



**CONESTOGA-ROVERS  
& ASSOCIATES**

April 30, 2009

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Environmental Health

5900 Hollis Street, Suite A, Emeryville, California 94608  
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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 - Second Half 2009  
Chiu Property  
800 Franklin Street  
Oakland, California 94604  
Agency Case No. RO00000196

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On behalf of Mr. Tommy Chiu, Conestoga-Rovers & Associates (CRA) is submitting this *Groundwater Monitoring Report - Second Half 2009*. Presented in the report are second half 2009 activities and results, along with anticipated activities for first half 2010.

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/3  
Encl.

c.c.: Ms. Anny Chiu



## **GROUNDWATER MONITORING REPORT - SECOND HALF 2009**

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

**FUEL LEAK CASE NO. RO0000196**

**OCTOBER 23, 2009  
REF. NO. 581000 (3)**

This report is printed on recycled paper.

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

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## 1.0 INTRODUCTION

This report presents a summary of second half 2009 activities, monitoring results, and activities anticipated to be completed by the end of first half 2010 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 September 8, 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 (°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>	0.005
<b>Range of Measured Water Depth from Top of Casing in Monitoring Wells</b>	22.56 to 23.38 feet
<b>Were Measureable Separate Phase Hydrocarbons Observed</b>	No

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

Depth-to-water measurements collected on September 8, 2009 ranged from 22.56 to 23.38 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 0.005 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 second half 2009, as follows:

- TPHg was detected in the samples collected from wells MW-2, MW-3A and MW-6 at concentrations ranging from 8,000 (MW-6) to 42,000 micrograms per liter ( $\mu\text{g/L}$ ) (MW-2). Benzene concentrations were also detected in wells MW-2, MW-3A, and MW-6 at concentrations ranging from 770 (MW-6) to 1,200  $\mu\text{g/L}$  (MW-2). Toluene, ethylbenzene, and xylenes were detected in wells MW-2, MW-3A, and MW-6 at concentrations ranging from 17 (MW-6) to 4,900  $\mu\text{g/L}$  (MW-2). Laboratory analysis noted that unmodified or weakly modified gasoline is significant in samples collected from wells MW-2, MW-3A, and MW-6.
- MTBE was not 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 ranging from 780 (MW-3A) to 11,000  $\mu\text{g/L}$  (MW-2). Laboratory analysis 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 1,200  $\mu\text{g/L}$ .
- Chloroform was detected in wells MW-3A, MW-4 and MW-5 at concentrations ranging from 6.3 (MW-3A) to 11  $\mu\text{g/L}$  (MW-4, MW-5).
- 1,2-DCA was not detected above laboratory detection limits in any of the wells.

## **2.2.3 WASTE DISPOSAL**

On September 8, 2009 approximately 55 gallons of drummed purged groundwater from the second half 2009 monitoring event was transported for disposal by Environmental Logistics to Filter Recycling Services, Inc in Rialto, CA.

## **2.2.4 GEOTRACKER SUBMITTAL**

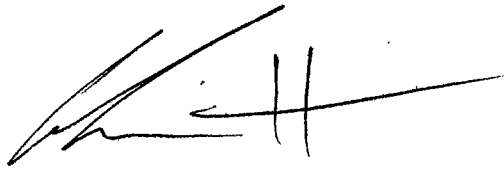
CRA uploaded relevant data to the GeoTracker database on behalf of Mr. Tommy Chiu. CRA has uploaded second half 2009 groundwater depth data, analytical results, and this report to the State's GeoTracker database.



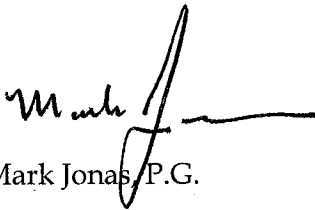
### **2.3            PROPOSED ACTIVITIES FOR NEXT HALF**

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



Calvin Hee

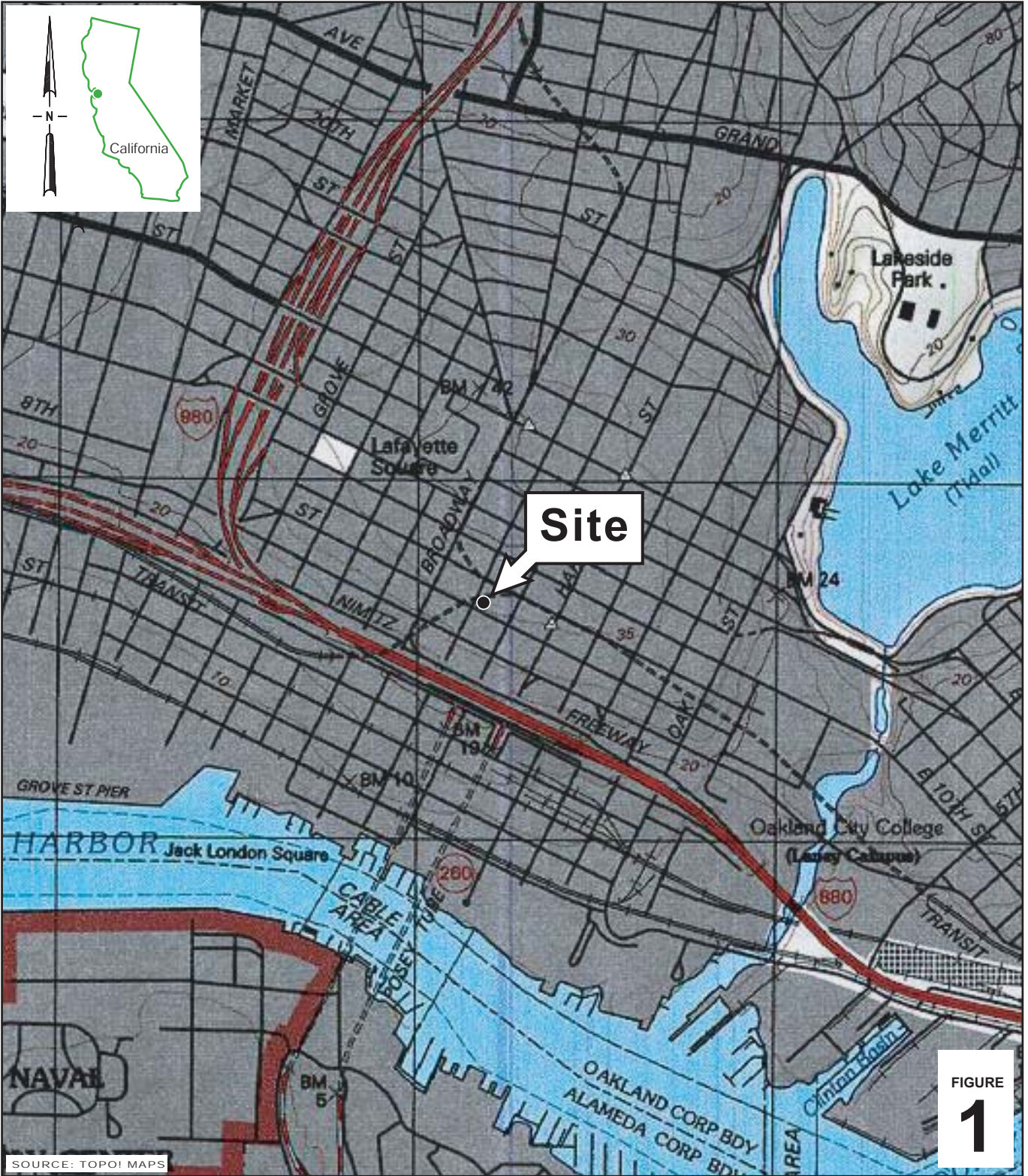


Mark Jonas, P.G.



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## FIGURES



I:\SFO-S1\SHARED\CHIU PROPERTY\FIGURES\VICINITY-MAP.A1

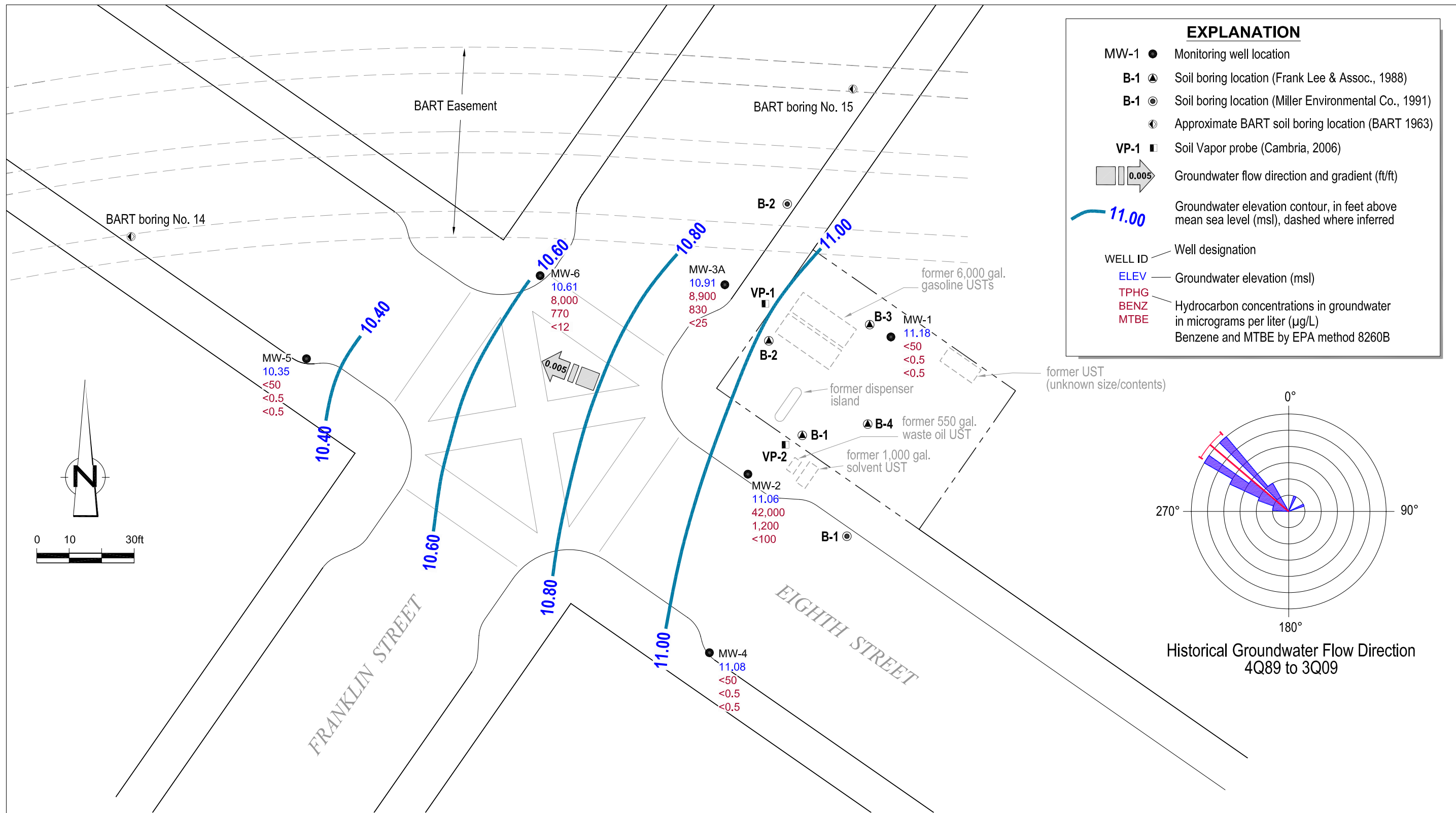
FIGURE  
**1**

0 1/8 1/4 1/2 1  
SCALE : 1" = 1/4 MILE

**Chiu Property**  
800 Franklin Street  
Oakland, California



**Vicinity Map**



**FIGURE 2**  
**GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP**  
**CHIU PROPERTY**  
**800 FRANKLIN STREET**  
*Oakland, California*  
*September 8, 2009*



## TABLES

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

<i>Well ID</i>	<i>Date Installed</i>	<i>Borehole Depth (ft)</i>	<i>Borehole Diameter (in)</i>	<i>Casing Diameter (in)</i>	<i>Screen Interval (ft bgs)</i>	<i>Screen Size (in)</i>	<i>Filter Pack (ft bgs)</i>	<i>Bentonite Seal (ft bgs)</i>	<i>Cement Seal (ft bgs)</i>	<i>TOC Elevation (ft msl)</i>
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
MW-3*	Installed: 1989 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

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)	Groundwater									
					TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
MW-1		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	--	--
		9/28/2004É	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/2004	22.93	11.05	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
		3/11/2005É	--	--	--	--	--	--	--	--	--	--	--	--
		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



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)	Groundwater									
					TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
MW-1 (cont.)		3/4/2009	22.49	11.49	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.65
		9/8/2009	22.80	11.18	ND<50	ND<50	ND<250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
			--	--	--	--	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	--	--
MW-2 33.66		10/12/1989†	23.25	10.40	38,000	--	3,900	1,300	1,200	ND	4,700	--	--	--
		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	1,600	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	--	--	



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)	Groundwater Concentrations									
					TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Chloroform	1,2-DCA
		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>									
<b>34.16</b>		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
		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
		3/4/2009	22.98	11.18	12,000 (a)	810 (d)	ND<250	1,000	1,700	330	1,200	ND<5.0	7.9	7.2
		<b>9/8/2009</b>	<b>23.25</b>	<b>10.91</b>	<b>8,900 (a)</b>	<b>780 (d)</b>	<b>ND&lt;250</b>	<b>870</b>	<b>1,300</b>	<b>260</b>	<b>1,100</b>	<b>ND&lt;25</b>	<b>6.3</b>	<b>ND&lt;25</b>
		--	--	--	--	--	--	<b>(830)</b>	<b>(1,200)</b>	<b>(200)</b>	<b>(880)</b>	<b>(ND&lt;25)</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
<b>33.64</b>		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	--	--	--	--	--	--	--	--	--	--
<b>MW-4 (cont.)</b>		10/31/1995	--	11.61	80	--	--	ND<0.5	0.6	ND<0.5	1.0	ND<0.5	--	--

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 µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
		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
		3/4/2009	22.15	11.49	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
		<b>9/8/2009</b>	<b>22.56</b>	<b>11.08</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>11</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>MW-5</b>		10/31/1991	--	--	ND<50	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	1.1	--
33.51		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	--	--	--
<b>MW-5 (cont.)</b>		1/6/1995	--	10.78	--	--	--	--	--	--	--	--	--	--
		2/1/1995	--	11.25	--	--	--	--	--	--	--	--	--	--

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 µg/L	Xylenes	MTBE	Chloroform	1,2-DCA
		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
		3/4/2009	22.95	10.61	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
		<b>9/8/2009</b>	<b>23.21</b>	<b>10.35</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>11</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>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)
<b>MW-6 (cont.)</b>		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

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

<i>Well ID</i>	<i>Date Sampled</i>	<i>Depth to Water</i> <i>(ft below TOC)</i>	<i>Groundwater</i> <i>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>TOC Elevation</i> <i>(ft msl)</i>							<i>µg/L</i>						
	3/4/2009	23.14	10.84	670 (a)	150 (d)	ND<250	68	13	ND<2.5	12	ND<2.5	ND<2.5	ND<2.5
	9/8/2009	23.38	10.60	8,000 (a)	1400 (d)	ND<250	870	16	34	1,500	ND<12	ND<0.5	ND<12
		--	--	--	--	--	(770)	(ND<12)	(17)	(1,200)	(ND<12)	--	--

**Abbreviations and Notes:**

*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 by (8260B)

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.

(a) = unmodified or weakly modified gasoline is significant

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™ or Alconox™ 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™) or down-hole pump (e.g. Grundfos™ 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



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.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: 09/08/09
		Date Received: 09/08/09
	Client Contact: Mark Jonas	Date Reported: 09/15/09
	Client P.O.:	Date Completed: 09/14/09

**WorkOrder: 0909178**

September 15, 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0909178



**McCAMPBELL ANALYTICAL, INC.**

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701

Website: [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: Conestoga-Rovers & Associates  
Company: Conestoga-Rovers & Associates  
5900 Hollis St., Ste. A  
Emeryville, CA  
E-Mail: mjonas@crworld.com  
chee@crworld.com  
Tele: (510) 420-3307 Fax: (510) 420-9170  
Project #: 581000 Project Name: Chiu  
Project Location: 800 Franklin St., Oakland, CA  
Sampler Signature: Muskan Environmental Sampling

**Analysis Request**

**Other Comments**

- TPH as Gas (602 / 8021 + 8015) / ~~8015~~ with silver seal
- TPH as Diesel (8015) / ~~8015~~ clean up
- 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 (CI Pesticides)
- EPA 608 / 8082 PCB's ONLY; Arachnols / Congeners
- EPA 507 / 8141 (NP Pesticides)
- EPA 515 / 8151 (Acidic CI Herbicides)
- EPA 524.2 / 624 / 8260 (VOCs)
- EPA 525.2 / 625 / 8270 (SVOCs)
- EPA 8270 SIM / 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)

Filter Samples for Metals analysis: Yes / No  
VOCs basic target list by 8260B

SAMPLE ID	LOCATION/Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other				
MN-1		9-8-09	10:40	2	WHA	X					X	X	X	X				
MN-2			8:40															
MN-3A			9:25															
MN-4			6:40															
MN-5			7:25															
MN-6		X	8:05	X	X	X					X	X	X	X				

Relinquished By: [Signature] Date: 9/8/09 Time: 12:16 Received By: Muskan  
Relinquished By: Date: Time: Received By:  
Relinquished By: Date: Time: Received By:

ICE/ 5.2  
GOOD CONDITION ✓  
HEAD SPACE ABSENT ✓  
DECHLORINATED IN LAB ✓  
APPROPRIATE CONTAINERS ✓  
PRESERVED IN LAB ✓  
VOAS O&G METALS OTHER  
PRESERVATION pH<2  
COMMENTS:  
lower reporting limits (closer to 0.5 µg/L) for HVOCs (vinyl chloride, TCE, chloroform, in particular) by 8260B

**McC Campbell Analytical, Inc.**

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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0909178**

**ClientCode: CETE**

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Report to: Mark Jonas  
 Conestoga-Rovers & Associates  
 5900 Hollis St, Suite A  
 Emeryville, CA 94608  
 (510) 420-0700    FAX (510) 420-9170

Email: mjonas@CRAworld.com, chee@crowor

ProjectNo: #581000; Chiu

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

Requested TAT: **5 days**

*Date Received: 09/08/2009*  
*Date Printed: 09/08/2009*

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	
0909178-001	MW-1	Water	9/8/2009 10:40	<input type="checkbox"/>	B	A	A										
0909178-002	MW-2	Water	9/8/2009 8:40	<input type="checkbox"/>	B	A											
0909178-003	MW-3A	Water	9/8/2009 9:25	<input type="checkbox"/>	B	A											
0909178-004	MW-4	Water	9/8/2009 6:40	<input type="checkbox"/>	B	A											
0909178-005	MW-5	Water	9/8/2009 7:25	<input type="checkbox"/>	B	A											
0909178-006	MW-6	Water	9/8/2009 8:05	<input type="checkbox"/>	B	A											

**Test Legend:**

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

The following SampIDs: 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.



**Sample Receipt Checklist**

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

Date and Time Received: **9/8/2009 12:36:58 PM**

Project Name: **#581000; Chiu**

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

WorkOrder N°: **0909178** Matrix Water

Carrier: Client Drop-In

**Chain of Custody (COC) Information**

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

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

- All samples received within holding time? Yes  No
  - Container/Temp Blank temperature Cooler Temp: 5.2°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

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

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



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Conestoga-Rovers & Associates 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 09/08/09
		Date Received: 09/08/09
	Client Contact: Mark Jonas	Date Extracted: 09/11/09
	Client P.O.:	Date Analyzed 09/11/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909178

Lab ID	0909178-001B
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)	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
1,1,1,2-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:	104	%SS2:	102
%SS3:	82		

#### 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.



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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: 09/08/09
		Date Received: 09/08/09
	Client Contact: Mark Jonas	Date Extracted: 09/10/09-09/14/09
	Client P.O.:	Date Analyzed 09/10/09-09/14/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909178

Lab ID	0909178-002B
Client ID	MW-2
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<2000	200	10	tert-Amyl methyl ether (TAME)	ND<100	200	0.5
Benzene	1200	200	0.5	Bromobenzene	ND<100	200	0.5
Bromochloromethane	ND<100	200	0.5	Bromodichloromethane	ND<100	200	0.5
Bromoform	ND<100	200	0.5	Bromomethane	ND<100	200	0.5
2-Butanone (MEK)	ND<400	200	2.0	t-Butyl alcohol (TBA)	ND<400	200	2.0
n-Butyl benzene	ND<100	200	0.5	sec-Butyl benzene	ND<100	200	0.5
tert-Butyl benzene	ND<100	200	0.5	Carbon Disulfide	ND<100	200	0.5
Carbon Tetrachloride	ND<100	200	0.5	Chlorobenzene	ND<100	200	0.5
Chloroethane	ND<100	200	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND<100	200	0.5	2-Chlorotoluene	ND<100	200	0.5
4-Chlorotoluene	ND<100	200	0.5	Dibromochloromethane	ND<100	200	0.5
1,2-Dibromo-3-chloropropane	ND<40	200	0.2	1,2-Dibromoethane (EDB)	ND<100	200	0.5
Dibromomethane	ND<100	200	0.5	1,2-Dichlorobenzene	ND<100	200	0.5
1,3-Dichlorobenzene	ND<100	200	0.5	1,4-Dichlorobenzene	ND<100	200	0.5
Dichlorodifluoromethane	ND<100	200	0.5	1,1-Dichloroethane	ND<100	200	0.5
1,2-Dichloroethane (1,2-DCA)	ND<100	200	0.5	1,1-Dichloroethene	ND<100	200	0.5
cis-1,2-Dichloroethene	ND<100	200	0.5	trans-1,2-Dichloroethene	ND<100	200	0.5
1,2-Dichloropropane	ND<100	200	0.5	1,3-Dichloropropane	ND<100	200	0.5
2,2-Dichloropropane	ND<100	200	0.5	1,1-Dichloropropene	ND<100	200	0.5
cis-1,3-Dichloropropene	ND<100	200	0.5	trans-1,3-Dichloropropene	ND<100	200	0.5
Diisopropyl ether (DIPE)	ND<100	200	0.5	Ethylbenzene	890	200	0.5
Ethyl tert-butyl ether (ETBE)	ND<100	200	0.5	Freon 113	ND<2000	200	10
Hexachlorobutadiene	ND<100	200	0.5	Hexachloroethane	ND<100	200	0.5
2-Hexanone	ND<100	200	0.5	Isopropylbenzene	ND<100	200	0.5
4-Isopropyl toluene	ND<100	200	0.5	Methyl-t-butyl ether (MTBE)	ND<100	200	0.5
Methylene chloride	ND<100	200	0.5	4-Methyl-2-pentanone (MIBK)	ND<100	200	0.5
Naphthalene	200	200	0.5	n-Propyl benzene	110	200	0.5
Styrene	ND<100	200	0.5	1,1,1,2-Tetrachloroethane	ND<100	200	0.5
1,1,1,2-Tetrachloroethane	ND<100	200	0.5	Tetrachloroethene	ND<100	200	0.5
Toluene	4900	200	0.5	1,2,3-Trichlorobenzene	ND<100	200	0.5
1,2,4-Trichlorobenzene	ND<100	200	0.5	1,1,1-Trichloroethane	ND<100	200	0.5
1,1,2-Trichloroethane	ND<100	200	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND<100	200	0.5	1,2,3-Trichloropropane	ND<100	200	0.5
1,2,4-Trimethylbenzene	1300	200	0.5	1,3,5-Trimethylbenzene	180	200	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	4900	200	0.5

### Surrogate Recoveries (%)

%SS1:	104	%SS2:	98
%SS3:	82		

### 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.





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Conestoga-Rovers & Associates 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 09/08/09
		Date Received: 09/08/09
	Client Contact: Mark Jonas	Date Extracted: 09/10/09-09/14/09
	Client P.O.:	Date Analyzed 09/10/09-09/14/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909178

Lab ID	0909178-003B
Client ID	MW-3A
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<500	50	10	tert-Amyl methyl ether (TAME)	ND<25	50	0.5
Benzene	830	50	0.5	Bromobenzene	ND<25	50	0.5
Bromochloromethane	ND<25	50	0.5	Bromodichloromethane	ND<25	50	0.5
Bromoform	ND<25	50	0.5	Bromomethane	ND<25	50	0.5
2-Butanone (MEK)	ND<100	50	2.0	t-Butyl alcohol (TBA)	ND<100	50	2.0
n-Butyl benzene	ND<25	50	0.5	sec-Butyl benzene	ND<25	50	0.5
tert-Butyl benzene	ND<25	50	0.5	Carbon Disulfide	ND<25	50	0.5
Carbon Tetrachloride	ND<25	50	0.5	Chlorobenzene	ND<25	50	0.5
Chloroethane	ND<25	50	0.5	Chloroform	6.3	1.0	0.5
Chloromethane	ND<25	50	0.5	2-Chlorotoluene	ND<25	50	0.5
4-Chlorotoluene	ND<25	50	0.5	Dibromochloromethane	ND<25	50	0.5
1,2-Dibromo-3-chloropropane	ND<10	50	0.2	1,2-Dibromoethane (EDB)	ND<25	50	0.5
Dibromomethane	ND<25	50	0.5	1,2-Dichlorobenzene	ND<25	50	0.5
1,3-Dichlorobenzene	ND<25	50	0.5	1,4-Dichlorobenzene	ND<25	50	0.5
Dichlorodifluoromethane	ND<25	50	0.5	1,1-Dichloroethane	ND<25	50	0.5
1,2-Dichloroethane (1,2-DCA)	ND<25	50	0.5	1,1-Dichloroethene	ND<25	50	0.5
cis-1,2-Dichloroethene	ND<25	50	0.5	trans-1,2-Dichloroethene	ND<25	50	0.5
1,2-Dichloropropane	ND<25	50	0.5	1,3-Dichloropropane	ND<25	50	0.5
2,2-Dichloropropane	ND<25	50	0.5	1,1-Dichloropropene	ND<25	50	0.5
cis-1,3-Dichloropropene	ND<25	50	0.5	trans-1,3-Dichloropropene	ND<25	50	0.5
Diisopropyl ether (DIPE)	ND<25	50	0.5	Ethylbenzene	200	50	0.5
Ethyl tert-butyl ether (ETBE)	ND<25	50	0.5	Freon 113	ND<500	50	10
Hexachlorobutadiene	ND<25	50	0.5	Hexachloroethane	ND<25	50	0.5
2-Hexanone	ND<25	50	0.5	Isopropylbenzene	ND<25	50	0.5
4-Isopropyl toluene	ND<25	50	0.5	Methyl-t-butyl ether (MTBE)	ND<25	50	0.5
Methylene chloride	ND<25	50	0.5	4-Methyl-2-pentanone (MIBK)	ND<25	50	0.5
Naphthalene	39	50	0.5	n-Propyl benzene	ND<25	50	0.5
Styrene	ND<25	50	0.5	1,1,1,2-Tetrachloroethane	ND<25	50	0.5
1,1,1,2-Tetrachloroethane	ND<25	50	0.5	Tetrachloroethene	ND<25	50	0.5
Toluene	1200	50	0.5	1,2,3-Trichlorobenzene	ND<25	50	0.5
1,2,4-Trichlorobenzene	ND<25	50	0.5	1,1,1-Trichloroethane	ND<25	50	0.5
1,1,2-Trichloroethane	ND<25	50	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND<25	50	0.5	1,2,3-Trichloropropane	ND<25	50	0.5
1,2,4-Trimethylbenzene	110	50	0.5	1,3,5-Trimethylbenzene	ND<25	50	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	880	50	0.5

#### Surrogate Recoveries (%)

%SS1:	104	%SS2:	99
%SS3:	83		

#### 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.



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

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909178

Lab ID	0909178-004B
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	11	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
1,1,1,2-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:	105	%SS2:	108
%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.



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

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909178

Lab ID	0909178-005B
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	11	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
1,1,1,2-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:	103	%SS2:	107
%SS3:	79		

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.



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Conestoga-Rovers & Associates 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 09/08/09
		Date Received: 09/08/09
	Client Contact: Mark Jonas	Date Extracted: 09/11/09-09/14/09
	Client P.O.:	Date Analyzed 09/11/09-09/14/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909178

Lab ID	0909178-006B
Client ID	MW-6
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<250	25	10	tert-Amyl methyl ether (TAME)	ND<12	25	0.5
Benzene	770	25	0.5	Bromobenzene	ND<12	25	0.5
Bromochloromethane	ND<12	25	0.5	Bromodichloromethane	ND<12	25	0.5
Bromoform	ND<12	25	0.5	Bromomethane	ND<12	25	0.5
2-Butanone (MEK)	ND<50	25	2.0	t-Butyl alcohol (TBA)	ND<50	25	2.0
n-Butyl benzene	ND<12	25	0.5	sec-Butyl benzene	ND<12	25	0.5
tert-Butyl benzene	ND<12	25	0.5	Carbon Disulfide	ND<12	25	0.5
Carbon Tetrachloride	ND<12	25	0.5	Chlorobenzene	ND<12	25	0.5
Chloroethane	ND<12	25	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND<12	25	0.5	2-Chlorotoluene	ND<12	25	0.5
4-Chlorotoluene	ND<12	25	0.5	Dibromochloromethane	ND<12	25	0.5
1,2-Dibromo-3-chloropropane	ND<5.0	25	0.2	1,2-Dibromoethane (EDB)	ND<12	25	0.5
Dibromomethane	ND<12	25	0.5	1,2-Dichlorobenzene	ND<12	25	0.5
1,3-Dichlorobenzene	ND<12	25	0.5	1,4-Dichlorobenzene	ND<12	25	0.5
Dichlorodifluoromethane	ND<12	25	0.5	1,1-Dichloroethane	ND<12	25	0.5
1,2-Dichloroethane (1,2-DCA)	ND<12	25	0.5	1,1-Dichloroethene	ND<12	25	0.5
cis-1,2-Dichloroethene	ND<12	25	0.5	trans-1,2-Dichloroethene	ND<12	25	0.5
1,2-Dichloropropane	ND<12	25	0.5	1,3-Dichloropropane	ND<12	25	0.5
2,2-Dichloropropane	ND<12	25	0.5	1,1-Dichloropropene	ND<12	25	0.5
cis-1,3-Dichloropropene	ND<12	25	0.5	trans-1,3-Dichloropropene	ND<12	25	0.5
Diisopropyl ether (DIPE)	ND<12	25	0.5	Ethylbenzene	17	25	0.5
Ethyl tert-butyl ether (ETBE)	ND<12	25	0.5	Freon 113	ND<250	25	10
Hexachlorobutadiene	ND<12	25	0.5	Hexachloroethane	ND<12	25	0.5
2-Hexanone	ND<12	25	0.5	Isopropylbenzene	20	25	0.5
4-Isopropyl toluene	ND<12	25	0.5	Methyl-t-butyl ether (MTBE)	ND<12	25	0.5
Methylene chloride	ND<12	25	0.5	4-Methyl-2-pentanone (MIBK)	ND<12	25	0.5
Naphthalene	120	25	0.5	n-Propyl benzene	58	25	0.5
Styrene	ND<12	25	0.5	1,1,1,2-Tetrachloroethane	ND<12	25	0.5
1,1,1,2-Tetrachloroethane	ND<12	25	0.5	Tetrachloroethene	ND<12	25	0.5
Toluene	ND<12	25	0.5	1,2,3-Trichlorobenzene	ND<12	25	0.5
1,2,4-Trichlorobenzene	ND<12	25	0.5	1,1,1-Trichloroethane	ND<12	25	0.5
1,1,2-Trichloroethane	ND<12	25	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND<12	25	0.5	1,2,3-Trichloropropane	ND<12	25	0.5
1,2,4-Trimethylbenzene	160	25	0.5	1,3,5-Trimethylbenzene	48	25	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	1200	25	0.5

#### Surrogate Recoveries (%)

%SS1:	103	%SS2:	100
%SS3:	82		

#### 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.



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Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 09/08/09
		Date Received: 09/08/09
	Client Contact: Mark Jonas	Date Extracted: 09/11/09-09/12/09
	Client P.O.:	Date Analyzed: 09/11/09-09/12/09

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909178

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	102	
002A	MW-2	W	42,000	ND<750	1400	5200	970	5500	20	116	d1
003A	MW-3A	W	8900	ND<50	870	1300	260	1100	10	107	d1
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	104	
005A	MW-5	W	ND	ND	ND	ND	ND	ND	1	99	
006A	MW-6	W	8000	ND<100	870	16	34	1500	20	105	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

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

d1) weakly modified or unmodified gasoline is significant



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Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #581000; Chiu	Date Sampled: 09/08/09
		Date Received: 09/08/09
	Client Contact: Mark Jonas	Date Extracted: 09/08/09
	Client P.O.:	Date Analyzed: 09/10/09-09/12/09

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

Extraction method: SW3510C/3630C

Analytical methods: SW8015B

Work Order: 0909178

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0909178-001A	MW-1	W	ND	ND	1	107	
0909178-002A	MW-2	W	11,000	1200	5	116	e4
0909178-003A	MW-3A	W	780	ND	1	109	e4
0909178-004A	MW-4	W	ND	ND	1	96	
0909178-005A	MW-5	W	ND	ND	1	91	
0909178-006A	MW-6	W	1400	ND	1	93	e4

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 McC Campbell 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: 45660

WorkOrder 0909178

EPA Method SW8260B	Extraction SW5030B								Spiked Sample ID: 0909178-005B			
	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	83.5	90.1	7.61	95.4	93.4	2.09	70 - 130	30	70 - 130	30
Benzene	ND	10	107	106	0.659	118	117	0.405	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	86	97.8	12.8	97	95.6	1.40	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	101	102	0.746	104	105	0.889	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	101	105	3.63	107	104	2.29	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	97.5	101	3.19	106	104	2.08	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	107	107	0	116	112	3.31	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	106	110	3.43	120	121	0.617	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	95.9	102	5.64	110	108	1.67	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	96.7	103	6.26	109	106	2.59	70 - 130	30	70 - 130	30
Toluene	ND	10	106	104	2.32	110	111	1.20	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	113	112	0.670	114	115	0.978	70 - 130	30	70 - 130	30
%SS1:	103	25	78	79	1.30	77	76	1.20	70 - 130	30	70 - 130	30
%SS2:	107	25	98	97	1.25	99	99	0	70 - 130	30	70 - 130	30
%SS3:	79	2.5	94	98	4.50	101	101	0	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 45660 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909178-001B	09/08/09 10:40 AM	09/11/09	09/11/09 10:47 PM	0909178-002B	09/08/09 8:40 AM	09/10/09	09/10/09 5:48 PM
0909178-002B	09/08/09 8:40 AM	09/14/09	09/14/09 5:22 PM	0909178-003B	09/08/09 9:25 AM	09/10/09	09/10/09 6:32 PM
0909178-003B	09/08/09 9:25 AM	09/14/09	09/14/09 3:10 PM	0909178-004B	09/08/09 6:40 AM	09/10/09	09/10/09 8:09 PM
0909178-005B	09/08/09 7:25 AM	09/10/09	09/10/09 8:53 PM	0909178-006B	09/08/09 8:05 AM	09/11/09	09/11/09 6:25 AM
0909178-006B	09/08/09 8:05 AM	09/14/09	09/14/09 3:54 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.

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.



### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45661

WorkOrder: 0909178

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0909178-004A			
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	108	114	6.19	116	115	0.840	70 - 130	20	70 - 130	20
MTBE	ND	10	105	113	7.18	118	115	3.13	70 - 130	20	70 - 130	20
Benzene	ND	10	87.2	89.9	2.93	110	107	3.02	70 - 130	20	70 - 130	20
Toluene	ND	10	86.8	89.7	3.23	100	96	4.35	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.7	92.3	2.84	102	96.8	5.09	70 - 130	20	70 - 130	20
Xylenes	ND	30	90	92.5	2.69	116	111	4.47	70 - 130	20	70 - 130	20
%SS:	104	10	95	95	0	99	99	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 45661 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909178-001A	09/08/09 10:40 AM	09/12/09	09/12/09 9:28 AM	0909178-002A	09/08/09 8:40 AM	09/11/09	09/11/09 12:41 AM
0909178-003A	09/08/09 9:25 AM	09/11/09	09/11/09 5:44 AM	0909178-004A	09/08/09 6:40 AM	09/11/09	09/11/09 6:17 AM
0909178-005A	09/08/09 7:25 AM	09/11/09	09/11/09 6:50 AM	0909178-006A	09/08/09 8:05 AM	09/11/09	09/11/09 7:23 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.

£ 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.





### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45579

WorkOrder 0909178

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	85.1	86.4	1.47	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	95	96	0.441	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 45579 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909178-001A	09/08/09 10:40 AM	09/08/09	09/10/09 10:32 PM	0909178-002A	09/08/09 8:40 AM	09/08/09	09/12/09 8:45 AM
0909178-003A	09/08/09 9:25 AM	09/08/09	09/11/09 12:56 AM	0909178-004A	09/08/09 6:40 AM	09/08/09	09/12/09 7:34 AM
0909178-005A	09/08/09 7:25 AM	09/08/09	09/11/09 11:16 PM	0909178-006A	09/08/09 8:05 AM	09/08/09	09/12/09 12:29 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.

APPENDIX C

FIELD DATA SHEETS



## WELL GAUGING SHEET

Client: Conestoga-Rovers and Associates

Site  
Address: 800 Franklin Street, Oakland, CA

Date: 9/8/2009

Signature: 

Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1	10:15		22.80		33.35	
MW-2	8:20		22.60		34.13	
MW-3A	9:00		23.25		34.25	
MW-4	6:23		22.56		33.60	
MW-5	7:05		23.21		34.60	
MW-6	7:40		23.38		32.87	



## WELL SAMPLING FORM

<b>Date:</b>		9/8/2009				
<b>Client:</b>		Conestoga-Rovers and Associates				
<b>Site Address:</b>		800 Franklin Street, Oakland, CA				
<b>Well ID:</b>		MW-1				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Check valve tubing				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>		33.35	Fe= mg/L			
<b>Depth to Water:</b>		22.80	ORP= mV			
<b>Water Column Height:</b>		10.55	DO= mg/L			
<b>Gallons/ft:</b>		0.16				
<b>1 Casing Volume (gal):</b>		1.68	<b>COMMENTS:</b> very turbid, silty			
<b>3 Casing Volumes (gal):</b>		5.04				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>	<b>pH</b>	<b>COND. (µS)</b>		
10:25	1.5	19.7	6.91	670		
10:30	3.0	19.4	6.92	682		
10:35	5.0	19.2	6.92	689		
<b>Sample ID:</b>	<b>Sample Date:</b>	<b>Sample Time:</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-1	9/8/09	10:40	1L Amber, 40 ml VOA	HCl, ICE	TPHd, TPHmo, TPHg, VOCs	8015, 8021, 8260
				<b>Signature:</b>		



## WELL SAMPLING FORM

<b>Date:</b>		9/8/2009				
<b>Client:</b>		Conestoga-Rovers and Associates				
<b>Site Address:</b>		800 Franklin Street, Oakland, CA				
<b>Well ID:</b>		MN-2				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>		34.13	<b>Fe=</b> mg/L			
<b>Depth to Water:</b>		22.60	<b>ORP=</b> mV			
<b>Water Column Height:</b>		11.53	<b>DO=</b> mg/L			
<b>Gallons/ft:</b>		0.16				
<b>1 Casing Volume (gal):</b>		1.84	<b>COMMENTS:</b> very turbid, silty			
<b>3 Casing Volumes (gal):</b>		5.52				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>		<b>pH</b>		
8:25	2.0	19.4	6.90			
8:30	4.0	19.0	6.97			
8:35	5.5	19.0	6.91			
<b>Sample ID:</b>	<b>Sample Date:</b>	<b>Sample Time:</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MN-2	9/8/09	8:40	1L Amber, 40 ml VOA	HCl, ICE	TPHd, TPHmo, TPHg, VOCs	8015, 8021, 8260
<b>Signature:</b>						












## WELL SAMPLING FORM

<b>Date:</b>		9/8/2009				
<b>Client:</b>		Conestoga-Rovers and Associates				
<b>Site Address:</b>		800 Franklin Street, Oakland, CA				
<b>Well ID:</b>		MW-6				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>	32.87	<b>Fe=</b>	mg/L			
<b>Depth to Water:</b>	23.38	<b>ORP=</b>	mV			
<b>Water Column Height:</b>	9.49	<b>DO=</b>	mg/L			
<b>Gallons/ft:</b>	0.16					
<b>1 Casing Volume (gal):</b>	1.51	<b>COMMENTS:</b> very turbid				
<b>3 Casing Volumes (gal):</b>	4.53					
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>	<b>pH</b>	<b>COND. (µS)</b>		
7:45	1.5	18.7	7.20	884		
7:50	3.0	19.2	7.11	910		
8:00	4.5	19.3	7.10	902		
<b>Sample ID:</b>	<b>Sample Date:</b>	<b>Sample Time:</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-6	9/8/09	8:05	1L Amber, 40 ml VOA	HCl, ICE	TPHd, TPHmo, TPHg, VOCs	8015, 8021, 8260
				<b>Signature:</b>		



# McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701

Website: [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 Jimas Bill To: Conestoga-Rovers & Associates  
Company: Conestoga-Rovers & Associates  
5900 Hillside St., Ste. A  
Emeryville, CA  
E-Mail: mjim@crworld.com  
chee@crworld.com  
Tele: (510) 420-3307 Fax: (510) 420-9170  
Project #: 581000 Project Name: Chiu  
Project Location: 800 Franklin St., Oakland CA  
Sampler Signature: MusKum Environmental Sampling

Analysis Request Other Comments

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED		Analysis Request	Other	Comments	
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL				HNO <sub>3</sub>
MN-1		9:30	10:40	4	PEA PEL	X					X	X				
MN-2			8:40													
MN-3A			9:25													
MN-4			6:40													
MN-5			7:25													
MN-6			8:05	X	X	X					X	X				

TPH as Gas (602 / 8021 + 8015) / ~~with silica gel~~  
TPH as Diesel (8015) / ~~clean up~~  
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 (CI Pesticides)  
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners  
EPA 507 / 8141 (NP Pesticides)  
EPA 515 / 8151 (Acidic CI Herbicides)  
EPA 524.2 / 624 / 8260 (VOCs)  
EPA 525.2 / 625 / 8270 (SVOCs)  
EPA 8270 SIM / 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)

VOCs basic to get list by 8/26/09

Filter Samples for Metals analysis: Yes / No

Relinquished By: [Signature] Date: 9/10/09 Time: 12:16 Received By: [Signature]  
Relinquished By: Date: Time: Received By:  
Relinquished By: Date: Time: Received By:

ICE/t° \_\_\_\_\_  
GOOD CONDITION \_\_\_\_\_  
HEAD SPACE ABSENT \_\_\_\_\_  
DECHLORINATED IN LAB \_\_\_\_\_  
APPROPRIATE CONTAINERS \_\_\_\_\_  
PRESERVED IN LAB \_\_\_\_\_  
VOAS O&G METALS OTHER  
PRESERVATION pH-2

COMMENTS:  
lower reporting limits  
(closer to 0.5 µg/L) for  
HVOCs (vinyl chloride, TCE,  
chloroform, in particular)  
by 8/26/09

APPENDIX D  
WASTE MANIFESTS

NON-HAZARDOUS WASTE MANIFEST 1. Generator ID Number 2. Page 1 of 1 3. Emergency Response Phone 909-721-2038 4. Waste Tracking Number NH58076-N

5. Generator's Name and Mailing Address: CHIU, 5900 HOLLIS STREET, SUITE A, EMERYVILLE, CA 94608  
 Generator's Site Address (if different than mailing address): 800 FRANKLIN STREET, OAKLAND, CA 94607  
 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. Designated Facility Name and Site Address: FILTER RECYCLING SERVICES, INC., 180 W. MONTE AVE, RIALTO, CA 92316  
 Facility's Phone: 800-698-4377 U.S. EPA ID Number: CAD982444481

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. NON HAZARDOUS WASTE LIQUID	1	DM	55	G
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information: 9B1) WASTE WATER # 09022408 (1X55) WEAR APPROPRIATE PPE INV# 58076-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: CALVIN HEE FOR CHIU Signature: [Signature] Month: 9 Day: 8 Year: 09

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

16. Transporter Acknowledgment of Receipt of Materials: Transporter Signature (for exports only): Date leaving U.S.:

Transporter 1 Printed/Typed Name: SETH ROSEN Signature: [Signature] Month: 9 Day: 8 Year: 09

Transporter 2 Printed/Typed Name: [Redacted] Signature: [Redacted] Month: Day: Year:

17. Discrepancy

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

Manifest Reference Number: U.S. EPA ID Number

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

Facility's Phone:

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

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

Printed/Typed Name: Steve Masters Signature: [Signature] Month: 9 Day: 11 Year: 09

GENERATOR  
INTL  
TRANSPORTER  
DESIGNATED FACILITY