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TRANSMITTAL

DATE: April 25, 2013

REFERENCE NO.: 581000

PROJECT NAME: 800 Franklin Street, Oakland

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

RECEIVED
By Alameda County Environmental Health at 11:03 am, May 01, 2013

Please find enclosed:
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QUANTITY	DESCRIPTION
1	GROUNDWATER MONITORING REPORT – FOURTH QUARTER 2012 & FIRST QUARTER 2013

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐ Review, Sign, and Return
- ☐

COMMENTS:
Should you have any questions regarding the contents of the document, please contact Bryan Fong at (510) 420-3369. Thank you.

Copy to: Ms. Anny Chiu

Completed by: Bryan A. Fong [Please Print] Signed: Bryan A. Fong

Filing: **Correspondence File**

With respect to:

Groundwater Monitoring Report-First Half 2013
Dated 4/25/13
Fuel Leak Case No. RO0000196

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Tommy Chiu
Mr. Tommy Chiu

4-25-13
Date

GROUNDWATER MONITORING REPORT – FIRST HALF 2013

CHIU PROPERTY
800 FRANKLIN STREET
OAKLAND, CALIFORNIA

AGENCY CASE NO. RO0000196

Prepared by:
Conestoga-Rovers & Associates

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APRIL 25, 2013
REF. NO. 581000 (15)

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1.0 INTRODUCTION

On behalf of Mr. Tommy Chiu, Conestoga-Rovers & Associates (CRA) is submitting this *Groundwater Monitoring Report – First Half 2013*. This report presents a summary of groundwater monitoring and sampling event activities conducted during the Fourth Quarter 2012 and the First Quarter 2013, analytical results of samples collected during these two events, as well as activities anticipated to occur during the upcoming Second and Third Quarters of 2013 at the subject site, located at 800 Franklin Street, Oakland, California (Figure 1). These groundwater monitoring events were conducted in accordance with guidelines issued by Alameda County Department of Environmental Health (ACEH).

1.1 SITE INFORMATION

Site Address	800 Franklin Street, Oakland
Site Use	Commercial Building
Client and Contact	Tommy Chiu
Consultant and Contact Person	CRA, Bryan A. Fong
Lead Agency and Contact	Alameda County Environmental Health, Jerry Wickham, P.G.
Agency Case No.	RO0000196

2.0 SITE ACTIVITIES AND RESULTS

2.1 CURRENT SAMPLING EVENT ACTIVITIES

On December 4, 2012, and March 25, 2013, Muskan Environmental Sampling (MES) conducted groundwater monitoring and sampling activities at the subject site. On December 4, 2012, MES measured the water level in well MW-7 and collected a groundwater sample. On March 25, 2013, MES measured water levels in wells MW-1, MW-2, MW-3A, and MW-4 through MW-7, and collected groundwater samples from monitoring wells MW-2, MW-3A, MW-6, and MW-7 (Figure 2). Well construction details are provided in Table 1. CRA's *Standard Field Procedures For Groundwater Monitoring and Sampling* are presented as Appendix A. The laboratory analytical reports and sample chain-of-custody (COC) documents are presented as Appendix B, and copies of the field data sheets are included as Appendix C.

2.1.1 WATER LEVEL MEASUREMENTS

Depth-to-water measurements were recorded to the nearest 0.01-foot from the surveyed reference elevation on the top of the well casing (TOC). Measurements were collected using a conductance-actuated well sounder. Groundwater elevation and depth data are presented in Table 2.

2.1.2 GROUNDWATER SAMPLING

MES collected a groundwater sample from well MW-7 during the Fourth Quarter 2012 and samples from wells MW-2, MW-3A, MW-6, and MW-7 during the First Quarter 2013 event. Field activities associated with groundwater sampling included low-flow well purging, measuring groundwater parameters and sample collection. All field equipment was decontaminated before use and again between each well.

Each well was purged prior to sampling by placing a clean intake tube of a peristaltic pump approximately 1 foot below the initial water level. Depth to water was measured prior to, during, and at the termination of low-flow purging, and also immediately prior to sample collection. Temperature, pH, conductivity, oxygen reduction potential (ORP) and dissolved oxygen (DO) were measured initially and at regular volume intervals. Well purging continued until consecutive pH, specific conductivity and temperature measurements were relatively stable. Field measurements, purge volumes and sample collection data were recorded on field sampling data sheets, included as Appendix C.

Groundwater samples were collected from each well using the peristaltic pump. The samples were decanted into 40-milliliter (mL) glass volatile organic analysis (VOA) vials and 1-liter amber glass containers supplied by McCampbell Analytical, Inc. (McCampbell) of Pittsburg, California. Sample containers were labeled, sealed in a plastic bag, placed on ice in a chilled cooler and transported under COC to a State-certified laboratory for analysis. The COC used for this monitoring event is included in Appendix B.

2.1.3 EQUIPMENT DECONTAMINATION

To minimize the potential of cross-contamination, the groundwater monitoring equipment was decontaminated prior to being deployed in the first well, and again between each successive well. The tubing for the peristaltic pump was discarded after use at each well.

2.1.4 SAMPLE ANALYSIS

Groundwater samples collected during both events were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified Environmental Protection Agency (EPA) Method SW8015Bm, benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method SW8021B and TPH as diesel (TPHd). The sample from MW-7 collected December 4, 2012, was also analyzed for TPH as motor oil (TPHmo) by EPA Method SW8015B. Based on the lack of historical detections of chloroform and 1,2-dichloroethane (1,2-DCA), these analyses have been eliminated from the monitoring program. The analyses were performed by McCampbell and the laboratory analytical report is included as Appendix B. Groundwater analytical results are summarized on Figure 2 and presented in Table 2.

2.2 MARCH 2013 MONITORING/SAMPLING EVENT RESULTS

Groundwater Flow Direction	Northwest
Hydraulic Gradient	0.006
Groundwater Depth from Top of Casing in Monitoring Wells	21.95 to 23.19 feet
Were Measureable Separate Phase Hydrocarbons Observed	No

2.2.1 GROUNDWATER FLOW DIRECTION AND GRADIENT

Depth-to-water measurements collected on March 25, 2013 ranged from 21.95 to 23.19 feet below TOC. Groundwater elevations were calculated by subtracting the depth-to-water measurements from the surveyed TOC elevations. Groundwater elevations were plotted on a site plan and contoured. Based on depth-to-water data collected during the site visit, groundwater flow direction was calculated toward the west-northwest at a low gradient of 0.006. 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

No TPHg, TPHd, TPHmo, BTEX, nor MTBE concentrations were detected above the laboratory reporting limits in the December 4, 2012 sample collected from MW-7.

Hydrocarbon concentrations were detected in wells MW-2, MW-3A, and MW-6 during the First Quarter 2013.

- TPHg was detected in wells MW-2, MW-3A, and MW-6 at concentrations ranging from 59 micrograms per liter (µg/L) in MW-6 to 43,000 µg/L in MW-3A. Benzene concentrations were also detected in these wells at concentrations ranging from 12 µg/L in MW-6 to 4,200 µg/L in MW-3A. Toluene, ethylbenzene and xylenes were detected in wells MW-2 and MW-3A at varying concentrations. Laboratory analysis noted that the chromatographic pattern seen in these three wells suggests unmodified or weakly modified gasoline is significant in the samples.
- No MTBE was detected above laboratory reporting limits in any of the wells.
- Diesel-range hydrocarbons (TPHd) were detected in samples from wells MW-2 and MW-3A at concentrations of 900 and 2,900 µg/L, respectively. Laboratory analysis noted that the TPHd chromatogram suggested gasoline range compounds were significant in these samples.

The analytical results are provided in Table 2. The laboratory analytical report and sample chain-of-custody (COC) documents are presented as Appendix B

2.2.3 GEOTRACKER SUBMITTAL

CRA uploaded relevant data from the Fourth Quarter 2012 and the First Quarter 2013 monitoring event to the GeoTracker database.

2.3 PROPOSED ACTIVITIES FOR THE SECOND HALF 2013

CRA will monitor and sample monitoring well MW-7 in the Second Quarter 2013. Groundwater samples from MW-7 will be analyzed for TPHd with silica gel cleanup and TPHg by modified EPA Method SW8015Bm. Samples will also be analyzed for MTBE and BTEX by modified EPA Method SW8021B.

The subject site will be monitored again during the Third Quarter 2013. CRA will measure water levels in wells MW-1 through MW-7 and collect groundwater samples from MW-2, MW-3A, MW-6 and MW-7. These four groundwater samples will be analyzed for TPHd with silica gel cleanup and TPHg by modified EPA Method SW8015Bm, and MTBE and BTEX by modified EPA Method SW8021B. The Second and Third Quarters 2013 monitoring and sampling activities, and analytical results will be reported in the upcoming *Groundwater Monitoring Report – Second Half 2013.*

All of Which is Respectfully Submitted,

CONESTOGA-ROVERS & ASSOCIATES

Jake J. Wilson

Bryan A. Fong

Robert Foss, P.G.

FIGURES

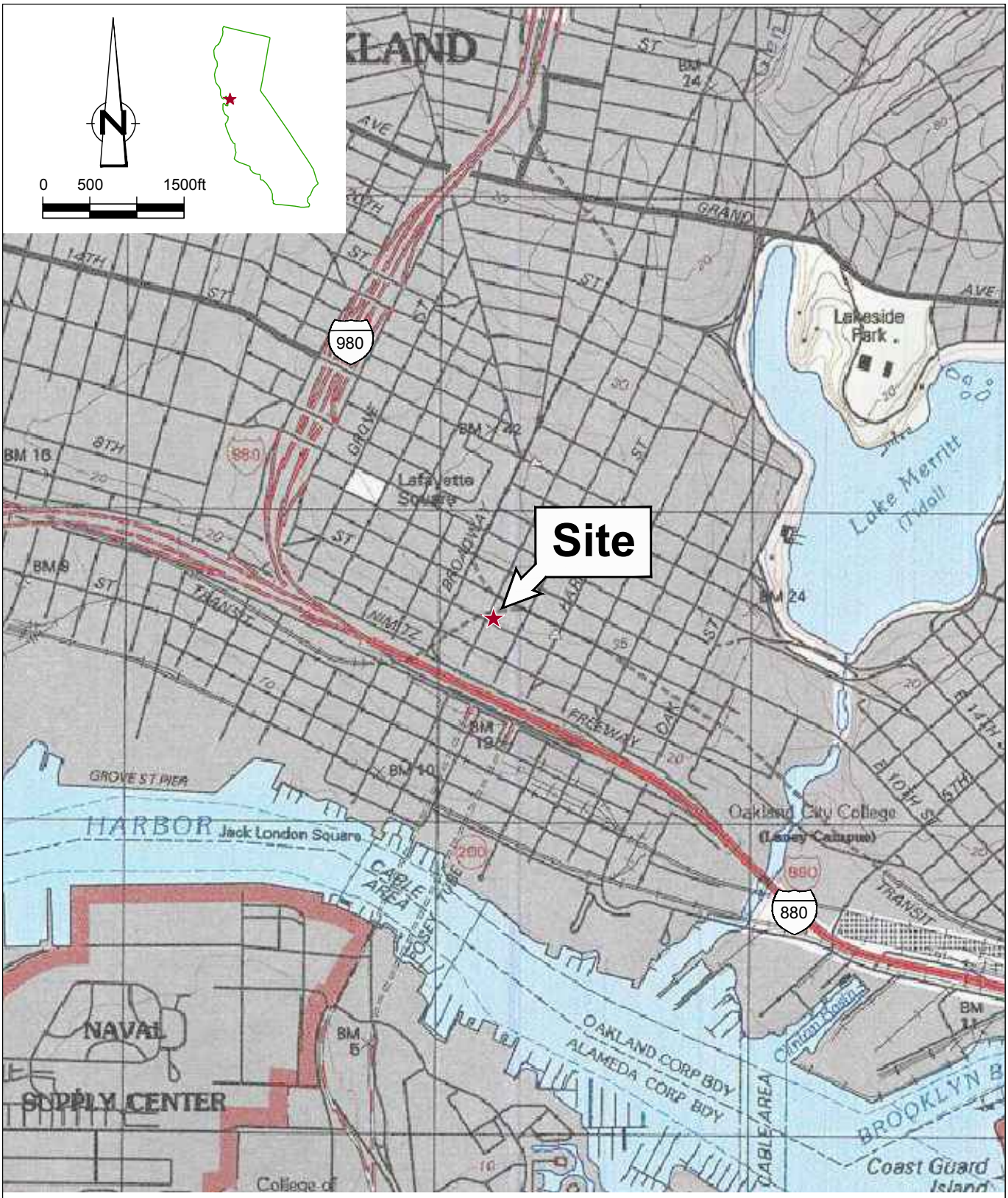

Figure 1

VICINITY MAP
CHIU PROPERTY
800 FRANKLIN STREET
Oakland, California

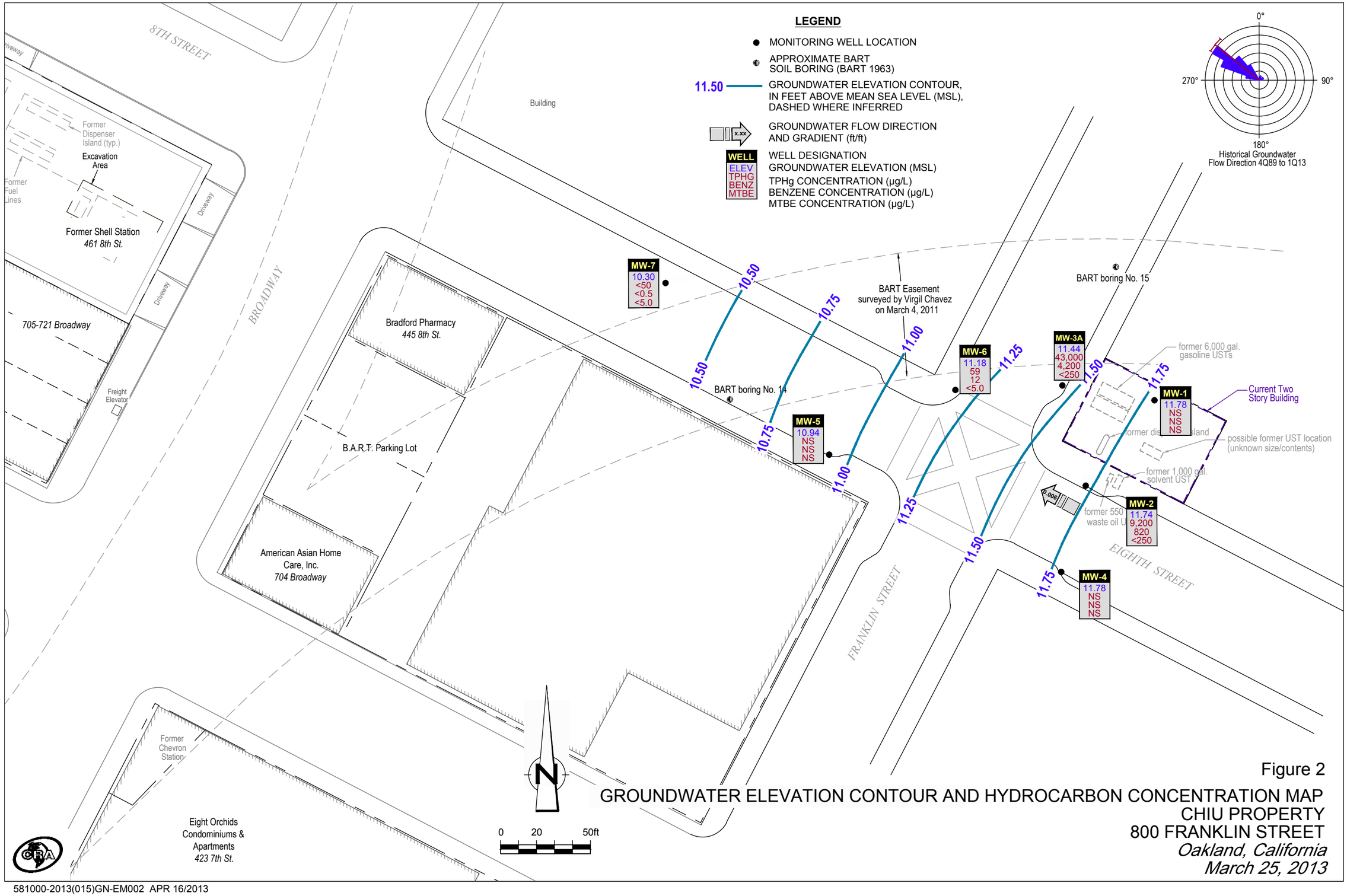

Figure 2

GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP
CHIU PROPERTY
800 FRANKLIN STREET
Oakland, California
March 25, 2013

581000-2013(015)GN-EM002 APR 16/2013

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
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
MW-7	5/23/2012	35.0	8.0	2	18.0 - 35.0	0.010	16.0 - 35.0	14.0 - 16.0	0 - 14.0	33.49

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)*	*TPHg*	*TPHd*	*TPHmo*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					µg/L				→
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
	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
	3/19/2010	22.25	11.73	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	0.58
	9/3/2010	22.51	11.47	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	1.2	ND<0.5
	3/4/2011	22.10	11.88	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
	8/22/2011	22.23	11.75	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
	3/5/2012	22.61	11.37	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/27/2012	22.31	11.67	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/25/2013	**22.20**	**11.78**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-2	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	--	--	--

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*	*Chloroform*	*1,2-DCA*
				←					*µg/L*				→
MW-2 *(cont.)*	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
	3/4/2009	22.25	11.41	56,000 (a)	13,000 (d)	1,100	1,500	5,300	990	4,500	ND<10	ND<10	ND<10
	9/8/2009	22.60	11.06	42,000 (a)	11,000 (d)	1,200	1,400 (1,200)	5,200 (4,900)	970 (890)	5500 (4,900)	ND<100 (ND<100)	ND<0.5	ND<100
33.75	3/19/2010 **	21.96	11.70	30,000 (a,h)	12,000 (d,h)	--	(1,000)	(3,500)	(980)	(4,500)	(ND<50)	ND<5.0	ND<5.0
	9/3/2010	22.30	11.45	9,500 (a)	1,500 (d)	--	(320)	(290)	(140)	(970)	(ND<12)	ND<12	ND<12
	3/4/2011	21.85	11.90	12,000 (a)	2,200 (d)	--	(610)	(430)	(290)	(1,400)	(ND<25)	ND<25	ND<25
	8/22/2011	22.04	11.71	7,900 (a)	1,300 (d)	--	(320)	(270)	(170)	(1,400)	(ND<12)	ND<0.5	ND<12
	3/5/2012	22.32	11.43	18,000(a)	1,400 (d)	--	1,200	930	560	2,100	ND<500	--	--
	9/27/2012	22.16	11.59	6,300 (a)	690 (d)	--	410	290	130	830	ND<70	--	--
	3/25/2013	**22.01**	**11.74**	**9,200 (a)**	**900 (d)**	**--**	**820**	**440**	**280**	**1,200**	**ND<250**	**--**	**--**
MW-3	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	--	--	--

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*	*Chloroform*	*1,2-DCA*
				←					*µg/L*				→
MW-3 *(cont.)*	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.*						
MW-3A	1/29/2007						***MW-3A replaces MW-3***						
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
	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
	9/8/2009	23.25	10.91	8,900 (a)	780 (d)	ND<250	870 (830)	1300 (1,200)	260 (200)	1100 (880)	ND<25 (ND<25)	6.3	ND<25
	3/19/2010	22.79	11.37	16,000 (a)	1,700 (d)	--	(1,900)	(3,200)	(620)	(2,800)	(ND<50)	ND<5.0	10
	9/3/2010	23.02	11.14	35,000 (a)	1,600 (d)	--	(5,300)	(6,500)	(1,100)	(5,100)	(ND<120)	ND<120	ND<120
	3/4/2011	22.60	11.56	35,000 (a)	3,300 (d)	--	(5,000)	(6,400)	(1,900)	(8,800)	(ND<100)	ND<100	ND<100
	8/22/2011	22.71	11.45	42,000 (a)	2,700 (d)	--	(5,700)	(6,300)	(1,800)	(7,800)	(ND<120)	ND<0.5	ND<120
	3/5/2012	22.99	11.17	49,000(a)	1500 (d)	--	4,400	2,800	1,900	8,200	ND<800	--	--
	9/27/2012	22.85	11.31	51,000 (a)	3,200 (d)	--	5,100	4,000	2,000	8,300	ND<800	--	--
	3/25/2013	**22.72**	**11.44**	**43,000 (a)**	**2,900 (d)**	**--**	**4,200**	**2,700**	**1,700**	**6,300**	**ND<250**	**--**	**--**
MW-4	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	--	--

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*	*Chloroform*	*1,2-DCA*
				←					*µg/L*				→
MW-4 ***(cont.)***	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
	9/8/2009	22.56	11.08	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)	11	ND<0.5
33.73	3/19/2010 *	21.88	11.76	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	10	ND<0.5
	9/3/2010	22.21	11.52	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
	3/4/2011	21.78	11.95	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	1.0	ND<0.5
	8/22/2011	21.92	11.81	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	ND<0.5	ND<0.5
	3/5/2012	22.34	11.39	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/27/2012	21.98	11.75	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/25/2013	**21.95**	**11.78**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-5	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	--	--	--
	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

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*	*Chloroform*	*1,2-DCA*
				←					*µg/L*				→
MW-5 ***(cont.)***	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
	9/8/2009	23.21	10.35	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)	11	ND<0.5
33.67	3/19/2010 *	22.72	10.84	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	14	ND<0.5
	9/3/2010	23.03	10.64	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	7.2	ND<0.5
	3/4/2011	22.60	11.07	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	3.4	ND<0.5
	8/22/2011	22.63	11.04	ND<50	ND<50	--	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	(ND<0.5)	1.9	ND<0.5
	3/5/2012	22.94	10.73	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	9/27/2012	22.75	10.92	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/25/2013	**22.73**	**10.94**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-6	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
	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)	1,400 (d)	ND<250	870 (770)	16 (ND<12)	34 (17)	1500 (1,200)	ND<12 (ND<12)	ND<0.5	ND<12
34.05	3/19/2010 *	22.93	11.05	8,900 (a)	1,200 (d)	--	(2,900)	(ND<100)	(ND<100)	(ND<100)	(ND<5.0)	ND<5.0	15
	9/3/2010	23.19	10.86	4,600 (a)	710 (d)	--	(1,500)	(33)	(35)	(79)	(ND<25)	ND<25	ND<25
	3/4/2011	22.78	11.27	3,700 (a)	410 (d)	--	(1,300)	(170)	(70)	(200)	(ND<25)	ND<25	ND<25
	8/22/2011	22.85	11.20	490 (a)	120 (b,d)	--	(190)	(ND<5.0)	(ND<5.0)	(ND<5.0)	(ND<5.0)	0.86	ND<5.0
	3/5/2012	23.16	10.89	190 (a)	65 (b,d)	--	38	2.7	1.4	7.3	ND<15	--	--
	9/27/2012	22.91	11.14	79 (a)	ND<50	--	11	ND<0.5	ND<0.5	0.90	ND<5.0	--	--
	3/25/2013	**22.87**	**11.18**	**59 (a)**	**ND<50**	**--**	**12**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<5.0**	**--**	**--**
MW-7	6/25/2012	22.98	10.51	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
33.49	9/27/2012	23.22	10.27	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	12/4/2012	23.46	10.03	ND<50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	--
	3/25/2013	**23.19**	**10.30**	**ND<50**	**ND<50**	**--**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<5.0**	**--**	**--**
Grab Groundwater													
B-7	3/11/2011	**--**	**--**	ND<50 (i)	**--**	**--**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**--**	**--**	**--**
B-8	3/11/2011	**--**	**--**	ND<50 (i)	**--**	**--**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**--**	**--**	**--**
B-9	3/12/2011	**--**	**--**	ND<50 (i)	**--**	**--**	ND<0.5	3.0	ND<0.5	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*	*Xylenes*	*MTBE*	*Chloroform*	*1,2-DCA*
				←					*µg/L*				→

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
(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<5.0 = Not detected above detection limit.
-- = Not available, not analyzed, or not applicable
* = Surveyed September 7, 2006; updated to table May 24, 2010
** = Surveyed March 8, 2007; updated to table May 24, 2010
É = Unable to access well due to denial by current tenant

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. Conestoga-Rovers and Associate's 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 according to low flow protocol using an aboveground peristaltic pump. Groundwater wells shall be purged at a low flow rate not to exceed 500 milliliters per minute (mL/min) until groundwater parameters of conductivity and/or dissolved oxygen have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall also be measured and recorded approximately every 3 to 5 minutes. 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 shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after well parameters have stabilized at a low flow rate not to exceed 500 mL/min. Groundwater samples shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and Teflon lined tubing shall be used for sampling each well.

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
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 12/04/12
		Date Received: 12/06/12
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Reported: 12/11/12
Emeryville, CA 94608	Client P.O.:	Date Completed: 12/10/12

WorkOrder: 1212172

April 29, 2013

Dear Bryan:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#581000; Chiu,**
2) QC data for the above sample, and
3) A copy of the chain of custody.

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.

The analytical results relate only to the items tested.

12/2/12

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: 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: Bryan Fong Bill To: Conestoga-Rovers & Associates

Company: Conestoga-Rovers & Associates

5900 Hollis St., Ste. A

Emeryville, CA E-Mail: bfong@craworld.com jwilson@craworld.com

Tele: (510) 420-3369 Fax: (510) 420-9170

Project #: 581000 Project Name: Chiu

Project Location: 800 Franklin St., Oakland, CA

Sampler Signature: MacKenzie Environmental Sampling

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED ICE	HCL	HNO_3	Other
MW-7		12/4/12	03:51	2 3	Amb VOA	X					X	X		

Analysis Request

BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015) with silica gel clean up	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 8260 (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 515.3 / 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 (200.8 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: confirm MTBE by 8260	Comments: Filter Samples for Metals analysis: Yes / No
X	X															X	

Relinquished By:	Date:	Time:	Received By:
	12/6/12	1331	
Relinquished By:	Date:	Time:	Received By:
	12/6/12	1500	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 2.2 COMMENTS:

GOOD CONDITION ✓

HEAD SPACE ABSENT ✓

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS ✓

PRESERVED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER
	✓		pH<2	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1212172 **ClientCode: CETE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bryan Fong
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-3327 FAX: (510) 420-9170

Email: bfong@craworld.com
cc:
PO:
ProjectNo: #581000, Chin

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

Requested TAT: 5 days

Date Received: **12/06/2012**
Date Printed: **12/06/2012**

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
1212172-001	MW-7	Water	12/4/2012 3:51	☐	A	A	A									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(DMO)WSG_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

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.
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Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**
Date and Time Received: **12/6/2012 8:49:02 PM**

Project Name: **#581000, Chin**
LogIn Reviewed by: Jena Alfaro

WorkOrder N°: **1212172** Matrix: Water
Carrier: Rob Pringle (MAI Courier)

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: 2.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
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.*

Comments:

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 12/04/12
		Date Received: 12/06/12
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Extracted: 12/07/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 12/07/12

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1212172

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-7	W	ND	ND	ND	ND	ND	ND	1	104	

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	µg/L
	S	1.0	0.05	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. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 12/04/12
		Date Received: 12/06/12
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Extracted 12/06/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed 12/07/12

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1212172

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1212172-001A	MW-7	W	ND	1	92	

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

* 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.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

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

DHS ELAP Certification 1644 MAM Analyst's Initial Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 72947 | WorkOrder: 1212172

EPA Method: SW8015B **Extraction: SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	124	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	117	N/A	N/A	70 - 130

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

BATCH 72947 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212172-001A	12/04/12 3:51 AM	12/06/12	12/07/12 2:25 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.

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QA/QC Officer

McCampbell Analytical, Inc.
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http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 73112 | WorkOrder: 1212172

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1212200-006B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	106	117	9.96	109	70 - 130	20	80 - 120
MTBE	ND	10	97.8	84.5	14.5	99.5	70 - 130	20	80 - 120
Benzene	ND	10	106	100	5.55	107	70 - 130	20	80 - 120
Toluene	ND	10	106	99.7	5.86	110	70 - 130	20	80 - 120
Ethylbenzene	ND	10	106	99.5	6.19	106	70 - 130	20	80 - 120
Xylenes	ND	30	106	99.3	6.65	107	70 - 130	20	80 - 120
%SS:	113	10	100	105	5.03	102	70 - 130	20	70 - 130

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

BATCH 73112 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212172-001A	12/04/12 3:51 AM	12/07/12	12/07/12 10:46 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.

£ 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.

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QA/QC Officer

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 03/25/13
		Date Received: 03/25/13
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Reported: 03/28/13
Emeryville, CA 94608	Client P.O.:	Date Completed: 03/28/13

WorkOrder: 1303673

March 28, 2013

Dear Bryan:

Enclosed within are:

1) The results of the **4** analyzed samples from your project: **#581000; Chiu,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

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.

The analytical results relate only to the items tested.

1303673

McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / 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 ☒ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐ ; Claim #_____

Report To: Bryan Fong **Bill To:** Conestoga-Rovers & Associates

Company: Conestoga Rovers & Associates
5900 Hollis St., Ste. A
Emeryville, CA

E-Mail: bfong@craworld.com
jwilson@crawworld.com

Tele: (510) 420-3369 **Fax:** (510) 420-9170

Project #: 581000 **Project Name:** Chiu

Project Location: 800 Franklin St, Oakland, CA **Purchase Order#**

Sampler Signature: Mustang Environmental Sampling

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other
MW-2		3/25/13	05:17	5	X								X		
MW-3A		"	04:13	5	"								"		
MW-6		"	03:04	5	"								"		
MW-7		"	09:28	5	"								"		

Analysis Request

BTEX & TPH as Gas (8021/ 8015 or 8260) / MTBE	TPH as Diesel (8015) w/ silica gel clean up	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)	LUFT 5 Metals (200.8 / 6020)	Metals (200.8 / 6020)	Filter sample for DISSOLVED metals analysis	Confirm MTBE by 8260
X	X															X
"	"															"
"	"															"
"	"															"

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	3/25/13	1130	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 1.6
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:
PRESERVATION ✓ pH<2 ____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1303673 **ClientCode: CETE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bryan Fong
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-3327 FAX: (510) 420-9170

Email: bfong@craworld.com
cc: jwilson@craworld.com
PO:
ProjectNo: #581000; Chiu

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

Requested TAT: 5 days

Date Received: **03/25/2013**
Date Printed: **03/25/2013**

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
1303673-001	MW-2	Water	3/25/2013 5:17	☐	A	A	B									
1303673-002	MW-3A	Water	3/25/2013 4:13	☐	A		B									
1303673-003	MW-6	Water	3/25/2013 3:04	☐	A		B									
1303673-004	MW-7	Water	3/25/2013 9:28	☐	A		B									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)WSG_W	4		5	
6		7		8		9		10	
11		12							

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.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**
Date and Time Received: **3/25/2013 11:44:00 AM**

Project Name: **#581000; Chiu**
LogIn Reviewed by: Maria Venegas

WorkOrder N°: **1303673** 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: 1.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
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.*

Comments:

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Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 03/25/13
		Date Received: 03/25/13
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Extracted: 03/27/13
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/27/13

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1303673

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2	W	9200	ND<250	820	440	280	1200	10	110	d1
002A	MW-3A	W	43,000	ND<250	4200	2700	1700	6300	50	107	d1
003A	MW-6	W	59	ND	12	ND	ND	ND	1	102	d1
004A	MW-7	W	ND	ND	ND	ND	ND	ND	1	106	

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	µg/L
	S	1.0	0.05	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. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

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

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Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Conestoga-Rovers & Associates	Client Project ID: #581000; Chiu	Date Sampled: 03/25/13
		Date Received: 03/25/13
5900 Hollis St, Suite A	Client Contact: Bryan Fong	Date Extracted 03/25/13
Emeryville, CA 94608	Client P.O.:	Date Analyzed 03/25/13-03/26/13

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1303673

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1303673-001B	MW-2	W	900	1	96	e4
1303673-002B	MW-3A	W	2900	1	97	e4
1303673-003B	MW-6	W	ND	1	98	
1303673-004B	MW-7	W	ND	1	98	

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

* 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/matrix interference.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

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.

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Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 75844 | WorkOrder: 1303673

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1303686-006B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	98.8	99.3	0.521	96.2	70 - 130	20	70 - 130
MTBE	ND	10	80.9	82.9	2.43	86.8	70 - 130	20	70 - 130
Benzene	ND	10	83.5	84.6	1.30	88.8	70 - 130	20	70 - 130
Toluene	ND	10	84.2	84.7	0.530	88.6	70 - 130	20	70 - 130
Ethylbenzene	ND	10	83.8	84.8	1.14	87.6	70 - 130	20	70 - 130
Xylenes	ND	30	84.3	86.1	2.07	87.9	70 - 130	20	70 - 130
%SS:	99	10	97	98	1.68	98	70 - 130	20	70 - 130

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

BATCH 75844 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1303673-003A	03/25/13 3:04 AM	03/27/13	03/27/13 5:57 AM	1303673-004A	03/25/13 9:28 AM	03/27/13	03/27/13 6:27 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.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 75887 | WorkOrder: 1303673

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1303704-002A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	98.5	107	8.26	105	70 - 130	20	70 - 130
MTBE	ND	10	97.5	106	8.26	98	70 - 130	20	70 - 130
Benzene	ND	10	87.7	94.4	7.33	92.8	70 - 130	20	70 - 130
Toluene	ND	10	86	97.9	13.0	90.7	70 - 130	20	70 - 130
Ethylbenzene	ND	10	90.6	97.4	7.23	94.2	70 - 130	20	70 - 130
Xylenes	ND	30	96.3	103	7.15	99.6	70 - 130	20	70 - 130
%SS:	96	10	88	88	0	89	70 - 130	20	70 - 130

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

BATCH 75887 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1303673-001A	03/25/13 5:17 AM	03/27/13	03/27/13 2:27 AM	1303673-002A	03/25/13 4:13 AM	03/27/13	03/27/13 8:54 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.

£ 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.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 75802 | WorkOrder: 1303673

EPA Method: SW8015B **Extraction: SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	115	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	93	N/A	N/A	70 - 130

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

BATCH 75802 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1303673-001B	03/25/13 5:17 AM	03/25/13	03/26/13 12:11 PM	1303673-002B	03/25/13 4:13 AM	03/25/13	03/25/13 8:41 PM
1303673-003B	03/25/13 3:04 AM	03/25/13	03/26/13 1:28 PM	1303673-004B	03/25/13 9:28 AM	03/25/13	03/25/13 9:49 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.

DHS ELAP Certification 1644

QA/QC Officer

APPENDIX C

FIELD DATA SHEETS

MUSKAN
ENVIRONMENTAL
SAMPLING

WELL GAUGING SHEET

pg 1 of 1

Client: Conestoga-Rovers and Associates

Site Address: 800 Franklin Street, Oakland, CA

Date: 12/4/2012 **Signature:**

Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-7	03:32		23.46		35.50	

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	12/4/2012
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-7
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Peristaltic Pump
Total Well Depth from top of casing:	35.50
Water level at the start of purge from top of casing:	23.46
Approximate depth of water intake on pump from top of casing:	30.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
03:35	100	--	--	--	--	--	23.46	—	
03:38	100	18.2	6.93	715	10	1.06	23.48	12	
03:41	100	18.0	6.97	702	14	0.84	23.51	17	
03:44	100	18.0	6.97	702	14	0.81	23.52	15	
03:47	100	17.9	6.99	701	16	0.79	23.53	18	
03:50	100	17.9	6.99	700	17	0.79	23.53	19	
									total purge volume = 1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-7	12/4/12	03:51	see COC	see COC	see COC	see COC

Signature:

MUSKAN
ENVIRONMENTAL
SAMPLING

WELL GAUGING SHEET

pg 1 of 1

Client: Conestoga-Rovers and Associates

Site Address: 800 Franklin Street, Oakland, CA

Date: 3/25/2013 **Signature:**

Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1	07:05		22.20		33.35	
MW-2	04:58		22.01		34.15	
MW-3A	03:55		22.72		34.25	
MW-4	02:20		21.95		33.60	
MW-5	02:30		22.73		34.60	
MW-6	02:45		22.87		32.40	
MW-7	09:10		23.19		35.50	

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/25/2013
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-2
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Peristaltic Pump
Total Well Depth from top of casing:	34.15
Water level at the start of purge from top of casing:	22.01
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
05:01	100	--	--	--	--	--	22.01	—	
05:04	100	18.6	7.21	1460	-24	0.90	22.04	15	
05:07	100	18.1	7.28	1464	-19	0.87	22.06	17	
05:10	100	18.0	7.29	1465	-18	0.87	22.06	17	
05:13	100	18.0	7.29	1466	-18	0.87	22.06	16	
05:16	100	18.0	7.29	1467	-18	0.87	22.06	15	
									total purge volume = 1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-2	3/25/13	05:17	see COC	see COC	see COC	see COC

Signature:

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/25/2013
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-3A
Well Diameter:	4"
Purging Device:	Peristaltic Pump
Sampling Method:	Peristaltic Pump
Total Well Depth from top of casing:	34.25
Water level at the start of purge from top of casing:	22.72
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
03:57	100	--	--	--	--	--	22.72	—	
04:00	100	18.1	6.94	1115	-70	0.91	22.74	29	
04:03	100	17.8	6.97	1095	-90	0.91	22.74	14	
04:06	100	17.8	6.97	1093	-96	0.97	22.74	18	
04:09	100	17.8	6.99	1092	-97	0.97	22.74	16	
04:12	100	17.8	6.99	1092	-98	0.97	22.74	16	
									total purge volume ~1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-3A	3/25/13	04:13	see COC	see COC	see COC	see COC

Signature:

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/25/2013
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-6
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Peristaltic Pump
Total Well Depth from top of casing:	32.90
Water level at the start of purge from top of casing:	22.87
Approximate depth of water intake on pump from top of casing:	27.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
02:48	100	--	--	--	--	--	22.87	—	
02:51	100	17.4	6.88	1652	-18	0.70	22.89	51	
02:54	100	17.7	6.92	1681	-17	0.73	22.89	43	
02:57	100	17.7	6.92	1689	-18	0.76	22.93	38	
03:00	100	17.7	6.93	1690	-18	0.76	22.94	38	
03:03	100	17.8	6.95	1690	-18	0.76	22.96	37	
									total purge volume = 1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-6	3/25/13	03:04	see COC	see COC	see COC	see COC

Signature:

MUSKAN
ENVIRONMENTAL
SAMPLING

MICRO PURGE WELL SAMPLING FORM

Date:	3/25/2013
Client:	Conestoga-Rovers and Associates
Site Address:	800 Franklin Street, Oakland, CA

Well ID:	MW-7
Well Diameter:	2"
Purging Device:	Peristaltic Pump
Sampling Method:	Peristaltic Pump
Total Well Depth from top of casing:	35.50
Water level at the start of purge from top of casing:	23.19
Approximate depth of water intake on pump from top of casing:	30.0

TIME:	Purged Rate (ml/min)	TEMP (Celsius)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)	Drawdown Water Level (ft)	Turbidity (NTU)	Comments
09:12	100	--	--	--	--	--	23.19	—	
09:15	100	17.9	7.08	710	14	0.91	23.21	11	
09:18	100	17.9	7.10	712	15	0.78	23.21	13	
09:21	100	17.6	7.14	729	18	0.77	23.24	14	
09:24	100	17.4	7.16	729	20	0.77	23.24	15	
09:27	100	17.4	7.16	729	21	0.76	23.26	13	
									total purge volume = 1500 ml

Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-7	3/25/13	09:28	see COC	see COC	see COC	see COC

Signature: