

**NESTOGA-ROVERS** ASSOCIATES

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1:58 pm, Apr 23, 2009

April 20, 2009

Alameda County Environmental Health Reference No. 540188

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

Dear Mr. Wickham:

Re:

Groundwater Monitoring Report - First Quarter 2009

Allright Parking 1432 Harrison Street Oakland, California

Agency Case No. RO0266

On behalf of the Est. of A. Bacharach/Barbara Jean Borsuk, Conestoga-Rovers & Associates (CRA) is submitting the Groundwater Monitoring Report - First Quarter 2009. Presented in this report are a summary of the field activities and a presentation of the results from the first quarter 2009 groundwater monitoring event.

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

Yours truly,

**CONESTOGA-ROVERS & ASSOCIATES** 

Mark Jords, P.G.

MW/aa/3 Encl.

c.c.:

Est. of A. Bacharach/Barbara Jean Borsuk

c/o Mr. Mark Borsuk



# GROUNDWATER MONITORING REPORT - FIRST QUARTER 2009

ALLRIGHT PARKING 1432 HARRISON STREET OAKLAND, CALIFORNIA

FUEL LEAK CASE NO. RO0000266

Prepared by: Conestoga-Rovers & Associates

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# 1.0 INTRODUCTION

On behalf of the Est. of A. Bacharach/Barbara Jean Borsuk, Conestoga-Rovers & Associates (CRA) has prepared this *Groundwater Monitoring Report – First Quarter 2009* for the above-referenced site (see Figure 1). Presented in this report are the first quarter 2009 groundwater monitoring activities and results and the anticipated second quarter 2009 activities.

Figure 1 is a vicinity map. Figure 2 presents groundwater elevation contours and hydrocarbon concentrations for this monitoring event. Table 1 provides well construction details. Table 2 presents recent and historic well water depth measurements and hydrochemical data, and separate phase hydrocarbon (SPH) measurements and observations. Appendix A contains CRA's standard field procedures for groundwater monitoring and sampling. Appendix B is the analytical laboratory report for the groundwater sampling event. Appendix C contains field sheets for the first quarter 2009 monitoring events. Appendix D contains benzene concentrations and depth to water time-series graphs.

# 1.1 <u>SITE INFORMATION</u>

Site Address 1432 Harrison Street, Oakland

Site Use Parking Facility

Client and Contact Est. of A. Bacharach/

Barbara Jean Borsuk Contact: Mark Borsuk

**Consultant and Contact Person** CRA, Mark Jonas

**Lead Agency and Contact Person** ACEH, Jerry Wickham

# 2.0 SITE ACTIVITIES AND RESULTS

## 2.1 <u>CURRENT QUARTER'S ACTIVITIES</u>

## 2.1.1 FIELD ACTIVITIES

On March 2, 2009, CRA coordinated with Muskan Environmental Sampling (MES) to conduct quarterly monitoring activities. MES gauged groundwater levels and inspected for SPH in all monitoring wells. No measurable SPH was detected in any of the wells. Groundwater samples were collected from wells MW-3, MW-4, MW-5, and MW-6. There was insufficient water available in well MW-1 to collect a groundwater sample and well MW-2 was inaccessible due to a high volume of surface water run-off during sampling. Groundwater monitoring field data sheets are provided in Appendix C. The groundwater monitoring data has been submitted to the GeoTracker database.

Field activities associated with well sampling included well purging, water quality measurements, sample collection, and equipment decontamination. Prior to sampling, the monitoring wells were purged by repeated bailing using a new, disposable bailer for each well. Field measurements of pH, specific conductance, and temperature of the purged groundwater were measured after extraction of each successive casing volume or at regular volume intervals. Purging of groundwater from each monitoring well continued until at least three casing volumes of water were extracted and consecutive pH, conductivity, and temperature measurements appeared to stabilize. Field water quality measurements purge volumes, and sample collection data were recorded on field sampling data forms (Appendix C).

Groundwater samples were collected using new disposable bailers. The samples were decanted from the bailers into 40-milliliter (mL) glass volatile organic analysis (VOA) vials supplied by McCampbell Analytical, Inc. (McCampbell) of Pittsburg, California. Immediately after collection, the sample containers were labeled and placed on water-based ice in a cooler. Chain-of-custody procedures were followed from sample collection to transfer to the laboratory (Appendix B).

To minimize the potential for cross-contamination, 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 and Alconox <sup>TM</sup> detergent prior to first use and between subsequent water level measurements. The disposable bailers were discarded after use at each well.

# 2.1.2 SAMPLE ANALYSES

Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015; and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021; and methyl tertiary butyl ether (MTBE) by EPA Method 8260. All analyses were performed by McCampbell. The laboratory analytical report is included as Appendix B. Hydrocarbon concentrations are summarized on Figure 2 and presented in Table 2. The analytical data were submitted to the GeoTracker database.

# 2.2 <u>CURRENT QUARTER'S RESULTS</u>

**Groundwater Flow Direction** North

**Hydraulic Gradient** 0.0033

Range of Measured Water Depth 19.19 to 21.30 feet

from Top of Casing in Monitoring Wells

Were Measureable Separate Phase No

**Hydrocarbons Observed** 

### 2.2.1 GROUNDWATER FLOW DIRECTION

Based on depth-to-water measurements collected during the March 2, 2009 site visit, groundwater beneath the site in the vicinity of the former USTs and fuel pumps apparently flows toward the north at a gradient of 0.0033 feet/foot. Groundwater flow conditions observed during the first quarter 2009 are consistent with conditions observed during previous monitoring events. Groundwater elevation data is summarized on Figure 2 and presented in Table 2.

## 2.2.2 HYDROCARBON DISTRIBUTION IN GROUNDWATER

Hydrocarbon concentrations were detected in two of the sampled wells. TPHg concentrations ranged were 520 micrograms per liter ( $\mu$ g/L) in well MW-4 and 34,000  $\mu$ g/L in well MW-5. Benzene concentrations were 6.0  $\mu$ g/L in well MW-4 and

9,700  $\mu$ g/L in well MW-5. Toluene concentrations were 2.2  $\mu$ g/L in well MW-4 and 41  $\mu$ g/L in well MW-5. Ethylbenzene concentrations were 6.5  $\mu$ g/L in well MW-4 and 1,100  $\mu$ g/L in well MW-5. Xylenes concentrations were 9.2  $\mu$ g/L in well MW-4 and 1,300  $\mu$ g/L in well MW-5. No MTBE was detected in any well. Refer to Table 2 for dissolved hydrocarbon concentrations and Appendix D for benzene concentration trend graphs for wells MW-1 through MW-6. The unshaded symbols on the graphs represent results below laboratory detection limits.

# 2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER

### 2.3.1 MONITORING ACTIVITIES

Per an email correspondence with the ACEH dated March 5, 2009, the sampling schedule for this site has been modified to a semi-annual basis. Wells MW-1, MW-2, MW-4, MW-5 will be sampled semi-annually during the first and third quarters. Wells MW-3 and MW-6 will be sampled annually during the first quarter. Therefore, the next sampling event will occur during third quarter 2009 in September. During this event, all wells will be gauged and wells MW-1, MW-2, MW-4, and MW-5 will be sampled. CRA will contract MES to perform these sampling activities. MES will gauge all monitoring wells, check wells for SPH, and collect groundwater samples from wells not containing SPH. Groundwater samples will be analyzed for TPHg by modified EPA Method 8015, BTEX by EPA Method 8021 and MTBE by EPA Method 8260B. If another laboratory is selected to analyze the next round of samples, TPHg, BTEX, and MTBE would be analyzed using EPA Method 8260. Groundwater monitoring and sampling results will be submitted to the State's GeoTracker database. CRA will summarize groundwater monitoring activities and results in the *Groundwater Monitoring Report - Third Quarter* 2009.

Because MW-1 has not been sampled during the past four quarterly monitoring events due to insufficient amounts of water, CRA proposes to redevelop this well before the third quarter event. Field observations indicate that the total depth of the well, which was formerly used to extract groundwater, has risen to the approximate depth of groundwater. This is likely due to the infiltration and deposition of fine-grained material into the well during groundwater extraction.

# 2.3.2 <u>IMPLEMENT WORK PLAN</u>

An *Additional Site Characterization Work Plan* (Work Plan) was submitted July 1, 2008. Mr. Wickham (ACEH) responded with conditional approval in an August 1, 2008 letter from ACEH. CRA is in the process of obtaining the necessary access agreement to conduct the proposed off-site work as well as permits from the City of Oakland to perform work in the public right-of-way. Mr. Wickham authorized a deadline extension to June 30, 2009, in an email correspondence dated March 4, 2009.

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

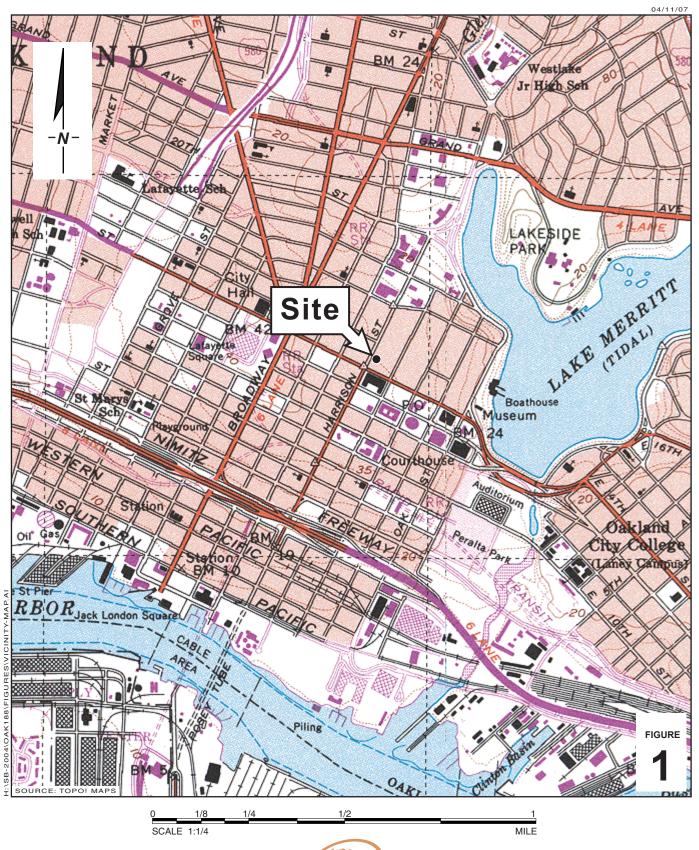
Michael Werner

Mark Jonas, P.G.

MARK L. JONAS No. 6392

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# **FIGURES**

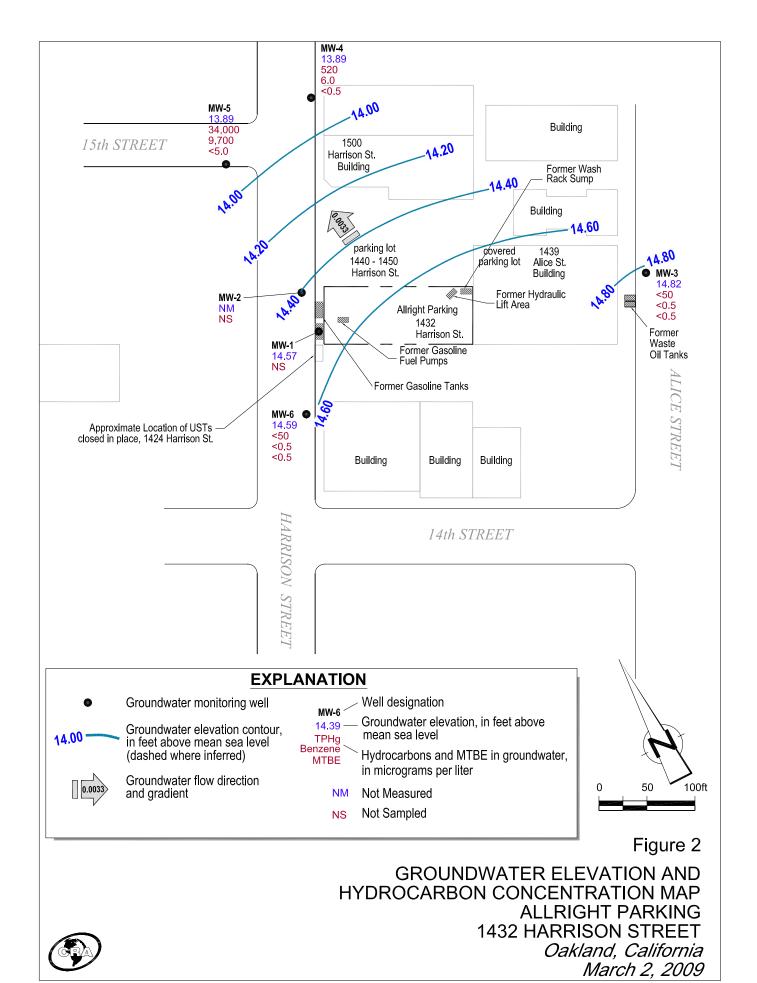


**Allright Parking** 

1432 Harrison Street Oakland, California



**Vicinity Map** 



**TABLES** 

TABLE 1

# WELL CONSTRUCTION DETAILS ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

| Well No.                 | <b>Installation</b> Date | Total<br>Depth<br>(ft-bgs) | Boring<br>Diameter<br>(inch) | Well<br>Diameter<br>(inch) | Screen<br>Size<br>(inch) | Screened<br>Interval<br>(ft-bgs) | Sand Pack<br>Interval<br>(ft-bgs) | Surface<br>Seal<br>(ft-bgs) | TOC<br>Elevation<br>(ft-msl) |
|--------------------------|--------------------------|----------------------------|------------------------------|----------------------------|--------------------------|----------------------------------|-----------------------------------|-----------------------------|------------------------------|
| MW-1                     | 1/12/1994                | 27                         | 12                           | 4                          | 0.020                    | 16-26.5                          | 14.5-27                           | 0-14.5                      | 35.37                        |
| MW-2                     | 7/30/1994                | 26                         |                              | 2                          | 0.010                    | 11-26                            | 9-26                              | 0-9                         | 35.21                        |
| MW-3                     | 7/30/1994                | 25                         |                              | 2                          | 0.010                    | 15-25                            | 13-25                             | 0-13                        | 34.01                        |
| MW-4                     | 10/2/1996                | 25                         | 8                            | 2                          | 0.010                    | 15-25                            | 13-25                             | 0-13                        | 33.75                        |
| MW-5                     | 10/2/1996                | 30                         | 8                            | 2                          | 0.010                    | 14-29                            | 12-30                             | 0-12                        | 34.63                        |
| MW-6                     | 10/2/1996                | 30.5                       | 8                            | 2                          | 0.010                    | 14-29                            | 30-Dec                            | 0-12                        | 35.89                        |
| VES-1 (VE)<br>VES-1 (AS) | 7/23/1999                | 30                         | 8                            | 3<br>1                     | 0.020<br>0.020           | 5-20<br>28-30                    | 4.5-20<br>27.5-30                 | 0-5<br>0-27.5               | <br>                         |
| VES-2 (VE)<br>VES-2 (AS) | 7/22/1999                | 29.5                       | 8                            | 3<br>1                     | 0.020<br>0.020           | 5-20<br>27.5-29.5                | 4-20<br>27-29.5                   | 0-4<br>0-27                 |                              |
| VES-3 (VE)<br>VES-3 (AS) | 7/23/1999                | 30                         | 8                            | 3<br>1                     | 0.020<br>0.020           | 5-20<br>28-30                    | 4-20<br>25-30                     | 0-4<br>0-25                 | <br>                         |
| VES-4 (VE)<br>VES-4 (AS) | 7/23/1999                | 29                         | 8                            | 3<br>1                     | 0.020<br>0.020           | 5-20<br>27-29                    | 4-20<br>26.5-28.5                 | 0-4<br>0-26.5               |                              |

Notes:

ft-bgs Feet below ground surface ft-msl Feet above mean sea level

Not surveyedVE Vapor extractionAS Air sparge

#### TABLE 2

# GROUNDWATER ELEVATION AND ANALYTICAL DATA ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

TOC Well ID SPH Groundwater Sample ID EthylbenzeneDepth to Groundwater TPHg MTBE Thickness Elevation Benzene Toluene Xylenes Notes TOC (ft amsl) (ft below TOC) (feet) (ft amsl)  $(\mu g/L)$ Monitoring Well Sample Results: MW-1 8/1/1994 170,000 35,000 51,000 2.400 13,000 34.95 12/21/1994 19.53 15.42 180,000 41,000 64,000 3.100 100,000 3/13/1995 18.66 --16.29 150,000 31,000 45,000 2,500 17,000 \_\_ 6/27/1995 18.20 16.75 71,000 17,000 18,000 1,600 7,700 7/7/1995 18.35 --71,000 17,000 18,000 1,600 7,700 16.60 9/28/1995 18.20 --16.75 110,000 27,000 34,000 1,700 14,000 --12/20/1995 19 96 --14 99 120,000 33,000 43,000 2.300 15,000 \_\_ --140,000 29,000 36,000 1.900 <200% d 3/26/1996 19 27 15.68 13,000 --110,000 30,000 38,000 2.200 <200% 6/20/1996 18.64 16.31 13,000 9/26/1996 19.35 --15.60 170,000 28,000 40,000 2,200 15,000 ND\*\* --10/28/1996 19.58 15.37 12/12/1996 19.68 --15.27 110,000 36,000 47,000 2,500 16,000 ND\* 3/31/1997 18.80 --16.15 160,000 24,000 39,000 1,900 13,000 ND\* 6/27/1997 19.26 --15.69 130,000 25,000 36,000 2,000 14,000 ND\* 1970 15 25 270\* 9/9/1997 --99,000 22,000 27,000 1.600 13,000 19.25 --15.70 30,000 15.000 ND\*\*\* 12/18/1997 160,000 44.000 2.200 3/12/1998 --ND\*\*\* 17.52 17.43 190,000 20,000 49,000 2.500 18,000 6/22/1998 18.63 --16.32 90,000 19,000 40,000 2,100 16,000 ----17,000 9/18/1998 18.60 16.35 190,000 29,000 48,000 2,400 12/23/1998 19.18 --15.77 140,000 24,000 44,000 2,000 8,200 3/29/1999 18.52 --16.43 181,000 22,200 40,100 1,844 12,200 --6/23/1999 18.60 16.35 80,000 20,000 33,000 1,600 11,000 ----1.550 9/24/1999 19.05 15 90 117.000 15.100 20.700 11.800 ----1,990 12/23/1999 19.95 15.00 186,000 25,900 39,000 12,400 3/21/2000 18.48 16.47 210,000 35,000 42,000 2,200 13,000 <3,000 a 200,000 33,000 2,200 <200% 7/3/2000 18.95 16.00 46,000 15,000 a Sheen Field 9/7/2000 15.50 19.45 12/5/2000 19.90 15.05 220,000 42,000 57,000 2,700 17,000 <200 a <1200\* /<20\*\*\* 3/6/2001 18.20 --16.75 180,000 27,000 39,000 2.000 13,000 a.l 6/8/2001 20.14 14 81 170,000 28.000 40.000 1.900 13,000 <200 -a 8/27/2001 21.19 --13.76 130,000 24,000 33,000 1,600 11,000 <350 а 10/25/2001 21.74 13.21 160,000 22,000 28,000 1,500 10,000 <350 a 13.84<sup>x</sup> 3/1/2002 21.39 0.41 210,000 30,000 51,000 3,100 22,000 <1,000\* 6/10/2002 22.30 12.65 a 34 96 9/3/2002 21 40 --13.56 2,500,000 31,000 170,000 29,000 170.000 2.500.000\* a 89,000 12/22/2002 20.50 14.46 2,600 9,300 530 28,000 <1,700 a,m Sheen  $^{\text{Lab}}$ 41,000 18.57 16 39 130,000 600 1.600 <100 <50\*\*\* 1/23/2003 a,b,l 15.91<sup>x</sup> 0.07 6/12/2003 19.10 --\_\_ ----7/23/2003 19.42 0.07 15.59<sup>x</sup> 18.29 35.37# 12/22/2003 17.09 0.01 3/10/2004 13.82 21.55 22,000 190 250 <10 5,100 <100 a,c 6/16/2004 14.75 20.62 2,700 23 160 13 520 <25 a Sheen Field 9/27/2004 18.02 17.35 27,000 580 2,000 56 6,800 <10\*\*\* a,m < 0.5 < 0.5\*\*\* 12/22/2004 11.25 24.12 250 3.5 18 47 a,m 14.42 20.95 320 5.2 13 3.2 3/3/2005 --46 < 5.0 a 34.96## 6/9/2005 17.80 --17.16 9/9/2005 18.26 16.70 + ----12/20/2005 18.68 --16.28 23,000 270 400 65 4,400 <50 3/26/2006 16.96 18.00 a 6/23/2006 17.55 \_\_ 17.41 30,000 340 680 170 6,900 <500 a,m 9/7/2006 18.53 16.43 34,000 540 630 190 7.000 < 500 а Sheen Field 20,000 550 130 <100\*/<0.5\*\*\* 12/29/2006 19.43 15.53 55 4.700 a,m Sheen Field 3/21/2007 23,000 910 210 140 5,900 <250\* 18.92 16.04 a Sheen Field 6/7/2007 15.74 24,000 680 190 4,300 <100\* 19.22 61 a,b 9/28/2007 20.19 14.77 12/9/2007 14.56 20.40

#### TABLE 2

# GROUNDWATER ELEVATION AND ANALYTICAL DATA ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

TOC

Well ID SPH Groundwater Sample ID Depth to Groundwater Thickness TPHg Toluene Ethylbenzene MTBE Date Elevation Benzene Xylenes Notes TOC (ft amsl) (ft below TOC) (feet) (ft amsl) (μg/L) Sheen Lab 10,000 <2.5\*\*\* MW-1 cont. 3/3/2008 19.16 15.80 510 28 <10 1.700 a,b,m,l 6/4/2008 20.05 14.91 9/9/2008 20.40 14.56 --\_\_ ----12/5/2008 20.42 14.54 --\_\_ 3/2/2009 20.39 14.57 MW-2 8/1/1994 130,000 28,000 35,000 3,000 12,000 19.91 3,500 35.18 12/21/1994 --15.27 200 140,000 200,000 22,000 500 7.000 1915 \_\_ 9,200 23,000 36,000 \_\_ \_\_ 3/13/1995 16.03 18.74 \_\_ 120,000 23,000 30,000 2.700 13,000 6/27/1995 16.44 7/7/1995 18.80 --16.38 120,000 23,000 30,000 2,700 13,000 ------9/28/1995 19.30 15.88 110,000 23,000 29,000 2,500 11,000 12/20/1995 20.24 --14.94 83,000 980 1,800 2,200 10,000 --3/26/1996 19.69 --15.49 150,000 23,000 32,000 2,800 12,000 <200<sup>x</sup> d 6/20/1996 19.20 --15.98 94,000 15,000 23,000 2,400 12,000 <200% 19.80 --15.38 20,000 ND\*\* --9/26/1996 150,000 29,000 2.800 12,000 20.18 \_\_ 15.00 10/28/1996 12/12/1996 20.17 --15.01 58,000 3,100 11,000 1,700 8,100 2209 --3/31/1997 19.67 --15.51 38,000 6,000 7,900 690 3,300 ND\* ----13,000 ND\* 6/27/1997 19.68 15.50 62,000 16,000 1,300 6,000 9/9/1997 20.20 --14.98 81,000 16,000 18,000 1,800 8,600 ND\*\*\* ND\*\*\* 12/18/1997 19.80 --15.38 110,000 18,000 26,000 2,200 9,500 --ND\*\*\* 18 07 17 11 120,000 16,000 26,000 2.200 9.400 \_\_ 3/12/1998 --1.500 6/22/1998 18 29 16.89 38,000 9.800 9.500 6.000 \_\_ ----12,000 5,900 9/18/1998 19.09 16.09 68,000 16,000 1.400 12/23/1998 19.67 --15.51 180,000 16,000 22,000 2,200 8,300 --373 3/29/1999 18.97 16.21 16,600 1,380 1,920 1,840 6/23/1999 18.25 --16.93 41,000 10,000 9,400 1,100 5,000 9/24/1999 19.60 --15.58 40,600 4,880 3,490 1,090 4,560 12/23/1999 20.21 --14.97 61,900 6,710 9,320 1,150 5,360 3/21/2000 --16 25 98,000 14.000 21.000 1.600 <1600 18 93 6.900 a --<200<sup>x</sup> 7/3/2000 19.38 15.80 140,000 18,000 33,000 2,600 11,000 а 9/7/2000 19.83 --15.35 110,000 17,000 21,000 2,200 9,700 <100\*\*\* a,l 12/5/2000 20.30 --14.88 130,000 19,000 28,000 2,500 11,000 <200 a 32,000 <200 3/6/2001 19.57 15.61 3,400 3,400 2,500 a 6/8/2001 20.59 --14.59 72,000 9,400 9,200 1,300 5,800 <200 a <950 8/27/2001 21.79 --13.39 110,000 17,000 28,000 2.600 11,000 a --10/25/2001 22.05 13.13 110.000 15,000 18,000 2.000 8.700 <350 a 3/1/2002 21.80 --13.38 3,100 370 180 62 330 <5.0\* a 6/10/2002 22.83 --12.35 7,800 2,000 1,100 76 570 <100\* a 2,900 35.21 9/3/2002 22.03 13.18 21,000 2,400 320 1,400 < 500 a 22.70 --48 <5.0 12/22/2002 12.51 630 56 19 82 a --27 32 19 150 <25 1/23/2003 20.49 14.72 1,100 a 6/12/2003 21.03 \_\_ 14.18 10,000 2,100 1,600 150 660 <250 7/23/2003 21.40 --13.81 28,000 4,800 4,800 380 1,700 < 500 а < 0.5 12/22/2003 19.33 --15.88 < 50 < 0.5 < 0.5 < 0.5 < 5.0 --3/10/2004 19.33 --15.88 3,100 460 290 38 240 <50 a 19.90 1,200 220 830 <400 6/16/2004 15.31 9,100 1,600 a 9/27/2004 22.08 --13.13 14,000 2,800 490 340 1,600 <350 a 12/22/2004 21.74 \_\_ 13.47 1,100 300 28 22 71 <15 a --9.1 3/3/2005 19.60 15.61 340 12 4.4 28 <10 a \_\_ <10 6/9/2005 18.65 16.56 240 22 2.7 6.4 27 a 7,800 9/9/2005 19.27 --15.94 1,100 170 380 690 <160 a 2.8 10 <5.0 12/20/2005 19.70 --15.51 150 10 1.9 a 3/26/2006 16.70 2,200 93 19 130 <50 18.51 --66 a 6/23/2006 18.47 16.74 8,800 1,600 110 500 480 <500 a,m

29,000

16.24

4,800

280

1,000

940

<500

a

9/7/2006

18.97

TABLE 2

## GROUNDWATER ELEVATION AND ANALYTICAL DATA ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

| Well ID<br>Sample ID<br>TOC (ft amsl) | Date       | Depth to Groundwater<br>(ft below TOC) | SPH<br>Thickness<br>(feet) | TOC<br>Groundwater<br>Elevation<br>(ft amsl) | TPHg<br><b>←</b> | Benzene          | Toluene<br>(μg/L) | Ethylbenzene | Xylenes | MTBE         | Notes      |
|---------------------------------------|------------|--|----------------------------|--|------------------|------------------|-------------------|--------------|---------|--------------|------------|
| MW-2 cont.                            | 12/29/2006 | 19.76                                  |                            | 15.45  | 4,500            | 720              | 54                | 250          | 480     | 75*1/<0.5*** | a          |
| WW 2 cont.                            | 3/21/2007  | 19.59                                  |                            | 15.62  | 34,000           | 9,100            | 500               | 890          | 2,500   | <1,100*      | a          |
|                                       | 6/7/2007   | 19.74                                  | Sheen <sup>Lab</sup>       | 15.47  | 46,000           | 7,100            | 410               | 870          | 2,400   | <800*        | a,b        |
|                                       | 9/28/2007  | 20.23                                  |                            | 14.98  | 44,000           | 9,400            | 630               | 1,400        | 3,600   | <0.5***      |            |
|                                       | 12/9/2007  | 20.68                                  |                            | 14.53  | 37,000           | 8,400            | 550               | 1,400        | 4,500   | <17***       | a<br>a,l   |
|                                       | 3/3/2008   | 20.11                                  |                            | 15.10  | 40,000           | 7,700            | 490               | 1,400        | 4,400   | <17***       | a,ı<br>a,l |
|                                       | 6/4/2008   | 20.40                                  |                            | 14.81  | 56,000           | 7,400            | 600               | 1,500        | 4,100   | <25***       |            |
|                                       | 9/9/2008   | 20.85                                  |                            | 14.36  | 65,000           | 7,400            | 510               | 1,700        | 4,700   | <25***       | a,j<br>a,l |
|                                       | 12/5/2008  | 20.03                                  |                            | 14.50  |                  | I Inaccessible — | 310               | 1,700        | 4,700   | <del></del>  | α,1        |
|                                       | 3/2/2009   | <u></u>                                |                            |  |                  | Inaccessible —   |                   |              |         | <del>`</del> |            |
| MW-3                                  | 8/1/1994   |  |                            |  | <50              | <0.5             | <0.5              | <0.5         | <2.0    |              |            |
| 33.97                                 | 12/21/1994 | 18.82                                  |                            | 15.15  | <50<br><50       | <0.5             | <0.5              | <0.5         | <0.5    |              |            |
| 33.37                                 |            | 17.86                                  |                            |  | <50<br><50       |                  |                   |              |         |              |            |
|                                       | 3/13/1995  |  |                            | 16.11  |                  | <0.5             | <0.5              | <0.5         | <0.5    |              | e          |
|                                       | 7/7/1995   | 18.25                                  |                            | 15.72<br>15.97                               |                  |                  |                   |              |         |              | f,g        |
|                                       | 9/28/1995  | 18.00                                  |                            |  |                  |                  |                   |              |         |              | h<br>      |
|                                       | 12/20/1995 | 18.74                                  |                            | 15.23<br>15.72                               |                  |                  |                   |              |         |              |            |
|                                       | 3/26/1996  | 18.25                                  |                            |  |                  |                  |                   |              |         |              |            |
|                                       | 6/20/1996  | 18.35                                  |                            | 15.62  |                  |                  |                   |              |         |              |            |
|                                       | 9/26/1996  | 19.12                                  |                            | 14.85  |                  |                  |                   |              |         |              |            |
|                                       | 10/28/1996 | 19.11                                  |                            | 14.86  |                  |                  |                   |              |         |              |            |
|                                       | 12/12/1996 | 18.61                                  |                            | 15.36  |                  |                  |                   |              |         |              |            |
|                                       | 3/31/1997  | 18.35                                  |                            | 15.62  |                  |                  |                   |              |         |              |            |
|                                       | 6/27/1997  | 18.81                                  |                            | 15.16  |                  |                  |                   |              |         |              |            |
|                                       | 9/9/1997   | 19.18                                  |                            | 14.79  |                  |                  |                   |              |         |              |            |
|                                       | 12/18/1997 | 18.64                                  |                            | 15.33  |                  |                  |                   |              |         |              |            |
|                                       | 3/12/1998  | 17.56                                  |                            | 16.41  |                  |                  |                   |              |         |              |            |
|                                       | 6/22/1998  | 18.64                                  |                            | 15.33  |                  |                  |                   |              |         |              |            |
|                                       | 9/18/1998  | 18.33                                  |                            | 15.64  |                  |                  |                   |              |         |              |            |
|                                       | 12/23/1998 | 18.60                                  |                            | 15.37  |                  |                  |                   |              |         |              |            |
|                                       | 3/29/1999  | 17.85                                  |                            | 16.12  |                  |                  |                   |              |         |              |            |
|                                       | 6/23/1999  | 18.67                                  |                            | 15.30  |                  |                  |                   |              |         |              |            |
|                                       | 9/24/1999  | 18.64                                  |                            | 15.33  |                  |                  |                   |              |         |              |            |
|                                       | 12/23/1999 | 19.32                                  |                            | 14.65  |                  |                  |                   |              |         |              |            |
|                                       | 3/21/2000  | 17.89                                  |                            | 16.08  |                  |                  |                   |              |         |              |            |
|                                       | 7/3/2000   | 18.40                                  |                            | 15.57  |                  |                  |                   |              |         |              |            |
|                                       | 9/7/2000   | 18.75                                  |                            | 15.22  |                  |                  |                   |              |         |              |            |
| 34.01                                 | 12/5/2000  | 19.03                                  |                            | 14.94  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 3/6/2001   | 18.12                                  |                            | 15.85  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 6/8/2001   | 20.02                                  |                            | 13.95  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 8/27/2001  | 21.09                                  |                            | 12.88  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 10/25/2001 | 21.29                                  |                            | 12.68  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 3/1/2002   | 21.14                                  |                            | 12.83  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0*        |            |
|                                       | 6/10/2002  | 21.99                                  |                            | 11.98  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0*        |            |
|                                       | 9/3/2002   | 21.17                                  |                            | 12.84  |                  |                  |                   |              |         |              |            |
|                                       | 12/22/2002 | 21.94                                  |                            | 12.07  |                  |                  |                   |              |         |              |            |
|                                       | 1/23/2003  | 20.08                                  |                            | 13.93  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 6/12/2003  | 20.95                                  |                            | 13.06  |                  |                  |                   |              |         |              |            |
|                                       | 7/23/2003  | 21.28                                  |                            | 12.73  |                  |                  |                   |              |         | -            |            |
|                                       | 12/22/2003 | 19.05                                  |                            | 14.96  |                  |                  |                   |              |         |              |            |
|                                       | 3/10/2004  | 18.22                                  |                            | 15.79  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 6/16/2004  | 18.82                                  |                            | 15.19  |                  |                  |                   |              |         |              |            |
|                                       | 9/27/2004  | 21.03                                  |                            | 12.98  |                  |                  |                   |              |         |              |            |
|                                       | 12/22/2004 | 20.69                                  |                            | 13.32  |                  |                  |                   |              |         |              |            |
|                                       | 3/3/2005   | 17.94                                  |                            | 16.07  | <50              | <0.5             | <0.5              | <0.5         | <0.5    | <5.0         |            |
|                                       | 6/9/2005   | 18.00                                  |                            | 16.01  |                  |                  |                   |              |         |              |            |
|                                       | 9/9/2005   | 18.43                                  |                            | 15.58  |                  |                  |                   |              |         |              |            |
|                                       |            |  |                            |  |                  |                  |                   |              |         |              |            |

#### TABLE 2

# GROUNDWATER ELEVATION AND ANALYTICAL DATA ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

TOC Well ID SPH Groundwater Sample ID Depth to Groundwater Thickness Elevation TPHg Benzene Toluene Ethylbenzene MTBE Date Xylenes Notes TOC (ft amsl) (ft below TOC) (feet) (ft amsl) (μg/L) MW-3 cont. 12/20/2005 18 18 --15.83 --17.42 16.59 <50 < 0.5 < 0.5 < 0.5 < 0.5 <5.0 3/26/2006 --6/23/2006 17.77 16.24 \_\_ \_\_ 9/7/2006 18.20 \_\_ 15.81 --\_\_ \_\_ --12/29/2006 18.49 15.52 3/21/2007 18.44 --15.57 <50 <0.5 < 0.5 < 0.5 < 0.5 <5.0\* 6/7/2007 18.68 --15.33 9/28/2007 1919 --14.82 \_\_ ----------\_\_ 12/9/2007 1931 14 70 --<50 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5\*\*\* 3/3/2008 18.68 15.33 6/4/2008 19.11 --14.90 9/9/2008 19.65 14.36 12/5/2008 19.96 --14.05 <0.5\*\*\* 3/2/2009 19.19 \_\_ 14.82 < 50 < 0.5 < 0.5 < 0.5 < 0.5 MW-4 10/28/1996 1932 14 43 10.000 420 360 <200% --3.900 400 n 33.75 12/12/1996 19.42 14.33 11,000 4,200 410 420 260 32\* --3/31/1997 18.67 15.08 ND ND ND ND ND ND\* --6/27/1997 19.08 --14.67 160 49 1.2 ND 5.9 ND\* --9/9/1997 19.33 7,400 5,000 230 470 33\* 14.42 410 ND\*\*\* 12/18/1997 19.17 --14.58 710 170 8.0 ND 39 ND\*\*\* 3/12/1998 17.68 --16.07 1,300 410 21 ND 57 --ND 17 63 ND ND ND ND \_\_ 6/22/1998 16 12 ----ND 9/18/1998 18.58 15 17 ND 42 16 48 \_\_ ----50 12/23/1998 19.01 14.74 1.900 1.000 76 120 3/29/1999 18.35 --15.40 ND ND ND ND ND ND ND ND ND 6/23/1999 17.58 16.17 ND 9/24/1999 14.70 9,150 3,270 131 537 19.05 34 12/23/1999 19.41 --14.34 12,200 5,360 275 424 592 3/21/2000 18.42 --15.33 45,000 16,000 1,100 1,400 1,900 1400\* / <35\*\*\* a,l 18.82 --33,000 10.000 840 <200% 7/3/2000 14 93 720 1.800 а <50\*\*\* 9/7/2000 19.21 --14.54 26,000 8,800 800 740 1,500 a,c,l 12/5/2000 19.60 --41,000 11,000 840 930 1,900 <200 14.15 a 3/6/2001 18.24 --15.51 1,100 400 5.7 < 0.5 20 <5.0 a 19 <0.5 <0.5 <5.0 6/8/2001 20.91 12.84 a 8/27/2001 21.63 --12.12 49,000 17,000 1700 1,700 3,200 <260 a 10/25/2001 21.70 --12.05 57,000 16,000 1,500 1,600 2,600 < 300 a \_\_ 3/1/2002 21.53 12.22 400 140 2.3 < 0.5 12 <5.0\* a --<50 < 0.5 <5.0\* 6/10/2002 22.23 11.52 2.5 < 0.5 < 0.5 --9/3/2002 21.85 --11.90 31,000 9,700 300 650 1,100 <1,000 a 12/22/2002 22.39 --11.36 35,000 13,000 310 1,100 1,800 <1,500 a 51,000 18,000 430 <5.0\*\*\* 1/23/2003 20.61 13.14 1,500 2,200 a,l 6/12/2003 21.20 --12.55 80 12 <0.5 < 0.5 1.0 <10 a 7/23/2003 21.51 \_\_ 12.24 20,000 7,600 100 65 660 <250 a 12/22/2003 19.60 --14.15 26,000 9,500 200 380 1,100 <150 а 3/10/2004 18.81 14.94 14,000 150 --4.800 320 530 <400 a 6/16/2004 19.32 --14.43 2,800 1,100 24 17 100 < 50 a 12.30 45,000 16,000 260 1,700 2,000 <25\*\*\* 9/27/2004 21.45 a 12/22/2004 21.15 --12.60 29,000 10,000 160 890 1,200 <5.0\*\*\* a,j 3/3/2005 18.60 \_\_ 15.15 18,000 6,400 98 500 610 <600 a --6/9/2005 18.11 15.64 20,000 6,100 110 460 580 < 500 a --9/9/2005 18.65 15.10 17,000 6,400 100 470 730 <250 a --800 12/20/2005 19.01 14.74 26,000 8,500 160 640 <120 a 1.900 22 49 85 <50 3/26/2006 17.84 --15.91 700 a 6/23/2006 17.96 --15.79 12,000 130 370 510 260 3,400 a 220 9/7/2006 18.29 15.46 8,600 1,800 100 170 <210 a,i

14.82

4,200

1,100

120

150

280

<150\*/<0.5\*\*\*

a

12/29/2006

18.93

TABLE 2

## GROUNDWATER ELEVATION AND ANALYTICAL DATA ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

| Well ID<br>Sample ID | Date       | Depth to Groundwater | SPH<br>Thickness | TOC<br>Groundwater<br>Elevation | TPHg            | Benzene | Toluene   | Ethylbenzene | Xylenes | MTBE              | Notes  |
|----------------------|------------|----------------------|------------------|---------------------------------|-----------------|---------|-----------|--------------|---------|-------------------|--------|
| TOC (ft amsl)        | Dute       | (ft below TOC)       | (feet)           | (ft amsl)                       | <i>11 118</i> ← | Benzene | ——— (μg/L |              | Aytenes |                   | ivotes |
|                      |            | (fi below 10C)       | (Jeer)           | () i umsi)                      |                 |         | (µg/L     | -            |         | $\longrightarrow$ |        |
| MW-4 cont.           | 3/21/2007  | 18.76                |                  | 14.99                           | 550             | 30      | 2.0       | 4.5          | 5.1     | <30*              | a      |
|                      | 6/7/2007   | 18.92                |                  | 14.83                           | 85              | 4.4     | <0.5      | 0.77         | 0.82    | <5.0*             | a      |
|                      | 9/28/2007  | 19.41                |                  | 14.34                           | 140             | 7.0     | <0.5      | 1.2          | <0.5    | <0.5***           | a      |
|                      | 12/9/2007  | 19.86                |                  | 13.89                           | 120             | 4.5     | <0.5      | 0.62         | <0.5    | <0.5              | a      |
|                      | 3/3/2008   | 19.22                |                  | 14.53                           | 63              | 0.78    | <0.5      | <0.5         | <0.5    | <0.5***           | i      |
|                      | 6/4/2008   | 19.58                |                  | 14.17                           | 86              | 2.2     | <0.5      | <0.5         | 0.58    | <0.5***           | a      |
|                      | 9/9/2008   | 20.01                |                  | 13.74                           | 460             | 9.4     | 0.95      | 3.1          | 19      | <0.5***           | a      |
|                      | 12/5/2008  | 20.29                |                  | 13.46                           | 290             | 4.3     | 1.4       | 3.0          | 14      | <0.5***           | a      |
|                      | 3/2/2009   | 19.86                |                  | 13.89                           | 520             | 6.0     | 2.2       | 6.5          | 9.2     | <0.5***           | a      |
|                      |            |                      |                  |                                 |                 |         |           |              |         |                   |        |
| MW-5                 | 10/28/1996 | 19.88                |                  | 14.75                           | 90              | 4.0     | 0.6       | < 0.50       | < 0.50  | 16*               |        |
| 34.63                | 12/12/1996 | 20.09                |                  | 14.54                           | 230             | 5.6     | 0.9       | ND           | 0.9     | 3.6*              | n      |
|                      | 3/31/1997  | 19.24                |                  | 15.39                           | 90              | 3.1     | ND        | ND           | ND      | ND*               |        |
|                      | 6/27/1997  | 19.16                |                  | 15.47                           | ND              | ND      | ND        | ND           | ND      | ND*               |        |
|                      | 9/9/1997   | 19.93                |                  | 14.70                           | ND              | ND      | ND        | ND           | ND      | ND*               |        |
|                      | 12/18/1997 | 19.77                |                  | 14.86                           | ND              | ND      | ND        | ND           | ND      | ND***             |        |
|                      | 3/12/1998  | 19.77                |                  | 14.86                           | 79              | 2.3     | ND        | 0.8          | ND      | ND*               |        |
|                      | 6/22/1998  | 18.08                |                  | 16.55                           | ND              | ND      | ND        | ND           | ND      |                   |        |
|                      | 9/18/1998  | 19.12                |                  | 15.51                           | ND              | ND      | ND        | ND           | ND      |                   |        |
|                      | 12/23/1998 | 19.60                |                  | 15.03                           | ND              | 0.8     | 0.9       | ND           | ND      |                   |        |
|                      | 3/29/1999  | 18.88                |                  | 15.75                           | ND              | ND      | ND        | ND           | ND      |                   |        |
|                      | 6/23/1999  | 18.05                |                  | 16.58                           | ND              | ND      | ND        | ND           | ND      |                   |        |
|                      | 9/24/1999  | 19.61                |                  | 15.02                           | ND              | ND      | ND        | ND           | ND      |                   |        |
|                      | 12/23/1999 | 20.01                |                  | 14.62                           | ND              | ND      | ND        | ND           | ND      |                   |        |
|                      | 3/21/2000  | 19.05                |                  | 15.58                           | 140             | <0.5    | < 0.5     | <0.5         | <0.5    | <5.0              |        |
|                      | 7/3/2000   | 19.40                |                  | 15.23                           | 85              | 8.1     | 3.1       | 1.6          | 7.8     | <5.0*             | k      |
|                      | 9/7/2000   | 19.62                |                  | 15.01                           | <50             | <0.5    | < 0.5     | <0.5         | <0.5    | <5.0*             | a      |
|                      | 12/5/2000  | 20.25                |                  | 14.38                           | <50             | < 0.5   | < 0.5     | < 0.5        | <0.5    | <5.0              |        |
|                      | 3/6/2001   | 19.07                |                  | 15.56                           | 91              | 5.5     | < 0.5     | < 0.5        | <0.5    | <5.0              |        |
|                      | 6/8/2001   | 20.77                |                  | 13.86                           | 290             | 22.0    | 0.8       | <0.5         | < 0.5   | <5.0              |        |
|                      | 8/27/2001  | 21.33                |                  | 13.30                           | 660             | 24.0    | 2.2       | 1.3          | 4.0     | <25               | a      |
|                      | 10/25/2001 | 21.62                |                  | 13.01                           | 55              | 3.5     | < 0.5     | < 0.5        | < 0.5   | <5.0              | a      |
|                      | 3/1/2002   | 21.49                |                  | 13.14                           | 200             | 1.9     | 0.69      | < 0.5        | < 0.5   | <5.0*             | a      |
|                      | 6/10/2002  | 22.15                |                  | 12.48                           | <50             | < 0.5   | < 0.5     | <0.5         | < 0.5   | <5.0*             | a      |
|                      | 9/3/2002   | 21.50                |                  | 13.13                           | 60              | 1.9     | < 0.5     | <0.5         | 0.77    | <5.0              |        |
|                      | 12/22/2002 | 22.19                |                  | 12.44                           | 82              | 0.57    | <0.5      | 0.68         | <0.5    | <5.0              | a      |
|                      | 1/23/2003  | 20.27                |                  | 14.36                           | <50             | 2.1     | < 0.5     | <0.5         | <0.5    | <5.0              | a      |
|                      | 6/12/2003  | 21.10                |                  | 13.53                           | <50             | 0.88    | < 0.5     | <0.5         | <0.5    | <5.0              |        |
|                      | 7/23/2003  | 21.47                |                  | 13.16                           | <50             | 4.0     | <0.5      | <0.5         | <0.5    | <5.0              |        |
|                      | 12/22/2003 | 19.57                |                  | 15.06                           | <50             | <0.5    | <0.5      | <0.5         | <0.5    | <5.0              |        |
|                      | 3/10/2004  | 19.61                |                  | 15.02                           | 990             | 200     | 2.9       | 4.0          | 20      | <70               |        |
|                      | 6/16/2004  | 20.15                |                  | 14.48                           | 250             | 42      | <0.5      | 0.88         | <0.5    | <35               | a      |
|                      | 9/27/2004  | 22.14                |                  | 12.49                           | 1,600           | 140     | 4.8       | 45           | 18      | <110              | a      |
|                      | 12/22/2004 | 21.81                |                  | 12.82                           | <50             | 5.3     | <0.5      | <0.5         | 0.66    | <5.0              |        |
|                      | 3/3/2005   | 19.35                |                  | 15.28                           | 2,000           | 330     | 4.4       | 63           | 39      | <150              | a      |
|                      | 6/9/2005   | 18.73                |                  | 15.90                           | 250             | 42      | 1.4       | 14           | 3.2     | <5.0              | a      |
|                      | 9/9/2005   | 19.30                |                  | 15.33                           | 2,000           | 390     | 5.0       | 71           | 38      | <400              | a      |
|                      | 12/20/2005 | 19.65                |                  | 14.98                           | 4,300           | 760     | 18        | 170          | 150     | <35               | a      |
|                      | 3/26/2006  | 18.58                |                  | 16.05                           | 1,600           | 460     | 3.3       | 35           | 32      | <50               | a      |
|                      | 6/23/2006  | 18.57                |                  | 16.06                           | 1,900           | 500     | 3.9       | 81           | 56      | <17               | a      |
|                      | 9/7/2006   | 18.98                |                  | 15.65                           | 8,800           | 1,900   | 12        | 350          | 220     | <260              | a,i    |
|                      | 12/29/2006 | 19.70                |                  | 14.93                           | 15,000          | 3,400   | 69        | 610          | 700     | <450*/<0.5***     | a      |
|                      | 3/21/2007  | 19.57                |                  | 15.06                           | 9,900           | 2,300   | 24        | 360          | 410     | <240*             | a      |
|                      | 6/7/2007   | 19.70                |                  | 14.93                           | 14,000          | 3,800   | 40        | 790          | 720     | <550*             | a      |
|                      | 9/28/2007  | 20.16                |                  | 14.47                           | 26,000          | 7,200   | 84        | 1,100        | 1,600   | <25***            | a,l    |
|                      | 12/9/2007  | 20.56                |                  | 14.07                           | 25,000          | 7,000   | 59        | 1,100        | 2,000   | <17               | a,l    |
|                      | 3/3/2008   | 19.97                |                  | 14.66                           | 30,000          | 6,200   | 31        | 900          | 1,400   | <10***            | a,l    |
|                      |            |                      |                  |                                 |                 |         |           |              |         |                   |        |

### TABLE 2

## GROUNDWATER ELEVATION AND ANALYTICAL DATA ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

| Well ID<br>Sample ID | Date                    | Depth to Groundwater | SPH<br>Thickness | TOC<br>Groundwater<br>Elevation | TPHg    | Benzene | Toluene  | Ethylbenzene | Xylenes  | МТВЕ          | Notes |
|----------------------|-------------------------|----------------------|------------------|---------------------------------|---------|---------|----------|--------------|----------|---------------|-------|
| TOC (ft amsl)        |                         | (ft below TOC)       | (feet)           | (ft amsl)                       | ←       |         | (μg/L)   | -            |          | $\rightarrow$ |       |
|                      |                         |                      |                  |                                 |         |         |          |              |          |               |       |
| MW-5 cont.           | 6/4/2008                | 20.32                |                  | 14.31                           | 7,500   | 1,600   | 4.6      | 25           | 91       | <10***        | a,j   |
|                      | 9/9/2008                | 20.75                |                  | 13.88                           | 54,000  | 8,900   | 76       | 1,300        | 1,700    | <25***        | a,l   |
|                      | 12/5/2008               | 21.08                |                  | 13.55                           | 33,000  | 9,200   | 43       | 1,500        | 1,800    | <5.0***       | a,l   |
|                      | 3/2/2009                | 20.74                |                  | 13.89                           | 34,000  | 9,700   | 41       | 1,100        | 1,300    | <5.0***       | a,1   |
| MW-6                 | 10/28/1996              | 20.02                |                  | 15.87                           | <50     | <0.50   | <0.50    | <0.50        | <0.50    | <2.0*         |       |
| 35.89                | 12/12/1996              | 20.18                |                  | 15.71                           | ND      | ND      | ND       | ND           | ND       | ND*           | n     |
|                      | 3/31/1997               | 19.81                |                  | 16.08                           |         |         |          |              |          |               |       |
|                      | 6/27/1997               | 19.76                |                  | 16.13                           |         |         |          |              |          |               |       |
|                      | 9/9/1997                | 20.06                |                  | 15.83                           | ND      | ND      | ND       | ND           | ND       | ND*           |       |
|                      | 12/18/1997              | 19.90                |                  | 15.99                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 3/12/1998               | 18.00                |                  | 17.89                           | ND      | ND      | ND       | ND           | ND       | ND*           |       |
|                      | 6/22/1998               | 18.43                |                  | 17.46                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 9/18/1998               | 19.10                |                  | 16.79                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 12/23/1998              | 19.61                |                  | 16.28                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 3/29/1999               | 18.92                |                  | 16.97                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 6/23/1999               | 18.41                |                  | 17.48                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 9/24/1999               | 19.61                |                  | 16.28                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 12/23/1999              | 20.30                |                  | 15.59                           | ND      | ND      | ND       | ND           | ND       |               |       |
|                      | 3/21/2000               | 18.97                |                  | 16.92                           | <50     | <0.5    | <0.5     | < 0.5        | < 0.5    | <5.0          |       |
|                      | 7/3/2000                | 19.46                |                  | 16.43                           | 59      | 5.1     | 2.3      | 1.1          | 5.3      | <5.0*         |       |
|                      | 9/7/2000                | 19.95                |                  | 15.94                           | <50     | <0.5    | <0.5     | < 0.5        | < 0.5    | <5.0*         | a     |
|                      | 12/5/2000               | 20.50                |                  | 15.39                           | <50     | <0.5    | < 0.5    | < 0.5        | <0.5     | < 5.0         |       |
|                      | 3/6/2001                | 19.54                |                  | 16.35                           | <50     | <0.5    | < 0.5    | < 0.5        | <0.5     | < 5.0         |       |
|                      | 6/8/2001                | 20.92                |                  | 14.97                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.1          |       |
|                      | 8/27/2001               | 21.37                |                  | 14.52                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0          |       |
|                      | 10/25/2001              | 21.59                |                  | 14.30                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0          |       |
|                      | 3/1/2002                | 21.33                |                  | 14.56                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0*         |       |
|                      | 6/10/2002               | 21.97                |                  | 13.92                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0*         |       |
|                      | 9/3/2002                | 21.55                |                  | 14.34                           |         |         |          |              |          |               |       |
|                      | 12/22/2002              | 22.25                |                  | 13.64                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0          |       |
|                      | 1/23/2003               | 20.47                |                  | 15.42                           | <50     | < 0.5   | <0.5     | <0.5         | <0.5     | <5.0          |       |
|                      | 6/12/2003               | 21.09                |                  | 14.80                           |         |         |          |              |          |               |       |
|                      | 7/23/2003               | 21.42                |                  | 14.47                           |         |         |          |              |          |               |       |
|                      | 12/22/2003              | 19.49                |                  | 16.40                           |         |         |          |              |          |               |       |
|                      | 3/10/2004               | 20.20                |                  | 15.69                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0          |       |
|                      | 6/16/2004               | 20.73                |                  | 15.16                           |         |         |          |              |          |               |       |
|                      | 9/27/2004<br>12/22/2004 | 22.88<br>22.53       |                  | 13.01<br>13.36                  |         |         |          |              |          |               |       |
|                      |                         |                      |                  |                                 | <br><50 |         |          |              | <br>-0.F |               |       |
|                      | 3/3/2005<br>6/9/2005    | 19.87<br>18.95       |                  | 16.02<br>16.94                  | <50<br> | <0.5    | <0.5<br> | <0.5         | <0.5     | <5.0          |       |
|                      | 9/9/2005                | 19.45                |                  | 16.44                           |         |         |          |              |          |               |       |
|                      | 12/20/2005              | 19.43                |                  | 15.99                           |         |         |          |              |          |               |       |
|                      | 3/26/2006               | 18.85                |                  | 17.04                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0          |       |
|                      | 6/23/2006               | 18.57                |                  | 17.32                           |         |         |          |              |          |               |       |
|                      | 9/7/2006                | 19.13                |                  | 16.76                           |         |         |          |              |          |               |       |
|                      | 12/29/2006              | 19.96                |                  | 15.93                           |         |         |          |              |          |               |       |
|                      | 3/21/2007               | 19.87                |                  | 16.02                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <5.0*         | m     |
|                      | 6/7/2007                | 20.05                |                  | 15.84                           |         |         |          |              |          |               |       |
|                      | 9/28/2007               | 20.51                |                  | 15.38                           |         |         |          |              |          |               |       |
|                      | 12/9/2007               | 20.90                |                  | 14.99                           |         |         |          |              |          |               |       |
|                      | 3/3/2008                | 20.47                |                  | 15.42                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <0.5***       |       |
|                      | 6/4/2008                | 20.70                |                  | 15.19                           |         |         |          |              |          |               |       |
|                      | 9/9/2008                | 21.09                |                  | 14.80                           |         |         |          |              |          |               |       |
|                      | 12/5/2008               | 21.50                |                  | 14.39                           |         |         |          |              |          |               |       |
|                      | 3/2/2009                | 21.30                |                  | 14.59                           | <50     | <0.5    | <0.5     | <0.5         | <0.5     | <0.5***       |       |
|                      |                         |                      |                  |                                 |         |         |          |              |          |               |       |

#### TABLE 2

# GROUNDWATER ELEVATION AND ANALYTICAL DATA ALLRIGHT PARKING 1432 HARRISON STREET, OAKLAND, CALIFORNIA

| Well ID<br>Sample ID | Date             | Depth to Groundwater | SPH<br>Thickness | TOC<br>Groundwater<br>Elevation | ТРНg         | Benzene     | Toluene     | Ethylbenzene | Xylenes | МТВЕ        | Notes |
|----------------------|------------------|----------------------|------------------|---------------------------------|--------------|-------------|-------------|--------------|---------|-------------|-------|
| TOC (ft amsl)        |                  | (ft below TOC)       | (feet)           | (ft amsl)                       | $\leftarrow$ |             | (μg/L       | .)           |         | <del></del> |       |
| T ! . D1 1           | 2 /21 /2000      |                      |                  |                                 | <b>4</b> E0  | 10.5        | 40 F        | 40 F         | 40 F    | 4F.0        |       |
| Trip Blank           | 3/21/2000        |                      |                  |                                 | <50          | <0.5        | <0.5        | <0.5         | <0.5    | <5.0        |       |
|                      | 9/7/2000         |                      |                  |                                 | <50          | <0.5        | <0.5        | <0.5         | <0.5    | <5.0        |       |
| Grab Groundwate      | r Sample Results | <b>:</b>             |                  |                                 |              |             |             |              |         |             |       |
| SB-A                 | 7/6/1995         | ~20                  |                  |                                 | 330          | 16          | 3.6         | 1.3          | 4.9     |             | i,j   |
| SB-B                 | 7/7/1995         | ~20                  |                  |                                 | 450          | 55          | 3.1         | 5.1          | 5.0     |             | a     |
| SB-C                 | 7/6/1995         | ~20                  |                  | -                               | 44,000       | 6,600       | 5,900       | 980          | 4,400   |             | a     |
| SB-D                 | 7/6/1995         | ~20                  |                  |                                 | 70,000       | 7,400       | 10,000      | 1,600        | 7,200   |             | a     |
| SB-E                 | 7/6/1995         | ~20                  |                  |                                 | 25,000       | 1,000       | 3,000       | 610          | 2,700   |             | a     |
| SB-G                 | 7/7/1995         | ~20                  |                  |                                 | 84,000       | 9,400       | 16,000      | 2,200        | 9,900   |             | a,b   |
| SB-I                 | 7/7/1995         | ~20                  |                  |                                 | 24,000       | 6,100       | 1,400       | 680          | 1,600   |             | a     |
| SB-J                 | 7/7/1995         | ~20                  |                  |                                 | 960          | 110         | 66          | 8.7          | 71      |             | a     |
| SB-K                 | 7/7/1995         | ~20                  |                  |                                 | 72,000       | 9,600       | 9,600       | 1,800        | 7,000   |             | a     |
| CB-1-W               | 7/22/1999        | <del></del>          |                  |                                 | 110,000      | 1,300       | 16,000      | 2,700        | 12,000  | <3000*      | a,b,c |
| CB-2-W               | 7/22/1999        |                      |                  | -                               | 4,700        | 21          | 13          | 170          | 76      | <50*        | a,c   |
| GW-1                 | 7/30/1994        |                      |                  |                                 | <50          | <0.5        | <0.5        | <0.5         | <2.0    |             |       |
| GW-2 ^               | 7/30/1994        |                      |                  |                                 | <50<br><50   | <0.5        | <0.5        | <0.5         | <2.0    |             |       |
| GW-3 ^               | 7/29/1994        |                      |                  |                                 | <50          | <0.5        | <0.5        | <0.5         | <2.0    |             |       |
| GW-3                 | 1 / 27 / 1774    |                      |                  |                                 | <b>\</b> 50  | <b>~0.5</b> | <b>~0.5</b> | <b>~0.</b> 0 | ~2.0    |             |       |

#### Abbreviations, Methods, & Notes

TOC = Top of casing elevation

ft amsl = feet above mean sea level

 $SPH = Separate-phase\ hydrocarbons$ 

 $TPHg = Total\ petroleum\ hydrocarbons\ as\ gasoline\ by\ modified\ EPA\ Method\ SW8015C$ 

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B

MTBE = Methyl tert-butyl ether

- \* = MTBE by EPA Method SW8021B
- \*\* = MTBE by EPA Method SW8240
- \*\*\* = MTBE by EPA Method SW8260
- 1 = Not confirmed with EPA Method 8260B.
- $\mu$ g/L = micrograms per liter, equivalent to parts per billion
- -- = Not sampled, not analyzed, not applicable, or no SPH was measured or observed
- <n = Not detected in sample above n mg/L
- ND = Not detected above laboratory detection limit
- x = Groundwater elevation adjusted for SPH by the relation:

Groundwater Elevation = TOC Elevation - Depth to Groundwater + (0.7 x SPH thickness)

- # = The wellhead elevation was raised by 0.41 feet when well MW-1 was connected to the SVE system on October 31, 2003.
- ## = The wellhead elevation was lowered by 0.41 feet when well MW-1 was disconnected from the SVE system on April 30. 2005.
- + = Well de-watered during purging, no measurable water to sample.

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

Field = Observed in the field

Lab = Observed in analytical laboratory

^ = Samples associated with 1439 Alice St. Property

- a = Unmodified or weakly modified gasoline is significant.
- b = Lighter than water immiscible sheen is present.
- c = Liquid sample that contains greater than ~2 vol. % sediment.
- d = MTBE result confirmed by secondary column or GC/MS analysis.
- e = Sample analyzed for purgeable hydrocarbons by EPA Method SW8010, no purgeable hydrocarbons were detected.
- f = Sample analyzed for VOCs by EPA Method SW8240, no non-BTEX compounds were detected.
- g = Sample analyzed for Total Petroleum Hydrocarbons as motor oil (TPHmo) by Modified EPA Method SW8015, no TPHmo was detected.
- h = Analytic sampling discontinued. Approved by Alameda County Department of Environmental Health.
- i = Lighter gasoline range compounds are significant.
- $j = Gasoline \ range \ compounds \ having \ broad \ chromatographic \ peaks \ are \ significant.$
- ${\bf k}$  = No recognizable pattern.
- l = Sample diluted due to high organic content.
- m = Liquid sample that contains greater than ~1 vol. % sediment.
- n = TOC well elevation was increased by 3 ft based on a benchmark discrepancy discovered during a well survey performed on September 11, 2002.

# APPENDIX A

STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

# Conestoga-Rovers & Associates

# STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

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

# **Groundwater Elevation Monitoring**

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

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

# **Groundwater Purging and Sampling**

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

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

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

# Conestoga-Rovers & Associates

used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox<sup>TM</sup> or Alconox<sup>TM</sup> 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.

H:\- MGT IR Group Info\SOPs\Groundwater Monitoring and Sampling SOP 07-2005.doc

# APPENDIX B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

# McCampbell Analytical, Inc. "When Ouality Counts"

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

| Conestoga-Rovers & Associates | Client Project ID: #540188; Borsuk | Date Sampled: 03/02/09   |
|-------------------------------|------------------------------------|--------------------------|
| 5900 Hollis St, Suite A       |                                    | Date Received: 03/02/09  |
| Emeryville, CA 94608          | Client Contact: Mark Jonas         | Date Reported: 03/09/09  |
| Zanery vine, err 7 1000       | Client P.O.:                       | Date Completed: 03/05/09 |

WorkOrder: 0903008

March 09, 2009

Dear Mark:

#### Enclosed within are:

- 4 analyzed samples from your project: #540188; Borsuk, 1) The results of the
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

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

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.



# 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

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| Report To: May   | & Jonas                          | 5                                  | В     | ill To       | : Gar           | res   | he   | ar    | Rove     | ers   | E                                     | 755 | iacid  | ite                    | 2                          |                              |                                      |                                   | A                                 | nal                             | ysis  | Re                             | ques                                  | st                            |                                |                               |   |   |                                    | Ot      | her  | Comments   |
| Report To: May Company: Cond 590 Em Tele: (50)42 Project #: 540 Project Location: Sampler Signatur | 1188<br>1432Ha                   | crison<br>Kan E                    | ~ St. | rojec        | t Nar<br>Dol    | me:   | B    | مر مر | wK<br>Ch | t in  | Q E                                   | ТНО | /<br>D | as (602 / 8021 + 8015) |                            | & Grease (1664 / 5520 E/B&F) | Total Petroleum Hydrocarbons (418.1) | 502.2 / 601 / 8010 / 8021 (HVOCs) | MTBE / BTEX ONLY (EPA 602 / 8021) | 505/ 608 / 8081 (Cl Pesticides) | EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners | Pesticides)                    | idic Cl Herbicides)                   | 160 (VOCs)                    | (70 (SVOCs)                    | 8270 SIM / 8310 (PAHs / PNAs) | CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) | LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) | / 6010 / 6020)                     | 098849  |      | Filter<br>Samples<br>for Metals<br>analysis:<br>Yes / No |
| SAMPLE ID  | LOCATION/<br>Field Point<br>Name | Date                               | Time  | # Containers | Type Containers | Water |      | T     | Sludge   | T     | Ι,                                    | HNO |        | BTEX & TPH as G        | TPH as Diesel (8015)       | Total Petroleum Oil &        | Total Petroleum Hy                   | EPA 502.2 / 601 / 80              | MTBE / BTEX ON                    | EPA 505/ 608 / 8081             | EPA 608 / 8082 PCI                              | 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 / 83             | CAM 17 Metals (20                           | LUFT 5 Metals (200                          | Lead (200.7 / 200.8 / 6010 / 6020) | MIBE by |      |  |
| MW-3.  |                                  | 3-2009                             | 7:20  | 4            | VOO             | 1     |      |       |          | X     | X                                     |     |        | x                      |                            |                              |                                      |                                   |                                   |                                 |   |                                |                                       |                               |                                |                               |   |   |                                    | X       |      |  |
| MW-4   |                                  |                                    | 8:00  |              |                 | П     |      |       |          | T     | 1                                     |     |        |                        |                            |                              |                                      |                                   |                                   |                                 |   |                                |                                       |                               |                                |                               |   |   |                                    |         |      |  |
| MH-5   |                                  |                                    | 8:20  |              |                 | T     |      |       |          |       | 1                                     |     |        |                        |                            |                              |                                      |                                   |                                   |                                 |   |                                |                                       |                               |                                |                               |   |   |                                    |         |      |  |
| WH-9   |                                  | *                                  | 7:40  | ×            | ×               | *     |      |       |          | 1     | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |     |        | X                      |                            |                              |                                      |                                   |                                   |                                 |   |                                |                                       |                               |                                |                               |   |   |                                    | k       |      |  |
|  |                                  |                                    |       |              |                 |       |      |       |          |       |                                       |     |        |                        |                            |                              |                                      |                                   |                                   |                                 |   |                                |                                       |                               |                                | 4                             |   |   |                                    |         |      |  |
|  |                                  |                                    |       |              |                 |       |      |       |          |       |                                       |     |        |                        |                            |                              |                                      |                                   |                                   |                                 |   |                                |                                       |                               |                                |                               |   |   |                                    |         |      |  |
| Relinquished BQ  |                                  | Date: 3/02/09                      | Time: | Rec          | eived I         | By:   | CH S | SER   | Vier     | es es | P                                     | tA. |        | IC                     | CE/t°                      | CO                           | NDIT                                 | TION                              |                                   |                                 |   |                                |                                       |                               |                                |                               |   | CC  | OMN                                | IENTS   |      |  |
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# McCampbell Analytical, Inc.

Report to:

1534 Willow Pass Rd Pittsburg, CA 94565-1701

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

| (925) 252-9262   |            |                 |              | WorkOr | der: 090300                  | 8 Clie                      | entCode: CETI    | E              |            |
|--|------------|-----------------|--------------|--------|------------------------------|-----------------------------|------------------|----------------|------------|
| <del></del> -  |            | WriteOn         | <b>✓</b> EDF | Excel  | Fax                          | ✓ Email                     | HardCop          | y ThirdParty   | J-flag     |
| oort to:   |            |                 |              | Bil    | II to:                       |                             | R                | equested TAT:  | 5 days     |
| Mark Jonas   | Email:     | mjonas@CRAwo    | rld.com      |        | Accounts Pa                  | yable                       |                  |                |            |
| Conestoga-Rovers & Associates<br>5900 Hollis St, Suite A | cc:<br>PO: | mwerner@crawo   | rld.com      |        | Conestoga-F<br>5900 Hollis S | Rovers & Asso<br>St, Ste. A |                  | Pate Received: | 03/02/2009 |
| Emeryville, CA 94608                                     | ProjectNo: | #540188; Borsuk | ,            |        | Emeryville, C                | CA 94608                    | $\boldsymbol{L}$ | ate Printed:   | 03/02/2009 |
| (510) 420-0700 FAX (510) 420-9170                        |            |                 |              |        | -                            |                             |                  |                |            |
|  |            |                 |              |        |                              |                             | . 12             |                |            |

|             |           |        |                        |      |   |   |   | Req | uested | Tests ( | See leg | gend be | elow) |    |    |    |
|-------------|-----------|--------|------------------------|------|---|---|---|-----|--------|---------|---------|---------|-------|----|----|----|
| Lab ID      | Client ID | Matrix | <b>Collection Date</b> | Hold | 1 | 2 | 3 | 4   | 5      | 6       | 7       | 8       | 9     | 10 | 11 | 12 |
|             |           |        |                        |      |   |   |   |     |        | 1       |         | 1       |       | 1  |    |    |
| 0903008-001 | MW-3      | Water  | 3/2/2009 7:20          |      | Α | В | Α |     |        |         |         |         |       |    |    |    |
| 0903008-002 | MW-4      | Water  | 3/2/2009 8:00          |      | Α | В |   |     |        |         |         |         |       |    |    |    |
| 0903008-003 | MW-5      | Water  | 3/2/2009 8:20          |      | Α | В |   |     |        |         |         |         |       |    |    |    |
| 0903008-004 | MW-6      | Water  | 3/2/2009 7:40          |      | Α | В |   |     |        |         |         |         |       |    |    |    |

### Test Legend:

| 1  | G-MBTEX_W | 2 MTBE_W | 3 PREDF REPORT | 4 | 5                          |
|----|-----------|----------|----------------|---|----------------------------|
| 6  |           | 7        | 8              | 9 | 10                         |
| 11 |           | 12       |                |   |                            |
|    |           |          |                |   | Prepared by: Maria Venegas |

#### **Comments:**

# **Sample Receipt Checklist**

| Client Name:      | Conestoga-Rovers          | s & Associates      |       |          | Date a        | and Time Received:   | 03/02/09 1   | :51:06 PM     |
|-------------------|---------------------------|---------------------|-------|----------|---------------|----------------------|--------------|---------------|
| Project Name:     | #540188; Borsuk           |                     |       |          | Check         | list completed and r | eviewed by:  | Maria Venegas |
| WorkOrder N°:     | 0903008                   | Matrix <u>Water</u> |       |          | Carrie        | r: <u>EnviroTech</u> |              |               |
|                   |                           | <u>Chain</u>        | of Cu | stody (C | OC) Informa   | ition                |              |               |
| Chain of custody  | present?                  |                     | Yes   | <b>V</b> | No 🗆          |                      |              |               |
| Chain of custody  | signed when relinquish    | ned and received?   | Yes   | <b>V</b> | No 🗆          |                      |              |               |
| Chain of custody  | agrees with sample lal    | pels?               | Yes   | <b>✓</b> | No 🗌          |                      |              |               |
| Sample IDs noted  | by Client on COC?         |                     | Yes   | <b>V</b> | No $\square$  |                      |              |               |
| Date and Time of  | collection noted by Clie  | nt on COC?          | Yes   | <b>~</b> | No 🗆          |                      |              |               |
| Sampler's name r  | noted on COC?             |                     | Yes   | <b>✓</b> | No 🗆          |                      |              |               |
|                   |                           | <u>Sa</u>           | ample | Receipt  | Information   | ļ.                   |              |               |
| Custody seals in  | tact on shipping contain  | er/cooler?          | Yes   |          | No 🗆          |                      | NA 🔽         |               |
| Shipping containe | er/cooler in good conditi | on?                 | Yes   | <b>V</b> | No 🗆          |                      |              |               |
| Samples in prope  | er containers/bottles?    |                     | Yes   | <b>~</b> | No 🗆          |                      |              |               |
| Sample containe   | rs intact?                |                     | Yes   | <b>✓</b> | No 🗆          |                      |              |               |
| Sufficient sample | e volume for indicated to | est?                | Yes   | ✓        | No 🗌          |                      |              |               |
|                   |                           | Sample Preser       | vatio | n and Ho | old Time (HT) | ) Information        |              |               |
| All samples recei | ived within holding time  | ?                   | Yes   | <b>✓</b> | No 🗌          |                      |              |               |
| Container/Temp I  | Blank temperature         |                     | Coole | er Temp: | 4.4°C         |                      | NA $\square$ |               |
| Water - VOA vial  | ls have zero headspace    | e / no bubbles?     | Yes   | ✓        | No 🗆          | No VOA vials subm    | itted 🗆      |               |
| Sample labels ch  | necked for correct prese  | ervation?           | Yes   | <b>✓</b> | No 🗌          |                      |              |               |
| TTLC Metal - pH   | acceptable upon receip    | t (pH<2)?           | Yes   |          | No 🗆          |                      | NA 🗹         |               |
| Samples Receive   | ed on Ice?                |                     | Yes   | ✓        | No 🗆          |                      |              |               |
|                   |                           | (Ice Type           | e: WE | TICE     | )             |                      |              |               |
| * NOTE: If the "N | No" box is checked, see   | comments below.     |       |          |               |                      |              |               |
| =====             |                           |                     |       |          | ====          |                      | =====        | ======        |
|                   |                           |                     |       |          |               |                      |              |               |
| Client contacted: |                           | Date contact        | ed:   |          |               | Contacted            | l by:        |               |
| Comments:         |                           |                     |       |          |               |                      |              |               |

| Conestoga-Rovers & Associates | Client Project ID: #540188; Borsuk | Date Sampled: 03/02/09            |
|-------------------------------|------------------------------------|-----------------------------------|
| 5900 Hollis St, Suite A       |                                    | Date Received: 03/02/09           |
|                               | Client Contact: Mark Jonas         | Date Extracted: 03/04/09-03/05/09 |
| Emeryville, CA 94608          | Client P.O.:                       | Date Analyzed 03/04/09-03/05/09   |

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

Analytical methods SW8021B/8015Bm Extraction method SW5030B Work Order: 0903008 TPH(g) Lab ID Client ID Matrix MTBE Benzene Toluene Ethylbenzene Xylenes DF % SS 001A MW-3 W ND ND ND ND ND 92 002A MW-4W 1 520,d1 6.0 2.2 6.5 9.2 113 003A MW-5 W 9700 1100 1300 33 97 34,000,d1 41 ND 004A MW-6 W ND ND ND ND 1 95 Reporting Limit for DF = 1; W 50 5 0.5 0.5 0.5  $\mu \text{g/L}$ 0.5 ND means not detected at or 1.0 0.05 0.005 0.005 0.005 0.005 mg/Kg above the reporting limit

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

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>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

| Conestoga-Rovers & Associates | Client Project ID: #540188; Borsuk | Date Sampled: 03/02/09            |
|-------------------------------|------------------------------------|-----------------------------------|
| 5900 Hollis St, Suite A       |                                    | Date Received: 03/02/09           |
|                               | Client Contact: Mark Jonas         | Date Extracted: 03/04/09-03/05/09 |
| Emeryville, CA 94608          | Client P.O.:                       | Date Analyzed 03/04/09-03/05/09   |

## **Methyl tert-Butyl Ether\***

Extraction method SW5030B Analytical methods SW8260B Work Order: 0903008

| Extraction method SW5030B                             |                          | Analytic | al methods SW8260B Work C   | Work Order: 0903008 |      |  |
|---|--------------------------|----------|-----------------------------|---------------------|------|--|
| Lab ID  | Client ID                | Matrix   | Methyl-t-butyl ether (MTBE) | DF                  | % SS |  |
| 001B  | MW-3                     | W        | ND                          | 1                   | 84   |  |
| 002B  | MW-4                     | W        | ND                          | 1                   | 85   |  |
| 003B  | MW-5                     | W        | ND<5.0,a3                   | 10                  | 80   |  |
| 004B  | MW-6                     | W        | ND                          | 1                   | 88   |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   |                          |          |                             |                     |      |  |
|   | porting Limit for DF =1; | W        | 0.5                         | μ                   | g/L  |  |
| ND means not detected at or above the reporting limit |                          | S        | NA                          | N                   | ΙA   |  |

| * 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 surrogate coelutes with another peak.

a3) sample diluted due to high organic content.

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 41749 WorkOrder 0903008

| EPA Method SW8260B          | Extra  | ction SW | 5030B  |        |        |        |        | S        | piked Sar | nple ID: | 0903008-0    | 001B |
|-----------------------------|--------|----------|--------|--------|--------|--------|--------|----------|-----------|----------|--------------|------|
| Analyte                     | Sample | Spiked   | MS     | MSD    | MS-MSD | LCS    | LCSD   | LCS-LCSD | Acc       | eptance  | Criteria (%) |      |
| Analyte                     | μg/L   | μg/L     | % Rec. | % Rec. | % RPD  | % Rec. | % Rec. | % RPD    | MS / MSD  | RPD      | LCS/LCSD     | RPD  |
| Methyl-t-butyl ether (MTBE) | ND     | 10       | 93.2   | 92.2   | 1.03   | 102    | 95.9   | 5.68     | 70 - 130  | 30       | 70 - 130     | 30   |
| %SS1:                       | 84     | 25       | 77     | 77     | 0      | 81     | 80     | 0.693    | 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 41749 SUMMARY

| Lab ID       | Date Sampled     | Date Extracted | Date Analyzed     | Lab ID       | Date Sampled     | Date Extracted | Date Analyzed    |
|--------------|------------------|----------------|-------------------|--------------|------------------|----------------|------------------|
| 0903008-001B | 03/02/09 7:20 AM | 03/04/09       | 03/04/09 12:48 AM | 0903008-002B | 03/02/09 8:00 AM | 03/05/09       | 03/05/09 6:15 AM |
| 0903008-003B | 03/02/09 8:20 AM | 03/04/09       | 03/04/09 2:04 AM  | 0903008-004B | 03/02/09 7:40 AM | 03/04/09       | 03/04/09 2:41 AM |

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

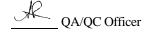
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

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.

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 41753 WorkOrder 0903008

| EPA Method SW8021B/8015Bm | Extra  | ction SW | 5030B  |        |        |        |        | S        | Spiked San | nple ID: | : 0903007-0  | 02A |
|---------------------------|--------|----------|--------|--------|--------|--------|--------|----------|------------|----------|--------------|-----|
| Analyte                   | Sample | Spiked   | MS     | MSD    | MS-MSD | LCS    | LCSD   | LCS-LCSD | Acce       | eptance  | Criteria (%) |     |
| raidiyto                  | μg/L   | μg/L     | % Rec. | % Rec. | % RPD  | % Rec. | % Rec. | % RPD    | MS / MSD   | RPD      | LCS/LCSD     | RPD |
| TPH(btex <sup>f</sup> )   | ND     | 60       | 96.5   | 102    | 5.88   | 98.1   | 96.4   | 1.74     | 70 - 130   | 20       | 70 - 130     | 20  |
| MTBE                      | ND     | 10       | 114    | 115    | 1.07   | 99.6   | 110    | 10.1     | 70 - 130   | 20       | 70 - 130     | 20  |
| Benzene                   | ND     | 10       | 93.2   | 96.1   | 3.04   | 97     | 98.7   | 1.77     | 70 - 130   | 20       | 70 - 130     | 20  |
| Toluene                   | ND     | 10       | 102    | 106    | 3.89   | 107    | 107    | 0        | 70 - 130   | 20       | 70 - 130     | 20  |
| Ethylbenzene              | ND     | 10       | 101    | 105    | 4.08   | 106    | 106    | 0        | 70 - 130   | 20       | 70 - 130     | 20  |
| Xylenes                   | ND     | 30       | 113    | 117    | 4.04   | 118    | 118    | 0        | 70 - 130   | 20       | 70 - 130     | 20  |
| %SS:                      | 92     | 10       | 93     | 93     | 0      | 97     | 97     | 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 41753 SUMMARY

| Lab ID       | Date Sampled     | Date Extracted | Date Analyzed     | Lab ID       | Date Sampled     | Date Extracted | Date Analyzed    |
|--------------|------------------|----------------|-------------------|--------------|------------------|----------------|------------------|
| 0903008-001A | 03/02/09 7:20 AM | 03/04/09       | 03/04/09 10:08 PM | 0903008-002A | 03/02/09 8:00 AM | 03/05/09       | 03/05/09 2:51 AM |
| 0903008-003A | 03/02/09 8:20 AM | 03/04/09       | 03/04/09 2:35 AM  | 0903008-003A | 03/02/09 8:20 AM | 03/05/09       | 03/05/09 9:25 PM |
| 0903008-004A | 03/02/09 7:40 AM | 03/04/09       | 03/04/09 11:14 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).

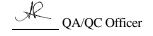
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the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



# APPENDIX C

FIELD DATA SHEETS



# WELL GAUGING SHEET

| Client: | Conestoga-Rovers and | 1 Associates |
|---------|----------------------|--------------|
| Client: | Conestoga-Rovers and | 1 Assoc      |

Site

Address: 1432 Harrison Street, Oakland, CA

Date:

3/2/2009

Signature:

|         |      |                 | · · · · · · · · · · · · · · · · · · · |                  |                    |          |
|---------|------|-----------------|---------------------------------------|------------------|--------------------|----------|
| Well ID | Time | Depth to<br>SPH | Depth to<br>Water                     | SPH<br>Thickness | Depth to<br>Bottom | Comments |
| MW-1    | 8:35 |                 | 20.39                                 |                  | 20.45              |          |
|         | 0.52 |                 | Inaccessible                          |                  |                    |          |
| MW-2    |      |                 |                                       |                  |                    |          |
| MW-3    | 7:08 |                 | 19.19                                 |                  | 23.95              |          |
| MW-4    | 7:48 |                 | 19.86                                 |                  | 24.49              |          |
| MW-5    | 8:08 |                 | 20.74                                 |                  | 27.90              |          |
| MW-6    | 7:28 |                 | 21.30                                 |                  | 28.24              |          |
|         |      |                 |                                       |                  |                    |          |
|         |      |                 |                                       |                  |                    |          |
|         |      |                 |                                       |                  |                    |          |
|         |      | · · · · · ·     |                                       |                  |                    |          |
|         |      |                 |                                       |                  |                    |          |
|         |      |                 |                                       |                  |                    |          |



|   |                       |                   |            | ·             |   |              |          |        |  |  |
|---|-----------------------|-------------------|------------|---------------|---|--------------|----------|--------|--|--|
| Date:   |                       | 3/2/2009          |            |               |   |              |          |        |  |  |
| Client:   |                       | Conestoga-I       | Rovers and | Associate     | S   |              |          |        |  |  |
| Site Address: 1432 Harrison Street, Oakland, CA |                       |                   |            |               |   |              |          |        |  |  |
| Well ID:  |                       | MW-1              |            |               |   |              |          |        |  |  |
| Well Dian                                       | meter:                | 4"                |            |               |   |              |          |        |  |  |
| Purging I                                       | Device:               | Disposable        | Bailer     |               |   |              |          |        |  |  |
| Sampling  | Method:               | Disposable        | Bailer     | <del></del>   |   |              |          |        |  |  |
| Total We  | ll Depth:             |                   |            | 20.45         | Fe=   | mg/L         |          |        |  |  |
| Depth to  | Water:                |                   |            | 20.39         | ORP=  | mV           |          |        |  |  |
| Water Co  | lumn Heigh            | t:                |            | 0.06          | DO=   | mg/L         |          |        |  |  |
| Gallons/fi                                      | t:                    |                   |            | 0.65          |   |              |          |        |  |  |
|   | Volume (gal           | ·                 |            | 0.04          | COMME   | NTC.         |          |        |  |  |
|   |                       |                   |            |               | COMMENTS: Insufficient water, NO SAMPLE TAKEN |              |          |        |  |  |
| 3 Casing  | Volumes (ga<br>CASING | 11):              |            | 0.12          |   |              |          |        |  |  |
| TIME:   | VOLUME<br>(gal)       | TEMP<br>(Celsius) | pН         | COND.<br>(µS) |   |              |          |        |  |  |
|   | 0.0                   |                   |            |               |   | •            |          |        |  |  |
|   | 0.1                   |                   |            |               |   |              |          |        |  |  |
|   | 0.1                   |                   |            |               |   |              |          |        |  |  |
|   |                       |                   |            |               | -   |              |          |        |  |  |
| Sample  |                       |                   | Sample     |               |   |              |          |        |  |  |
| ID:   | Sample Da             | ite:              | Time:      | Containe      | er Type                                       | Preservative | Analytes | Method |  |  |
|   |                       |                   |            |               |   |              |          |        |  |  |
|   |                       |                   |            |               |   |              |          |        |  |  |
|   |                       |                   |            |               |   |              |          |        |  |  |
|   |                       |                   |            | ļ             |   |              |          |        |  |  |
|   | ,                     |                   |            |               |   |              |          |        |  |  |
|   |                       |                   |            |               |   |              | <u> </u> | 11     |  |  |
|   |                       |                   |            |               |   | Signatur     | e: //    |        |  |  |
|   |                       |                   |            |               |   |              | -        |        |  |  |



| Date:        |                           | 3/2/2009          |  |                                       |            |              |           |            |        |
|--------------|---------------------------|-------------------|--|---------------------------------------|------------|--------------|-----------|------------|--------|
| Client:      |                           | Conestoga-F       | Rovers and                                       | Associates                            | <u>s</u> _ |              |           |            |        |
| Site Addr    |                           | 1432 Harris       |  |                                       |            |              |           |            |        |
| Well ID:     |                           | MW-2              |  |                                       |            |              |           |            |        |
| Well Dian    | neter:                    | 2"                |  |                                       |            |              |           |            |        |
| Purging D    | evice:                    |                   |  |                                       |            |              |           |            |        |
| Sampling     | Method:                   |                   |  |                                       |            |              |           |            |        |
| Total Wel    | l Depth:                  |                   |  | · · · · · · · · · · · · · · · · · · · | Fe=        | mg/          | :/L       |            |        |
| Depth to V   | Water:                    | .,                |  |                                       | ORP=       | mV           | 7         |            |        |
| Water Col    | lumn Height               |                   |  |                                       | DO=        | mg/          | <u>/L</u> |            |        |
| Gallons/ft   |                           |                   |  |                                       |            |              |           |            |        |
|              | Volume (gal)              | ):                |  |                                       | СОММЕ      | ENTS:        |           |            |        |
|              | Volumes (ga               |                   |  |                                       | Inaccessil | ble          |           |            |        |
| TIME:        | CASING<br>VOLUME<br>(gal) | TEMP<br>(Celsius) | pН   | COND. (µS)                            | -          |              |           |            |        |
|              |                           |                   |  |                                       |            |              |           |            |        |
| Sample       |                           |                   | Sample   | -                                     |            |              |           |            |        |
| ID:          | Sample Da                 | ite:              | Time:  | Containe                              | er Type    | Preservative | : A       | nalytes    | Method |
|              |                           |                   |  |                                       |            |              |           |            |        |
| <del> </del> |                           |                   | <del>                                     </del> |                                       |            |              |           |            |        |
|              |                           |                   |  |                                       |            |              |           |            |        |
|              |                           |                   |  |                                       |            |              |           |            |        |
|              |                           |                   |  |                                       |            |              |           |            |        |
|              |                           |                   |  |                                       |            |              | •         | 7          |        |
|              |                           |                   |  |                                       |            | Sig          | gnature:  | $/\!\!\!/$ |        |



|               |                           |                                 |                 | ···           |           |                    |                      |                  |  |  |  |  |
|---------------|---------------------------|---------------------------------|-----------------|---------------|-----------|--------------------|----------------------|------------------|--|--|--|--|
| Date:         |                           | 3/2/2009                        |                 |               |           |                    |                      |                  |  |  |  |  |
| Client:       |                           | Conestoga-Rovers and Associates |                 |               |           |                    |                      |                  |  |  |  |  |
| Site Addr     | ess:                      | 1432 Harris                     | on Street,      | Oakland, C    | CA        |                    |                      |                  |  |  |  |  |
| Well ID:      |                           | MW-3                            |                 |               |           |                    |                      |                  |  |  |  |  |
| Well Dian     | neter:                    | 2"                              |                 |               |           |                    |                      |                  |  |  |  |  |
| Purging D     | evice:                    | Disposable                      | Bailer          |               |           |                    |                      | <u> </u>         |  |  |  |  |
| Sampling      | Method:                   | Disposable                      | Bailer          |               |           |                    |                      |                  |  |  |  |  |
| Total Wel     | l Depth:                  |                                 |                 | 23.95         | Fe=       | mg/L               |                      |                  |  |  |  |  |
| Depth to V    | Water:                    | , , <u>, .</u>                  |                 | 19.19         | ORP=      | mV                 |                      |                  |  |  |  |  |
| Water Col     | lumn Heigh                | t:                              |                 | 4.76          | DO=       | mg/L               |                      |                  |  |  |  |  |
| Gallons/ft    | •                         |                                 |                 | 0.16          |           |                    |                      |                  |  |  |  |  |
| 1 Casing      | Volume (ga                | 1):                             |                 | 0.76          | COMMI     | ENTS:              |                      |                  |  |  |  |  |
|               | Volumes (g                |                                 |                 | 2.28          | very turb | very turbid, silty |                      |                  |  |  |  |  |
| TIME:         | CASING<br>VOLUME<br>(gal) | TEMP<br>(Celsius)               | pН              | COND.<br>(μS) |           |                    |                      |                  |  |  |  |  |
| 7:10          | 0.8                       | 17.6                            | 7.09            | 498           | 1         |                    |                      |                  |  |  |  |  |
| 7:13          | 1.5                       | 17.4                            | 7.02            | 513           | 1         |                    |                      |                  |  |  |  |  |
| 7:15          | 2.3                       | 17.4                            | 7.08            | 520           | 1         |                    |                      |                  |  |  |  |  |
|               |                           |                                 |                 |               |           |                    |                      |                  |  |  |  |  |
| Sample<br>ID: | Sample D                  | ate:                            | Sample<br>Time: | Containe      | er Type   | Preservative       | Analytes             | Method           |  |  |  |  |
| MW-3          |                           | /2009                           | 7:20            | 40 ml VC      | )A        | HCl, ICE           | TPHg<br>BTEX<br>MTBE | 8015, 8021, 8260 |  |  |  |  |
|               |                           |                                 |                 |               |           |                    | _                    |                  |  |  |  |  |
|               |                           |                                 |                 |               |           |                    |                      |                  |  |  |  |  |
|               |                           |                                 |                 |               |           | Signatu            | re: /                | 5                |  |  |  |  |



| Date:      |                           | 3/2/2009               |                 |            |           |                      |                  |                                       |  |  |  |
|------------|---------------------------|------------------------|-----------------|------------|-----------|----------------------|------------------|---------------------------------------|--|--|--|
| Client:    |                           | Conestoga-l            | Rovers and      | Associate  | S         |                      |                  |                                       |  |  |  |
| Site Addr  | ess:                      | 1432 Harris            | son Street,     | Oakland, O | CA        |                      |                  |                                       |  |  |  |
| Well ID:   |                           | MW-4                   |                 |            |           |                      |                  |                                       |  |  |  |
| Well Dian  | neter:                    | 2"                     |                 |            |           |                      |                  | · · · · · · · · · · · · · · · · · · · |  |  |  |
| Purging D  | evice:                    | Disposable             | Bailer          |            |           |                      |                  |                                       |  |  |  |
| Sampling   |                           |                        |                 |            |           |                      |                  |                                       |  |  |  |
| Total Wel  | 1 Depth:                  |                        |                 | 24.49      | Fe=       | mg/L                 |                  |                                       |  |  |  |
| Depth to V | Water:                    |                        |                 | 19.86      | ORP=      | mV                   |                  |                                       |  |  |  |
| Water Col  | lumn Heigh                | t:                     |                 | 4.63       | DO=       | mg/L                 |                  |                                       |  |  |  |
| Gallons/ft | •                         |                        |                 | 0.16       |           |                      |                  |                                       |  |  |  |
| 1 Casing   | Volume (ga                | l):                    |                 | 0.74       | COMMI     | ENTS:                |                  |                                       |  |  |  |
| 3 Casing   | Volumes (ga               | al):                   |                 | 2.22       | very turb | very turbid, silty   |                  |                                       |  |  |  |
| TIME:      | CASING<br>VOLUME<br>(gal) | TEMP<br>(Celsius)      | pН              | COND.      |           |                      |                  |                                       |  |  |  |
| 7:50       |                           | 17.6                   | 6.91            | 1070       | 1         |                      |                  |                                       |  |  |  |
| 7:53       |                           | 17.9                   | 6.89            | 1074       | 7         |                      |                  |                                       |  |  |  |
| 7:55       | 2.2                       | 17.9                   | 6.86            | 1102       |           |                      |                  |                                       |  |  |  |
|            |                           |                        |                 |            |           | .,                   |                  |                                       |  |  |  |
| Sample ID: | Sample Da                 | ate:                   | Sample<br>Time: | Containe   | er Type   | Preservative         |                  | Method                                |  |  |  |
| MW-4       | 3/2/                      | 3/2/2009 8:00 40 ml VC |                 | A HCl, ICE |           | TPHg<br>BTEX<br>MTBE | 8015, 8021, 8260 |                                       |  |  |  |
|            |                           |                        |                 |            |           |                      |                  |                                       |  |  |  |
|            |                           |                        |                 |            |           | Signat               | ure:             |                                       |  |  |  |



|   |                           |                   | , ,             |           |                    | TO TOTAL     |                      |                  |  |  |
|---|---------------------------|-------------------|-----------------|-----------|--------------------|--------------|----------------------|------------------|--|--|
| Date:   |                           | 3/2/2009          |                 |           |                    |              |                      |                  |  |  |
| Client:   |                           | Conestoga-I       | Rovers and      | Associate | s                  |              |                      |                  |  |  |
| Site Address: 1432 Harrison Street, Oakland, C. |                           |                   |                 |           |                    |              |                      |                  |  |  |
| Well ID: MW-5                                   |                           |                   |                 |           |                    |              |                      |                  |  |  |
| Well Dian                                       | neter:                    | 2"                |                 |           |                    |              |                      |                  |  |  |
| Purging D                                       | evice:                    | Disposable        | Bailer          |           |                    |              |                      |                  |  |  |
| Sampling  | Method:                   | Disposable        | Bailer          |           |                    |              |                      |                  |  |  |
| Total Wel                                       | l Depth:                  |                   |                 | 27.90     | Fe=                | mg/L         |                      |                  |  |  |
| Depth to V                                      | Water:                    |                   |                 | 20.74     | ORP=               | mV           |                      |                  |  |  |
| Water Col                                       | umn Heigh                 | t:                |                 | 7.16      | DO=                | mg/L         |                      |                  |  |  |
| Gallons/ft                                      | :                         |                   |                 | 0.16      |                    |              |                      |                  |  |  |
| 1 Casing V                                      | Volume (ga                | l):               |                 | 1.15      | СОММЕ              | ENTS:        |                      |                  |  |  |
| -   | Volumes (ga               |                   |                 | 3.44      | very turbid, silty |              |                      |                  |  |  |
| TIME:   | CASING<br>VOLUME<br>(gal) | TEMP<br>(Celsius) | pН              | COND.     |                    |              |                      |                  |  |  |
| 8:10  | 1.1                       | 17.6              | 7.06            | 1270      | -                  |              |                      |                  |  |  |
| 8:13  | 2.3                       | 17.0              | 7.09            | 1295      | -                  |              |                      |                  |  |  |
| 8:15  | 3.4                       | 17.1              | 7.12            | 1290      | 1                  |              |                      |                  |  |  |
|   |                           |                   |                 |           | 1                  |              |                      |                  |  |  |
| Sample<br>ID:                                   | Sample Da                 | ate:              | Sample<br>Time: | Containe  | er Type            | Preservative | Analytes             |                  |  |  |
| MW-5  |                           |                   | 8:20            | 40 ml VC  | )A                 | HCl, ICE     | TPHg<br>BTEX<br>MTBE | 8015, 8021, 8260 |  |  |
|   |                           |                   |                 |           |                    |              |                      |                  |  |  |
|   |                           |                   |                 |           |                    |              |                      | 97               |  |  |
|   |                           |                   |                 |           |                    | Signatu      | re:                  |                  |  |  |



| Date:         |  | 3/2/2009                        |                 |            |         |                    |                      |                  |  |  |  |  |
|---------------|--|---------------------------------|-----------------|------------|---------|--------------------|----------------------|------------------|--|--|--|--|
| Client:       |  | Conestoga-Rovers and Associates |                 |            |         |                    |                      |                  |  |  |  |  |
| Site Addr     | ess:                                     | 1432 Harris                     | on Street,      | Oakland, C | CA      |                    | ·                    |                  |  |  |  |  |
| Well ID:      |  | MW-6                            |                 |            |         |                    |                      |                  |  |  |  |  |
| Well Dian     | neter:                                   | 2"                              |                 |            |         |                    |                      |                  |  |  |  |  |
| Purging D     |  | Disposable                      |                 |            |         |                    |                      |                  |  |  |  |  |
| Sampling      | Method:                                  | Disposable                      | Bailer          |            |         |                    |                      |                  |  |  |  |  |
| Total Wel     | l Depth:                                 |                                 |                 | 28.24      | Fe=     | mg/L               |                      |                  |  |  |  |  |
| Depth to V    | Water:                                   |                                 | w               | 21.30      | ORP=    | mV                 |                      |                  |  |  |  |  |
| Water Col     | lumn Height                              | ·•                              |                 | 6.94       | DO=     | mg/L               |                      |                  |  |  |  |  |
| Gallons/ft    |  |                                 |                 | 0.16       |         | ,                  |                      |                  |  |  |  |  |
| 1 Casino      | Volume (gal                              | )·                              |                 | 1.11       | СОММВ   | ENTS:              |                      |                  |  |  |  |  |
|               |  |                                 |                 | 3.33       |         | very turbid, silty |                      |                  |  |  |  |  |
| TIME:         | Volumes (ga<br>CASING<br>VOLUME<br>(gal) | TEMP (Celsius)                  | pН              | COND.      |         |                    |                      |                  |  |  |  |  |
| 7:30          |  | 18.3                            | 6.95            | 1045       |         |                    |                      |                  |  |  |  |  |
| 7:33          | 2.2                                      | 17.9                            | 6.98            | 1017       |         |                    |                      |                  |  |  |  |  |
| 7:35          | 3.3                                      | 18.1                            | 6.91            | 1002       | -       |                    |                      |                  |  |  |  |  |
| G 1           |  |                                 | Cample          |            |         | 1                  | 1                    |                  |  |  |  |  |
| Sample<br>ID: | Sample Da                                | nte:                            | Sample<br>Time: | Containe   | er Type | Preservative       | Analytes             | <br> Method      |  |  |  |  |
| MW-6          |  |                                 | 7:40            | 40 ml VC   |         | HCl, ICE           | TPHg<br>BTEX<br>MTBE | 8015, 8021, 8260 |  |  |  |  |
|               |  |                                 |                 |            |         |                    |                      |                  |  |  |  |  |
|               |  |                                 |                 |            |         | Signatu            | re:                  | 4                |  |  |  |  |

#### APPENDIX D

# BENZENE CONCENTRATION AND DEPTH TO WATER VS. TIME-SERIES GRAPHS

