



**CONESTOGA-ROVERS  
& ASSOCIATES**

**RECEIVED**

1:55 pm, May 04, 2009

April 30, 2009

Alameda County  
Environmental Health

5900 Hollis Street, Suite A, Emeryville, California 94608  
Telephone: 510-420-0700 Facsimile: 510-420-9170  
[www.CRAworld.com](http://www.CRAworld.com)

Reference No. 581000

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

Dear Mr. Wickham:

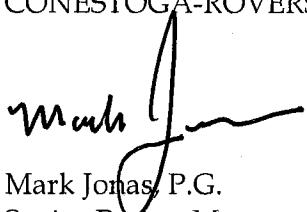
Re: Groundwater Monitoring Report - First Half 2009  
Chiu Property  
800 Franklin Street  
Oakland, California 94604  
Agency Case No. RO00000196

On behalf of Mr. Tommy Chiu, Conestoga-Rovers & Associates (CRA) is submitting this *Groundwater Monitoring Report - First Half 2009*. Presented in the report are first half 2009 activities and results, along with anticipated activities for second half 2009.

If you have any questions or comments regarding this report, please call me at (510) 420-3307

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

  
Mark Jonas, P.G.  
Senior Project Manager

MJ/aa/2  
Encl. *Groundwater Monitoring Report - First Half 2009*

c.c.: Ms. Anny Chiu

Equal  
Employment  
Opportunity Employer



# GROUNDWATER MONITORING REPORT - FIRST HALF 2009

**CHIU PROPERTY  
800 FRANKLIN STREET  
OAKLAND, CALIFORNIA**

**FUEL LEAK CASE NO. RO0000196**

**Prepared by:  
Conestoga-Rovers  
& Associates**

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

Office: 510-420-0700  
Fax: 510-420-9170

web: <http://www.CRAworld.com>

**APRIL 30, 2009**

**REF. NO. 581000 (2)**

This report is printed on recycled paper.

## TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION .....	1
1.1 SITE INFORMATION.....	1
2.0 SITE ACTIVITIES AND RESULTS .....	2
2.1 CURRENT HALF'S ACTIVITIES.....	2
2.1.1 WATER LEVEL MEASUREMENTS.....	2
2.1.2 GROUNDWATER SAMPLING .....	2
2.1.3 EQUIPMENT DECONTAMINATION .....	3
2.1.4 SAMPLE ANALYSIS .....	3
2.2 CURRENT HALF'S RESULTS.....	3
2.2.1 GROUNDWATER FLOW DIRECTION AND GRADIENT.....	4
2.2.2 GROUNDWATER ANALYTICAL RESULTS.....	4
2.2.3 WASTE DISPOSAL .....	5
2.2.4 GEOTRACKER SUBMITTAL .....	5
2.3 PROPOSED ACTIVITIES FOR NEXT HALF .....	5

LIST OF FIGURES  
(Following Text)

FIGURE 1 VICINITY MAP

FIGURE 2 GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP

LIST OF TABLES

TABLE 1 WELL CONSTRUCTION DETAILS

TABLE 2 GROUNDWATER ANALYTICAL AND ELEVATION DATA

LIST OF APPENDICES

APPENDIX A STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

APPENDIX B CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

APPENDIX C FIELD DATA SHEETS

APPENDIX D WASTE MANIFESTS

## **1.0 INTRODUCTION**

This report presents a summary of first half 2009 activities, monitoring results, and activities anticipated to be completed by the end of second half 2009 for the site located at 800 Franklin Street, Oakland, California (Figure 1). This groundwater monitoring event was conducted as required by Alameda County Department of Environmental Health (ACEH).

### **1.1 SITE INFORMATION**

<b>Site Address</b>	800 Franklin Street, Oakland
<b>Site Use</b>	Commercial Building
<b>Client and Contact</b>	Tommy Chiu
<b>Consultant and Contact Person</b>	Conestoga-Rovers & Associates Mark Jonas, P.G
<b>Lead Agency and Contact</b>	Alameda County Environmental Health Jerry Wickham, P.G.
<b>Agency Case No.</b>	RO0000196

## **2.0 SITE ACTIVITIES AND RESULTS**

### **2.1 CURRENT HALF'S ACTIVITIES**

On March 4, 2009, Muskan Environmental Sampling (MES) conducted quarterly groundwater monitoring activities at the site. MES measured groundwater levels and collected groundwater samples from monitoring wells MW-1, MW-2, MW-3A, MW-4, MW-5, and MW-6 (Figure 2). Well construction details are provided in Table 1. CRA's standard field procedures are presented as Appendix A. The laboratory analytical report and sample chain-of-custody (COC) documents are presented as Appendix B. Copies of the field data sheets are included as Appendix C.

#### **2.1.1 WATER LEVEL MEASUREMENTS**

Depth to groundwater measurements were recorded to the nearest 0.01-foot from the top of casing (TOC), relative to a previously established reference elevation. Measurements were collected using an electric, conductance-actuated well sounder. The groundwater elevation and depth data are presented in Table 2.

#### **2.1.2 GROUNDWATER SAMPLING**

MES collected groundwater samples from wells MW-1, MW-2, MW-3A, MW-4, MW-5, and MW-6. Field activities associated with groundwater sampling included well purging, measuring groundwater parameters, sample collection, and equipment decontamination.

Prior to sampling, each monitoring well was purged. MES purged three well-casing volumes of groundwater from each monitoring well. Field measurements of pH, specific conductance, and temperature of purged groundwater were measured after the extraction of each successive casing volume. Well purging continued until consecutive pH, specific conductance, and temperature measurements appeared to stabilize. Field measurements, purge volumes, and sample collection data were recorded on field sampling data sheets, presented in Appendix C.

Groundwater samples were collected from each of the wells using new disposable bailers. The samples were decanted from the bailers into 1-liter (L) amber glass containers and 40-milliliter (mL) glass volatile organic analysis (VOA) vials supplied by McCampbell Analytical, Inc. (McCampbell) of Pittsburg, California. Samples were labeled, placed in protective foam sleeves, stored on crushed, water-based ice at or

below 4 degrees Celsius ( $^{\circ}\text{C}$ ) and transported under a COC to the laboratory. The COC used for this monitoring event is provided in Appendix B.

### **2.1.3 EQUIPMENT DECONTAMINATION**

To minimize the potential for cross-contamination, the groundwater monitoring equipment was decontaminated prior to being deployed in the first monitoring well and between successive wells. The probe of the electric well sounder used for water level measurements was rinsed thoroughly with distilled water prior to first use and between subsequent water level measurements. The disposable bailers were discarded after use at each well.

#### **2.1.4 SAMPLE ANALYSIS**

Groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg) by modified United States Environmental Protection Agency (EPA) Method SW8015C. Samples were also analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method SW8260B. In addition, groundwater samples were analyzed for TPH as diesel (TPHd) and as motor oil (TPHmo) by EPA Method SW8015C with silica gel cleanup, and chloroform and 1,2-dichloroethane (1,2-DCA) by EPA Method SW8260B. The results for all compounds in the Basic Target List by EPA Method SW8260B are included in the laboratory analytical report. The analyses were performed by McCampbell. The laboratory analytical report is included in Appendix B. Groundwater analytical results are summarized on Figure 2 and presented in Table 2.

## **2.2 CURRENT HALF'S RESULTS**

<b>Groundwater Flow Direction</b>	Northwest
<b>Hydraulic Gradient</b>	0.006
<b>Range of Measured Water Depth from Top of Casing in Monitoring Wells</b>	22.15 to 23.14 feet
<b>Were Measureable Separate Phase Hydrocarbons Observed</b>	No

### **2.2.1 GROUNDWATER FLOW DIRECTION AND GRADIENT**

Depth-to-water measurements collected on March 4, 2009 ranged from 22.15 to 23.14 feet below top of casing (TOC). Groundwater elevations were calculated by subtracting the depth-to-water measurements from the surveyed TOC elevations. The groundwater elevations were plotted on a site plan and contoured. Based on depth-to-water data collected during the site visit, groundwater appears to flow towards the northwest at a gradient of 0.006 feet/foot. Depth-to-water and groundwater elevation data for the site are summarized in Table 2 and presented on Figure 2.

### **2.2.2 GROUNDWATER ANALYTICAL RESULTS**

Concentrations of analytes were detected in all of the six wells sampled during the first half 2009, as follows:

- TPHg was detected in the samples collected from wells MW-2, MW-3A and MW-6. The maximum TPHg concentration was detected in well MW-2 at 56,000 micrograms per liter ( $\mu\text{g}/\text{L}$ ). BTEX concentrations were detected in wells MW-2, MW-3A, and MW-6. MW-2 had BTEX concentrations of 1,500  $\mu\text{g}/\text{L}$ , 5,300  $\mu\text{g}/\text{L}$ , 990  $\mu\text{g}/\text{L}$ , and 4,500  $\mu\text{g}/\text{L}$ , respectively. MW-3A had BTEX concentrations of 1,000  $\mu\text{g}/\text{L}$ , 1,700  $\mu\text{g}/\text{L}$ , 330  $\mu\text{g}/\text{L}$ , and 1,200  $\mu\text{g}/\text{L}$ , respectively. Benzene, toluene, and xylenes were detected in well MW-6 at concentrations of 68  $\mu\text{g}/\text{L}$ , 13  $\mu\text{g}/\text{L}$ , and 12  $\mu\text{g}/\text{L}$ , respectively. The laboratory noted that unmodified or weakly modified gasoline is significant in samples collected from wells MW-2, MW-3A, and MW-6.
- No MTBE was detected above laboratory reporting limits in any of the wells.
- TPHd range hydrocarbons were detected in samples from wells MW-2, MW-3A and MW-6 at concentrations of 13,000  $\mu\text{g}/\text{L}$ , 810  $\mu\text{g}/\text{L}$ , and 150  $\mu\text{g}/\text{L}$ , respectively. The laboratory noted that the TPH chromatogram suggested gasoline range compounds were significant in samples from wells MW-2, MW-3A, and MW-6.
- TPHmo was detected in well MW-2 at a concentration of 1,100  $\mu\text{g}/\text{L}$ .
- Chloroform was detected in wells MW-3A, MW-4 and MW-5. The maximum chloroform concentration was detected in wells MW-4 and MW-5 at 14  $\mu\text{g}/\text{L}$ .
- 1,2-DCA was detected in wells MW-1 and MW-3A at concentrations of 0.65  $\mu\text{g}/\text{L}$  and 7.2  $\mu\text{g}/\text{L}$ , respectively.

### **2.2.3      WASTE DISPOSAL**

On March 4, 2009, approximately 55 gallons of drummed purged groundwater from the first quarter 2009 monitoring event was transported for disposal by Environmental Logistics to Filter Recycling Services, Inc in Rialto, CA.

### **2.2.4      GEOTRACKER SUBMITTAL**

CRA uploaded relevant data to the GeoTracker database on behalf of Mr. Tommy Chiu. CRA has uploaded first half 2009 groundwater depth data, analytical results, and this report to the State's GeoTracker database.

## **2.3            PROPOSED ACTIVITIES FOR NEXT HALF**

As approved by ACEH, the subject site will be monitored semi-annually during first and third quarters. CRA will measure water levels and collect groundwater samples from wells MW-1 through MW-6. Groundwater samples will be analyzed for TPHd and TPHmo with silica gel cleanup and TPHg by modified EPA Method SW8015C; and for BTEX, MTBE, chloroform and 1,2-DCA by EPA Method SW8260B (Basic Target List). CRA will prepare a groundwater monitoring report summarizing the monitoring activities and results.

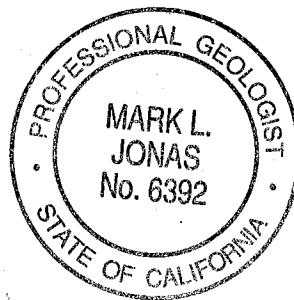
All of Which is Respectfully Submitted,  
CONESTOGA-ROVERS & ASSOCIATES

*Mark Werner*

Michael Werner

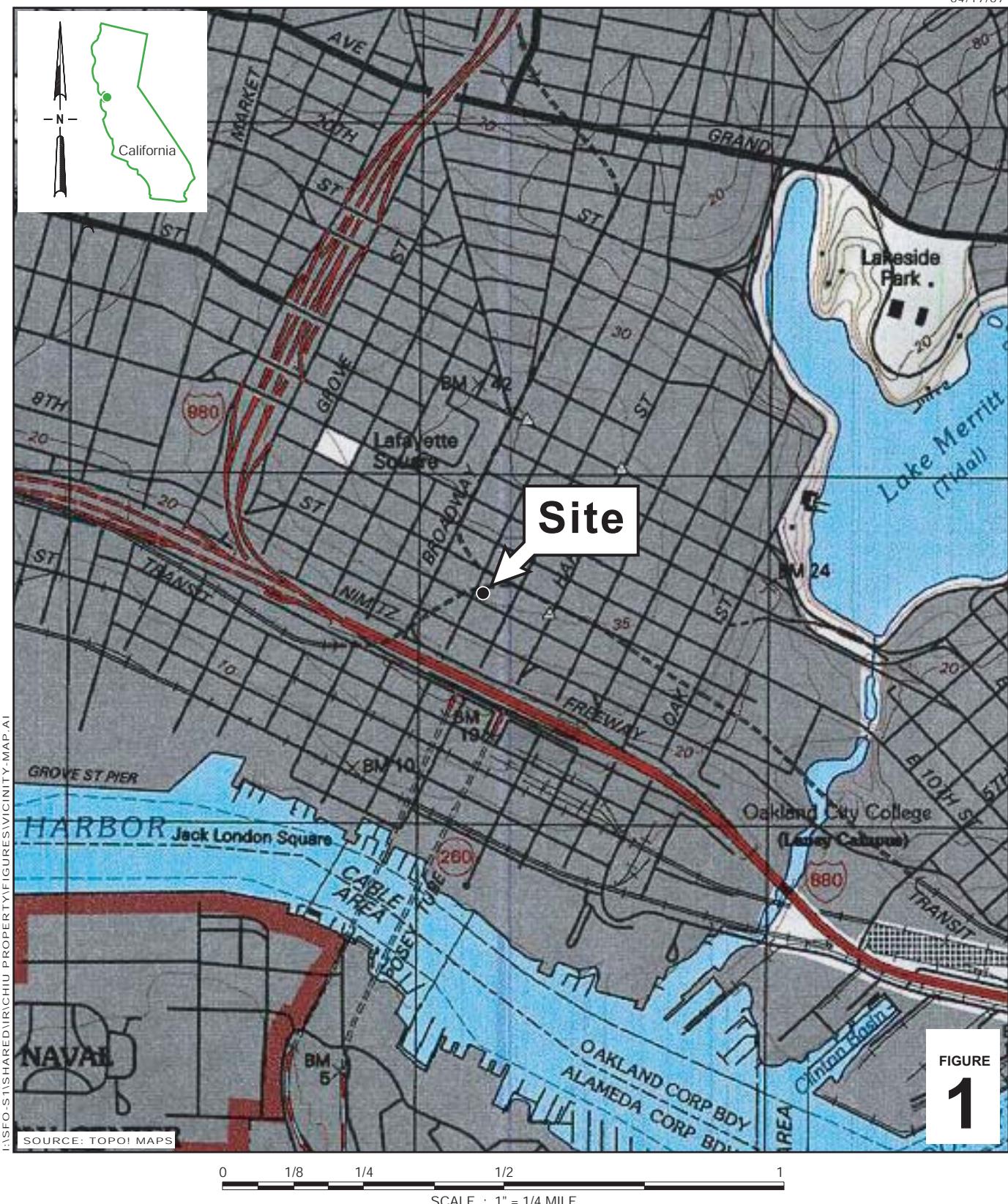
*Mark Jonas*

Mark Jonas, P.G.



Conestoga-Rovers & Associates, Inc. (CRA) prepared this document for use by our client and appropriate regulatory agencies. It is based partially on information available to CRA from outside sources and/or in the public domain, and partially on information supplied by CRA and its subcontractors. CRA makes no warranty or guarantee, expressed or implied, included or intended in this document, with respect to the accuracy of information obtained from these outside sources or the public domain, or any conclusions or recommendations based on information that was not independently verified by CRA. This document represents the best professional judgment of CRA. None of the work performed hereunder constitutes or shall be represented as a legal opinion of any kind or nature.

## FIGURES



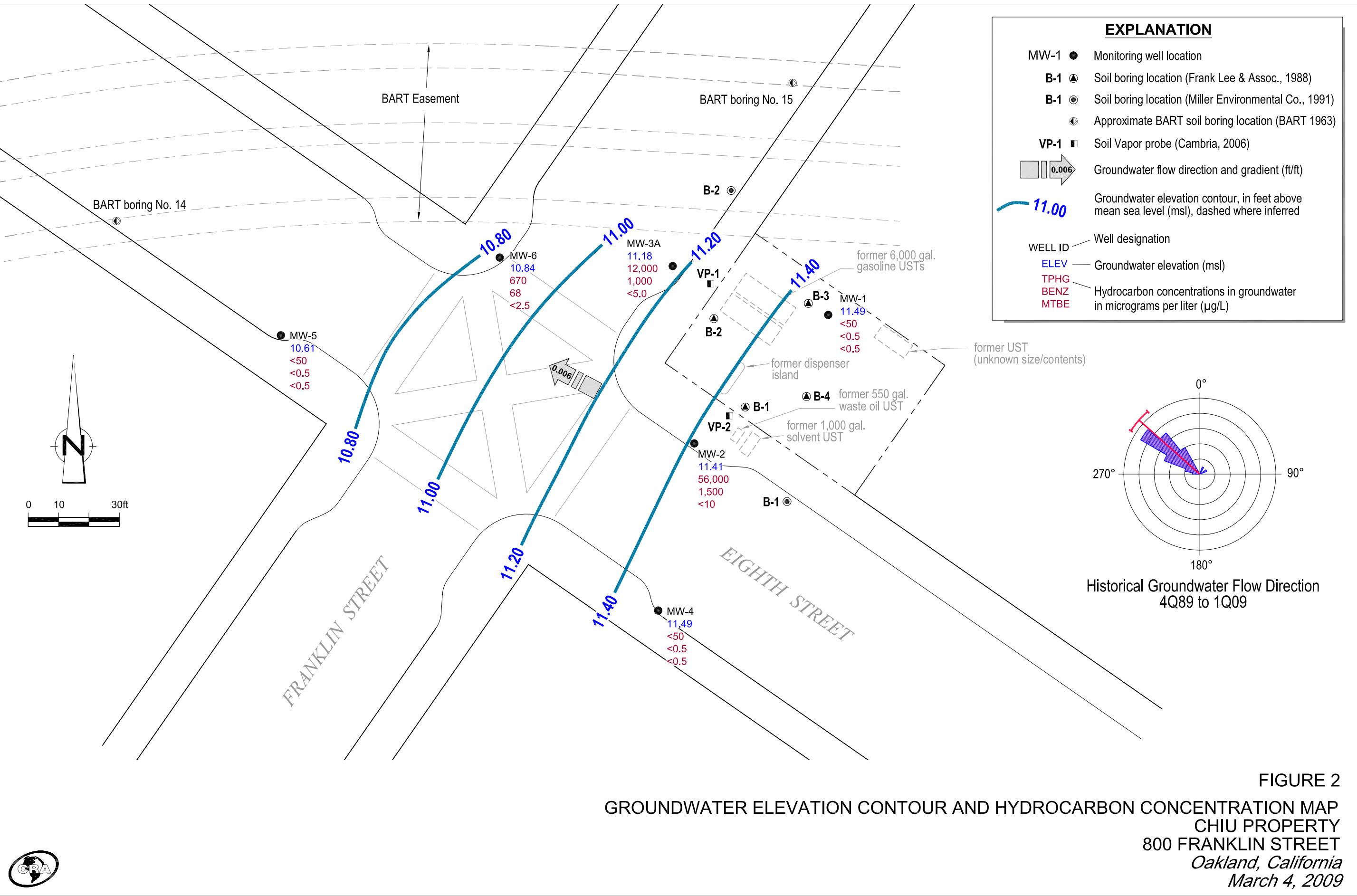
## Chiu Property

800 Franklin Street  
Oakland, California



**CONESTOGA-ROVERS**  
& ASSOCIATES

## Vicinity Map



GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP  
CHIU PROPERTY  
800 FRANKLIN STREET  
*Oakland, California*  
*March 4, 2009*

## TABLES

TABLE 1

**WELL CONSTRUCTION DETAILS  
CHIU PROPERTY  
800 FRANKLIN STREET, OAKLAND, CALIFORNIA**

Well ID	Date Installed	Borehole Depth (ft)	Borehole Diameter (in)	Casing Diameter (in)	Screen Interval (ft bgs)	Screen Size (in)	Filter Pack (ft bgs)	Bentonite Seal (ft bgs)	Cement Seal (ft bgs)	TOC Elevation (ft msl)
MW-1	1989	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	16.0 - 18.0	0 - 16.0	33.42
MW-2	1989	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	16.0 - 18.0	0 - 16.0	33.66
Installed: 1989										
MW-3*	Destroyed: 1/29/07	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	16.0 - 18.0	0 - 16.0	34.23
MW-3A	2/8/2007	35.0	10.0	4	20.0 - 35.0	0.010	19.0 - 35.0	17.0 - 19.0	0 - 17.0	34.16
MW-4	10/2/1991	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	-	0 - 18.0	33.64
MW-5	10/3/1991	35.0	8.0	2	20.0 - 35.0	0.010	18.0 - 35.0	-	0 - 18.0	33.56
MW-6	5/15/1997	35.0	8.0	2	14.5 - 36.25	0.010	14.5 - 36.25	12.5 - 14.5 (?)	0 - 12.5	33.98

**Abbreviations / Notes**

ft = feet

in = inches

ft bgs = feet below grade surface

ft msl = feet above mean sea level

TOC = top of casing

\* = Monitoring well MW-3 properly destroyed on January 29, 2007 by Cambria.

TABLE 2

1 of 6

**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS  
CHIU PROPERTY  
800 FRANKLIN STREET, OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (feet msl)	µg/L									
				TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Chloroform	1,2-DCA
<b>MW-1</b>	10/12/1989†	22.87	10.55	ND	--	--	ND	ND	ND	ND	--	0.8	8.6
33.42	10/31/1991	--	--	630	960	1,700	3.2	ND<0.5	ND<0.5	130	--	--	0.0098
34.89	10/21/1992	23.48	11.41	520	--	--	78	38	ND<0.5	120	--	--	ND
	2/25/1993	22.51	12.38	1,600	--	--	160	190	34	350	--	--	--
	4/27/1993	22.36	12.53	380	--	--	5.2	ND<0.5	ND<0.5	74	--	--	--
	10/7/1993	--	12.10	1,000	--	--	81	150	47	230	--	--	--
33.98	3/28/1994	--	11.91	460	--	--	14	25	14	39	--	--	--
	4/29/1994	--	--	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	11.66	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	11.62	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	11.48	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	11.47	--	--	--	--	--	--	--	--	--	--
	10/27/1994	22.51	11.47	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	1/6/1995	--	12.08	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	12.79	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	12.75	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	12.48	1,400	--	--	15	38	49	510	19	--	--
	5/21/1997	--	12.49	150	--	--	2.9	1.5	8.6	26	ND<5.0	--	--
	8/10/2004	23.35	10.63	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/28/2004	--	--	--	--	--	--	--	--	--	--	--	--
	12/21/2004	22.93	11.05	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005	--	--	--	--	--	--	--	--	--	--	--	--
	6/16/2005	20.68	13.30	ND<50	--	--	0.64	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/1/2005	20.74	13.24	ND<50	--	--	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/16/2005	20.95	13.03	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/10/2006	20.34	13.64	ND<50	--	--	0.60	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/15/2006	21.51	12.47	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	6.4	ND<0.5
	3/8/2007	21.81	12.17	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	0.72	ND<0.5	ND<5.0	6.9	ND<0.5
	9/17/2007	22.08	11.90	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	2.3	ND<0.5	ND<0.5	4.7	ND<0.5
	3/4/2008	21.72	12.26	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5
	9/3/2008	22.70	11.28	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.98	ND<0.5
	<b>3/4/2009</b>	<b>22.49</b>	<b>11.49</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	<b>ND&lt;250</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>0.65</b>

TABLE 2

2 of 6

**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS  
CHIU PROPERTY  
800 FRANKLIN STREET, OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (feet msl)										
				TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Chloroform	1,2-DCA
$\mu\text{g/L}$													
<b>MW-2</b>	10/12/1989†	23.25	10.40	38,000	--	3,900	1,300	1,200	ND	4,700	--	--	--
33.66	10/31/1991	--	--	10,000	1,500	--	1,800	1,200	270	960	--	--	0.17
	11/6/1991	24.02	9.64	--	--	--	--	--	--	--	--	--	--
	10/21/1992	22.42	11.24	270,000	--	--	9,700	4,500	9,600	56,000	--	--	15.4
	2/25/1993	21.50	12.16	49,000	--	--	4,300	11,000	1,300	9,100	--	--	--
	4/27/1993	21.26	12.40	39,000	--	--	1,400	4,000	220	5,200	--	--	--
	10/7/1993	--	12.04	50,000	--	--	2,700	8,100	940	7,800	--	--	--
	3/28/1994	--	11.88	20,000	--	--	360	1,300	220	1,800	--	--	--
	4/29/1994	--	11.87	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	11.44	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	11.42	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	11.22	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	11.01	--	--	--	--	--	--	--	--	--	--
	10/27/1994	22.66	11.00	21,000	--	--	1,200	3,700	600	4,300	--	--	--
	1/6/1995	--	11.66	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	12.21	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	12.66	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	11.51	45,000	--	--	3,100	8,800	1,200	8,400	810	--	--
	5/21/1997	--	12.65	18,000	--	--	1,400	4,200	680	3,600	370	--	--
	8/10/2004	21.03	12.63	47,000 (a)	--	--	4,200	4,900	1,400	6,000	ND<500	--	--
	9/28/2004	22.95	10.71	--	--	--	--	--	--	--	--	--	--
	12/21/2004	20.91	12.75	13,000 (a)	--	--	500	310	34	1600	ND<100	--	--
	3/11/2005	11.35	22.31	32,000 (a)	--	--	970	2,400	890	4,200	ND<1,000	--	--
	6/16/2005	20.50	13.16	43,000 (a,i)	--	--	1,500	3,400	1,200	5,400	ND<1,200	--	--
	9/1/2005	20.60	13.06	20,000 (a)	--	--	640	1,700	460	2,200	ND<200	--	--
	12/16/2005	20.83	12.83	32,000 (a,i)	--	--	1,000	3,100	760	3,800	ND<500	--	--
	3/10/2006	20.05	13.61	20,000 (a)	--	--	460	1,900	440	2,400	ND<400	--	--
	9/15/2006	21.31	12.35	43,000 (a)	3,100 (d)	ND<250	1,600	4,400	1,100	5,100	ND<500	16	ND<10
	3/8/2007	21.62	12.04	30,000 (a,h)	4,600 (d,h)	ND<1,200	1,200	3,400	890	4,500	ND<500	ND<50	ND<50 (j,h)
	9/17/2007	21.92	11.74	31,000 (a)	6,600 (d,b)	340	790	3,000	700	3,100	ND<100	ND<100	ND<100
	3/4/2008	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/2008	22.50	11.16	46,000 (a)	5,100 (d)	370	1,700	8,600	1,400	7,500	ND<250	ND<250	ND<250
	<b>3/4/2009</b>	<b>22.25</b>	<b>11.41</b>	<b>56,000 (a)</b>	<b>13,000 (d)</b>	<b>1,100</b>	<b>1,500</b>	<b>5,300</b>	<b>990</b>	<b>4,500</b>	<b>ND&lt;10</b>	<b>ND&lt;10</b>	<b>ND&lt;10</b>

TABLE 2

3 of 6

**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS  
CHIU PROPERTY  
800 FRANKLIN STREET, OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (feet msl)	µg/L									
				TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Chloroform	1,2-DCA
<b>MW-3</b>	10/12/1989†	24.02	10.21	87,000	--	4,500	3,200	8,800	ND	6,500	--	--	70.0
34.23	10/31/1991	--	--	310,000	25,000	--	9,300	25,000	5,600	27,000	--	--	0.058
	11/6/1991	23.52	10.71	--	--	--	--	--	--	--	--	--	--
	10/21/1992	23.32	10.91	22,000	--	--	10,000	4,300	790	2,100	--	--	ND
	2/25/1993	22.51	11.72	29,000	--	--	8,400	5,400	1,300	3,300	--	--	--
	4/27/1993	22.37	11.86	50,000	--	--	8,200	8,700	1,000	5,400	--	--	--
	10/7/1993	--	14.19	1,700	--	--	3,100	3,700	400	1,700	--	--	--
	3/28/1994	--	11.52	53,000	--	--	3,900	4,600	710	2,500	--	--	--
	4/29/1994	--	11.34	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	11.13	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	11.09	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	10.94	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	10.80	--	--	--	--	--	--	--	--	--	--
	10/27/1994	23.56	10.67	8,500	--	--	2,700	2,700	490	2,000	--	--	--
	1/6/1995	--	11.33	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	11.79	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	12.10	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	11.23	19,000	--	--	4,400	4,600	720	2,900	410	--	--
	5/21/1997	--	11.68	4,000	--	--	810	840	190	690	ND<100	--	--
	9/28/2004				Well is damaged. Unable to measure depth to water or collect sample.								
	12/21/2004				Well is damaged. Unable to measure depth to water or collect sample.								
	3/11/2005				Well is damaged. Unable to measure depth to water or collect sample.								
	6/16/2005				Well is damaged. Unable to measure depth to water or collect sample.								
	9/1/2005				Well is damaged. Unable to measure depth to water or collect sample.								
	12/16/2005				Well is damaged. Unable to measure depth to water or collect sample.								
	3/10/2006				Well is damaged. Unable to measure depth to water or collect sample.								
	9/15/2006				Well is damaged. Unable to measure depth to water or collect sample.								
	1/29/2007				Well properly destroyed by Cambria.								
<b>MW-3A</b>	1/29/2007				<b>MW-3A replaces MW-3</b>								
34.16	3/8/2007	22.42	11.74	30,000 (a,i)	1,700 (d,i)	ND<250	2,600	4,400	710	4,600	ND<1,000	ND<50	ND<50 (j)
	9/17/2007	22.65	11.51	9,800 (a)	980 (d)	ND<250	1,100	1,800	270	1,100	ND<25	ND<25	ND<25
	3/4/2008	22.31	11.85	21,000 (a,i)	1,700 (d,i)	ND<250	2,600	5,000	810	3,500	ND<50	ND<50	ND<50

TABLE 2

4 of 6

**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS  
CHIU PROPERTY  
800 FRANKLIN STREET, OAKLAND, CALIFORNIA**

<i>Well ID</i> <i>TOC Elevation</i> <i>(ft msl)</i>	<i>Date Sampled</i>	<i>Depth to Water</i> <i>(ft below TOC)</i>	<i>Groundwater Elevation</i> <i>(feet msl)</i>	<i>TPHg</i>	<i>TPHd</i>	<i>TPHmo</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethylbenzene</i>	<i>Xylenes</i>	<i>MTBE</i>	<i>Chloroform</i>	<i>1,2-DCA</i>
<i>MW-3A cont.</i>	9/3/2008	23.11	11.05	13,000 (a)	880 (d)	ND<250	1,400	2,100	370	1,500	ND<50	ND<50	ND<50
	<b>3/4/2009</b>	<b>22.98</b>	<b>11.18</b>	<b>12,000 (a)</b>	<b>810 (d)</b>	<b>ND&lt;250</b>	<b>1,000</b>	<b>1,700</b>	<b>330</b>	<b>1,200</b>	<b>ND&lt;5.0</b>	<b>7.9</b>	<b>7.2</b>
<b>MW-4</b>	10/31/1991	--	--	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	2.6	ND
33.64	11/6/1991	23.32	10.32	--	--	--	--	--	--	--	--	--	--
	10/21/1992	22.10	11.54	410	--	--	3.1	29	6.8	47	--	--	ND
	2/25/1993	21.13	12.51	170	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/27/1993	20.74	12.90	100	--	--	ND<0.5	ND<0.5	ND<0.5	0.9	--	--	--
	10/7/1993	--	12.52	240	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	3/28/1994	--	12.34	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/29/1994	--	11.33	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	11.55	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	11.54	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	11.30	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	11.09	--	--	--	--	--	--	--	--	--	--
	10/27/1994	22.69	10.95	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	1/6/1995	--	11.70	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	12.34	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	12.76	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	11.61	80	--	--	ND<0.5	0.6	ND<0.5	1.0	ND<0.5	--	--
	5/21/1997	--	12.08	ND<50	--	--	11	120	27	180	ND<5.0	--	--
	9/28/2004	22.72	10.92	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/21/2004	20.65	12.99	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005	20.20	13.44	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	6/16/2005	20.38	13.26	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/1/2005	20.48	13.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/16/2005	20.78	12.86	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/10/2006	19.81	13.83	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/15/2006	21.16	12.48	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	28	ND<0.5
	3/8/2007	21.52	12.12	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	23	ND<0.5
	9/17/2007	21.84	11.80	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	ND<0.5
	3/4/2008	21.41	12.23	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5
	9/3/2008	22.50	11.14	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5
	<b>3/4/2009</b>	<b>22.15</b>	<b>11.49</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	<b>ND&lt;250</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>14</b>	<b>ND&lt;0.5</b>

TABLE 2

5 of 6

**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS  
CHIU PROPERTY  
800 FRANKLIN STREET, OAKLAND, CALIFORNIA**

<i>Well ID</i>	<i>Date</i>	<i>Depth to Water</i>	<i>Groundwater Elevation</i>	<i>TPHg</i>	<i>TPHd</i>	<i>TPHmo</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethylbenzene</i>	<i>Xylenes</i>	<i>MTBE</i>	<i>Chloroform</i>	<i>1,2-DCA</i>
<i>TOC Elevation</i> <i>(ft msl)</i>	<i>Sampled</i> <i>(ft below TOC)</i>		<i>(feet msl)</i>						<i>μg/L</i>				
<b>MW-5</b>													
33.51	10/31/1991	--	--	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	1.1	--
	11/6/1991	24.00	9.51	ND	--	--	ND	ND	ND	ND	--	--	--
	10/21/1992	23.24	10.27	840	--	--	17	120	39	180	--	--	--
33.56	2/25/1993	22.40	11.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/27/1993	22.15	11.41	260	--	--	53	19	1.2	2.4	--	--	--
	10/7/1993	--	11.06	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	3/28/1994	--	10.95	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	4/29/1994	--	10.91	--	--	--	--	--	--	--	--	--	--
	6/10/1994	--	10.68	--	--	--	--	--	--	--	--	--	--
	7/8/1994	--	10.60	--	--	--	--	--	--	--	--	--	--
	7/26/1994	--	10.45	--	--	--	--	--	--	--	--	--	--
	8/25/1994	--	10.28	--	--	--	--	--	--	--	--	--	--
	10/27/1994	23.50	10.06	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--
	1/6/1995	--	10.78	--	--	--	--	--	--	--	--	--	--
	2/1/1995	--	11.25	--	--	--	--	--	--	--	--	--	--
	3/29/1995	--	11.63	--	--	--	--	--	--	--	--	--	--
	10/31/1995	--	10.64	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
	5/21/1997	--	11.04	260	--	--	2.4	33	7.7	56	ND<5.0	--	--
	9/28/2004	23.70	9.86	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	1.5	ND<5.0	--	--
	12/21/2004	21.40	12.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005	21.40	12.16	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	6/16/2005	21.63	11.93	ND<50 (i)	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/1/2005	21.65	11.91	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/16/2005	21.94	11.62	ND<50 (i)	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/10/2006	21.11	12.45	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/15/2006	22.20	11.36	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	10	ND<0.5
	3/8/2007	22.44	11.12	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	18	ND<0.5
	9/17/2007	22.73	10.83	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	14	ND<0.5
	3/4/2008	22.32	11.24	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	ND<0.5
	9/3/2008	23.13	10.43	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	ND<0.5
	<b>3/4/2009</b>	<b>22.95</b>	<b>10.61</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	<b>ND&lt;250</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>14</b>	<b>ND&lt;0.5</b>

TABLE 2

**GROUNDWATER ANALYTICAL AND ELEVATION DATA: PETROLEUM HYDROCARBONS  
CHIU PROPERTY  
800 FRANKLIN STREET, OAKLAND, CALIFORNIA**

Well ID TOC Elevation (ft msl)	Date Sampled	Depth to Water (ft below TOC)	Groundwater Elevation (feet msl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2-DCA	
												μg/L	μg/L
<b>MW-6</b>	5/21/1997	--	11.26	760	--	--	2.5	1.7	ND<0.50	25	10	--	--
33.98	9/28/2004	24.00	9.98	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/21/2004	21.61	12.37	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/11/2005	21.60	12.38	340 (a)	--	--	1.9	2.6	0.68	0.61	ND<5.0	--	--
	6/16/2005	21.81	12.17	1,300 (a)	--	--	58	8.3	6.1	4.0	ND<25	--	--
	9/1/2005	21.82	12.16	1,900 (a)	--	--	150	19	18	76	ND<12	--	--
	12/16/2005	22.03	11.95	3,600 (a,i)	--	--	560	63	33	230	ND<50	--	--
	3/10/2006	21.46	12.52	2,200 (a)	--	--	240	10	20	87	ND<50	--	--
	9/15/2006	22.46	11.52	1,800 (a)	480 (d)	ND<250	10	6.7	9.9	42	ND<17	3.2	ND<0.5
	3/8/2007	22.64	11.34	4,300 (a)	890 (d)	ND<250	260	36	29	140	ND<60	ND<10	ND<10 (j)
	9/17/2007	22.88	11.10	7,000 (a)	970 (d)	ND<250	760	28	46	270	ND<10	ND<10	ND<10
	3/4/2008	22.51	11.47	400 (a)	74 (d)	ND<250	46	ND<1.0	1.0	6.0	ND<1.0	ND<1.0	ND<1.0
	9/3/2008	23.24	10.74	280 (a)	69 (d, b)	ND<250	2.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	<b>3/4/2009</b>	<b>23.14</b>	<b>10.84</b>	<b>670 (a)</b>	<b>150 (d)</b>	<b>ND&lt;250</b>	<b>68</b>	<b>13</b>	<b>ND&lt;2.5</b>	<b>12</b>	<b>ND&lt;2.5</b>	<b>ND&lt;2.5</b>	<b>ND&lt;2.5</b>

**Abbreviations:**

TOC Elevation = Top of well casing elevation measured in feet above mean sea level

msl = Above mean sea level

μg/L = Micrograms per liter

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method SW8015C.

TPHd = Total petroleum hydrocarbons as diesel by EPA Method SW8015C with silica gel cleanup.

TPHmo = Total petroleum hydrocarbons as motor oil by EPA Method SW8015C with silica gel cleanup.

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B (SW8260B).

MTBE = Methyl tertiary-butyl ether by EPA Method SW8021B.

Chloroform by EPA Method SW8260B.

1,2-DCA = 1,2-Dichloroethane by EPA Method SW8260B.

Sheen = A sheen was observed on the water's surface.

Field = Observed in the field.

Lab = Observed in analytical laboratory.

**Notes:**

(a) = unmodified or weakly modified gasoline is significant

(b) = diesel range compounds are significant; no recognizable pattern

(d) = gasoline range compounds are significant

(h) = lighter than water immiscible sheen/product is present

(i) = liquid sample that contains ~1 vol. % sediment

(j) = sample diluted due to high organic content/matrix interference

ND&lt;5.0 = Not detected above detection limit.

-- = Not available, not analyzed, or not applicable

## APPENDIX A

### STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

# Conestoga-Rovers & Associates

## STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Cambria's specific field procedures are summarized below.

### Groundwater Elevation Monitoring

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain non-aqueous phase liquid (NAPL) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of NAPL, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be measured last. In wells with a history of NAPL, the NAPL level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox<sup>TM</sup> or Alconox<sup>TM</sup> followed by one rinse of clean tap water and then two rinses of distilled water.

### Groundwater Purging and Sampling

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of NAPL or floating NAPL globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no NAPL is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or Wattera<sup>TM</sup>) or down-hole pump (e.g. Grundfos<sup>TM</sup> or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until groundwater parameters of temperature, pH, and conductivity have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall be measured and recorded at least once per well casing volume removed. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged. If the well is slow to recharge, a sample shall be collected after the water column is allowed to recharge to 80% of the pre-purging static water level. If the well does not recover to 80% in 2 hours, a sample shall be collected once there is enough groundwater in the well. Groundwater samples shall be collected using clean disposable bailers or pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and disposable tubing or bailers shall be

# Conestoga-Rovers & Associates

used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

## **Sample Handling**

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. A copy of the COC shall be retained in the project file. Information on the COC shall consist of the project name and 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; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

## **Waste Handling and Disposal**

Groundwater extracted during sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums and shall be labeled with the contents, date of generation, generator identification, and consultant contact. Extracted groundwater may be disposed offsite by a licensed waste handler or may be treated and discharged via an operating onsite groundwater extraction/treatment system.

## APPENDIX B

### CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION



## McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: [www.mccampbell.com](http://www.mccampbell.com) E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Reported: 03/10/09
	Client P.O.:	Date Completed: 03/09/09

**WorkOrder: 0903080**

March 10, 2009

Dear Mark:

Enclosed within are:

- 1) The results of the **6** analyzed samples from your project: **#581000; Chiu**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing  
McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McCampbell Analytical, Inc.

0903080



## McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701Website: [www.mccampbell.com](http://www.mccampbell.com) Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: (877) 252-9262 Fax: (925) 252-9269

## CHAIN OF CUSTODY RECORD

## TURN AROUND TIME

 RUSH     24 HR     48 HR     72 HR     5 DAY
GeoTracker EDF  PDF  Excel  Write On (DW)  Check if sample is effluent and "J" flag is required

Report To: Mark Jonas Bill To: Conestege-Rovers & Associates  
 Company: Conestege-Rovers & Associates  
5900 Hollis St., Ste. A  
Emeryville, CA  
 E-Mail: mjonas@conestegarovers.com  
 Tele: (510) 420-3307 Fax: (510) 420-9170  
 Project #: 581000 Project Name: Chin  
 Project Location: 800 Franklin St., Oakland, CA  
 Sampler Signature: Muskur Environmental Sampling

Analysis Request

Other

 Filter Samples for Metals analysis:  
 Yes / No

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type	MATRIX	METHOD PRESERVED	EPA 602 / TPH as Gas (602 / 8021 + 8015) <i>With Sample</i>	EPA 602 / Diesel (8015) <i>No Clean up</i>	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/608 / 8081 (C1 Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Aromatic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SLIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	<i>With Sample</i>	VOC basic target list by 8/26
		Date	Time																						
MN-1		34-09	10:45	4	VOC PMS			X	X																
MN-2			8:35	2				X	X																
MN-3A			8:00	1				X	X																
MN-4			6:15	1				X	X																
MN-5			6:45	1				X	X																
MN-6			7:15	1				X	X																

Relinquished By: *[Signature]* Date: 34-09 Time: 12:25 Received By: ENVIRO-TECH SERVICES AA

COMMENTS:

Relinquished By: *[Signature]* Date: 34-09 Time: 100 Received By: *[Signature]*Relinquished By: *[Signature]* Date: 34-09 Time: 100 Received By: *[Signature]*

ICE/tp 1.9

GOOD CONDITION

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS

PRESERVED IN LAB

VOAS O&G METALS OTHER  
PRESERVATION pH<2

# McCampbell Analytical, Inc.

 1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0903080

ClientCode: CETE

WriteOn  EDF  Excel  Fax  Email  HardCopy  ThirdParty  J-flag

Report to:

Mark Jonas Email: mjonas@CRAworld.com  
Conestoga-Rovers & Associates cc:  
5900 Hollis St, Suite A PO:  
Emeryville, CA 94608 ProjectNo: #581000; Chiu  
(510) 420-0700 FAX (510) 420-9170

Bill to:

Accounts Payable  
Conestoga-Rovers & Associates  
5900 Hollis St, Ste. A  
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: 03/04/2009

Date Printed: 03/04/2009

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0903080-001	MW-1	Water	3/4/2009 10:45	<input type="checkbox"/>	B	A	A									
0903080-002	MW-2	Water	3/4/2009 8:35	<input type="checkbox"/>	B	A										
0903080-003	MW-3A	Water	3/4/2009 8:00	<input type="checkbox"/>	B	A										
0903080-004	MW-4	Water	3/4/2009 6:15	<input type="checkbox"/>	B	A										
0903080-005	MW-5	Water	3/4/2009 6:45	<input type="checkbox"/>	B	A										
0903080-006	MW-6	Water	3/4/2009 7:15	<input type="checkbox"/>	B	A										

Test Legend:

1	8260B_W	2	G-MBTEX_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12							

The following SamplIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



**McCampbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

## Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**

Date and Time Received: **03/04/09 12:52:43 PM**

Project Name: **#581000; Chiu**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **0903080** Matrix Water

Carrier: EnviroTech

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |   |
|---|---|-----------------------------|---|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| Container/Temp Blank temperature                    | Cooler Temp: 1.9°C                      |                             | NA <input type="checkbox"/>                     |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| TTLC Metal - pH acceptable upon receipt (pH<2)?     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Extracted: 03/08/09
	Client P.O.:	Date Analyzed 03/08/09

## Volatile Organics by P&T and GC/MS (Basic Target List)\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0903080

Lab ID	0903080-001B						
Client ID	MW-1						
Matrix	Water						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	0.65	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

### Surrogate Recoveries (%)

%SS1:	80	%SS2:	101
%SS3:	73		

### Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



# McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Extracted: 03/08/09-03/10/09
	Client P.O.:	Date Analyzed 03/08/09-03/10/09

## Volatile Organics by P&T and GC/MS (Basic Target List)\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0903080

Lab ID	0903080-002B						
Client ID	MW-2						
Matrix	Water						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<200	20	10	tert-Amyl methyl ether (TAME)	ND<10	20	0.5
Benzene	1500	200	0.5	Bromobenzene	ND<10	20	0.5
Bromochloromethane	ND<10	20	0.5	Bromodichloromethane	ND<10	20	0.5
Bromoform	ND<10	20	0.5	Bromomethane	ND<10	20	0.5
2-Butanone (MEK)	ND<40	20	2.0	t-Butyl alcohol (TBA)	ND<40	20	2.0
n-Butyl benzene	55	20	0.5	sec-Butyl benzene	ND<10	20	0.5
tert-Butyl benzene	ND<10	20	0.5	Carbon Disulfide	ND<10	20	0.5
Carbon Tetrachloride	ND<10	20	0.5	Chlorobenzene	ND<10	20	0.5
Chloroethane	ND<10	20	0.5	Chloroform	ND<10	20	0.5
Chloromethane	ND<10	20	0.5	2-Chlorotoluene	ND<10	20	0.5
4-Chlorotoluene	ND<10	20	0.5	Dibromochloromethane	ND<10	20	0.5
1,2-Dibromo-3-chloropropane	ND<4.0	20	0.2	1,2-Dibromoethane (EDB)	ND<10	20	0.5
Dibromomethane	ND<10	20	0.5	1,2-Dichlorobenzene	ND<10	20	0.5
1,3-Dichlorobenzene	ND<10	20	0.5	1,4-Dichlorobenzene	ND<10	20	0.5
Dichlorodifluoromethane	ND<10	20	0.5	1,1-Dichloroethane	ND<10	20	0.5
1,2-Dichloroethane (1,2-DCA)	ND<10	20	0.5	1,1-Dichloroethene	ND<10	20	0.5
cis-1,2-Dichloroethene	ND<10	20	0.5	trans-1,2-Dichloroethene	ND<10	20	0.5
1,2-Dichloropropane	ND<10	20	0.5	1,3-Dichloropropane	ND<10	20	0.5
2,2-Dichloropropane	ND<10	20	0.5	1,1-Dichloropropene	ND<10	20	0.5
cis-1,3-Dichloropropene	ND<10	20	0.5	trans-1,3-Dichloropropene	ND<10	20	0.5
Diisopropyl ether (DIPE)	ND<10	20	0.5	Ethylbenzene	990	200	0.5
Ethyl tert-butyl ether (ETBE)	ND<10	20	0.5	Freon 113	ND<200	20	10
Hexachlorobutadiene	ND<10	20	0.5	Hexachloroethane	ND<10	20	0.5
2-Hexanone	ND<10	20	0.5	Isopropylbenzene	88	20	0.5
4-Isopropyl toluene	25	20	0.5	Methyl-t-butyl ether (MTBE)	ND<10	20	0.5
Methylene chloride	ND<10	20	0.5	4-Methyl-2-pentanone (MIBK)	ND<10	20	0.5
Naphthalene	140	200	0.5	n-Propyl benzene	190	20	0.5
Styrene	ND<10	20	0.5	1,1,1,2-Tetrachloroethane	ND<10	20	0.5
1,1,2,2-Tetrachloroethane	ND<10	20	0.5	Tetrachloroethene	ND<10	20	0.5
Toluene	5300	200	0.5	1,2,3-Trichlorobenzene	ND<10	20	0.5
1,2,4-Trichlorobenzene	ND<10	20	0.5	1,1,1-Trichloroethane	ND<10	20	0.5
1,1,2-Trichloroethane	ND<10	20	0.5	Trichloroethene	ND<10	20	0.5
Trichlorofluoromethane	ND<10	20	0.5	1,2,3-Trichloropropane	ND<10	20	0.5
1,2,4-Trimethylbenzene	1200	200	0.5	1,3,5-Trimethylbenzene	250	200	0.5
Vinyl Chloride	ND<10	20	0.5	Xylenes	4500	200	0.5

### Surrogate Recoveries (%)

%SS1:	83	%SS2:	93
%SS3:	87		

### Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



# McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Extracted: 03/08/09-03/10/09
	Client P.O.:	Date Analyzed 03/08/09-03/10/09

## Volatile Organics by P&T and GC/MS (Basic Target List)\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0903080

Lab ID	0903080-003B						
Client ID	MW-3A						
Matrix	Water						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<100	10	10	tert-Amyl methyl ether (TAME)	ND<5.0	10	0.5
Benzene	1000	100	0.5	Bromobenzene	ND<5.0	10	0.5
Bromochloromethane	ND<5.0	10	0.5	Bromodichloromethane	ND<5.0	10	0.5
Bromoform	ND<5.0	10	0.5	Bromomethane	ND<5.0	10	0.5
2-Butanone (MEK)	ND<20	10	2.0	t-Butyl alcohol (TBA)	ND<20	10	2.0
n-Butyl benzene	15	10	0.5	sec-Butyl benzene	ND<5.0	10	0.5
tert-Butyl benzene	ND<5.0	10	0.5	Carbon Disulfide	ND<5.0	10	0.5
Carbon Tetrachloride	ND<5.0	10	0.5	Chlorobenzene	ND<5.0	10	0.5
Chloroethane	ND<5.0	10	0.5	Chloroform	7.9	10	0.5
Chloromethane	ND<5.0	10	0.5	2-Chlorotoluene	ND<5.0	10	0.5
4-Chlorotoluene	ND<5.0	10	0.5	Dibromochloromethane	ND<5.0	10	0.5
1,2-Dibromo-3-chloropropane	ND<2.0	10	0.2	1,2-Dibromoethane (EDB)	ND<5.0	10	0.5
Dibromomethane	ND<5.0	10	0.5	1,2-Dichlorobenzene	ND<5.0	10	0.5
1,3-Dichlorobenzene	ND<5.0	10	0.5	1,4-Dichlorobenzene	ND<5.0	10	0.5
Dichlorodifluoromethane	ND<5.0	10	0.5	1,1-Dichloroethane	ND<5.0	10	0.5
1,2-Dichloroethane (1,2-DCA)	7.2	10	0.5	1,1-Dichloroethene	ND<5.0	10	0.5
cis-1,2-Dichloroethene	ND<5.0	10	0.5	trans-1,2-Dichloroethene	ND<5.0	10	0.5
1,2-Dichloropropane	ND<5.0	10	0.5	1,3-Dichloropropane	ND<5.0	10	0.5
2,2-Dichloropropane	ND<5.0	10	0.5	1,1-Dichloropropene	ND<5.0	10	0.5
cis-1,3-Dichloropropene	ND<5.0	10	0.5	trans-1,3-Dichloropropene	ND<5.0	10	0.5
Diisopropyl ether (DIPE)	ND<5.0	10	0.5	Ethylbenzene	330	10	0.5
Ethyl tert-butyl ether (ETBE)	ND<5.0	10	0.5	Freon 113	ND<100	10	10
Hexachlorobutadiene	ND<5.0	10	0.5	Hexachloroethane	ND<5.0	10	0.5
2-Hexanone	ND<5.0	10	0.5	Isopropylbenzene	14	10	0.5
4-Isopropyl toluene	ND<5.0	10	0.5	Methyl-t-butyl ether (MTBE)	ND<5.0	10	0.5
Methylene chloride	ND<5.0	10	0.5	4-Methyl-2-pentanone (MIBK)	ND<5.0	10	0.5
Naphthalene	67	10	0.5	n-Propyl benzene	37	10	0.5
Styrene	ND<5.0	10	0.5	1,1,1,2-Tetrachloroethane	ND<5.0	10	0.5
1,1,2,2-Tetrachloroethane	ND<5.0	10	0.5	Tetrachloroethene	ND<5.0	10	0.5
Toluene	1700	100	0.5	1,2,3-Trichlorobenzene	ND<5.0	10	0.5
1,2,4-Trichlorobenzene	ND<5.0	10	0.5	1,1,1-Trichloroethane	ND<5.0	10	0.5
1,1,2-Trichloroethane	ND<5.0	10	0.5	Trichloroethene	ND<5.0	10	0.5
Trichlorofluoromethane	ND<5.0	10	0.5	1,2,3-Trichloropropane	ND<5.0	10	0.5
1,2,4-Trimethylbenzene	230	10	0.5	1,3,5-Trimethylbenzene	68	10	0.5
Vinyl Chloride	ND<5.0	10	0.5	Xylenes	1200	10	0.5

### Surrogate Recoveries (%)

%SS1:	78	%SS2:	97
%SS3:	84		

### Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



# McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Extracted: 03/08/09
	Client P.O.:	Date Analyzed 03/08/09

## Volatile Organics by P&T and GC/MS (Basic Target List)\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0903080

Lab ID	0903080-004B						
Client ID	MW-4						
Matrix	Water						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	14	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

### Surrogate Recoveries (%)

%SS1:	79	%SS2:	101
%SS3:	75		

### Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



# McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Extracted: 03/08/09
	Client P.O.:	Date Analyzed 03/08/09

## Volatile Organics by P&T and GC/MS (Basic Target List)\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0903080

Lab ID	0903080-005B						
Client ID	MW-5						
Matrix	Water						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	14	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

### Surrogate Recoveries (%)

%SS1:	78	%SS2:	100
%SS3:	72		

### Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



# McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Extracted: 03/08/09
	Client P.O.:	Date Analyzed 03/08/09

## Volatile Organics by P&T and GC/MS (Basic Target List)\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0903080

Lab ID	0903080-006B						
Client ID	MW-6						
Matrix	Water						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<50	5.0	10	tert-Amyl methyl ether (TAME)	ND<2.5	5.0	0.5
Benzene	68	5.0	0.5	Bromobenzene	ND<2.5	5.0	0.5
Bromochloromethane	ND<2.5	5.0	0.5	Bromodichloromethane	ND<2.5	5.0	0.5
Bromoform	ND<2.5	5.0	0.5	Bromomethane	ND<2.5	5.0	0.5
2-Butanone (MEK)	ND<10	5.0	2.0	t-Butyl alcohol (TBA)	13	5.0	2.0
n-Butyl benzene	ND<2.5	5.0	0.5	sec-Butyl benzene	ND<2.5	5.0	0.5
tert-Butyl benzene	ND<2.5	5.0	0.5	Carbon Disulfide	ND<2.5	5.0	0.5
Carbon Tetrachloride	ND<2.5	5.0	0.5	Chlorobenzene	ND<2.5	5.0	0.5
Chloroethane	ND<2.5	5.0	0.5	Chloroform	ND<2.5	5.0	0.5
Chloromethane	ND<2.5	5.0	0.5	2-Chlorotoluene	ND<2.5	5.0	0.5
4-Chlorotoluene	ND<2.5	5.0	0.5	Dibromochloromethane	ND<2.5	5.0	0.5
1,2-Dibromo-3-chloropropane	ND<1.0	5.0	0.2	1,2-Dibromoethane (EDB)	ND<2.5	5.0	0.5
Dibromomethane	ND<2.5	5.0	0.5	1,2-Dichlorobenzene	ND<2.5	5.0	0.5
1,3-Dichlorobenzene	ND<2.5	5.0	0.5	1,4-Dichlorobenzene	ND<2.5	5.0	0.5
Dichlorodifluoromethane	ND<2.5	5.0	0.5	1,1-Dichloroethane	ND<2.5	5.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND<2.5	5.0	0.5	1,1-Dichloroethene	ND<2.5	5.0	0.5
cis-1,2-Dichloroethene	ND<2.5	5.0	0.5	trans-1,2-Dichloroethene	ND<2.5	5.0	0.5
1,2-Dichloropropane	ND<2.5	5.0	0.5	1,3-Dichloropropane	ND<2.5	5.0	0.5
2,2-Dichloropropane	ND<2.5	5.0	0.5	1,1-Dichloropropene	ND<2.5	5.0	0.5
cis-1,3-Dichloropropene	ND<2.5	5.0	0.5	trans-1,3-Dichloropropene	ND<2.5	5.0	0.5
Diisopropyl ether (DIPE)	ND<2.5	5.0	0.5	Ethylbenzene	ND<2.5	5.0	0.5
Ethyl tert-butyl ether (ETBE)	ND<2.5	5.0	0.5	Freon 113	ND<50	5.0	10
Hexachlorobutadiene	ND<2.5	5.0	0.5	Hexachloroethane	ND<2.5	5.0	0.5
2-Hexanone	ND<2.5	5.0	0.5	Isopropylbenzene	7.4	5.0	0.5
4-Isopropyl toluene	ND<2.5	5.0	0.5	Methyl-t-butyl ether (MTBE)	ND<2.5	5.0	0.5
Methylene chloride	ND<2.5	5.0	0.5	4-Methyl-2-pentanone (MIBK)	ND<2.5	5.0	0.5
Naphthalene	13	5.0	0.5	n-Propyl benzene	19	5.0	0.5
Styrene	ND<2.5	5.0	0.5	1,1,1,2-Tetrachloroethane	ND<2.5	5.0	0.5
1,1,2,2-Tetrachloroethane	ND<2.5	5.0	0.5	Tetrachloroethene	ND<2.5	5.0	0.5
Toluene	13	5.0	0.5	1,2,3-Trichlorobenzene	ND<2.5	5.0	0.5
1,2,4-Trichlorobenzene	ND<2.5	5.0	0.5	1,1,1-Trichloroethane	ND<2.5	5.0	0.5
1,1,2-Trichloroethane	ND<2.5	5.0	0.5	Trichloroethene	ND<2.5	5.0	0.5
Trichlorofluoromethane	ND<2.5	5.0	0.5	1,2,3-Trichloropropane	ND<2.5	5.0	0.5
1,2,4-Trimethylbenzene	ND<2.5	5.0	0.5	1,3,5-Trimethylbenzene	ND<2.5	5.0	0.5
Vinyl Chloride	ND<2.5	5.0	0.5	Xylenes	12	5.0	0.5

### Surrogate Recoveries (%)

%SS1:	73	%SS2:	97
%SS3:	80		

### Comments:

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



## **McCampbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: [www.mccampbell.com](http://www.mccampbell.com) E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
		Date Received: 03/04/09
	Client Contact: Mark Jonas	Date Extracted: 03/05/09-03/06/09
	Client P.O.:	Date Analyzed 03/05/09-03/06/09

## **Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\***

Extraction method SW5030B

Analytical methods SW8015Bm

Work Order: 0903080

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram: sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



## **McCampbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: [www.mccampbell.com](http://www.mccampbell.com) E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: 877-252-9262 Fax: 925-252-9269

When Quality Counts	Telephone: 877-232-9262	Fax: 925-232-9269
Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 03/04/09
5900 Hollis St, Suite A		Date Received: 03/04/09
Emeryville, CA 94608	Client Contact: Mark Jonas	Date Extracted: 03/04/09
	Client P.O.:	Date Analyzed: 03/04/09-03/06/09

## Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\*

Extraction method: SW3510C/3630C

Analytical methods: SW8015B

Work Order: 0903080

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation.

e4) gasoline range compounds are significant



## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 41833

WorkOrder: 0903080

EPA Method SW8260B		Extraction SW5030B								Spiked Sample ID: 0903080-001B			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)				
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
tert-Amyl methyl ether (TAME)	ND	10	86.3	93	7.43	104	108	2.95	70 - 130	30	70 - 130	30	
Benzene	ND	10	103	111	6.72	115	113	0.948	70 - 130	30	70 - 130	30	
t-Butyl alcohol (TBA)	ND	50	75.6	87.1	14.1	91.4	96.5	5.43	70 - 130	30	70 - 130	30	
Chlorobenzene	ND	10	98.3	107	8.31	102	104	1.09	70 - 130	30	70 - 130	30	
1,2-Dibromoethane (EDB)	ND	10	94.1	101	6.94	101	103	1.83	70 - 130	30	70 - 130	30	
1,2-Dichloroethane (1,2-DCA)	0.65	10	87.1	93.1	6.30	120	126	4.82	70 - 130	30	70 - 130	30	
1,1-Dichloroethene	ND	10	79	80.9	2.38	77.1	75.2	2.42	70 - 130	30	70 - 130	30	
Diisopropyl ether (DIPE)	ND	10	89.7	96.9	7.71	97	99.7	2.80	70 - 130	30	70 - 130	30	
Ethyl tert-butyl ether (ETBE)	ND	10	95.3	103	8.16	113	117	3.38	70 - 130	30	70 - 130	30	
Methyl-t-butyl ether (MTBE)	ND	10	90.6	100	10.4	114	120	5.04	70 - 130	30	70 - 130	30	
Toluene	ND	10	107	117	8.63	115	114	1.06	70 - 130	30	70 - 130	30	
Trichloroethylene	ND	10	98.9	104	4.90	105	105	0	70 - 130	30	70 - 130	30	
%SS1:	80	25	79	79	0	81	83	2.35	70 - 130	30	70 - 130	30	
%SS2:	101	25	99	100	1.28	100	99	0.695	70 - 130	30	70 - 130	30	
%SS3:	73	2.5	76	78	2.15	85	83	1.70	70 - 130	30	70 - 130	30	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 41833 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903080-001B	03/04/09 10:45 AM	03/08/09	03/08/09 1:59 AM	0903080-002B	03/04/09 8:35 AM	03/08/09	03/08/09 1:51 AM
0903080-002B	03/04/09 8:35 AM	03/10/09	03/10/09 2:35 AM	0903080-003B	03/04/09 8:00 AM	03/08/09	03/08/09 2:47 AM
0903080-003B	03/04/09 8:00 AM	03/10/09	03/10/09 3:19 AM	0903080-004B	03/04/09 6:15 AM	03/08/09	03/08/09 2:42 AM
0903080-005B	03/04/09 6:45 AM	03/08/09	03/08/09 3:24 AM	0903080-006B	03/04/09 7:15 AM	03/08/09	03/08/09 3:42 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



**McCampbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mccampbell.com E-mail: main@mccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

## QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 41817

WorkOrder 0903080

EPA Method SW8021B/8015Bm		Extraction SW5030B								Spiked Sample ID: 0903061-010A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)				
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btex) <sup>f</sup>	ND	60	96	98.8	2.79	114	110	3.62	70 - 130	20	70 - 130	20	
MTBE	ND	10	85.8	84.3	1.78	94.1	105	11.4	70 - 130	20	70 - 130	20	
Benzene	ND	10	96.5	94.6	2.02	90	93.4	3.79	70 - 130	20	70 - 130	20	
Toluene	ND	10	96.2	94.1	2.18	95.8	96.2	0.363	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	99.7	98.1	1.62	98.7	97.6	1.08	70 - 130	20	70 - 130	20	
Xylenes	ND	30	111	109	1.26	114	111	2.89	70 - 130	20	70 - 130	20	
%SS:	95	10	93	92	0.397	102	102	0	70 - 130	20	70 - 130	20	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 41817 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903080-001A	03/04/09 10:45 AM	03/06/09	03/06/09 1:37 AM	0903080-002A	03/04/09 8:35 AM	03/05/09	03/05/09 5:22 PM
0903080-003A	03/04/09 8:00 AM	03/06/09	03/06/09 7:17 PM	0903080-004A	03/04/09 6:15 AM	03/06/09	03/06/09 7:51 PM
0903080-005A	03/04/09 6:45 AM	03/06/09	03/06/09 3:17 AM	0903080-006A	03/04/09 7:15 AM	03/06/09	03/06/09 8:24 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

<sup>f</sup> TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



# McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

## QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 41791

WorkOrder 0903080

EPA Method SW8015B		Extraction SW3510C/3630C								Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)				
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	101	100	0.321	N/A	N/A	70 - 130	30	
%SS:	N/A	2500	N/A	N/A	N/A	106	105	1.41	N/A	N/A	70 - 130	30	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

### BATCH 41791 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903080-001A	03/04/09 10:45 AM	03/04/09	03/06/09 3:24 AM	0903080-002A	03/04/09 8:35 AM	03/04/09	03/06/09 2:56 PM
0903080-003A	03/04/09 8:00 AM	03/04/09	03/04/09 11:53 PM	0903080-004A	03/04/09 6:15 AM	03/04/09	03/05/09 1:04 AM
0903080-005A	03/04/09 6:45 AM	03/04/09	03/05/09 2:13 AM	0903080-006A	03/04/09 7:15 AM	03/04/09	03/05/09 3:21 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer

## APPENDIX C

### FIELD DATA SHEETS



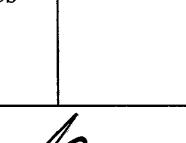
MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL GAUGING SHEET**



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL SAMPLING FORM**

Date:	3/4/2009					
Client:	Conestoga-Rovers and Associates					
Site Address:	800 Franklin Street, Oakland, Ca					
Well ID:	MW-1					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	33.35					
Depth to Water:	22.49					
Water Column Height:	10.86					
Gallons/ft:	0.16					
1 Casing Volume (gal):	1.74					
3 Casing Volumes (gal):	5.21					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. ( $\mu\text{S}$ )		
10:30	1.7	17.8	6.89	610	<b>COMMENTS:</b> very turbid, very silty	
10:35	3.5	18.0	6.90	604		
10:40	5.2	18.1	6.90	609		
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW-1	3/4/2009	10:45	40 ml VOA, 1 L Amber	HCl, ICE	TPHg TPHd TPHmo full VOCs list	8015, silica gel clean up, 8260
					 <b>Signature:</b>	



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL SAMPLING FORM**

Date:	3/4/2009					
Client:	Conestoga-Rovers and Associates					
Site Address:	800 Franklin Street, Oakland, Ca					
Well ID:	MW-2					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	34.15		Fe=	mg/L		
Depth to Water:	22.25		ORP=	mV		
Water Column Height:	11.90		DO=	mg/L		
Gallons/ft:	0.16		COMMENTS: very turbid, very silty			
1 Casing Volume (gal):	1.90					
3 Casing Volumes (gal):	5.71					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)				
8:20	1.9	18.7	6.94	1023		
8:25	3.8	18.5	6.99	1060		
8:30	5.7	18.6	6.99	1041		
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW-2	3/4/2009	8:35	40 ml VOA, 1 L Amber	HCl, ICE	TPHg TPHd TPHmo full VOCs list	8015, silica gel clean up, 8260



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL SAMPLING FORM**

Date:	3/4/2009					
Client:	Conestoga-Rovers and Associates					
Site Address:	800 Franklin Street, Oakland, Ca					
Well ID:	MW-3A					
Well Diameter:	4"					
Purging Device:	3" Disposable Bailer					
Sampling Method:	3" Disposable Bailer					
Total Well Depth:	34.25					
Depth to Water:	22.98					
Water Column Height:	11.27					
Gallons/ft:	0.65					
1 Casing Volume (gal):	7.33					
3 Casing Volumes (gal):	21.98					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)		
7:35	7.3	18.7	7.30	891	<b>COMMENTS:</b> very turbid, very silty	
7:45	14.7	18.8	7.34	873		
7:55	22.0	18.9	7.37	850		
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW-3A	3/4/2009	8:00	40 ml VOA, 1 L Amber	HCl, ICE	TPHg TPHd TPHmo full VOCs list	8015, silica gel clean up, 8260



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL SAMPLING FORM**

Date:	3/4/2009							
Client:	Conestoga-Rovers and Associates							
Site Address:	800 Franklin Street, Oakland, Ca							
Well ID:	MW-4							
Well Diameter:	2"							
Purging Device:	Disposable Bailer							
Sampling Method:	Disposable Bailer							
Total Well Depth:	33.61		Fe=	mg/L				
Depth to Water:	22.15		ORP=	mV				
Water Column Height:	11.46		DO=	mg/L				
Gallons/ft:	0.16		COMMENTS: very turbid					
1 Casing Volume (gal):	1.83							
3 Casing Volumes (gal):	5.50							
TIME:	CASING VOLUME (gal)	TEMP (Celsius)					pH	COND. (µS)
6:00	1.8	18.6	7.35	629				
6:05	3.7	18.8	7.38	660				
6:10	5.5	18.4	7.42	667				
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method		
MW-4	3/4/2009	6:15	40 ml VOA, 1 L Amber	HCl, ICE	TPHg TPHd TPHmo full VOCs list	8015, silica gel clean up, 8260		



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL SAMPLING FORM**

Date:	3/4/2009						
Client:	Conestoga-Rovers and Associates						
Site Address:	800 Franklin Street, Oakland, Ca						
Well ID:	MW-5						
Well Diameter:	2"						
Purging Device:	Disposable Bailer						
Sampling Method:	Disposable Bailer						
Total Well Depth:	34.60		Fe=	mg/L			
Depth to Water:	22.95		ORP=	mV			
Water Column Height:	11.65		DO=	mg/L			
Gallons/ft:	0.16		COMMENTS: very turbid				
1 Casing Volume (gal):	1.86						
3 Casing Volumes (gal):	5.59						
TIME:	CASING VOLUME (gal)	TEMP (Celsius)				pH	COND. (µS)
6:30	1.9	17.8				7.42	390
6:35	3.7	17.5	7.44	402			
6:40	5.6	17.6	7.45	407			
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method	
MW-5	3/4/2009	6:45	40 ml VOA, 1 L Amber	HCl, ICE	TPHg TPHd TPHmo full VOCs list	8015, silica gel clean up, 8260	



MUSKAN  
ENVIRONMENTAL  
SAMPLING

## **WELL SAMPLING FORM**

Date:	3/4/2009						
Client:	Conestoga-Rovers and Associates						
Site Address:	800 Franklin Street, Oakland, Ca						
Well ID:	MW-6						
Well Diameter:	2"						
Purging Device:	Disposable Bailer						
Sampling Method:	Disposable Bailer						
Total Well Depth:	32.87		Fe=	mg/L			
Depth to Water:	23.14		ORP=	mV			
Water Column Height:	9.73		DO=	mg/L			
Gallons/ft:	0.16		<b>COMMENTS:</b> very turbid				
1 Casing Volume (gal):	1.56						
3 Casing Volumes (gal):	4.67						
TIME:	CASING VOLUME (gal)	TEMP (Celsius)				pH	COND. (µS)
7:00	1.6	18.8				7.14	612
7:05	3.1	18.8	7.19	635			
7:10	4.7	18.8	7.20	641			
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method	
MW-6	3/4/2009	7:15	40 ml VOA, 1 L Amber	HCl, ICE	TPHg TPHd TPHmo full VOCs list	8015, silica gel clean up, 8260	

## **APPENDIX D**

### **WASTE MANIFESTS**

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone 909-721-2038	4. Waste Tracking Number NHS2559-N
5. Generator's Name and Mailing Address CHIU 800 FRANKLIN STREET OAKLAND, CA 94607		Generator's Site Address (if different than mailing address)			
Generator's Phone: 510-420-3308					
6. Transporter 1 Company Name ENVIRONMENTAL LOGISTICS, INC		U.S. EPA ID Number CAR000172478			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Disposal Facility Name and Site Address FILTER RECYCLING SERVICES, INC 180 W. MONTE AVE RIALTO, CA 92316		U.S. EPA ID Number CAD982444481			
Facility's Phone: 909-421-2012					
9. Waste Shipping Name and Description 1. NON HAZARDOUS WASTE LIQUID		10. Containers No. 1 Type DM	11. Total Quantity 50	12. Unit Wt/Vol G	
13. Special Handling Instructions and Additional Information 981) WASTE WATER # 09022408 (1X55 DM) WEAR APPROPRIATE PPE		INV# 52569-N			
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste					
Generator's Officer's Printed/Typed Name <i>x Ken Dugay</i>		Signature <i>John Dugay</i>		Month Day Year <i>3 4 09</i>	
15. International Shipments <input type="checkbox"/> Import to U.S.		<input type="checkbox"/> Export from U.S.		Port of Entry/Arrival Date leaving U.S.	
Transporter Signature (for exports only): <i>Jeth R. Rosen</i>					
16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <i>Jeth R. Rosen</i>		Signature <i>Jeth R. Rosen</i>		Month Day Year <i>3 4 09</i>	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue				<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
		Manifest Reference Number			
17b. Alternate Facility (or Generator)		U.S. EPA ID Number			
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)					
		Month Day Year			
18. Designated Facility Owner/Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name <i>Steen Masters</i>		Signature <i>Steen Masters</i>		Month Day Year <i>3 7 09</i>	