIRED QUANTITION LIMIT (ug/L)
Chloromethane	< 1
Bromomethane	< 1
Vinyl chloride	< 1
Chloroethane	< 1
Methylene chloride	< 2
Acetone	< 5
Carbon disulfide	< 1
1,1-Dichloroethene	< 1
1,1-Dichloroethane	< 1
cis-1,2-Dichloroethene	< 1
trans-1,2-Dichloroethene	< 1
Chloroform	< 1
1,2-Dichloroethane	< 1
2-Butanone	< 5
Bromoform	< 1
1,1,1-Trichloroethane	< 1
Carbon tetrachloride	< 1
Bromodichloromethane	< 1
1,2-Dichloropropane	< 1
cis-1,3-Dichloropropene	< 1

ANALYTE	CONTRACT REQUIRED QUANTITION LIMIT (ug/L)
Trichloroethene	< 1
Dibromochloromethane	< 1
1,1,2-Trichloroethane	< 1
Benzene	< 1
trans-1,3-Dichloropropene	< 1
Bromoform	< 1
4-Methyl-2-pentanone	< 5
2-Hexanone	< 5
Tetrachloroethene	< 1
1,1,2,2-Tetrachloroethane	< 1
1,2-Dibromoethane	< 1
Toluene	< 1
Chlorobenzene	< 1
Ethylbenzene	< 1
Styrene	< 1
Xylenes (total)	< 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	< 1
1,2-Dichlorobenzene	< 1
1,2-Dibromo-3-chloropropane	< 1

This is to certify that this lot was tested and found to comply with EP Scientific Products Specifications for this product.

Approved By

Kim Meeks 11-12-10

Kim Meeks
Quality Assurance



ACC# 89989

Print Date: 1/26/07
 Revision Date: 1/25/2007
 Version: 5

Material Safety Data Sheet Hydrochloric Acid 18%

Section 1 - Chemical Product and Company Identification

MSDS Name:
 Hydrochloric Acid 18% Solution

Catalog Numbers:
 ACH-5-1; ACH-1-1; ACH-2-1; ACH-5-1; PP112-01A5HA; PP113-500A3HA; PP140-40C 2HA
 PP140-40CDB,2HA; PP140-40CEP,2HA; PP141-40A,2HA; PP141-40ADB,2HA; PP141-40AEP,2HA
 SVCH-5-1; SVCH-1-1; SVCH-2-1; SVCH-5-1

Synonyms:
 Muriatic acid; Chlorohydric acid; Hydrogen chloride; Spirits of salt

Company Identification:
 EP Scientific Products - ThermoFisher Scientific
 36 #, BJ Tunnel Blvd.
 Miami, OK 74354

Company Phone Number:
 1-800-331-7425

Emergency Phone Number:
 CHEMTRAC Phone Number, US: (800) 424-9300
 CHEMTRAC Phone Number, Europe: (202) 483-7616

Section 2 - Composition, Information on Ingredients

GAS#	Chemical Name:	Percent	EINECS/ ELINCS	Hazard Symbols	Risk Phrases
7647-01-0	Hydrogen chloride	18.0	231-595-7	C	34 37
7732-18-5	Water	82	231-791-2		

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Colorless to slight yellow clear liquid

Warning! Causes irritation and possible burns by all routes of exposure. May be harmful if swallowed or inhaled. Repeated or prolonged exposure may cause erosion of exposed teeth. Corrosive to metal.

Target Organs: Respiratory system, Teeth, Eyes, Skin

Potential Health Effects

Eye:

Vapor or mist may cause irritation and severe burns. May cause painful sensitization to light. Causes eye irritation and possible burns.

ACC# 89989

Print Date: 1/25/07
 Revision Date: 1/25/2007
 Version: 5

Material Safety Data Sheet Hydrochloric Acid 18%

Skin:

Causes skin irritation and possible burns.

Ingestion:

May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. Causes digestive tract irritation with possible burns.

Inhalation:

Exposure to the mist and vapor may erode exposed teeth. Causes respiratory tract irritation with possible burns.

Chronic:

Repeated exposure may cause erosion of teeth. Prolonged exposure may cause conjunctivitis, photosensitization, and possible blindness. Repeated exposure to low concentrations of HCl vapor or mist may cause bleeding of nose and gums. Chronic bronchitis and gastritis have also been reported.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Do NOT use sodium bicarbonate in an attempt to neutralize the acid.

Antidote:

Do NOT use oils or ointments in eye.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dilute and collect water used to fight fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Not flammable, but reacts with most metals to form flammable hydrogen gas. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media:

Substance is nonflammable, use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature:

Not applicable.

ACC# 89989

Print Date: 1/25/07
 Revision Date: 1/25/2007
 Version: 5

Material Safety Data Sheet Hydrochloric Acid 18%

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

Not applicable.

NFPA Rating:

(estimated) Health: 3; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures**General Information:**

Use proper personal protective equipment as indicated in Section 8

Spills/Leaks:

Large spills may be neutralized with dilute alkaline solutions of soda ash (sodium carbonate, Na₂CO₃) or lime (calcium oxide, CaO). Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation. Do not get water inside containers. A vapor suppressing foam may be used to reduce vapors. Cover with dry earth, dry sand, or other non-combustible material followed with plastic sheet to minimize spreading and contact with water.

Section 7 - Handling and Storage**Handling:**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Contents may develop pressure upon prolonged storage. Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes. Use caution when opening.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Do not store in metal containers. Store away from alkalies.

Section 8 - Exposure Controls, Personal Protection**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Hydrogen chloride	2 ppm Ceiling	50 ppm IDLH; 5 ppm Ceiling; 7 mg/m ³ Ceiling	5 ppm Ceiling; 7 mg/m ³ Ceiling
Water	None listed	None listed	None listed

OSHA Vacated PELs**Personal Protective Equipment**

ACC# 89989

Print Date: 1/25/07
 Revision Date: 1/25/2007
 Version: 5

Material Safety Data Sheet Hydrochloric Acid 18%

Eyes:

Wear chemical splash goggles and face shield.

Skin:

Wear neoprene or polyvinyl chloride gloves to prevent exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149, or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms experienced.

Section 9 - Physical and Chemical Properties**Physical State:** Clear liquid**Color:** Colorless to slight yellow**Odor:** Strong, pungent**pH:** 0.01**Vapor Pressure:** 5.7 mm Hg @ 0°C**Vapor Density:** 1.26**Evaporation Rate:** > 1.00 (N-butyl acetate)**Viscosity:** No information found**Boiling Point:** 81.5-110°C @ 760 mmHg**Frosting/Melting Point:** -74°C**Decomposition Temperature:** No information found**Solubility in water:** Miscible.**Specific Gravity/Density:** 1.0-1.2**Molecular Formula:** HCl-H₂O**Molecular Weight:** 36.46**Section 10 - Stability and Reactivity****Chemical Stability:**

Stable under normal temperatures and pressures

Conditions to Avoid:

Incompatible materials, excess heat

Incompatibilities with Other Materials:

Bases, acetic anhydride, alkali metals, aluminum, amides, copper, copper alloys, fluorine, iron, sodium hydroxide, steel, sulfuric acid, vinyl acetate, zinc, potassium permanganate, cesium acetylene carbide, rubidium acetylene carbide, rubidium carbide, sodium, chlorosulfonic acid, oleum, carbonates, perchloric acid, calcium phosphide, metal oxides, acetates, cesium carbide, beta-propiolactone, ethylenimine, propylene oxide, lithium silicides, alcohols + hydrogen cyanide, 2-aminoethanol, ammonium hydroxide, calcium carbide, 1,1-difluoroethylene, ethylene diamine, magnesium boride, mercuric sulfate, uranium phosphide

Hazardous Decomposition Products:

Hydrogen chloride, chlorine, carbon monoxide, carbon dioxide, hydrogen gas

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Version: 5

Material Safety Data Sheet
Hydrochloric Acid 10%

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

RTECS:

CAS# 7647-01-0: MW4025000; MW4031000
CAS# 7732-18-5: ZC0110000

LD50/LC50:

CAS# 7647-01-0:
Inhalation, mouse: LC50 = 1108 ppm/1H
Inhalation, mouse: LC50 = 20487 mg/m3/5M
Inhalation, mouse: LC50 = 3940 mg/m3/30M
Inhalation, mouse: LC50 = 8300 mg/m3/30M
Inhalation, rat: LC50 = 3124 ppm/1H
Inhalation, rat: LC50 = 60938 mg/m3/5M
Inhalation, rat: LC50 = 7004 mg/m3/30M
Inhalation, rat: LC50 = 45000 mg/m3/5M
Inhalation, rat: LC50 = 8300 mg/m3/30M
Oral, rabbit: LD50 = 900 mg/kg.

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.

Carcinogenicity:

CAS# 7647-01-0: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65
CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

Epidemiology:

Experimental reproductive effects have been reported.

Teratogenicity:

Female rats were exposed to 450 mg/m3 of HCl for 1 hour either prior to mating or on day 9 of pregnancy. Developmental effects were observed in the offspring. However, this exposure caused toxic effects, including mortality, in the mothers.

Reproductive:

No information available.

Mutagenicity:

Cytogenetic analysis: Hamster, lung = 30 mmol/L; Cytogenetic analysis: Hamster, ovary = 8 mmol/L.

Neurotoxicity:

No information available.

Other:

See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:

Fish: Bluegill/Sunfish: 3.6 mg/L; 48Hr; Lethal (unspecified)
Fish: Bluegill/Sunfish: LC50: 98 Hr; pH 3.0-3.5

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Version: 5

Material Safety Data Sheet
Hydrochloric Acid 10%

Environmental:

Rapidly hydrolyzes when exposed to water. Will exhibit extensive evaporation from soil surfaces. Upon transport through the soil, hydrochloric acid will dissolve some of the soil materials (especially those with carbonate bases) and the acid will neutralize to some degree.

Physical:

No information found

Other:

No information found

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

None of the components are on this list.

Section 14 - Transport Information

US DOT

Proper Shipping Name: HYDROCHLORIC ACID, SOLUTION
Hazard Class: II
UN Number: UN1786
Packing Group: II

USA RQ: CAS# 7647-01-0, 5000 lb final RQ, 2270 kg final RQ

Canadian TDG

HYDROCHLORIC ACID, SOLUTION
B
UN89
II

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7647-01-0 is listed on the TSCA Inventory.
CAS# 7732-18-5 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

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Material Safety Data Sheet
Hydrochloric Acid 18%

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

CAS# 7647-01-0: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 7647-01-0: 500 lb TPQ (gas only)

SARA Hazard Categories

CAS# 7647-01-0: immediate.

SARA Section 313

This material contains Hydrogen chloride (CAS# 7647-01-0, < 20.0%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act - Hazardous Air Pollutants (HAPs)

CAS# 7647-01-0 is listed as a hazardous air pollutant (HAP).

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

CAS# 7647-01-0 is listed as a Hazardous Substance under the CWA.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

CAS# 7647-01-0 is considered highly hazardous by OSHA.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State

State Right to Know

Hydrogen chloride can be found on the following state Right-to-Know lists. California, New Jersey, Pennsylvania, Minnesota, Massachusetts

No information found

California Prop 65

None of the components are on this list

California No Significant Risk Level

None of the components are on this list

None of the components are on this list.

European/International Regulations

European Labelling In Accordance with EC Directives:

Hazard Symbols: XI

ACC# 89989

Print Date: 1/25/07
Revision Date: 1/25/2007
Version: 5

Material Safety Data Sheet
Hydrochloric Acid 18%

Risk Phrases: R 36/37/38: Irritating to eyes, respiratory system and skin.

Safety Phrases: S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

WGK (Water Danger/Protection)

No information found

United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found

Canadian DSL/NDSL

CAS# 7647-01-0 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List

Canadian WHMIS Classifications

This product has a WHMIS classification of E, D2A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 7647-01-0 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

No information found

MSDS Creation Date: July 6, 1999

Revision Date: January 25, 2007

Revisions were made in Sections:

2, 3, 11, 14, 15

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.

Smart Chemistry

Corporation

3402 La Grande Blvd, Sacramento, CA 95823, (916)291-0300, (916)291-3440 (fax), www.smartchemistry.com, jplsu@smartchemistry.com

Canister Certification by TO15

Client:

Hydrogen Station at: •

Sample Type: Hydrogen Fuel

Date Sampled:

Date Received:

Date Analyzed: 11/17/2010

Time Analyzed: 8:13 pm

Field ID #: Sample Container#10

Lab Sample ID:

Concentration Units: PPBV

Date File Location

Data Filename: 10111703.D

Dilution Factor: 1.0

Analytes	MW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MQL (ug/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	1	0	U	0.005	0
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U	0.007	0
1,1,2-Trichloroethane	132	79-06-5	1	0	U	0.005	0
1,2-Dibromoethane	186	106-93-4	1	0	U	0.008	0
1,1-Dichloroethane	98	75-34-3	1	0	U	0.004	0
1,1-Dichloroethene	96	75-35-4	1	0	U	0.004	0
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U	0.007	0
1,2,4-Trimethylbenzene	120	95-63-6	1	0	U	0.005	0
1,2-Dichloroethane	98	107-06-2	1	0	U	0.004	0
1,2-Dichloropropane	112	78-87-5	1	0	U	0.005	0
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U	0.005	0
1,3-Butadiene	54	106-99-0	1	0	U	0.002	0
1,2-Dichlorobenzene	146	95-50-1	1	0	U	0.006	0
1,3-Dichlorobenzene	146	541-73-1	1	0	U	0.006	0
1,4-Dichlorobenzene	146	106-46-7	1	0	U	0.006	0
1,4-Dioxane	88	123-91-1	1	0	U	0.004	0
2-Butanone	72	78-93-3	1	0	U	0.003	0
2-Hexanone	100	591-78-6	1	0	U	0.004	0
4-Ethyltoluene	120	622-96-8	1	0	U	0.005	0
4-Methyl-2-Pentanone	100	108-10-1	1	0	U	0.004	0
Acetone	58	67-64-1	1	0	U	0.002	0
Benzene	78	71-43-2	1	0	U	0.003	0
Benzyl Chloride	126	100-44-7	1	0	U	0.005	0
Bromodichloromethane	162	75-27-4	1	0	U	0.007	0
Bromoform	250	75-25-2	1	0	U	0.01	0
Bromomethane	94	74-83-9	1	0	U	0.004	0
Carbon Disulfide	76	75-15-0	1	0	U	0.003	0
Carbon tetrachloride	152	56-23-5	1	0	U	0.006	0
Chlorobenzene	112	108-90-7	1	0	U	0.005	0
Chloroethane	64	75-00-3	1	0	U	0.003	0
Chloroform	116	67-66-3	1	0	U	0.005	0
Chloromethane	50	74-87-3	1	0	U	0.002	0
cis-1,2-dichloroethene	96	156-59-2	1	0	U	0.004	0
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U	0.005	0
Cyclohexane	84	110-82-7	1	0	U	0.003	0
Dibromochloromethane	206	124-48-1	1	0	U	0.008	0
Dichlorodifluoromethane	120	75-71-8	1	0	U	0.005	0
Ethanol	46	64-17-5	1	0	U	0.002	0
Ethyl Acetate	88	141-78-6	1	0	U	0.004	0
Ethybenzene	106	100-41-4	1	0	U	0.004	0
Freon113	186	76-13-1	1	0	U	0.008	0
Freon114	170	26-14-2	1	0	U	0.007	0
Heptane	100	142-82-5	1	0	U	0.004	0
Hexane	86	110-54-3	1	0	U	0.004	0
Hexachlorobutadiene	258	97-68-3	1	0	U	0.01	0
Isopropyl Alcohol	60	67-63-0	1	0	U	0.002	0
Methylene chloride	84	75-09-2	1	0	U	0.003	0
Methyl tert-Butyl Ether	88	1634-04-4	1	0	U	0.004	0
Propane	36	115-07-1	1	0	U	0.001	0
Styrene	104	100-42-5	1	0	U	0.004	0
Tetrachloroethene	164	127-18-1	1	0	U	0.007	0
Tetrahydrofuran	72	109-99-9	1	0	U	0.003	0
Toluene	92	108-88-3	1	0	U	0.004	0
trans-1,2-dichloroethene	96	156-60-5	1	0	U	0.004	0
trans-1,3-Dichloropropene	110	10061-02-6	1	0	U	0.005	0
Trichloroethene	130	79-01-6	1	0	U	0.005	0
Trichlorofluoromethane	136	75-69-4	1	0	U	0.006	0
Vinyl acetate	86	108-05-4	1	0	U	0.004	0
Vinyl chloride	62	75-01-4	1	0	U	0.003	0
Xylenes, m,p-	106	103-38-3 & 106-42-3	1	0	U	0.004	0
Xylenes, o-	106	95-47-6	1	0	U	0.004	0
Bromochloromethane (surrogate)	128	74-97-5		87	=		
4-BFB(surrogate)	174	460-00-4		98	=		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.

MQL - Method quantitation limit.

Surrogate results are in units of percent recovery with control limits: 65 to 135%

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Canister Certification by TO15

Client: _____
 Hydrogen Station at: _____
 Sample Type: Hydrogen Fuel
 Date Sampled: _____
 Date Received: _____
 Date Analyzed: 11082010
 Time Analyzed: 6:44 pm

Field ID #: Sample Container #12
 Lab Sample ID: _____
 Concentration Units: PPBV
 Date File Location: _____
 Data Filename: 10110804.D
 Dilution Factor: 1.0

Analytes	MW	CASNUM	MOL (PPBV)	Results (PPBV)	Qualifier	MOL (ng/L)	Results (ng/L)
1,1,1-Trichloroethane	132	71-55-6	1	0	U	0.005	0
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U	0.007	0
1,1,2-Trichloroethane	132	79-60-5	1	0	U	0.005	0
1,2-Dibromoethane	186	106-93-4	1	0	U	0.008	0
1,1-Dichloroethane	98	75-34-3	1	0	U	0.004	0
1,1-Dichloroethene	96	75-35-4	1	0	U	0.004	0
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U	0.007	0
1,2,4-Trimethylbenzene	120	95-53-6	1	0	U	0.005	0
1,2-Dichloroethane	98	107-86-2	1	0	U	0.004	0
1,2-Dichloropropane	112	78-87-5	1	0	U	0.005	0
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U	0.005	0
1,3-Butadiene	54	106-99-0	1	0	U	0.002	0
1,2-Dichlorobenzene	146	95-50-1	1	0	U	0.006	0
1,3-Dichlorobenzene	146	541-73-1	1	0	U	0.006	0
1,4-Dichlorobenzene	146	106-46-7	1	0	U	0.006	0
1,4-Dioxane	86	123-91-1	1	0	U	0.004	0
2-Butanone	72	78-93-3	1	0	U	0.003	0
2-Hexanone	100	591-78-6	1	0	U	0.004	0
4-Ethyltoluene	120	622-96-8	1	0	U	0.005	0
4-Methyl-2-Pentanone	100	108-10-1	1	0	U	0.004	0
Acetone	58	67-64-1	1	0	U	0.002	0
Benzene	78	71-43-2	1	0	U	0.003	0
Benzyl Chloride	126	109-44-7	1	0	U	0.005	0
Bromodichloromethane	162	75-27-4	1	0	U	0.007	0
Bromoform	250	75-25-2	1	0	U	0.01	0
Bromomethane	94	74-83-9	1	0	U	0.004	0
Carbon Disulfide	76	75-15-0	1	0	U	0.003	0
Carbon tetrachloride	152	56-23-5	1	0	U	0.006	0
Chlorobenzene	112	108-90-7	1	0	U	0.005	0
Chloroethane	64	75-00-3	1	0	U	0.003	0
Chloroform	118	67-66-3	1	0	U	0.005	0
Chloromethane	50	74-87-3	1	0	U	0.002	0
cis-1,2-dichloroethene	96	156-59-2	1	0	U	0.004	0
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U	0.005	0
Cyclohexane	84	110-82-7	1	0	U	0.003	0
Dibromochloromethane	206	124-48-1	1	0	U	0.008	0
Dichlorodifluoromethane	120	75-71-8	1	0	U	0.005	0
Ethanol	46	64-17-5	1	0	U	0.002	0
Ethyl Acetate	88	141-78-6	1	0	U	0.004	0
Ethybenzene	106	100-41-1	1	0	U	0.004	0
Freon113	186	76-13-1	1	0	U	0.008	0
Freon114	170	76-14-2	1	0	U	0.007	0
Heptane	100	142-82-5	1	0	U	0.004	0
Hexane	86	110-54-3	1	0	U	0.004	0
Hexachlorobutadiene	258	87-69-3	1	0	U	0.01	0
Isopropyl Alcohol	60	67-63-0	1	0	U	0.002	0
Methylene chloride	84	75-09-2	1	0	U	0.003	0
Methyl tert-Butyl Ether	88	1034-04-4	1	0	U	0.004	0
Propene	36	115-07-1	1	0	U	0.001	0
Styrene	104	100-42-5	1	0	U	0.004	0
Tetrachloroethene	164	127-18-4	1	0	U	0.007	0
Tetrahydrofuran	72	109-99-9	1	0	U	0.003	0
Toluene	92	108-88-3	1	0	U	0.004	0
trans-1,2-dichloroethene	96	156-60-5	1	0	U	0.004	0
trans-1,3-Dichloropropene	110	10061-02-6	1	0	U	0.005	0
Trichloroethene	130	79-01-6	1	0	U	0.005	0
Trichlorofluoromethane	136	75-69-4	1	0	U	0.006	0
Vinyl acetate	86	108-05-4	1	0	U	0.004	0
Vinyl chloride	62	75-01-4	1	0	U	0.003	0
Xylenes, m&p-	106	100-30-5	1	0	U	0.004	0
Xylenes, o-	106	95-47-6	1	0	U	0.004	0
Bromochloromethane (surrogate)	128	74-97-5		102	-		
4-BFB(surrogate)	174	460-00-4		100	-		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.

MQL - Method quantitation limit.

Surrogate results are in units of percent recovery with control limits: 65 to 135%.

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Canister Certification by TO15

Client:

Hydrogen Station at:

Sample Type: Hydrogen Fuel

Date Sampled:

Date Received:

Date Analyzed: 11/8/2010

Time Analyzed: 6:03 pm

Field ID #: Sample Container#10

Lab Sample ID:

Concentration Units: PPBV

Date File Location

Data Filename: 10110803.D

Dilution Factor: 1.0

Analytes	MW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MOL (ug/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	1	0	U	0.005	0
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U	0.007	0
1,1,2-Trichloroethane	132	79-40-5	1	0	U	0.005	0
1,2-Dibromoethane	186	106-93-4	1	0	U	0.008	0
1,1-Dichloroethane	98	75-34-3	1	0	U	0.004	0
1,1-Dichloroethene	96	75-35-4	1	0	U	0.004	0
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U	0.007	0
1,2,4-Trimethylbenzene	120	95-63-6	1	0	U	0.005	0
1,2-Dichloroethane	98	107-06-2	1	0	U	0.004	0
1,2-Dichloropropane	112	78-87-5	1	0	U	0.005	0
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U	0.005	0
1,3-Butadiene	54	106-99-0	1	0	U	0.002	0
1,2-Dichlorobenzene	146	95-59-1	1	0	U	0.006	0
1,3-Dichlorobenzene	146	541-73-1	1	0	U	0.006	0
1,4-Dichlorobenzene	146	106-46-7	1	0	U	0.006	0
1,4-Dioxane	88	123-91-1	1	0	U	0.004	0
2-Butanone	72	78-93-3	1	0	U	0.003	0
2-Hexanone	100	591-78-6	1	0	U	0.004	0
4-Ethyltoluene	120	622-96-8	1	0	U	0.005	0
4-Methyl-2-Pentanone	100	108-10-1	1	0	U	0.004	0
Acetone	58	67-64-1	1	0	U	0.002	0
Benzene	78	71-43-2	1	0	U	0.005	0
Benzyl Chloride	126	106-44-7	1	0	U	0.005	0
Bromodichloromethane	162	75-27-4	1	0	U	0.007	0
Bromoform	259	75-25-2	1	0	U	0.01	0
Bromomethane	94	74-83-9	1	0	U	0.004	0
Carbon Disulfide	76	75-15-0	1	0	U	0.003	0
Carbon tetrachloride	152	56-23-5	1	0	U	0.006	0
Chlorobenzene	112	108-90-7	1	0	U	0.005	0
Chloroethane	64	75-00-3	1	0	U	0.003	0
Chloroform	118	67-64-3	1	0	U	0.005	0
Chloromethane	50	74-87-3	1	0	U	0.002	0
cis-1,2-dichloroethene	96	156-59-2	1	0	U	0.004	0
cis-1,3-Dichloropropene	110	10061-01-5	1	0	U	0.005	0
Cyclohexane	84	110-82-7	1	0	U	0.003	0
Dibromochloromethane	206	124-48-1	1	0	U	0.008	0
Dichlorodifluoromethane	124	75-71-8	1	0	U	0.005	0
Ethanol	46	64-17-5	1	0	U	0.002	0
Ethyl Acetate	88	141-78-4	1	0	U	0.004	0
Ethybenzene	106	100-41-4	1	0	U	0.004	0
Freon113	186	76-13-1	1	0	U	0.008	0
Freon114	170	76-14-2	1	0	U	0.007	0
Heptane	100	142-82-5	1	0	U	0.004	0
Hexane	86	110-54-3	1	0	U	0.004	0
Hexachlorobutadiene	258	87-68-3	1	0	U	0.01	0
Isopropyl Alcohol	68	67-63-0	1	0	U	0.002	0
Methylene chloride	84	75-09-2	1	0	U	0.003	0
Methyl tert-Butyl Ether	88	1634-04-4	1	0	U	0.004	0
Propene	36	115-07-1	1	0	U	0.001	0
Styrene	104	100-42-5	1	0	U	0.004	0
Tetrachloroethene	164	127-18-4	1	0	U	0.007	0
Tetrahydrofuran	72	109-99-9	1	0	U	0.003	0
Toluene	92	108-88-3	1	0	U	0.004	0
trans-1,2-dichloroethene	96	156-60-5	1	0	U	0.004	0
trans-1,3-Dichloropropene	110	10061-02-6	1	0	U	0.005	0
Trichloroethene	130	79-01-6	1	0	U	0.005	0
Trichlorofluoromethane	136	75-69-4	1	0	U	0.006	0
Vinyl acetate	86	108-05-4	1	0	U	0.004	0
Vinyl chloride	62	75-01-4	1	0	U	0.003	0
Xylenes, m,p-	106	108-33-3 & 106-42-3	1	0	U	0.004	0
Xylenes, o-	106	95-47-6	1	0	U	0.004	0
Bromochloromethane (surrogate)	128	74-97-5		97	=		
4-BFB(surrogate)	174	460-00-4		103	=		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.

MQL - Method quantitation limit.

Surrogate results are in units of percent recovery with control limits: 65 to 135%.

Smart Chemistry Corporation

3402 La Grande Blvd, Sacramento, CA 95823 (916)391-3300, (916)391-3440 (fax), www.smartchemistry.com, jphsu@smartchemistry.com

Canister Certification by TO15

Client:

Hydrogen Station at:

Sample Type: Hydrogen Fuel

Date Sampled:

Date Received:

Date Analyzed: 01072011

Time Analyzed: 12:12 am

Field ID #: Sample Container#11

Lab Sample ID:

Concentration Units: PPBV

Date File Location

Data Filename: 11010603.D

Dilution Factor: 1.0

Analyte	MW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MOL (ug/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	1	0	U	0.005	0
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U	0.007	0
1,1,2-Trichloroethane	132	79-00-5	1	0	U	0.005	0
1,2-Dibromoethane	166	106-93-4	1	0	U	0.008	0
1,1-Dichloroethane	98	75-34-3	1	0	U	0.004	0
1,1-Dichloroethene	96	75-35-4	1	0	U	0.004	0
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U	0.007	0
1,2,4-Trimethylbenzene	128	95-63-6	1	0	U	0.005	0
1,2-Dichloroethane	98	107-06-2	1	0	U	0.004	0
1,2-Dichloropropane	112	78-87-5	1	0	U	0.005	0
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U	0.005	0
1,3-Butadiene	54	106-99-0	1	0	U	0.002	0
1,2-Dichlorobenzene	146	95-50-1	1	0	U	0.006	0
1,3-Dichlorobenzene	146	541-73-1	1	0	U	0.006	0
1,4-Dichlorobenzene	146	106-46-7	1	0	U	0.006	0
1,4-Dioxane	88	123-91-1	1	0	U	0.004	0
2-Butanone	72	78-93-3	1	0	U	0.003	0
2-Hexanone	100	591-78-6	1	0	U	0.004	0
4-Ethyltoluene	120	622-96-8	1	0	U	0.005	0
4-Methyl-2-Pentanone	100	108-10-1	1	0	U	0.004	0
Acetone	58	67-64-1	1	0	U	0.002	0
Benzene	78	71-43-2	1	0	U	0.003	0
Benzyl Chloride	126	100-44-7	1	0	U	0.005	0
Bromodichloromethane	162	75-27-4	1	0	U	0.007	0
Bromoform	250	75-25-2	1	0	U	0.01	0
Bromomethane	94	74-83-9	1	0	U	0.004	0
Carbon Disulfide	76	75-15-0	1	0	U	0.003	0
Carbon tetrachloride	152	56-23-5	1	0	U	0.006	0
Chlorobenzene	112	108-80-7	1	0	U	0.005	0
Chloroethane	64	75-00-3	1	0	U	0.003	0
Chloroform	118	67-66-3	1	0	U	0.005	0
Chloromethane	50	74-87-3	1	0	U	0.002	0
cis-1,2-dichloroethene	96	156-59-2	1	0	U	0.004	0
cis-1,3-Dichloropropene	110	10961-01-5	1	0	U	0.005	0
Cyclohexane	84	110-82-7	1	0	U	0.003	0
Dibromochloromethane	206	124-48-1	1	0	U	0.008	0
Dichlorodifluoromethane	128	75-71-8	1	0	U	0.005	0
Ethanol	46	64-17-5	1	0	U	0.002	0
Ethyl Acetate	88	141-78-6	1	0	U	0.004	0
Ethylbenzene	106	100-41-4	1	0	U	0.004	0
Freon113	186	76-13-1	1	0	U	0.008	0
Freon114	178	76-14-2	1	0	U	0.007	0
Heptane	100	142-82-5	1	0	U	0.004	0
Hexane	86	110-54-3	1	0	U	0.004	0
Hexachlorobutadiene	258	87-68-3	1	0	U	0.01	0
Isopropyl Alcohol	60	67-63-0	1	0	U	0.002	0
Methylene chloride	84	75-09-2	1	0	U	0.003	0
Methyl tert-Butyl Ether	88	163-04-4	1	0	U	0.004	0
Propene	36	115-07-1	1	0	U	0.001	0
Styrene	104	100-42-5	1	0	U	0.004	0
Tetrachloroethene	164	127-18-4	1	0	U	0.007	0
Tetrahydrofuran	72	109-99-9	1	0	U	0.003	0
Toluene	92	108-88-3	1	0	U	0.004	0
trans-1,2-dichloroethene	96	156-60-5	1	0	U	0.004	0
trans-1,3-Dichloropropene	110	10963-02-6	1	0	U	0.005	0
Trichloroethene	130	79-01-6	1	0	U	0.005	0
Trichlorofluoromethane	136	75-69-4	1	0	U	0.006	0
Vinyl acetate	86	108-05-4	1	0	U	0.004	0
Vinyl chloride	62	75-01-4	1	0	U	0.003	0
Xylenes, m&p-	106	106-34-3 & 106-43-3	1	0	U	0.004	0
Xylenes, o-	106	95-47-6	1	0	U	0.004	0
Bromochloromethane (surrogate)	128	74-97-5		86	=		
4-BFB(surrogate)	174	460-00-4		93	=		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume. MQL - Method quantitation limit.

Surrogate results are in units of percent recovery with control limits 65 to 135%

www.SmartChemistry.com
Canister Certification by TO15

Client:

Hydrogen Station at:

Sample Type: Hydrogen Fuel

Date Sampled:

Date Received:

Date Analyzed: 1/22/2011

Time Analyzed: 2:23 pm

Field ID #: Sample Container #9

Lab Sample ID:

Concentration Units: PPBV

Date File Location

Data Filename: 11012205.D

Dilution Factor: 1.0

Analytes	MW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MQL (ug/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	1	0	U	0.005	0
1,1,2,2-Tetrachloroethane	166	79-34-5	1	0	U	0.007	0
1,1,2-Trichloroethane	132	79-00-5	1	0	U	0.005	0
1,2-Dibromoethane	186	106-93-4	1	0	U	0.008	0
1,1-Dichloroethane	98	75-34-3	1	0	U	0.004	0
1,1-Dichloroethene	96	75-35-4	1	0	U	0.004	0
1,2,4-Trichlorobenzene	180	120-82-1	1	0	U	0.007	0
1,2,4-Trimethylbenzene	120	95-63-6	1	0	U	0.005	0
1,2-Dichloroethane	98	107-06-2	1	0	U	0.004	0
1,2-Dichloropropane	112	78-87-5	1	0	U	0.005	0
1,3,5-Trimethylbenzene	120	108-67-8	1	0	U	0.005	0
1,3-Butadiene	54	106-99-0	1	0	U	0.002	0
1,2-Dichlorobenzene	146	95-50-1	1	0	U	0.006	0
1,3-Dichlorobenzene	146	541-73-1	1	0	U	0.006	0
1,4-Dichlorobenzene	146	106-46-7	1	0	U	0.006	0
1,4-Dioxane	88	123-91-1	1	0	U	0.004	0
2-Butanone	72	78-93-3	1	0	U	0.003	0
2-Hexanone	100	591-78-6	1	0	U	0.004	0
4-Ethyltoluene	120	622-96-8	1	0	U	0.005	0
4-Methyl-2-Pentanone	100	108-10-1	1	0	U	0.004	0
Acetone	58	67-64-1	1	0	U	0.002	0
Benzene	78	71-43-2	1	0	U	0.003	0
Benzyl Chloride	126	180-44-7	1	0	U	0.005	0
Bromodichloromethane	162	75-27-4	1	0	U	0.007	0
Bromoform	250	75-25-2	1	0	U	0.01	0
Bromomethane	94	74-82-9	1	0	U	0.004	0
Carbon Disulfide	76	75-15-0	1	0	U	0.003	0
Carbon tetrachloride	152	56-23-5	1	0	U	0.006	0
Chlorobenzene	112	108-90-7	1	0	U	0.005	0
Chloroethane	64	75-00-3	1	0	U	0.003	0
Chloroform	118	67-66-3	1	0	U	0.005	0
Chloromethane	50	74-87-3	1	0	U	0.002	0
cis-1,2-dichloroethene	96	156-59-2	1	0	U	0.004	0
cis-1,3-Dichloropropene	110	10061-61-5	1	0	U	0.005	0
Cyclohexane	84	119-82-7	1	0	U	0.003	0
Dibromochloromethane	206	124-48-1	1	0	U	0.008	0
Dichlorodifluoromethane	120	75-71-8	1	0	U	0.005	0
Ethanol	46	64-17-5	1	0	U	0.002	0
Ethyl Acetate	88	141-78-6	1	0	U	0.004	0
Ethylbenzene	106	100-41-4	1	0	U	0.004	0
Freon113	186	76-13-1	1	0	U	0.008	0
Freon114	170	76-14-2	1	0	U	0.007	0
Heptane	100	142-82-5	1	0	U	0.004	0
Hexane	86	110-54-3	1	0	U	0.004	0
Hexachlorobutadiene	258	87-68-3	1	0	U	0.01	0
Isopropyl Alcohol	60	67-63-0	1	0	U	0.002	0
Methylene chloride	84	75-09-2	1	0	U	0.003	0
Methyl tert-Butyl Ether	88	1634-04-4	1	0	U	0.004	0
Propene	36	115-07-1	1	0	U	0.001	0
Styrene	104	100-42-5	1	0	U	0.004	0
Tetrachloroethene	164	127-18-4	1	0	U	0.007	0
Tetrahydrofuran	72	109-99-9	1	0	U	0.003	0
Toluene	92	108-88-3	1	0	U	0.004	0
trans-1,2-dichloroethene	96	156-60-5	1	0	U	0.004	0
trans-1,3-Dichloropropene	110	10061-02-6	1	0	U	0.005	0
Trichloroethene	130	79-01-6	1	0	U	0.005	0
Trichlorofluoromethane	136	75-69-4	1	0	U	0.006	0
Vinyl acetate	86	108-05-4	1	0	U	0.004	0
Vinyl chloride	62	75-01-4	1	0	U	0.003	0
Xylenes, m&p-	106	JNE-38-3 & 106-42-3	1	0	U	0.004	0
Xylenes, o-	106	95-47-6	1	0	U	0.004	0
Bromochloromethane (surrogate)	128	74-97-5		75	=		
4-BFB(surrogate)	174	460-00-4		98	=		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume:

MQL - Method quantitation limit

Surrogate results are in units of percent recovery with control limits: 65 to 135%.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova CA 95742

May 23, 2011

CLS Work Order #: CUE0511
COC #: 124170

Phil Goalwin
E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield, CA 93313

Project Name: One Hour Martinizing

Enclosed are the results of analyses for samples received by the laboratory on 05/12/11 13:45. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness. Any comments and exceptions are addressed under the Notes and Definitions section.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CLS - Labs

CHAIN OF CUSTODY

CLS ID No.; CLVE0511

LOG NO. 124170
1 OF 2

REPORT TO: NAME AND ADDRESS E2C Remediation 5300 Woodmore Dr #105 Bakersfield, CA 93313		CLIENT JOB NUMBER 1973BK		ANALYSIS REQUESTED		GEOTRACKER: EDF REPORT <input type="checkbox"/> YES <input type="checkbox"/> NO GLOBAL ID:				
PROJECT MANAGER Phil Gaalwin PHONE# 661-587-0585		DESTINATION LABORATORY <input checked="" type="checkbox"/> CLS (916) 638-7301 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742		PRESERVATIVES 8260B		COMPOSITE:				
PROJECT NAME One Hour Martinizing		<input type="checkbox"/> OTHER		Extractibles (TPH Full range)		FIELD CONDITIONS: cool; breezy				
SAMPLED BY Dan Hidalgo						TURN AROUND TIME				
JOB DESCRIPTION Soil and Water Sampling						SPECIAL INSTRUCTIONS				
SITE LOCATION 712 Madison, Fairfield, CA						OR				
DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	TYPE	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
5-11-11	10:50a	OHM-2; 3-3.5'	SOIL	1	liner	3 X			X	
5-11-11	11:10a	OHM-4; 3-3.5'	SOIL	1	liner	3 X			X	
5-11-11	11:30a	OHM-1; 3-3.5'	SOIL	1	liner	3 X			X	
5-11-11	12:50p	OHM-3; 3-3.5'	SOIL	1	liner	3 X			X	
5-11-11	1:50p	OHM-3; 7-7.5'	SOIL	1	liner	3 X X			X	P10=600 ppm; Natalie call Phil Gaalwin @ 661-587-0585
5-11-11	1:04p	OHM-2-10' (GW)	water	2	VOA	1/3 X			X	
5-11-11	1:35p	OHM-2-24' (GW)	water	3	VOA	1/3 X			X	
5-11-11	3:55p	OHM-3-25' (GW)	water	3	VOA	1/3 X			X	INVOICE TO:
5-11-11	5:15p	OHM-4-25' (GW)	water	3	VOA	1/3 X			X	
5-11-11	5:40p	OHM-1-10' (GW)	water	3	VOA	1 X			X	
5-11-11	6:25p	OHM-1-20' (GW)	water	3	VOA	1 X			X	PO #
SUSPECTED CONSTITUENTS PCE						PRESERVATIVES:	(1) HCl (2) HNO ₃	(3) = COLD (4) = NaOH	(5) = H ₂ SO ₄ (6) = Na ₂ S ₂ O ₃	(7) =
RELINQUISHED BY (SIGN) Dan Hidalgo		PRINT NAME / COMPANY E2C Remediation		DATE / TIME 5-12-11 1:45p		RECEIVED BY (SIGN)		PRINT NAME / COMPANY		
RECD AT LAB BY Natalie Headway		DATE / TIME 5/12/11 @ 1:45pm		CONDITIONS COMMENTS AT. 100% PH. 8.4						
SHIPPED BY: <input type="checkbox"/> FED X		<input type="checkbox"/> UPS		<input type="checkbox"/> OTHER		AIR BILL #				

CLS - Labs

202

REPORT TO:

E2C Remediation
5300 Woodmese Dr #105
Bakersfield, CA 93313
Project Manager: Phil Goalwin 661-582-0585
Project Name: One Hour Martiniizing
Sampled by: Dan Hidalgo
Job Description: SOIL VAPOR SAMPLING

CHAIN OF CUSTODY

SAMPLE NUMBER

1973 BK

DETERMINATION METHOD USED

CLS (916) 636-7301
2201 E. CALIFORNIA RD.
RANCHO CORDOVA, CA
95742

OTHER

PRESERVATIVES

712 Madison, Fairfield, CA

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER
5-11-11	10:22a	OHM-2	vapor	1 Liter
5-11-11	10:47a	OHM-4	vapor	1 Liter
5-11-11	11:01a	OHM-1	vapor	1 Liter
5-11-11	11:46a	OHM-3	vapor	1 Liter

SUSPECTED CONTAMINANTS

PCE

RELINQUISHED BY (SIGN)

Dan Hidalgo

PRINT NAME / COMPANY

E2C Remediation 5-12-11 1845

PRESERVATIVES

(1) HCl
(2) HNO3(3) - COLD
(4) - HOT(5) - H3PO4
(6) - Na2SO4

(7)

PRINT NAME / COMPANY

RECEIVED BY (SIGN)

RECORDED BY
Shipped by: FED X
Hatalu meadow

5/12/11 @ 1:15pm
UPS OTHER

CONTAINERS

AIR BILL #

CLS ID No.: CLVET511

LOG NO. WEB FORM

ANALYSIS REQUESTED

GEOTRACKER:

EDF REPORT YES NO

GLOBAL ID:

COMPOSITE

FIELD CONDITIONS:

cool; breezy

TURN AROUND TIME

SPECIAL INSTRUCTIONS

OR

ALL ID:

- Summer 12
- Summer 9
- Summer 10
- Summer 11

CALIFORNIA LABORATORY SERVICES

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05/23/11 16:38

E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-3; 7-7.5' (CUE0511-05) Soil Sampled: 05/11/11 13:59 Received: 05/12/11 13:45									
Diesel	ND	1.0	mg/kg	1	CU03398	05/17/11	05/17/11	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	"
Hydraulic Oil	ND	1.0	"	"	"	"	"	"	"
Mineral Oil	60	1.0	"	"	"	"	"	"	"
Kerosene	ND	1.0	"	"	"	"	"	"	"
Stoddard Solvent	61	1.0	"	"	"	"	"	"	"
<i>Surrogate: o-Terphenyl</i>		101 %		65-135		"	"	"	"

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 www.californialab.com 916-638-7301 Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

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05/23/11 16:38

E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-2; 3-3.5' (CUE0511-01) Soil	Sampled: 05/11/11 10:50	Received: 05/12/11 13:45							
Acetone	ND	100	µg/kg	1	CU03449	05/17/11	05/17/11	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	"
Bromobenzene	ND	5.0	"	"	"	"	"	"	"
Bromochloromethane	ND	5.0	"	"	"	"	"	"	"
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	"
Bromoform	ND	5.0	"	"	"	"	"	"	"
Bromomethane	ND	10	"	"	"	"	"	"	"
2-Butanone	ND	100	"	"	"	"	"	"	"
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	"
Chlorobenzene	ND	5.0	"	"	"	"	"	"	"
Chloroethane	ND	5.0	"	"	"	"	"	"	"
Chloroform	ND	5.0	"	"	"	"	"	"	"
Chloromethane	ND	10	"	"	"	"	"	"	"
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	"
Dibromomethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-2; 3-3.5' (CUE0511-01) Soil	Sampled: 05/11/11 10:50	Received: 05/12/11 13:45							
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CU03449	"	05/17/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	86	25	"	5	"	"	"	"	
Toluene	ND	5.0	"	1	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		92 %	50-125	"	"	"	"	"	
Surrogate: Toluene-d8		99 %	62-125	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	50-128	"	"	"	"	"	
OHM-4; 3-3.5' (CUE0511-02) Soil	Sampled: 05/11/11 11:10	Received: 05/12/11 13:45							

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-4; 3-3.5' (CUE0511-02) Soil	Sampled: 05/11/11 11:10	Received: 05/12/11 13:45							
Acetone	ND	100	µg/kg	1	CU03449	05/17/11	05/17/11	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	"
Bromobenzene	ND	5.0	"	"	"	"	"	"	"
Bromoform	ND	5.0	"	"	"	"	"	"	"
Bromochloromethane	ND	5.0	"	"	"	"	"	"	"
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	"
Bromoform	ND	5.0	"	"	"	"	"	"	"
Bromomethane	ND	10	"	"	"	"	"	"	"
2-Butanone	ND	100	"	"	"	"	"	"	"
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	"
Chlorobenzene	ND	5.0	"	"	"	"	"	"	"
Chloroethane	ND	5.0	"	"	"	"	"	"	"
Chloroform	ND	5.0	"	"	"	"	"	"	"
Chloromethane	ND	10	"	"	"	"	"	"	"
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	"
Dibromomethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-4; 3-3.5' (CUE0511-02) Soil Sampled: 05/11/11 11:10 Received: 05/12/11 13:45									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CU03449	"	05/17/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	"
Ethylbenzene	ND	5.0	"	"	"	"	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	"
2-Hexanone	ND	50	"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	"
Methylene chloride	ND	5.0	"	"	"	"	"	"	"
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	"
Naphthalene	ND	5.0	"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	"
Styrene	ND	5.0	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	"
Toluene	ND	5.0	"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	"
Trichloroethene	ND	5.0	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	"
Vinyl chloride	ND	10	"	"	"	"	"	"	"
Xylenes (total)	ND	10	"	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %	50-125	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	62-125	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	50-128	"	"	"	"	"	
OHM-1; 3-3.5' (CUE0511-03) Soil Sampled: 05/11/11 11:30 Received: 05/12/11 13:45									

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-1; 3-3.5' (CUE0511-03) Soil Sampled: 05/11/11 11:30 Received: 05/12/11 13:45									
Acetone	ND	100	µg/kg	1	CU03449	05/17/11	05/17/11	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	"
Bromobenzene	ND	5.0	"	"	"	"	"	"	"
Bromoform	ND	5.0	"	"	"	"	"	"	"
Bromochloromethane	ND	5.0	"	"	"	"	"	"	"
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	"
Bromomethane	ND	5.0	"	"	"	"	"	"	"
2-Butanone	ND	100	"	"	"	"	"	"	"
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	"
Chlorobenzene	ND	5.0	"	"	"	"	"	"	"
Chloroethane	ND	5.0	"	"	"	"	"	"	"
Chloroform	ND	5.0	"	"	"	"	"	"	"
Chloromethane	ND	10	"	"	"	"	"	"	"
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	"
Dibromomethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analytic	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-1; 3-3.5' (CUE0511-03) Soil Sampled: 05/11/11 11:30 Received: 05/12/11 13:45									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CU03449	"	05/17/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	190	25	"	5	"	"	"	"	
Toluene	ND	5.0	"	1	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	90 %	50-125	"	"	"	"	"	"	
Surrogate: Toluene-d8	100 %	62-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	50-128	"	"	"	"	"	"	
OHM-3; 3-3.5' (CUE0511-04) Soil Sampled: 05/11/11 12:50 Received: 05/12/11 13:45									

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-3; 3-3.5' (CUE0511-04) Soil	Sampled: 05/11/11 12:50	Received: 05/12/11 13:45							
Acetone	ND	100	µg/kg	1	CU03449	05/17/11	05/17/11	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	"
Bromobenzene	ND	5.0	"	"	"	"	"	"	"
Bromochloromethane	ND	5.0	"	"	"	"	"	"	"
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	"
Bromoform	ND	5.0	"	"	"	"	"	"	"
Bromomethane	ND	10	"	"	"	"	"	"	"
2-Butanone	ND	100	"	"	"	"	"	"	"
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	"
Chlorobenzene	ND	5.0	"	"	"	"	"	"	"
Chloroethane	ND	5.0	"	"	"	"	"	"	"
Chloroform	ND	5.0	"	"	"	"	"	"	"
Chloromethane	ND	10	"	"	"	"	"	"	"
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	"
Dibromomethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-3; 3-3.5' (CUE0511-04) Soil Sampled: 05/11/11 12:50 Received: 05/12/11 13:45									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CU03449	"	05/17/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	21	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %	50-125	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	62-125	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	50-128	"	"	"	"	"	
OHM-3; 7-7.5' (CUE0511-05) Soil Sampled: 05/11/11 13:59 Received: 05/12/11 13:45									

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-3; 7-7.5' (CUE0511-05) Soil	Sampled: 05/11/11 13:59	Received: 05/12/11 13:45							
Acetone	ND	100	µg/kg	1	CU03449	05/17/11	05/17/11	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	"
Bromobenzene	ND	5.0	"	"	"	"	"	"	"
Bromochloromethane	ND	5.0	"	"	"	"	"	"	"
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	"
Bromoform	ND	5.0	"	"	"	"	"	"	"
Bromomethane	ND	10	"	"	"	"	"	"	"
2-Butanone	ND	100	"	"	"	"	"	"	"
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	"
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	"
Chlorobenzene	ND	5.0	"	"	"	"	"	"	"
Chloroethane	ND	5.0	"	"	"	"	"	"	"
Chloroform	ND	5.0	"	"	"	"	"	"	"
Chloromethane	ND	10	"	"	"	"	"	"	"
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	"
Dibromomethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-3: 7-7.5' (CUE0511-05) Soil Sampled: 05/11/11 13:59 Received: 05/12/11 13:45									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CU03449	"	05/17/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethybenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		89 %	50-125	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	62-125	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88 %	50-128	"	"	"	"	"	
OHM-2-10' (GW) (CUE0511-06) Water Sampled: 05/11/11 13:04 Received: 05/12/11 13:45									

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA. 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-2-10' (GW) (CUE0511-06) Water	Sampled: 05/11/11 13:04	Received: 05/12/11 13:45							
Acetone	ND	10	µg/L	1	CU03343	05/13/11	05/13/11	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	"
Bromobenzene	ND	0.50	"	"	"	"	"	"	"
Bromochloromethane	ND	0.50	"	"	"	"	"	"	"
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	"
Bromoform	ND	0.50	"	"	"	"	"	"	"
Bromomethane	ND	1.0	"	"	"	"	"	"	"
2-Butanone	ND	10	"	"	"	"	"	"	"
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	"
Chlorobenzene	ND	0.50	"	"	"	"	"	"	"
Chloroethane	ND	0.50	"	"	"	"	"	"	"
Chloroform	1.6	0.50	"	"	"	"	"	"	"
Chloromethane	ND	1.0	"	"	"	"	"	"	"
o-Chlorotoluene	ND	0.50	"	"	"	"	"	"	"
p-Chlorotoluene	ND	0.50	"	"	"	"	"	"	"
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
Dibromomethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	1.0	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	6.3	0.50	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-2-10' (GW) (CUE0511-06) Water	Sampled: 05/11/11 13:04	Received: 05/12/11 13:45							
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	CU03343	"	05/13/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	"
2-Hexanone	ND	10	"	"	"	"	"	"	"
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	"
p-isopropyltoluene	ND	0.50	"	"	"	"	"	"	"
Methylene chloride	ND	0.50	"	"	"	"	"	"	"
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Naphthalene	6.5	0.50	"	"	"	"	"	"	"
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	"
Styrene	ND	0.50	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	"
Tetrachloroethylene	9.7	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	"
Trichloroethylene	2.8	0.50	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	"
Vinyl chloride	1.7	1.0	"	"	"	"	"	"	"
Xylenes (total)	ND	1.0	"	"	"	"	"	"	"
Surrogate: 1,2-Dichloroethane-d4		84 %	66-135	"	"	"	"	"	
Surrogate: Toluene-d8		85 %	72-125	"	"	"	"	"	
Surrogate: 4-Bromo fluorobenzene		107 %	73-125	"	"	"	"	"	
OHM-2-24' (GW) (CUE0511-07) Water	Sampled: 05/11/11 13:35	Received: 05/12/11 13:45							

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-2-24' (GW) (CUE0511-07) Water	Sampled: 05/11/11 13:35	Received: 05/12/11 13:45							
Acetone	ND	10	µg/L	1	CU03343	05/13/11	05/13/11	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
o-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
p-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	0.98	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	3.3	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-2-24' (GW) (CUE0511-07) Water Sampled: 05/11/11 13:35 Received: 05/12/11 13:45									
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	CU03343	"	05/13/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	0.50	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Naphthalene	3.5	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	19	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	3.4	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	3.5	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	88 %	66-135	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>	88 %	72-125	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	112 %	73-125	"	"	"	"	"	"	
OHM-3-25' (GW) (CUE0511-08) Water Sampled: 05/11/11 15:55 Received: 05/12/11 13:45									

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-3-25' (GW) (CUE0511-08) Water	Sampled: 05/11/11 15:55	Received: 05/12/11 13:45							
Acetone	ND	10	µg/L	1	CU03343	05/13/11	05/13/11	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
o-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
p-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	0.83	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	1.1	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	4.4	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	4.2	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-3-25' (GW) (CUE0511-08) Water	Sampled: 05/11/11 15:55	Received: 05/12/11 13:45							
1,1-Dichloropropene	ND	0.50	µg/L	1	CU03343	"	05/13/11	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	0.50	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	2.9	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	3.9	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	90 %	66-135	"	"	"	"	"	"	
Surrogate: Toluene-d8	88 %	72-125	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	109 %	73-125	"	"	"	"	"	"	

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-4-25' (GW) (CUE0511-09) Water	Sampled: 05/11/11 17:15	Received: 05/12/11 13:45							
Acetone	ND	10	µg/L	1	CU03343	05/13/11	05/13/11	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	"
Bromobenzene	ND	0.50	"	"	"	"	"	"	"
Bromochloromethane	ND	0.50	"	"	"	"	"	"	"
Bromodichloromethane	1.1	0.50	"	"	"	"	"	"	"
Bromoform	ND	0.50	"	"	"	"	"	"	"
Bromomethane	ND	1.0	"	"	"	"	"	"	"
2-Butanone	ND	10	"	"	"	"	"	"	"
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	"
Chlorobenzene	ND	0.50	"	"	"	"	"	"	"
Chloroethane	ND	0.50	"	"	"	"	"	"	"
Chloroform	2.6	0.50	"	"	"	"	"	"	"
Chloromethane	ND	1.0	"	"	"	"	"	"	"
o-Chlorotoluene	ND	0.50	"	"	"	"	"	"	"
p-Chlorotoluene	ND	0.50	"	"	"	"	"	"	"
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
Dibromomethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	1.0	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-4-25' (GW) (CUE0511-09) Water	Sampled: 05/11/11 17:15	Received: 05/12/11 13:45							
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	CU03343	"	05/13/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	0.50	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99 %	66-135	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>	88 %	72-125	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	102 %	73-125	"	"	"	"	"	"	
OHM-1-10' (GW) (CUE0511-10) Water	Sampled: 05/11/11 17:40	Received: 05/12/11 13:45							

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B

Analytic	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-1-10' (GW) (CUE0511-10) Water Sampled: 05/11/11 17:40 Received: 05/12/11 13:45									
Acetone	ND	10	µg/L	1	CU03343	05/13/11	05/13/11	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	"
Bromobenzene	ND	0.50	"	"	"	"	"	"	"
Bromochloromethane	ND	0.50	"	"	"	"	"	"	"
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	"
Bromoform	ND	0.50	"	"	"	"	"	"	"
Bromomethane	ND	1.0	"	"	"	"	"	"	"
2-Butanone	ND	10	"	"	"	"	"	"	"
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	"
Chlorobenzene	ND	0.50	"	"	"	"	"	"	"
Chloroethane	ND	0.50	"	"	"	"	"	"	"
Chloroform	1.5	0.50	"	"	"	"	"	"	"
Chloromethane	ND	1.0	"	"	"	"	"	"	"
o-Chlorotoluene	ND	0.50	"	"	"	"	"	"	"
p-Chlorotoluene	ND	0.50	"	"	"	"	"	"	"
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
Dibromomethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"
Dichlorodifluoromethane (Freon 12)	ND	1.0	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	"

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-1-10' (GW) (CUE0511-10) Water Sampled: 05/11/11 17:40 Received: 05/12/11 13:45									
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	CU03343	"	05/13/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	"
2-Hexanone	ND	10	"	"	"	"	"	"	"
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	"
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	"
Methylene chloride	ND	0.50	"	"	"	"	"	"	"
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Naphthalene	ND	0.50	"	"	"	"	"	"	"
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	"
Styrene	ND	0.50	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	"
Tetrachloroethene	4200	50	"	100	"	"	"	"	"
Toluene	ND	0.50	"	1	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	"
1,1,2-Trichloroethane	27	0.50	"	"	"	"	"	"	"
Trichloroethene	ND	0.50	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	"
Vinyl chloride	ND	1.0	"	"	"	"	"	"	"
Xylenes (total)	ND	1.0	"	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	66-135	"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>		90 %	72-125	"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	73-125	"	"	"	"	"	"
OHM-1-20' (GW) (CUE0511-11) Water Sampled: 05/11/11 18:25 Received: 05/12/11 13:45									

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-1-20' (GW) (CUE0511-11) Water	Sampled: 05/11/11 18:25	Received: 05/12/11 13:45							
Acetone	ND	10	µg/L	1	CU03343	05/13/11	05/13/11	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Chloroform	0.89	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
o-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
p-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	1.4	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
OHM-1-20' (GW) (CUE0511-11) Water Sampled: 05/11/11 18:25 Received: 05/12/11 13:45									
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	CU03343	"	05/13/11	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	0.50	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	0.67	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	38000	500	"	1000	"	"	"	"	
Toluene	ND	0.50	"	1	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	32	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96 %	66-135	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		87 %	72-125	"	"	"	"	"	
<i>Surrogate: 4-Bromo Fluorobenzene</i>		104 %	73-125	"	"	"	"	"	

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU03398 - CA LUFT - orb shaker										
Blank (CU03398-BLK1)										
Prepared & Analyzed: 05/17/11										
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Hydraulic Oil	ND	1.0	"							
Mineral Oil	ND	1.0	"							
Kerosene	ND	1.0	"							
Stoddard Solvent	ND	1.0	"							
<i>Surrogate: o-Terphenyl</i>	0.472	"		0.500		94	65-135			
LCS (CU03398-BS1)										
Prepared & Analyzed: 05/17/11										
Diesel	42.0	1.0	mg/kg	50.0		84	65-135			
<i>Surrogate: o-Terphenyl</i>	0.549	"		0.500		110	65-135			
LCS Dup (CU03398-BSD1)										
Prepared & Analyzed: 05/17/11										
Diesel	42.6	1.0	mg/kg	50.0		85	65-135	1	30	
<i>Surrogate: o-Terphenyl</i>	0.544	"		0.500		109	65-135			
Matrix Spike (CU03398-MS1)										
Source: CUE0455-01 Prepared & Analyzed: 05/17/11										
Diesel	ND	1.0	mg/kg	50.0	ND		59-138			QM-9
<i>Surrogate: o-Terphenyl</i>	0.00	"		0.500			65-135			QM-9
Matrix Spike Dup (CU03398-MSD1)										
Source: CUE0455-01 Prepared & Analyzed: 05/17/11										
Diesel	ND	1.0	mg/kg	50.0	ND		59-138	37		QM-9
<i>Surrogate: o-Terphenyl</i>	0.00	"		0.500			65-135			QM-9

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU03343 - EPA 5030 Water MS										
Blank (CU03343-BLK1)										
Prepared & Analyzed: 05/13/11										
Acetone	ND	10	µg/L							
Benzene	ND	0.50	"							
Bromobenzene	ND	0.50	"							
Bromochloromethane	ND	0.50	"							
Bromodichloromethane	ND	0.50	"							
Bromoform	ND	0.50	"							
Bromomethane	ND	1.0	"							
2-Butanone	ND	10	"							
n-Butylbenzene	ND	0.50	"							
sec-Butylbenzene	ND	0.50	"							
tert-Butylbenzene	ND	0.50	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	0.50	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	1.0	"							
o-Chlorotoluene	ND	0.50	"							
p-Chlorotoluene	ND	0.50	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dibromo-3-chloropropane	ND	1.0	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Dibromomethane	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
Dichlorodifluoromethane (Freon 12)	ND	1.0	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
1,3-Dichloropropane	ND	0.50	"							
2,2-Dichloropropane	ND	0.50	"							
1,1-Dichloropropene	ND	0.50	"							

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU03343 - EPA 5030 Water MS										
Blank (CU03343-BLK1) Prepared & Analyzed: 05/13/11										
cis-1,3-Dichloropropene	ND	0.50	µg/L	"						
trans-1,3-Dichloropropene	ND	0.50	"	"						
Ethylbenzene	ND	0.50	"	"						
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"	"						
Hexachlorobutadiene	ND	0.50	"	"						
2-Hexanone	ND	10	"	"						
Isopropylbenzene	ND	0.50	"	"						
p-Isopropyltoluene	ND	0.50	"	"						
Methylene chloride	ND	0.50	"	"						
4-Methyl-2-pentanone	ND	10	"	"						
Methyl tert-butyl ether	ND	0.50	"	"						
Naphthalene	ND	0.50	"	"						
n-Propylbenzene	ND	0.50	"	"						
Styrene	ND	0.50	"	"						
1,1,1,2-Tetrachloroethane	ND	0.50	"	"						
1,1,2,2-Tetrachloroethane	ND	0.50	"	"						
Tetrachloroethene	ND	0.50	"	"						
Toluene	ND	0.50	"	"						
1,2,3-Trichlorobenzene	ND	0.50	"	"						
1,2,4-Trichlorobenzene	ND	0.50	"	"						
1,1,1-Trichloroethane	ND	0.50	"	"						
1,1,2-Trichloroethane	ND	0.50	"	"						
Trichloroethene	ND	0.50	"	"						
Trichlorofluoromethane	ND	0.50	"	"						
1,2,3-Trichloropropane	ND	0.50	"	"						
1,2,4-Trimethylbenzene	ND	0.50	"	"						
1,3,5-Trimethylbenzene	ND	0.50	"	"						
Vinyl chloride	ND	1.0	"	"						
Xylenes (total)	ND	1.0	"	"						
Di-isopropyl ether	ND	0.50	"	"						
Ethyl tert-butyl ether	ND	0.50	"	"						
tert-Amyl methyl ether	ND	0.50	"	"						
tert-Butyl alcohol	ND	5.0	"	"						
<i>Surrogate: 1,2-Dichloroethane-d4</i>	7.95	"	"	10.0		80	66-135			
<i>Surrogate: Toluene-d8</i>	8.77	"	"	10.0		88	72-125			

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E2C Remediation (Bakersfield Office) 5300 Woodmerc Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analytic	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU03343 - EPA 5030 Water MS										
Blank (CU03343-BLK1)										
Surrogate: 4-BromoFluorobenzene 10.3 "										
Prepared & Analyzed: 05/13/11										
LCS (CU03343-BS1)										
Benzene	19.8	0.50	µg/L	"	20.0	99	60-135			
Chlorobenzene	18.4	0.50	"	"	20.0	92	60-133			
1,1-Dichloroethene	20.7	0.50	"	"	20.0	103	42-150			
Toluene	19.7	0.50	"	"	20.0	98	60-137			
Trichloroethene	19.5	0.50	"	"	20.0	98	62-140			
Surrogate: 1,2-Dichloroethane-d4	9.74		"	"	10.0	97	66-135			
Surrogate: Toluene-d8	10.4		"	"	10.0	104	72-125			
Surrogate: 4-BromoFluorobenzene	11.0		"	"	10.0	110	73-125			
LCS Dup (CU03343-BSD1)										
Benzene	17.6	0.50	µg/L	"	20.0	88	60-135	12	25	
Chlorobenzene	17.7	0.50	"	"	20.0	89	60-133	4	25	
1,1-Dichloroethene	17.2	0.50	"	"	20.0	86	42-150	18	25	
Toluene	17.2	0.50	"	"	20.0	86	60-137	13	25	
Trichloroethene	17.3	0.50	"	"	20.0	87	62-140	12	25	
Surrogate: 1,2-Dichloroethane-d4	9.17		"	"	10.0	92	66-135			
Surrogate: Toluene-d8	10.1		"	"	10.0	101	72-125			
Surrogate: 4-BromoFluorobenzene	11.1		"	"	10.0	111	73-125			
Matrix Spike (CU03343-MS1)										
Source: CUE0478-01										
Benzene	17.7	0.50	µg/L	"	20.0	ND	88	52-139		
Chlorobenzene	18.2	0.50	"	"	20.0	ND	91	62-134		
1,1-Dichloroethene	18.4	0.50	"	"	20.0	ND	92	32-152		
Toluene	19.9	0.50	"	"	20.0	ND	99	58-139		
Trichloroethene	17.9	0.50	"	"	20.0	ND	90	55-138		
Surrogate: 1,2-Dichloroethane-d4	10.7		"	"	10.0		107	66-135		
Surrogate: Toluene-d8	12.0		"	"	10.0		120	72-125		
Surrogate: 4-BromoFluorobenzene	8.72		"	"	10.0		87	73-125		

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: I24170
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CU03343 - EPA 5030 Water MS

Matrix Spike Dup (CU03343-MSD1)	Source: CUE0478-01	Prepared & Analyzed: 05/13/11							
Benzene	18.9	0.50	µg/L	20.0	ND	94	52-139	7	25
Chlorobenzene	19.0	0.50	"	20.0	ND	95	62-134	4	25
1,1-Dichloroethene	28.8	0.50	"	20.0	ND	144	32-152	44	25
Toluene	18.8	0.50	"	20.0	ND	94	58-139	6	25
Trichloroethene	19.0	0.50	"	20.0	ND	95	55-138	6	25
Surrogate: 1,2-Dichloroethane-d4	7.76	"		10.0		78	66-135		
Surrogate: Toluene-d8	9.82	"		10.0		98	72-125		
Surrogate: 4-Bromofluorobenzene	9.54	"		10.0		95	73-125		

Batch CU03449 - EPA 5030 Soil MS

Blank (CU03449-BLK1)	Prepared & Analyzed: 05/17/11						
Acetone	ND	100	µg/kg				
Benzene	ND	5.0	"				
Bromobenzene	ND	5.0	"				
Bromochloromethane	ND	5.0	"				
Bromodichloromethane	ND	5.0	"				
Bromoform	ND	5.0	"				
Bromomethane	ND	10	"				
2-Butanone	ND	100	"				
n-Butylbenzene	ND	5.0	"				
sec-Butylbenzene	ND	5.0	"				
tert-Butylbenzene	ND	5.0	"				
Carbon tetrachloride	ND	5.0	"				
Chlorobenzene	ND	5.0	"				
Chloroethane	ND	5.0	"				
Chloroform	ND	5.0	"				
Chloromethane	ND	10	"				
o-Chlorotoluene	ND	5.0	"				
p-Chlorotoluene	ND	5.0	"				
Dibromochloromethane	ND	5.0	"				
1,2-Dibromo-3-chloropropane	ND	10	"				
1,2-Dibromoethane (EDB)	ND	5.0	"				
Dibromomethane	ND	5.0	"				
1,2-Dichlorobenzene	ND	5.0	"				
1,3-Dichlorobenzene	ND	5.0	"				

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CU03449 - EPA 5030 Soil MS

Blank (CU03449-BLK1)							Prepared & Analyzed: 05/17/11			
1,4-Dichlorobenzene	ND	5.0	µg/kg							
Dichlorodifluoromethane (Freon 12)	ND	10	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
2-Hexanone	ND	50	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
4-Methyl-2-pentanone	ND	50	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU03449 - EPA 5030 Soil MS										
Blank (CU03449-BLK1)										
Prepared & Analyzed: 05/17/11										
1,2,3-Trichloropropane	ND	5.0	µg/kg							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	10	"							
Xylenes (total)	ND	10	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	26.7	"	30.0		89	50-125				
<i>Surrogate: Toluene-d8</i>	30.1	"	30.0		100	62-125				
<i>Surrogate: 4-Bromo fluoro benzene</i>	30.0	"	30.0		100	50-128				
LCS (CU03449-BS1)										
Prepared & Analyzed: 05/17/11										
Benzene	19.8	5.0	µg/kg	20.0	99	64-135				
Chlorobenzene	18.4	5.0	"	20.0	92	67-133				
1,1-Dichloroethene	20.3	5.0	"	20.0	101	53-137				
Toluene	19.1	5.0	"	20.0	96	61-138				
Trichloroethylene	20.1	5.0	"	20.0	100	64-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	32.6	"	30.0		109	50-125				
<i>Surrogate: Toluene-d8</i>	31.9	"	30.0		106	62-125				
<i>Surrogate: 4-Bromo fluoro benzene</i>	29.5	"	30.0		98	50-128				
LCS Dup (CU03449-BSD1)										
Prepared & Analyzed: 05/17/11										
Benzene	19.7	5.0	µg/kg	20.0	98	64-135	0.9	30		
Chlorobenzene	18.9	5.0	"	20.0	94	67-133	3	30		
1,1-Dichloroethene	19.9	5.0	"	20.0	100	53-137	2	30		
Toluene	19.1	5.0	"	20.0	96	61-138	0.05	30		
Trichloroethylene	19.6	5.0	"	20.0	98	64-130	2	30		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	30.6	"	30.0		102	50-125				
<i>Surrogate: Toluene-d8</i>	31.4	"	30.0		105	62-125				
<i>Surrogate: 4-Bromo fluoro benzene</i>	31.7	"	30.0		106	50-128				

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CALIFORNIA LABORATORY SERVICES

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E2C Remediation (Bakersfield Office)
5300 Woodmere Drive, Suite 105
Bakersfield CA, 93313

Project: One Hour Martinizing
Project Number: 1973BK
Project Manager: Phil Goalwin

CLS Work Order #: CUE0511
COC #: 124170

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU03449 - EPA 5030 Soil MS										
Matrix Spike (CU03449-MS1)										
Source: CUE0511-01 Prepared & Analyzed: 05/17/11										
Benzene	10.4	5.0	µg/kg	20.0	ND	52	58-139			QM-7
Chlorobenzene	8.83	5.0	"	20.0	ND	44	62-134			QM-7
1,1-Dichloroethene	12.1	5.0	"	20.0	ND	60	53-152			
Toluene	9.70	5.0	"	20.0	ND	48	58-139			QM-7
Trichloroethene	10.6	5.0	"	20.0	ND	53	55-138			QM-7
<i>Surrogate: 1,2-Dichloroethane-d4</i>	29.1		"	30.0		97	50-125			
<i>Surrogate: Toluene-d8</i>	30.8		"	30.0		103	62-125			
<i>Surrogate: 4-Bromo Fluorobenzene</i>	29.2		"	30.0		97	50-128			
Matrix Spike Dup (CU03449-MSD1)										
Source: CUE0511-01 Prepared & Analyzed: 05/17/11										
Benzene	14.0	5.0	µg/kg	20.0	ND	70	58-139	29	30	
Chlorobenzene	10.7	5.0	"	20.0	ND	54	62-134	20	30	QM-7
1,1-Dichloroethene	18.4	5.0	"	20.0	ND	92	53-152	41	30	QM-7
Toluene	13.1	5.0	"	20.0	ND	65	58-139	30	30	
Trichloroethene	13.3	5.0	"	20.0	ND	67	55-138	23	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	27.6		"	30.0		92	50-125			
<i>Surrogate: Toluene-d8</i>	31.5		"	30.0		105	62-125			
<i>Surrogate: 4-Bromo Fluorobenzene</i>	29.7		"	30.0		99	50-128			

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E2C Remediation (Bakersfield Office) 5300 Woodmere Drive, Suite 105 Bakersfield CA, 93313	Project: One Hour Martinizing Project Number: 1973BK Project Manager: Phil Goalwin	CLS Work Order #: CUE0511 COC #: 124170
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Notes and Definitions

- QR-1 The RPD value for the sample duplicate or MS/MSD was outside of the QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery.
- QM-9 MS/MSD recovery data could not be generated due to insufficient sample. LCS/LCSD data validate methodology.
- QM-7 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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TO15

Client: CLS

Sample Type: Air

Date Sampled: 05/11/2011, 10:22

Date Received: 05/13/2011

Date Analyzed: 05/17/2011

Time Analyzed: 1:07 pm

Field ID #: OHM-2

Lab Sample ID: 11CLS19301

Concentration Units: PPBV

CLS Number CUE0511-12

Data Filename: 11051705.D

Dilution Factor: 958.3

Quality Control Sample

Analite	MW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MQL (ug/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	960	0	U	5	0
1,1,2,2-Tetrachloroethane	166	79-34-5	960	0	U	7	0
1,1,2-Trichloroethane	132	79-00-5	960	0	U	5	0
1,2-Dibromoethane	186	106-93-4	960	0	U	7	0
1,1-Dichloroethane	98	75-34-3	960	0	U	4	0
1,1-Dichloroethene	96	75-35-1	960	0	U	4	0
1,2,4-Trichlorobenzene	180	120-82-1	960	0	U	7	0
1,2,4-Trimethylbenzene	128	95-63-6	960	0	U	5	0
1,2-Dichloroethane	98	107-06-2	960	0	U	4	0
1,2-Dichloropropane	112	78-87-6	960	0	U	4	0
1,3,5-Trimethylbenzene	120	108-47-8	960	0	U	5	0
1,3-Butadiene	54	106-99-0	960	0	U	2	0
1,2-Dichlorobenzene	146	95-59-1	960	0	U	6	0
1,3-Dichlorobenzene	146	541-73-1	960	0	U	6	0
1,4-Dichlorobenzene	146	106-46-7	960	0	U	6	0
1,4-Dioxane	88	123-91-1	960	0	U	3	0
2-Butanone	72	78-93-3	960	0	U	3	0
2-Hexanone	100	591-78-6	960	0	U	4	0
4-Ethyltoluene	120	623-96-8	960	0	U	5	0
4-Methyl-2-Pentanone	100	108-18-1	960	0	U	4	0
Acetone	58	67-64-1	1000	0	U	2	0
Benzene	78	71-43-2	1000	0	U	3	0
Benzyl Chloride	126	106-44-7	960	0	U	5	0
Bromodichloromethane	162	75-27-4	960	0	U	6	0
Bromoform	250	75-25-2	960	0	U	10	0
Bromomethane	74	74-83-9	960	0	U	4	0
Carbon Disulfide	76	75-15-0	1000	0	U	3	0
Carbon tetrachloride	152	56-23-5	960	0	U	6	0
Chlorobenzene	112	108-90-7	960	0	U	4	0
Chloroethane	64	75-00-3	960	0	U	5	0
Chloroform	118	67-66-3	960	0	U	5	0
Chloromethane	50	74-87-3	960	0	U	2	0
cis-1,2-dichloroethene	96	156-59-2	960	0	U	4	0
cis-1,3-Dichloropropene	110	10861-01-5	960	0	U	4	0
Cyclohexane	84	110-82-7	960	0	U	3	0
Dibromochloromethane	216	124-48-1	960	0	U	8	0
Dichlorodifluoromethane	120	75-21-8	960	0	U	5	0
Ethanol	46	64-17-5	960	0	U	2	0
Ethyl Acetate	88	141-78-6	960	0	U	3	0
Ethylenbenzene	106	100-41-4	960	0	U	4	0
Freon113	186	76-13-1	960	0	U	7	0
Freon114	170	76-14-2	960	0	U	7	0
Heptane	100	142-82-5	960	0	U	4	0
Hexane	86	110-54-3	960	0	U	3	0
Hexachlorobutadiene	258	97-48-3	960	0	U	10	0
Isopropyl Alcohol	68	67-43-8	960	0	U	2	0
Methylene chloride	54	75-09-2	960	0	U	3	0
Methyl tert-Butyl Ether	88	1634-04-4	960	0	U	3	0
Propene	36	115-07-1	960	0	U	1	0
Styrene	104	108-42-5	960	0	U	4	0
Tetrachloroethylene	164	127-18-4	960	10500	-	6	70
Tetrahydrofuran	72	109-99-9	960	0	U	3	0
Toluene	92	108-88-3	960	0	U	4	0
trans-1,2-dichloroethene	96	156-60-5	960	0	U	4	0
trans-1,3-Dichloropropene	110	10861-02-6	960	0	U	4	0
Trichloroethene	130	79-01-6	960	0	U	5	0
Trichlorofluoromethane	136	75-69-4	960	0	U	5	0
Vinyl acetate	86	108-05-4	960	0	U	3	0
Vinyl chloride	62	75-01-4	960	0	U	2	0
Xylenes, m&p-	106	10836-54-3	960	0	U	4	0
Xylenes, o-	106	95-47-6	960	0	U	4	0
Bromochloromethane (surrogate)	120	74-97-5		102	-		
4-BFB(surrogate)	174	460-00-4		109	-		

NOTES:

U - Analyses not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.

MQL - Method quantitation limit.

Surrogate results are in units of percent recovery with control limits: 65 to 135%

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TO15

Client: CLS

Sample Type: Air

Date Sampled: 05/11/2011,10:47

Date Received: 05/13/2011

Date Analyzed: 05/17/2011

Time Analyzed: 3:44 pm

Field ID #: OHM-4

Lab Sample ID: 11CLS19302

Concentration Units: PPBV

CLS Number CL/E0511-13

Data Filename: 11051707.D

Dilution Factor: 16.8

Quality Control Sample

Analytes	MW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MQL (ug/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	17	0	U	0.09	0
1,1,2,2-Tetrachloroethane	166	79-34-5	17	0	U	0.1	0
1,1,2-Trichloroethane	132	79-00-5	17	0	U	0.09	0
1,2-Dibromoethane	186	106-93-4	17	0	U	0.1	0
1,1-Dichloroethane	98	75-34-3	17	0	U	0.07	0
1,1-Dichloroethene	96	75-35-4	17	0	U	0.07	0
1,2,4-Trichlorobenzene	180	120-82-1	17	0	U	0.1	0
1,2,4-Trimethylbenzene	120	95-63-6	17	0	U	0.08	0
1,2-Dichloroethane	98	107-86-2	17	0	U	0.07	0
1,2-Dichloropropane	112	78-87-5	17	0	U	0.08	0
1,3,5-Trimethylbenzene	120	108-67-8	17	0	U	0.08	0
1,3-Butadiene	54	106-99-0	17	0	U	0.04	0
1,2-Dichlorobenzene	146	95-50-1	17	0	U	0.1	0
1,3-Dichlorobenzene	146	541-73-1	17	0	U	0.1	0
1,4-Dichlorobenzene	146	106-46-7	17	0	U	0.1	0
1,4-Dioxane	88	123-91-1	17	0	U	0.06	0
2-Butanone	72	78-93-3	17	0	U	0.05	0
2-Hexanone	100	591-78-6	17	0	U	0.07	0
4-Ethyltoluene	120	622-96-8	17	0	U	0.08	0
4-Methyl-2-Pentanone	100	108-10-1	17	0	U	0.07	0
Acetone	58	67-64-1	17	66	=	0.04	0.16
Benzene	78	71-43-2	20	0	U	0.06	0
Benzyl Chloride	126	100-44-7	17	0	U	0.09	0
Bromodichloromethane	162	75-27-4	17	0	U	0.1	0
Bromoform	250	75-25-2	17	0	U	0.2	0
Bromomethane	94	74-83-9	17	0	U	0.07	0
Carbon Disulfide	76	75-15-0	20	0	U	0.06	0
Carbon tetrachloride	152	56-23-5	17	0	U	0.1	0
Chlorobenzene	112	108-90-7	17	0	U	0.08	0
Chloroethane	64	75-00-3	17	0	U	0.04	0
Chloroform	118	67-66-3	17	0	U	0.08	0
Chloromethane	50	74-87-3	17	0	U	0.03	0
cis-1,2-dichloroethene	96	156-59-2	17	0	U	0.07	0
cis-1,3-Dichloropropene	110	10861-01-5	17	0	U	0.08	0
Cyclohexane	84	110-82-7	17	0	U	0.06	0
Dibromochloromethane	206	124-48-1	17	0	U	0.1	0
Dichlorodifluoromethane	120	75-71-8	17	0	U	0.08	0
Ethanol	46	64-17-5	17	0	U	0.03	0
Ethyl Acetate	88	141-78-6	17	0	U	0.06	0
Ethylbenzene	106	100-41-4	17	0	U	0.07	0
Freon113	126	76-13-1	17	0	U	0.1	0
Freon114	170	76-14-2	17	0	U	0.1	0
Heptane	100	142-82-5	17	0	U	0.07	0
Hexane	86	110-54-3	17	0	U	0.06	0
Hexachlorobutadiene	258	87-68-3	17	0	U	0.2	0
Isopropyl Alcohol	60	67-63-0	17	0	U	0.04	0
Methylene chloride	84	75-09-2	17	0	U	0.06	0
Methyl tert-Butyl Ether	88	1634-04-4	17	0	U	0.06	0
Propene	36	115-07-1	17	0	U	0.03	0
Styrene	104	100-42-5	17	0	U	0.07	0
Tetrachloroethene	164	127-18-4	17	116	=	0.1	0.76
Tetrahydrofuran	72	109-99-9	17	0	U	0.05	0
Toluene	92	108-88-3	17	0	U	0.06	0
trans-1,2-dichloroethene	96	156-60-5	17	0	U	0.07	0
trans-1,3-Dichloropropene	110	10861-02-6	17	0	U	0.08	0
Trichloroethene	130	79-01-6	17	0	U	0.09	0
Trichlorofluoromethane	136	75-69-4	17	0	U	0.09	0
Vinyl acetate	86	108-05-4	17	0	U	0.06	0
Vinyl chloride	62	75-01-4	17	0	U	0.04	0
Xylenes, m&p-	106	109-83-8 108-71-3	17	0	U	0.07	0
Xylenes, o-	106	95-47-6	17	0	U	0.07	0
Bromochloromethane (surrogate)	128	74-97-5		99	=		
4-BFB(surrogate)	114	460-00-4		128	=		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.

MQL - Method quantitation limit.

Surrogate results are in units of percent recovery with control limits: 65 to 135%.

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TO15

Client: CLS

Sample Type: Air

Date Sampled: 05/11/2011,11:11

Date Received: 05/13/2011

Date Analyzed: 05/17/2011

Time Analyzed: 6:55 pm

Field ID #: OHM-1

Lab Sample ID: 11CLSL19303

Concentration Units: PPBV

CLS Number: 11051711-14

Data Filename: 11051711.D

Dilution Factor: 30854.0

Quality Control Sample

Analyte	MW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MQL (ng/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	31000	0	U	200	0
1,1,2,2-Tetrachloroethane	166	79-34-5	31000	0	U	200	0
1,1,2-Trichloroethane	132	79-09-5	31000	0	U	200	0
1,2-Dibromoethane	186	106-93-4	31000	0	U	200	0
1,1-Dichloroethane	98	75-34-3	31000	0	U	100	0
1,1-Dichloroethene	96	75-35-4	31000	0	U	100	0
1,2,4-Trichlorobenzene	180	110-82-1	31000	0	U	200	0
1,2,4-Trimethylbenzene	120	95-63-6	31000	0	U	200	0
1,2-Dichloroethane	98	107-06-2	31000	0	U	100	0
1,2-Dichloropropane	112	78-87-5	31000	0	U	100	0
1,3,5-Trimethylbenzene	120	108-67-8	31000	0	U	200	0
1,3-Butadiene	54	106-99-0	31000	0	U	70	0
1,2-Dichlorobenzene	146	95-50-1	31000	0	U	200	0
1,3-Dichlorobenzene	146	541-73-1	31000	0	U	200	0
1,4-Dichlorobenzene	146	106-46-7	31000	0	U	200	0
1,4-Dioxane	88	123-51-1	31000	0	U	100	0
2-Butanone	72	78-93-3	31000	0	U	90	0
2-Hexanone	100	591-78-6	31000	0	U	100	0
4-Ethyltoluene	120	622-96-8	31000	0	U	200	0
4-Methyl-2-Pentanone	100	108-18-1	31000	0	U	100	0
Acetone	58	67-64-1	30000	0	U	70	0
Benzene	78	71-43-2	30000	0	U	100	0
Benzyl Chloride	126	100-44-7	31000	0	U	200	0
Bromodichloromethane	161	75-27-4	31000	0	U	200	0
Bromform	250	75-25-2	31000	0	U	300	0
Bromomethane	94	74-83-9	31000	0	U	100	0
Carbon Disulfide	76	75-15-0	30000	0	U	90	0
Carbon tetrachloride	152	56-23-5	31000	0	U	200	0
Chlorobenzene	112	108-90-7	31000	0	U	100	0
Chloroethane	64	75-00-3	31000	0	U	80	0
Chloroform	118	67-66-3	31000	0	U	100	0
Chloromethane	50	74-87-3	31000	0	U	60	0
cis-1,2-dichloroethene	96	156-59-2	31000	0	U	100	0
cis-1,3-Dichloropropene	110	10061-01-5	31000	0	U	100	0
Cyclohexane	84	110-82-7	31000	0	U	100	0
Dibromochloromethane	206	121-48-1	31000	0	U	300	0
Dichlorodifluoromethane	126	75-71-8	31000	0	U	200	0
Ethanol	46	64-17-5	31000	0	U	60	0
Ethyl Acetate	88	141-78-6	31000	0	U	100	0
Ethylbenzene	106	100-41-4	31000	0	U	100	0
Freon113	186	76-13-1	31000	0	U	200	0
Freon114	170	76-14-2	31000	0	U	200	0
Heptane	109	142-87-5	31000	0	U	100	0
Hexane	86	110-54-3	31000	0	U	100	0
Hexachlorobutadiene	258	87-68-3	31000	0	U	300	0
Isopropyl Alcohol	60	67-63-0	31000	0	U	80	0
Methylene chloride	84	75-09-2	31000	0	U	100	0
Methyl tert-Butyl Ether	88	1634-04-4	31000	0	U	100	0
Propene	36	115-07-1	31000	0	U	50	0
Styrene	104	100-42-5	31000	0	U	100	0
Tetrachloroethene	164	127-18-4	31000	147000	=	200	990
Tetrahydrofuran	72	109-99-9	31000	0	U	90	0
Toluene	92	108-88-3	31000	0	U	100	0
trans-1,2-dichloroethene	96	156-60-5	31000	0	U	100	0
trans-1,3-Dichloropropene	110	10061-02-6	31000	0	U	100	0
Trichloroethene	130	79-01-6	31000	0	U	200	0
Trichlorofluoromethane	136	75-69-4	31000	0	U	200	0
Vinyl acetate	86	108-05-4	31000	0	U	100	0
Vinyl chloride	61	75-01-4	31000	0	U	80	0
Xylenes, m&p-	106	10639-11-2 106-41-3	31000	0	U	100	0
Xylenes, o-	106	95-47-6	31000	0	U	100	0
Bromoform (surrogate)	128	74-97-5		100	=		
4-BFB (surrogate)	174	460-00-4		106	=		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.

MQL - Method quantitation limit.

Smart Chemistry Corporation
 3402 La Grande Blvd, Sacramento, CA 95823, (916)391-3300, (916)391-3440 (fax), www.smartchemistry.com, jshu@smartchemistry.com
TO15

Client: CLS

Sample Type: Air

Date Sampled: 05/11/2011,11:46

Date Received: 05/13/2011

Date Analyzed: 05/17/2011

Time Analyzed: 7:53 pm

Field ID #: OHM-3

Lab Sample ID: 11CLS19304

Concentration Units: PPBV

CLS Number CUE0511-15

Data Filename: 11051712.D

Dilution Factor: 806.0

Quality Control Sample

Analytes	SLW	CASNUM	MQL (PPBV)	Results (PPBV)	Qualifier	MQL (ug/L)	Results (ug/L)
1,1,1-Trichloroethane	132	71-55-6	810	0	U	4	0
1,1,2-Tetrachloroethane	166	79-34-5	810	0	U	6	0
1,1,2-Trichloroethane	132	79-09-5	810	0	U	4	0
1,2-Dibromoethane	186	106-93-4	810	0	U	6	0
1,1-Dichloroethane	98	75-34-3	810	0	U	3	0
1,1-Dichloroethene	96	75-35-4	810	0	U	3	0
1,2,4-Trichlorobenzene	180	120-82-1	810	0	U	6	0
1,2,4-Trimethylbenzene	120	95-63-6	810	0	U	4	0
1,2-Dichloroethane	98	107-06-2	810	0	U	3	0
1,2-Dichloropropane	112	78-87-5	810	0	U	4	0
1,3,5-Trimethylbenzene	120	108-67-8	810	0	U	4	0
1,3-Butadiene	54	106-99-0	810	0	U	2	0
1,2-Dichlorobenzene	146	95-56-1	810	0	U	5	0
1,3-Dichlorobenzene	146	541-73-1	810	0	U	5	0
1,4-Dichlorobenzene	146	106-46-7	810	0	U	5	0
1,4-Dioxane	88	123-91-1	810	0	U	3	0
2-Butanone	72	78-93-3	810	0	U	2	0
2-Hexanone	100	591-78-6	810	0	U	3	0
4-Ethyltoluene	120	622-96-8	810	0	U	4	0
4-Methyl-2-Pentanone	100	108-10-1	810	0	U	3	0
Acetone	58	67-64-1	800	0	U	2	0
Benzene	78	71-43-2	800	0	U	3	0
Benzyl Chloride	136	108-44-7	810	0	U	4	0
Bromodichloromethane	162	75-27-4	810	0	U	5	0
Bromoform	250	75-25-2	810	0	U	8	0
Bromomethane	94	74-83-9	810	0	U	3	0
Carbon Disulfide	76	75-15-0	800	0	U	2	0
Carbon tetrachloride	152	56-23-5	810	0	U	5	0
Chlorobenzene	112	108-90-7	810	0	U	4	0
Chloroethane	64	75-00-3	810	0	U	2	0
Chloroform	118	67-66-3	810	0	U	4	0
Chloromethane	50	74-87-3	810	0	U	2	0
cis-1,2-dichloroethene	96	156-59-2	810	0	U	3	0
cis-1,3-Dichloropropene	110	10061-01-5	810	0	U	4	0
Cyclohexane	84	110-82-7	810	0	U	3	0
Dibromochloromethane	106	124-48-1	810	0	U	7	0
Dichlorodifluoromethane	120	75-71-8	810	0	U	4	0
Ethanol	46	64-17-5	810	0	U	2	0
Ethyl Acetate	88	141-78-6	810	0	U	3	0
Ethybenzene	106	100-41-4	810	0	U	4	0
Freon113	186	76-13-1	810	0	U	6	0
Freon114	170	76-14-2	810	0	U	6	0
Heptane	100	142-82-5	810	0	U	3	0
Hexane	86	110-54-3	810	0	U	3	0
Hexachlorobutadiene	258	87-68-3	810	0	U	9	0
Isopropyl Alcohol	60	67-63-0	810	0	U	2	0
Methylene chloride	64	75-09-2	810	0	U	3	0
Methyl tert-Butyl Ether	88	1634-04-4	810	0	U	3	0
Propene	36	115-07-1	810	0	U	1	0
Styrene	104	100-42-5	810	0	U	3	0
Tetrachloroethene	164	127-18-4	810	8530	=	5	57
Tetrahydrofuran	72	109-99-9	810	0	U	2	0
Toluene	92	108-88-3	810	0	U	3	0
trans-1,2-dichloroethene	96	156-60-5	810	0	U	3	0
trans-1,3-Dichloropropene	110	10061-02-6	810	0	U	4	0
Trichloroethene	130	19-01-6	810	0	U	4	0
Trichlorofluoromethane	136	75-69-4	810	0	U	5	0
Vinyl acetate	86	108-05-4	810	0	U	3	0
Vinyl chloride	62	75-01-4	810	0	U	2	0
Xylenes, m&p-	106	100-33-3 & 106-43-3	810	0	U	4	0
Xylenes, o-	106	95-17-6	810	0	U	4	0
Bromochloromethane (surrogate)	128	74-97-5		99	=		
4-BFB(surrogate)	174	460-00-4		105	=		

NOTES:

U - Analytes not detected at, or above the stated detection limit.

0 - A result of zero represents an undetected result at the MQL reported and does not imply an actual value.

PPBV - Parts per billion volume.

MQL - Method quantitation limit.

Surrogate results are in units of percent recovery with control limits: 65 to 135%.

SUBCONTRACT ORDER

CUE0511SENDING LABORATORY:

CLS Labs
 3249 Fitzgerald Rd.
 Rancho Cordova, CA 95742
 Phone: 916-638-7301
 Fax: 916-638-4510
 Project Manager: Mark Smith
 ██████████

RECEIVING LABORATORY:

SMART CHEMISTRY
 3401 La Grande Blvd.Rd.
 Sacramento, CA 95823
 Phone :(916) 391-3300
 Fax: (916) 367-6777

Analysis	TAT	Due	Expires	Laboratory ID	Sample Date	Received	Matrix
TO-15 (SUB)	10	05/26/11 12:00	05/25/11 10:22	CUE0511-12	05/11/11 10:22	05/12/11 13:45	Air

Client sample ID: OHM-2

Sampler:

Laboratory sample ID: CUE0511-12

Please use client sample ID on all reports

Containers Supplied:

Summa Cannister (A)

TO-15 (SUB)	10	05/26/11 12:00	05/25/11 10:47	CUE0511-13	05/11/11 10:47	05/12/11 13:45	Air
-------------	----	----------------	----------------	------------	----------------	----------------	-----

Client sample ID: OHM-4

Sampler:

Laboratory sample ID: CUE0511-13

Please use client sample ID on all reports

Containers Supplied:

Summa Cannister (A)

TO-15 (SUB)	10	05/26/11 12:00	05/25/11 11:11	CUE0511-14	05/11/11 11:11	05/12/11 13:45	Air
-------------	----	----------------	----------------	------------	----------------	----------------	-----

Client sample ID: OHM-1

Sampler:

Laboratory sample ID: CUE0511-14

Please use client sample ID on all reports

Containers Supplied:

Summa Cannister (A)

Relinquished By

Date

Received By

Date

Relinquished By

Date

Received By

Date

Shipped By

Airbill Number

Page 1 of 2

SUBCONTRACT ORDER

CUE0511

Analysis	TAT	Due	Expires	Laboratory ID	Sample Date	Received	Matrix
TO-15 (SUB)	10	05/26/11 12:00	05/25/11 11:46	CUE0511-15	05/11/11 11:46	05/12/11 13:45	Air

Client sample ID: OHM-3

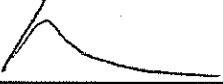
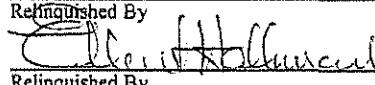
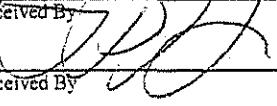
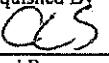
Sampler:

Laboratory sample ID: CUE0511-15

Please use client sample ID on all reports

Containers Supplied:

Summa Cannister (A)

Relinquished By 	Date 05/13/11	Received By 	Date 05/13/11
Relinquished By 	Date 05/13/11	Received By 	Date 05/13/2011
Shipped By 	Airbill Number	Page 2 of 2	

APPENDIX C

GE&R Site Investigation Workplan



SITE INVESTIGATION WORK PLAN

712 Madison Street Property

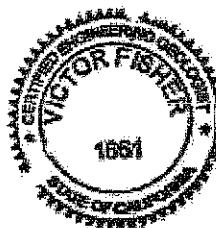
Prepared For:

Isola Law Group, LLP
405 West Pine Street
Lodi, California 95240

Prepared By:

Genesis Engineering & Redevelopment
351 Ruess Road
Ripon, California 95366

February 2, 2011



Stephen J. Van der Hoven

Stephen J. Van der Hoven, Ph.D.
Senior Project Manager

Victor Fisher

Victor Fisher, Ph.D., P.G., C.E.G.
Principal Geologist



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1.0 INTRODUCTION

This Work Plan was prepared on behalf of Isola Law Group, LLP to conduct an investigation on the property at 712 Madison Street in Fairfield, CA (see Figures 1 and 2). The property was formerly occupied by One Hour Martinizing from 1959 to 1988. This Work Plan is designed to assess whether past site operations have impacted the soil, soil gas, and groundwater at the property.

2.0 SITE INVESTIGATION

The following four sampling locations have been selected on the east and north sides of the building on the 712 Madison Street property (see Figure 3).

1. A few feet from the door on the east side of the building where dry cleaning fluids were reported to have been discharged (OHM-1);
2. Along the east side of the building approximately half way between the door and the south property line (OHM-2);
3. Along the east side of the building close to the southern property line (OHM-3); and
4. Adjacent to the sewer line to the north where the lateral from the property connects to the main line (OHM-4).

The following samples will be collected at each of the four locations:

1. **Soil** – One soil sample from undisturbed soils in the unsaturated zone immediately below the asphalt subgrade;
2. **Soil Gas** – One soil gas sample from undisturbed soils in the unsaturated zone; and
3. **Groundwater** – One groundwater sample will be collected from the shallow water bearing unit.

All samples will be analyzed for VOCs using Method 8260B.

3.0 FIELD ACTIVITIES

3.1 Pre-Field Activities

The following pre-field activities will be conducted prior to advancing the reconnaissance borings.

1. Marking and clearing proposed boring locations of subsurface utilities and other obstructions using a subsurface locator company;
2. Preparing a site-specific Health and Safety Plan; and
3. Maintaining contact with county agencies and property owners as to drilling schedules and other work activities.

3.2 Soil Characterization

Soil samples will be collected from undisturbed material in the first 6 inches below the asphalt subgrade. A hole will be cut in the asphalt, and a hand auger used to remove the asphalt subgrade. Once the subgrade has been removed, direct push drilling will be used to collect a sample. The sampling rod will be fitted with an inner brass sleeve. After recovery, Teflon sheets will be placed on either end of the brass sleeve, and plastic caps placed over the Teflon sheets to seal the sample.

3.3 Soil Gas Characterization

Soil gas samples will be collected from a depth of approximately 2 feet bgs, within the undisturbed soils beneath the asphalt parking lot subgrade fill and above the water table. Direct push drilling will be used to advance the borehole to the appropriate depth. A 1-inch long stainless steel vapor screen, attached to $\frac{1}{4}$ inch Teflon tubing will be set at the target depth. Six inches of sand will be placed below the screen and six inches of sand will be placed above the screen. The annular space above the sand will be sealed with granular bentonite, hydrated in six inch lifts. The assembly will be allowed to equilibrate for 30 minutes. Prior to the collection of a soil gas sample, the system will be purged of 3 volumes of air to remove any atmospheric gases and insure that the sample will be representative of undisturbed soil gases. After purging, a 400 mL sample of soil gas will be collected in a pre-evacuated SUMMA® canister equipped with a regulator to control the flow of gases into the container.

3.4 Groundwater Characterization

Groundwater samples will be collected using direct push drilling to advance borings for collecting grab groundwater samples. At each location, a groundwater sample will be collected from depths of approximately 25 feet bgs. The lithology in the borehole will be continuously logged, and the exact groundwater sampling depth chosen based on the lithology encountered.

3.5 Drilling, Logging, and Sampling Techniques

All drilling activities will conform to state and local regulations and will be coordinated by a California Professional Geologist.

Direct push drilling technology will be used to advance the reconnaissance borings. The direct push drilling process consists of a truck mounted or limited access hydraulic system used to push a 4-foot long, 2-inch diameter hollow rod into the subsurface. A 1.75-inch diameter vinyl acetate plastic sample sleeve is inserted into the rod to collect continuous 4-foot long soil samples. The soils brought to the surface in the sample sleeves for the intermediate depth boring at each boring pair will be continuously logged to the maximum depth of the hole.

Groundwater samples will be collected utilizing a direct push screen driven into the undisturbed soils ahead of the borehole. At the selected depth interval, the drill rod will be retracted, exposing the well screen. Water will be allowed to enter the well screen. A groundwater sample will be collected using a disposable bailer and decanted into the laboratory supplied sample bottles.

Soil cuttings will be placed in DOT rated drums, labeled, and moved to a common drum staging area. Soil cuttings will be disposed of in accordance with the procedure in Section 3.6.

All direct push boreholes will be abandoned according to state and county guidelines. Completed boreholes will be grouted from the bottom up using a tremie pipe with a high-solids bentonite grout or bentonite Hole Plug®. The borehole will be backfilled to within 1-foot of the ground surface. Based on the existing surface material, a concrete, asphalt, or soil plug will be installed at the surface of each boring location.

3.5.1 Subsurface Logging

The Site geologist will log the subsurface conditions encountered in all of the Site borings; recording the information on a Drilling Log Form. Borings shall be logged as follows.



GENESIS ENGINEERING & REDEVELOPMENT

- Descriptions of the soils will be in accordance with the Unified Soil Classification System (USCS) (ASTM D2488), with color descriptions made using a Munsell Color Chart.
- Soil descriptions follow the name of the predominant particle size.
- Dimensions of the predominant and secondary sizes shall be estimated.

Additional information that will be entered on the Drilling Log Form includes:

- Boring identification,
- Location in relation to an easily identifiable landmark,
- Name of drilling contractor,
- Drilling method,
- Depth at which saturated conditions are first encountered,
- Sample depths,
- Zones of caving or heaving,
- Drilling rig reactions such as chattering, rod drops, and bouncing, and
- Refusal.

3.5.2 Decontamination Activities

All equipment that may directly or indirectly contact samples will be decontaminated prior to use. This includes drill bits, drill rods, the portion of drill rig that stands above the borehole, sampling devices, and instruments such as borehole depth sounders. In addition, care will be taken to prevent samples and sampling equipment from coming into contact with potentially contaminating substances such as fugitive dust, tape, oil, engine exhaust, corroded surfaces, dirt, or any airborne source of contamination. A temporary decontamination station shall be set up at the Site to contain decontamination water. Decontamination water will be containerized in DOT rated drums, or equivalent.

Field Equipment Decontamination

The following procedures will be used to decontaminate all large pieces of equipment, such as drill rods.

1. External surfaces of equipment will be washed with high-pressure hot water and Alconox™. In some cases, more vigorous decontamination procedures, such as scrubbing, will be required if visible material remains on the downhole drilling tools after high-pressure washing.
2. Equipment will be thoroughly rinsed with potable water. This decontamination procedure will be performed before equipment is used and between each boring location.



3. Decontamination solutions will be accumulated and containerized in DOT rated drums, or equivalent, for further characterization and disposal.

Sampling Equipment Decontamination

The following procedures will be used to decontaminate sediment sampling equipment.

1. New disposable gloves will be used for each decontamination procedure to prevent cross-contamination of equipment.
2. Equipment will be scrubbed with brushes using a solution of Alconox™ and potable water. Equipment will be triple rinsed with potable water.
3. If the sampling device is not going to be used immediately, it will be wrapped in oil free aluminum foil with the shiny side out. Sampling equipment used to collect samples for organic analyses will not be allowed to come into direct contact with plastic.
4. Sampling equipment that is not readily decontaminated will be discarded after each use. Discarded decontamination solutions will be accumulated and containerized in DOT rated drums, or equivalent, for further characterization and disposal.

Groundwater sampling will be performed using new disposable equipment (i.e., bailer, etc.); therefore, decontamination of groundwater sampling equipment is limited to the rod used to deliver the bailer to the groundwater interface. The rod will be decontaminated as discussed above for the sediment sampling equipment.

Field Instrument Decontamination

The following procedure will be used to decontaminate groundwater field parameter testing equipment and organic vapor analyzers.

1. Equipment, or portions of equipment, which are water resistant will be scrubbed with a solution of Alconox™ and distilled water. Equipment will be rinsed with potable water followed by a rinse with distilled water.
2. Equipment, or portions of equipment, which are not water resistant will be repeatedly wiped with a paper towel moistened with a solution of Alconox™ and distilled water until clean.



3. Discarded decontamination solutions will be accumulated and containerized in DOT rated drums, or equivalent, for further characterization and disposal.

3.6 Investigation Derived Wastes

Investigation Derived Wastes ("IDW") such as: soil cuttings, excess sample material, decontamination rinsate, disposable personal protective equipment, sampling equipment, and other waste solids and liquids will be stored in DOT rated drums, pending waste characterization and classification. Waste classification samples will be collected from each drum on the last day of field activities, and submitted to the laboratory for expedited analysis. Drums will be appropriately labeled following receipt of characterization and classification of wastes. It is estimated that within 10 days following the completion of field activities all investigation-derived waste will be transported to the appropriate off-site disposal facility by a transporter meeting all certification and licensing requirements of the State of California.

3.7 Boring Locations and Surveying

Upon completion of the proposed borings, geographic locations will be set using a measuring tape with respect to fixed locations. A licensed surveyor will survey boring locations horizontally with the California State Plane coordinates and vertically with the USGS 1929 datum. Additional site landmarks will also be surveyed.

3.8 Sample Handling

3.8.1 Sample Labels

A sample label will be completed and attached to each sample container. Labels are made of a waterproof material backed with a water-resistant adhesive. Labels will be filled out using indelible ink and will contain:

- Sample Number,
- Date and Time that the Sample was Collected,
- Site Name and Location,
- Sample Preservative, and
- Sampler's Initials.

The sample labels will be placed on the bottles so as not to obscure any QA/QC data. Field identification must be sufficient to allow easy cross-reference with the field logbook.

3.8.2 Handling and Shipping

The labeled and sealed sample containers will be placed in plastic bags (e.g., Ziploc® bags) and sealed. Glass containers will be wrapped in bubble wrap before being placed in the sealed plastic bag. Bagged sample containers will be placed in the bottom of the cooler and arranged so that they do not touch. Bagged sample containers will be packed between double plastic-bagged ice and additional packing material to prevent breakage. Samples will be placed so as to maintain a temperature of approximately 4°C ± 2 degrees during shipment. Chain-of-Custody Records will be sealed in plastic bags and taped to the inside of the cooler lid.

The lid of the cooler will be taped shut and sealed with two custody seals. Samples shall be shipped directly to the laboratory by overnight courier on the day they were collected. The laboratory will be notified by phone or by FAX of the sample shipment schedule, air bill number, and arrival time. Samples will be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within acceptable holding times. No samples will be held on-site for more than 24 hours.

3.8.3 Sample Size, Preservation, Holding Time

The following sample containers, preservatives, and holding times will be used for the various matrices and constituents.

Soil Samples

Constituent	Sample Container	Sample Quantity	Preservative	Holding Time
VOC	brass sample sleeves (sealed at both ends)	6 inches of sample sleeve	Ice, cool to 4 °C	14 days

Groundwater Samples

Constituent	Sample Container	Sample Quantity	Preservative	Holding Time
VOC	Glass VOA vial	15 mL	HCl, Ice, cool to 4 °C	14 days

3.8.4 Sample Control

This section describes sample control procedures, including Chain-of-Custody documents and custody seal.

Chain-of-Custody Record

All samples submitted to the analytical laboratory will be accompanied by a Chain-of-Custody document to record points of sample handing. Chain-of-Custody forms will be prepared for groups of samples collected at a given location on a given day. Each form will be prepared in triplicate, and one of the three copies will accompany the samples to the laboratory. One copy will be kept in the QA/QC file and another copy will be retained in the project file. The Chain-of-Custody form makes provision for documenting sample integrity and the identity of any personnel involved in sample transfer. Information on the Chain-of-Custody consists of the following:

- Project name and number
- Chain-of-Custody serial number
- Project location
- Sample numbers
- Sampler/recorder's signature
- Date and time of collection of each sample
- Sample type
- Analyses requested
- Name of person receiving the sample
- Date of receipt of sample
- Name, address, and telephone number of laboratory

Sample coolers will be sealed in the field with the completed Chain-of-Custody document inside the cooler and the express shippers (e.g., Federal Express) shipment forms filled out in the field and attached to the cooler at that time. The Chain-of-Custody record will have the signature of the relinquishing field geologist and the shipper's form document tracking number written on the comment line.

The completed Chain-of-Custody form will be placed in a plastic bag and taped to the underside of the cooler lid. The cooler will be tightly bound with filament tape. Custody seals will be signed by the individual relinquishing custody and affixed in such a way that the cooler cannot be opened without breaking the seals.

3.8.5 Quality Control Samples

Quality Control samples are collected and analyzed for the purpose of assessing the quality of the sampling effort and the analytical data. Quality Control samples include trip blanks, equipment blanks, and field duplicates. The type, description, preparation and collection, and frequency of Quality Control samples are described below.

Trip Blank

A trip blank is Type II reagent grade water, or better, that is kept with the field sample containers from the time they leave the laboratory until the time they are returned to the laboratory. The purpose of the trip blank is to evaluate possible cross-contamination of aqueous samples during transit or sample collection. Trip blanks pertain only to volatile organic analyses. Therefore the containers must contain no headspace. Only one trip blank is used per sample container/cooler.

Equipment Blank

An equipment blank is a sample of the final rinse water following equipment decontamination. Equipment blanks are usually analyzed for the same parameters as the samples at that location. Equipment blanks will be collected at a frequency of 1 per 20 or fewer field samples (5%).

Matrix Spike/Matrix Spike Duplicate

Samples will be prepared for Matrix Spike/Matrix Spike Duplicates at a frequency of 1 per 20 or fewer field samples (5%).

Duplicate Samples

A duplicate sample is a single sediment sample divided into two equal parts or two groundwater samples collected independently at a single sampling location. Field duplicates will be identified so that laboratory personnel are unable to distinguish them from field samples. Duplicate samples will be collected at a frequency of 1 per every 10 or fewer (10%) field samples per matrix; with a minimum of one duplicate sample collected per sampling day. Duplicate samples are to be analyzed utilizing the same types of analyses as their associated field samples.

4.0 FIELD QUALITY CONTROL PROGRAM

Field quality control will be provided through strict adherence to sampling protocol and decontamination procedures.

4.1 Control Parameters

Control parameters of the field procedures consist of the same controls that govern analytical data. These parameters are controlled through the assessment of data by precision, accuracy, representativeness, and completeness. Control parameters consist of the following:



- Decontamination of field equipment
- Strict adherence to sampling protocol

4.2 Corrective Actions

Specific corrective actions for field measurements will be documented in the field notes and reported to the Project Manager.

5.0 RECORD KEEPING

All pertinent Project information shall be recorded in a hardbound field logbook with pre-numbered pages. Field logbooks will be used to record all data collection activities performed onsite. Each logbook will be identified by a project-specific number. The cover of each logbook will contain the following information.

- Project Number
- Project Name
- Book Number
- Start Date
- End Date

At the beginning of each day, the start time, weather, field personnel present, level of personnel protection, and name of the person making the entry will be recorded. All information pertinent to the sampling event will be recorded. Entries into the field logbook will include the minimum, as appropriate to the activity:

- Description of the sampling location
- Name(s) and title(s) of the field crew
- Name(s) and title(s) of site visitors
- Type of media being sampled or measured
- Sample/groundwater depth
- Sample collection or measurement method
- Volume of water purged (if appropriate)
- Number and volume or sample(s) collected
- Description of sample (i.e., grain size, sorting, color, turbidity etc.)
- Date and time of collection
- Unique sample identification number
- Duplicate sample cross-reference identification
- Sample preservative
- References to maps
- Field measurements
- References to all pertinent data collection forms



If the field data is recorded on an appropriate data collection form, then all the data need not be recorded in the logbook. A brief description of the sampling data along with the reference to the data forms used will be recorded to ensure that the field data forms can be referenced to the specific logbook entry.

In addition to field logbooks, field personnel will complete other records of field activities, as appropriate. A list of the appropriate forms, as well as a brief summary of information to be recorded follows:

- Boring Log Form – description of subsurface conditions at boring locations
- Chain-of-Custody Record – instructions to the laboratory as to the appropriate analytical method(s) for each sample

Recorded information shall summarize, organize, and/or clarify data. If corrections are necessary, these shall be made by drawing a single line through the original entry (in such a manner that the original entry can still be read). The corrected entry shall be written alongside the corrections and shall be initialed and dated. Completed forms will be provided in the draft and final Site Investigation reports.



FIGURES



