

Mr. Lee Douglas  
Douglas Parking Company  
1721 Webster Street  
Oakland, California 94612

Ms. Barbara Jakub  
Alameda County Environmental Health  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, CA 94502-6577

**RECEIVED**

By Alameda County Environmental Health 2:53 pm, May 06, 2015

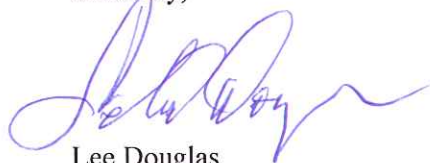
**Re: Douglas Parking Company**  
1721 Webster Street  
Oakland, California  
ACEH File No. 129

Dear Ms. Jakub:

I, Mr. Lee Douglas, have retained Pangea Environmental Services, Inc. (Pangea) as the environmental consultant for the project referenced above. Pangea is submitting the attached report on my behalf.

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

Sincerely,



Lee Douglas



April 27, 2015

***VIA ALAMEDA COUNTY FTP SITE***

Ms. Karel Detterman  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502

Re: **Groundwater Monitoring Report – First Half 2015**  
Douglas Parking Company  
1721 Webster Street  
Oakland, California  
ACEH File No. 129

Dear Ms. Detterman:

On behalf of the Douglas Parking Company, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – First Half 2015* for the above referenced site. The report describes groundwater monitoring and sampling, and other site activities.

If you have any questions, please call me at (510) 435-8664.

Sincerely,  
**Pangea Environmental Services, Inc.**

A handwritten signature in blue ink, appearing to read "Bob Clark-Riddell".

Bob Clark-Riddell, P.E.  
Principal Engineer

Attachment: *Groundwater Monitoring Report – First Half 2015*

cc: Mr. Lee Douglas, Douglas Parking Company, 1721 Webster Street, Oakland, California 94612  
SWRCB Geotracker Database (electronic copy)

**PANGEA Environmental Services, Inc.**

1710 Franklin Street, Suite 200, Oakland, CA 94612 Telephone 510.836.3700 Facsimile 510.836.3709 [www.pangeaenv.com](http://www.pangeaenv.com)



## GROUNDWATER MONITORING REPORT - FIRST HALF 2015

**Douglas Parking Company  
1721 Webster Street  
Oakland, California  
File No. 4070**

**April 27, 2015**

*Prepared for:*


Mr. Lee Douglas  
1721 Webster Street  
Oakland, California 94612

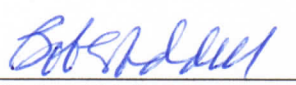
*Prepared by:*

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, California 94612

*Written by:*



  
Morgan Gillies  
Project Manager

  
Bob Clark-Riddell, P.E.  
Principal Engineer

**PANGEA Environmental Services, Inc.**

1710 Franklin Street, Suite 200, Oakland, CA 94612 Telephone 510.836.3700 Facsimile 510.836.3709 [www.pangeaenv.com](http://www.pangeaenv.com)

## INTRODUCTION

On behalf of Douglas Parking Company, Pangea Environmental Services, Inc. (Pangea), performed groundwater monitoring and sampling during this half year at the subject site (Figure 1). Current groundwater analytical results and elevation data are shown on Figure 2. Current and historical groundwater data are summarized on Table 1. Site remediation data are summarized on Table 2.

## SITE BACKGROUND

The site is currently being utilized as a parking garage, and is located between 17th and 19th Streets in downtown Oakland, California, approximately four miles east of San Francisco Bay and one quarter of a mile west of Lake Merritt (Figure 1). The site is relatively flat with an elevation of approximately 30 feet (ft) above mean sea level (msl).

Several former underground storage tank (UST) sites are located close to the site, including Prentiss Properties to the northeast at 1750 Webster Street, a former gas station to the east at 1700 Webster, and a former Chevron service station which is located approximately 400 feet to the southwest on the corner of 17<sup>th</sup> Street and Harrison Street.

On August 3 and 6, 1992, Parker Environmental Services removed one 1,000-gallon and two 500-gallon gasoline underground storage tanks (USTs) from the site. Up to 1,500 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and up to 12 mg/kg benzene were detected in the soil samples collected from the UST excavation.

Several investigations have been completed at the site. On July 8 and September 8, 1994, Gen Tech/Piers Environmental, Inc. (Gen Tech) of San Jose, California drilled six exploratory borings and installed three groundwater monitoring wells (MW-1 through MW-3). In February and May 1996, Cambria Environmental Technology (Cambria) of Emeryville, California advanced seven geoprobe soil borings and installed two groundwater monitoring wells (MW-4 and MW-5). On August 8, 2000, *Conduit Study and File Review Report* was submitted by Cambria Environmental Technology. The report provided significant information about offsite hydrocarbon impact and offsite sources, and concluded that there were no identified conduits for contaminant migration in groundwater. On June 27, 2003 Cambria installed two additional offsite monitoring wells (MW-6 and MW-7) to facilitate additional plume delineation.

Limited site remediation has been conducted at the site. In January 1998, Cambria installed ORC socks in well MW-2 to enhance the natural attenuation of dissolved-phase hydrocarbons. Dissolved oxygen (DO) concentrations temporarily increased in well MW-2 following the ORC sock installation. In February and March 1999, a total of 120 gallons of 7.5% hydrogen peroxide solution was added into monitoring wells



MW-2 and MW-3 to oxidize hydrocarbons and also increase DO levels to enhance biodegradation of dissolved-phase hydrocarbons. The hydrogen peroxide *temporarily* increased groundwater DO levels, but hydrocarbon concentrations remained at elevated levels.

On March 4, 2003, Cambria installed a co-axial air sparging/soil vapor extraction well (SV-1/AS-1) and two angled air sparging wells (AS-2 and AS-3) to approximately 30 ft bgs (Figure 3). The wells were installed to facilitate feasibility testing and future site remediation. Site remediation via soil vapor extraction and air sparging began in October 2007. To improve system performance and further evaluate site conditions, Pangea submitted an *Investigation and Remediation Workplan* dated March 5, 2009, which proposed additional investigation, remediation system expansion, and evaluation of groundwater geochemistry.

On November 19, 2010, ACEH issued a letter requesting a cross section, additional information regarding a potential offsite source and a preferential pathway survey. In December 2010, Pangea informed the ACEH that significant information about the offsite hydrocarbon impact was presented in the August 8, 2000 *Conduit Study and File Review Report* prepared by Cambria. In December 2010, the UST Cleanup Fund prepared a 5 Year Review that recommended a site conceptual model (SCM), risk assessment, and sensitive receptor survey to help facilitate selection of a remediation technique. In March 2011, Pangea provided information requested by the ACEH and proposed remediation and assessment tasks to help facilitate regulatory case closure. In a letter dated June 17, 2011, ACEH requested a site conceptual model with a preferential pathway evaluation. The UST Cleanup Fund 5-Year Review of March 12, 2012 also requested an SCM prior to any system modification. Pangea submitted a *Sensitive Receptor Survey, Conduit Study and Site Conceptual Model* dated March 26, 2012. In a letter dated December 21, 2012, ACEH requested a workplan to evaluate vapor intrusion and to investigate secondary source near well MW-2. Pangea submitted a *Workplan for Additional Assessment and Soil Gas Sampling* dated April 4, 2013. Following a meeting with ACEH on May 28, 2013, Pangea submitted a *Revised Data Gap Workplan* dated July 25, 2013.

Following approval of the workplan, Pangea installed two confirmation soil borings (CB-1 and CB-2) near the former UST excavation areas and three soil gas probes (SS-1 through SS-3). Pangea detailed the findings of this data gap investigation in the *Data Gap Site Assessment Report* dated January 22, 2014. Included in the report was an updated SCM in tabular format.

## **GROUNDWATER MONITORING AND SAMPLING**

On January 22, 2015, Pangea coordinated groundwater monitoring and sampling at the site. All program monitoring wells were gauged for depth to water. Following the sampling protocol presented in Appendix A, groundwater samples were collected from select site monitoring wells.

Before well purging, dissolved oxygen (DO) and oxygen reduction potential (ORP) were measured in each well. DO was measured by lowering a downwell sensor to the approximate middle of the water column, and allowing the reading to stabilize during gentle height adjustment. Prior to sample collection approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump or new polyethylene tubing with a check valve. During well purging field technicians measured pH, temperature and conductivity. A groundwater sample was collected from each well with a disposable bailer and decanted into the appropriate containers supplied by the analytical laboratory. Groundwater samples were labeled, placed in protective plastic bags, and stored on crushed ice at or below 4° C. All samples were transported under chain-of-custody to the State-certified analytical laboratory. Purge water was stored onsite in DOT-approved 55-gallon drums. Field data sheets are presented as Appendix B.

## **Monitoring Results**

Groundwater elevation and analytical data are described below and summarized on Table 1 and Figure 2. Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; and benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. Samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a State-certified laboratory. The laboratory analytical report is included as Appendix C.

## **Groundwater Flow Direction**

Based on depth-to-water measurements collected on January 22, 2015, groundwater beneath the site flowed *north to north-northeastwards* (Figure 2). The groundwater depth measurements and inferred flow direction during this event are consistent with historical site conditions. Groundwater depths at the site have historically ranged from approximately 14 to 23 ft below ground surface (bgs), equivalent to a groundwater elevation range from 5 to 13 feet above msl (Table 1).

## **Hydrocarbon and MTBE Distribution in Groundwater**

TPHg, benzene and MTBE concentrations detected in site groundwater during this monitoring event are shown on Figure 2. The maximum TPHg and benzene concentrations detected were 8,900 µg/L (MW-3) and 25 µg/L (MW-6), respectively.

TPHg and benzene concentration trends in key source area wells MW-2 and MW-3 are graphed on Figure 3. Benzene concentrations have dramatically decreased in source area well MW-2 since the commencement of SVE/AS in October 2007. TPHg concentrations remain elevated but are declining in wells MW-2 and MW-3. As requested during a May 28, 2013 meeting at the ACEH office, TPHg and benzene concentration trends for key offsite wells (MW-4 and MW-6) and key remediation wells (AS-1 and AS-2) are graphed on Figures 4 and 5, respectively.

MTBE was not detected above reporting limits in any of the sampled wells this monitoring event. The only apparent historical MTBE detection at the site (48 µg/L in well MW-3 by EPA Method 8020) was interpreted to be a false positive, based on the results of confirmation testing using EPA Method 8260 on July 21, 2003. Since the tank was removed in 1992 and because of the lack of confirmed detectable historical MTBE, MTBE is not a compound of concern at this site.

## **REMEDIATION SYSTEM SUMMARY**

### **Soil Vapor Extraction/Air Sparge System**

The soil vapor extraction (SVE) remediation system consisted of a blower that extracted soil vapor from well SVE-1. Extracted vapors were routed through a moisture separator then treated by two 2,000-lb canisters of granular activated carbon plumbed in series. The treated vapor was discharged to the atmosphere in accordance with Bay Area Air Quality Management District (BAAQMD) requirements. The air sparging (AS) system consisted of a compressor for injecting air into wells AS-1, AS-2 and/or AS-3. Injection into AS wells was controlled by timer-activated solenoid valves. Wells SVE-1 and AS-1 are constructed as vertical co-axial wells, with angled wells AS-2 and AS-3 located in the same vault. A cross section of the remediation wells is included as Figure 6. The remediation system layout is shown on Figure 7.

### **Operation and Performance**

The SVE system operated from October 2007 to October 2010 with periodic cycling for rebound testing. By November 23, 2010, the SVE system operated for a total of about 19,396 hours (approximately 808 days) and the system removed a total of approximately 3,212 lbs TPHg and 6.9 lbs benzene. The AS system operated from November 2007 to April 2010, when the AS compressor broke down. From August 2008 to April 2010, air sparge wells AS-1 and AS-3 were disconnected to focus air sparging on well AS-2 to target hydrocarbons in nearby key monitoring well MW-2. System operation and performance data is summarized on Table 2.

## **OTHER SITE ACTIVITIES**

### **Semi-Annual Groundwater Monitoring**

Pangea will conduct semi-annual groundwater monitoring and sampling at the site in accordance with the approved monitoring program shown in Appendix A. All monitoring wells will be gauged for depth to water. Groundwater samples from program wells will be analyzed for TPHg, BTEX and MTBE by EPA Method 8015Cm/8021B.

## **Soil and Subslab Gas Assessment**

Pangea submitted the first (cold season) sample results for subslab probes SS-1 through SS-3 and soil boring assessment results in the *Site Data Gap Assessment Report* dated January 22, 2014. Pangea will conduct warm season subslab gas sampling in mid-2015 and will prepare a technical report.

## **Remediation System Decommissioning**

At client request, Pangea will remove the SVE/AS equipment and enclosure that occupies valuable space at their facility. Monitoring results suggest that no further active remediation is merited.

## **ELECTRONIC REPORTING**

This report will be submitted to Alameda County Environmental Health via upload to the County's ftp site. Applicable data, maps, and reports for groundwater monitoring and other activities will be uploaded to the State Water Resource Control Board's Geotracker database. As requested, report hard copies will no longer be provided to local agencies.

## **ATTACHMENTS**

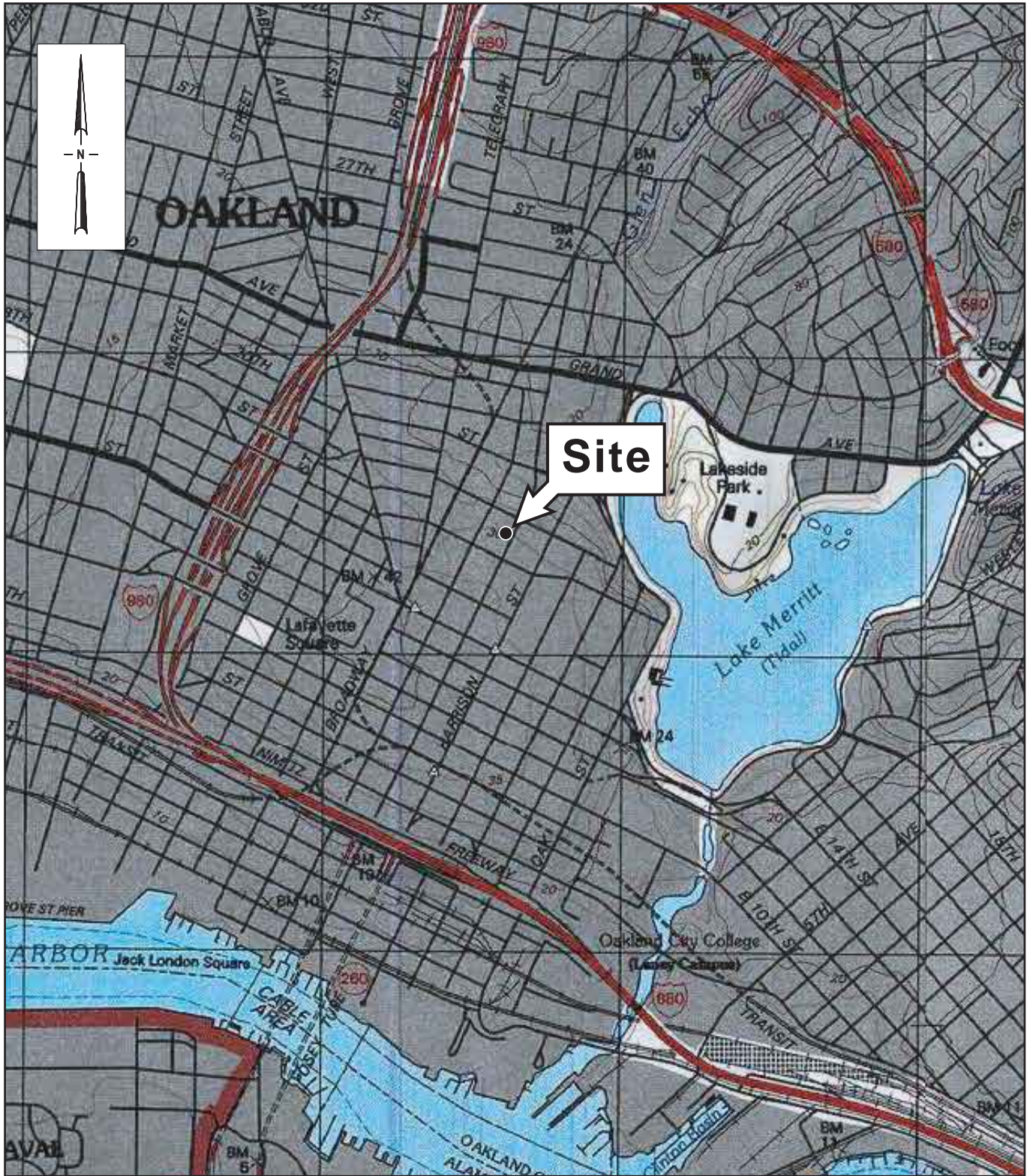
- Figure 1 – Vicinity Map
- Figure 2 – Groundwater Elevations and Hydrocarbon Concentration Map
- Figure 3 – TPHg and Benzene Trends in Groundwater in Key Site Wells
- Figure 4 – TPHg and Benzene Trends in Groundwater in Key Offsite Wells
- Figure 5 – TPHg and Benzene Trends in Groundwater in Key Remediation Wells
- Figure 6 – Cross Section of Remediation Wells
- Figure 7 – Remediation System Layout

Table 1 – Groundwater Elevation and Analytical Data

Table 2 – SVE System Performance Summary

- Appendix A – Groundwater Monitoring Program
- Appendix B – Groundwater Monitoring Field Data Sheets
- Appendix C – Laboratory Analytical Report





SOURCE: TOPOI MAPS

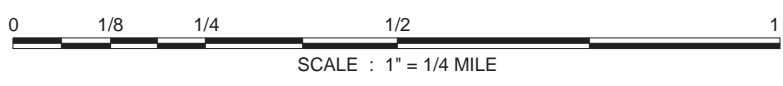
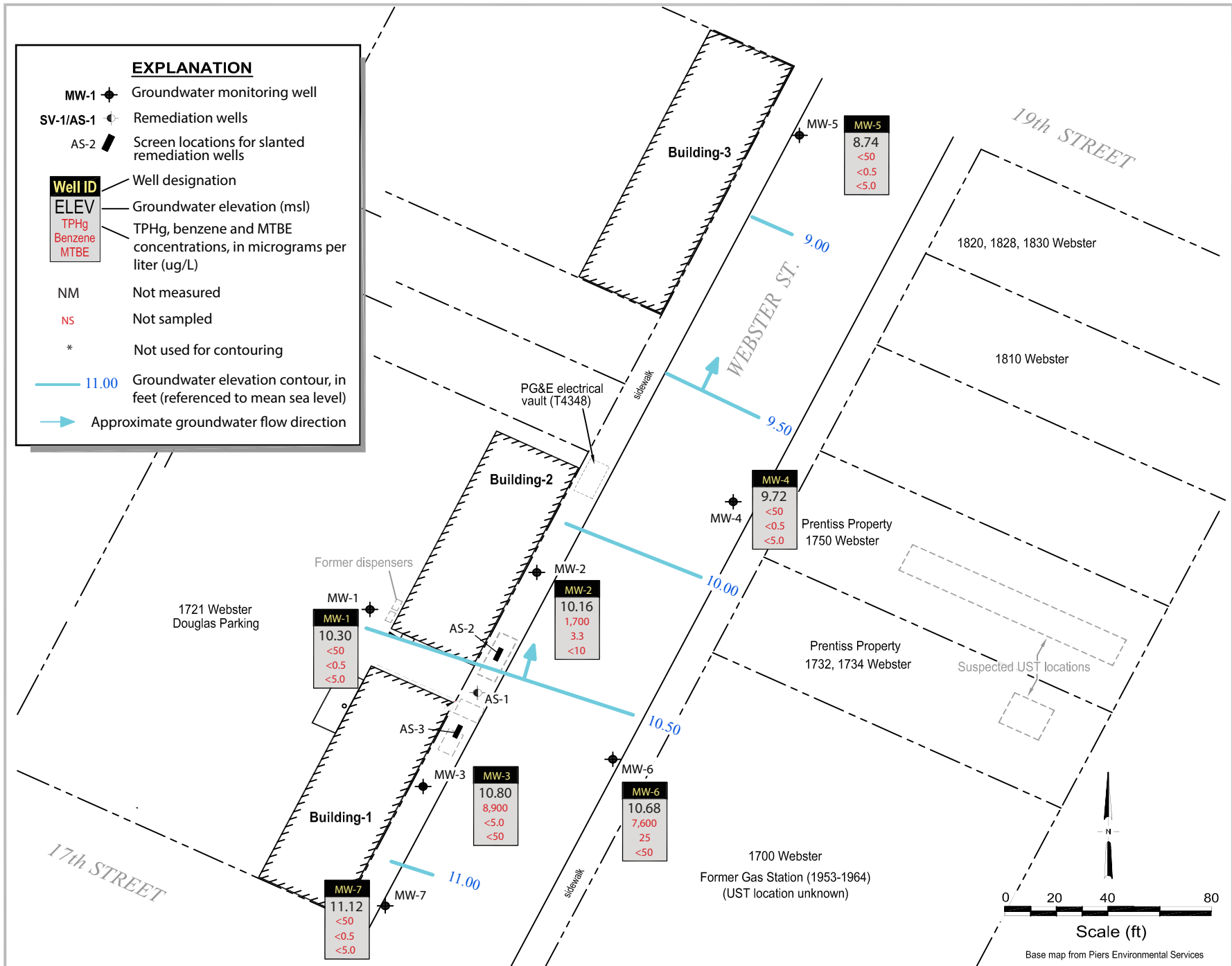


Figure 1

Douglas Parking Facility  
1721 Webster Street  
Oakland, California



Vicinity Map



**Douglas Parking**  
 1721 Webster Street  
 Oakland, California



**Groundwater Elevations and  
 Hydrocarbon Concentration Map**  
 January 22, 2015

FIGURE



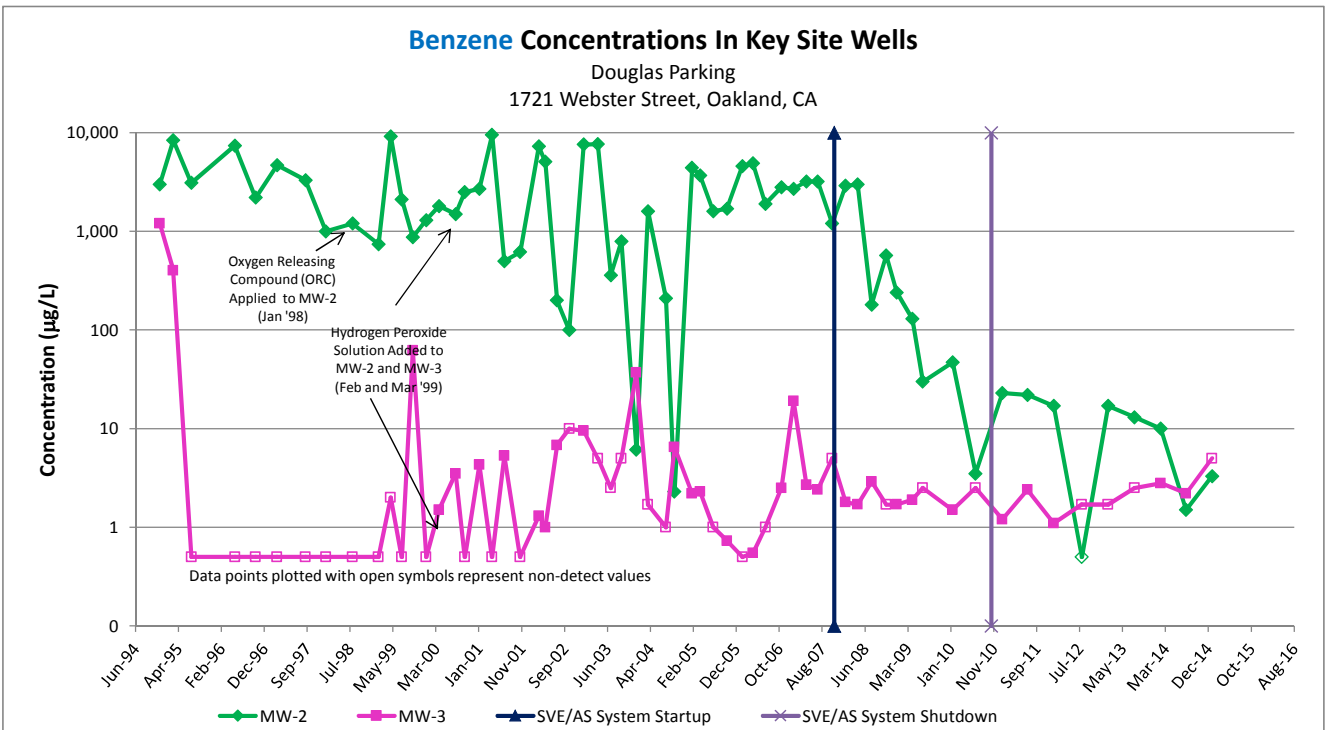
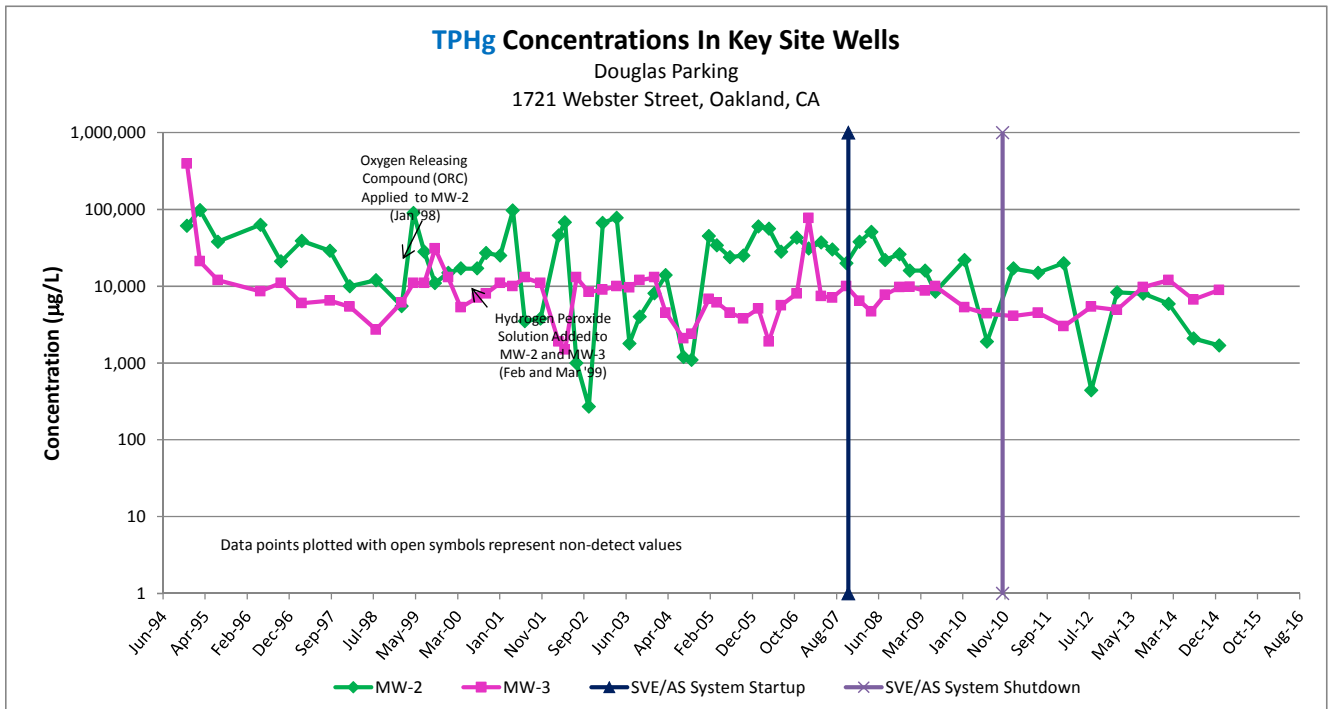


Figure 3 - TPHg and Benzene Trends in Key Onsite Wells

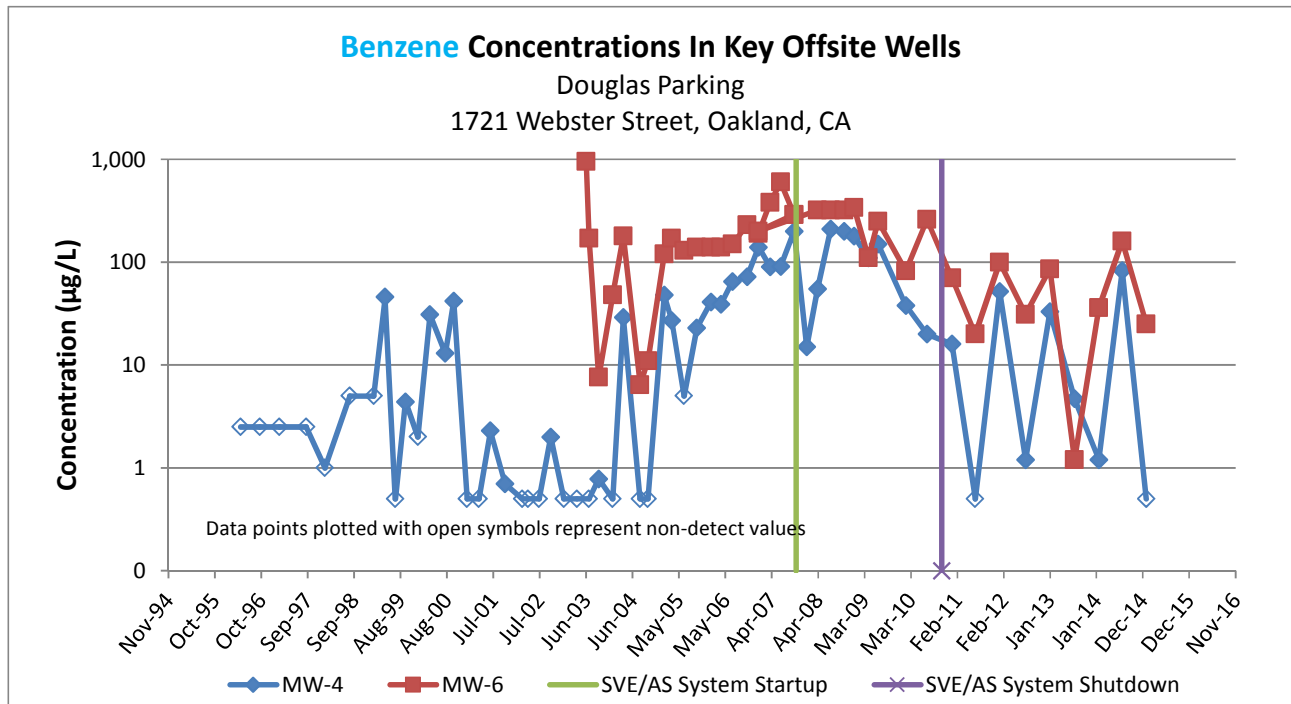
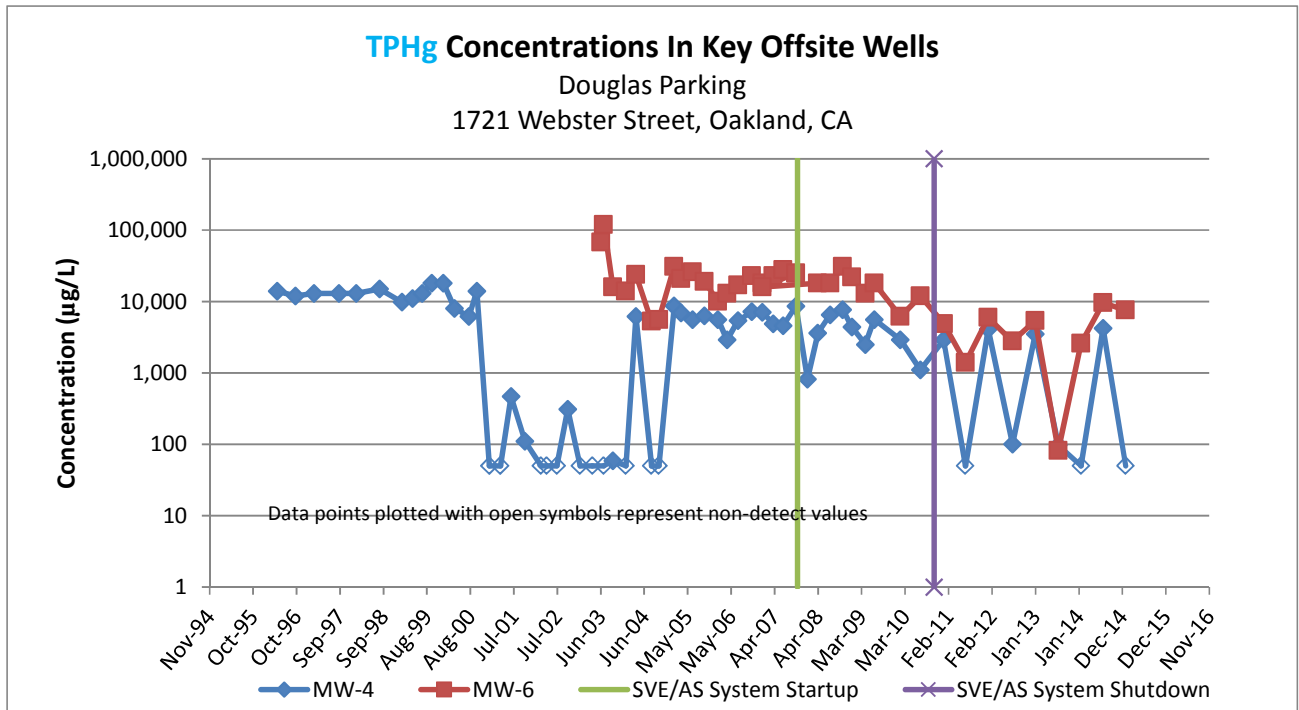


Figure 4 - TPHg and Benzene Trends in Key Offsite Wells

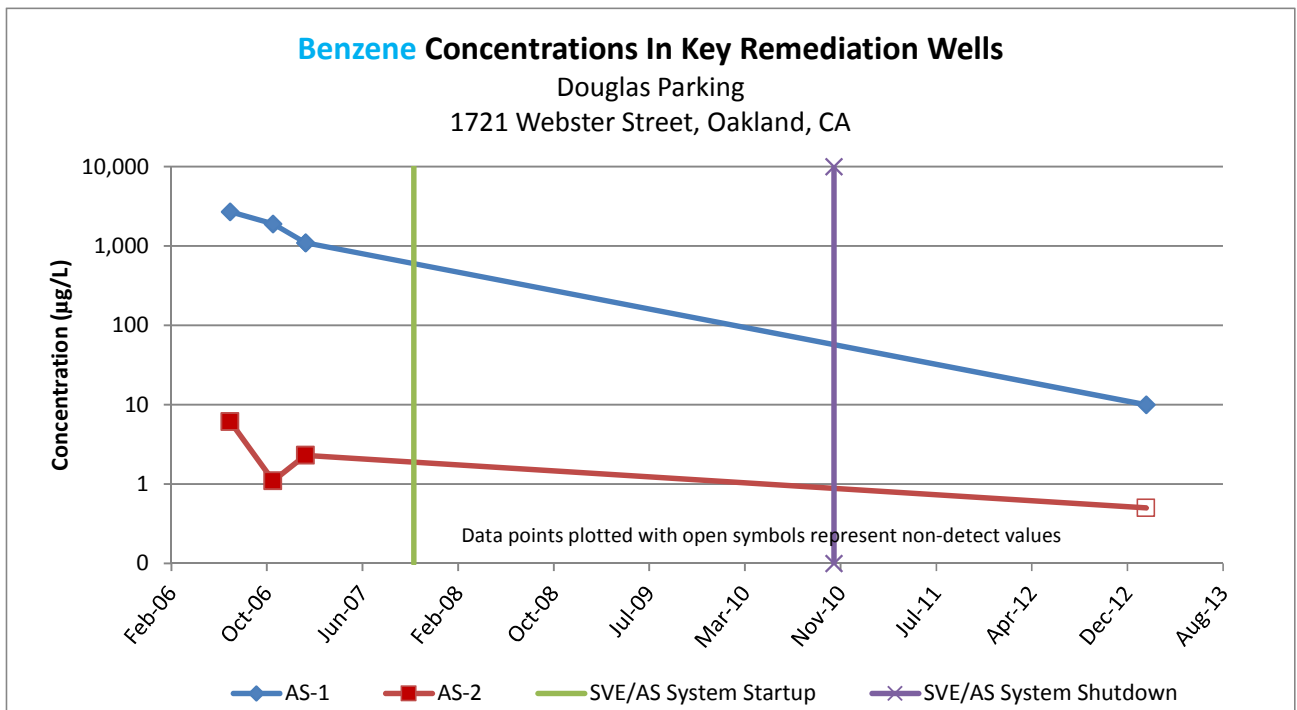
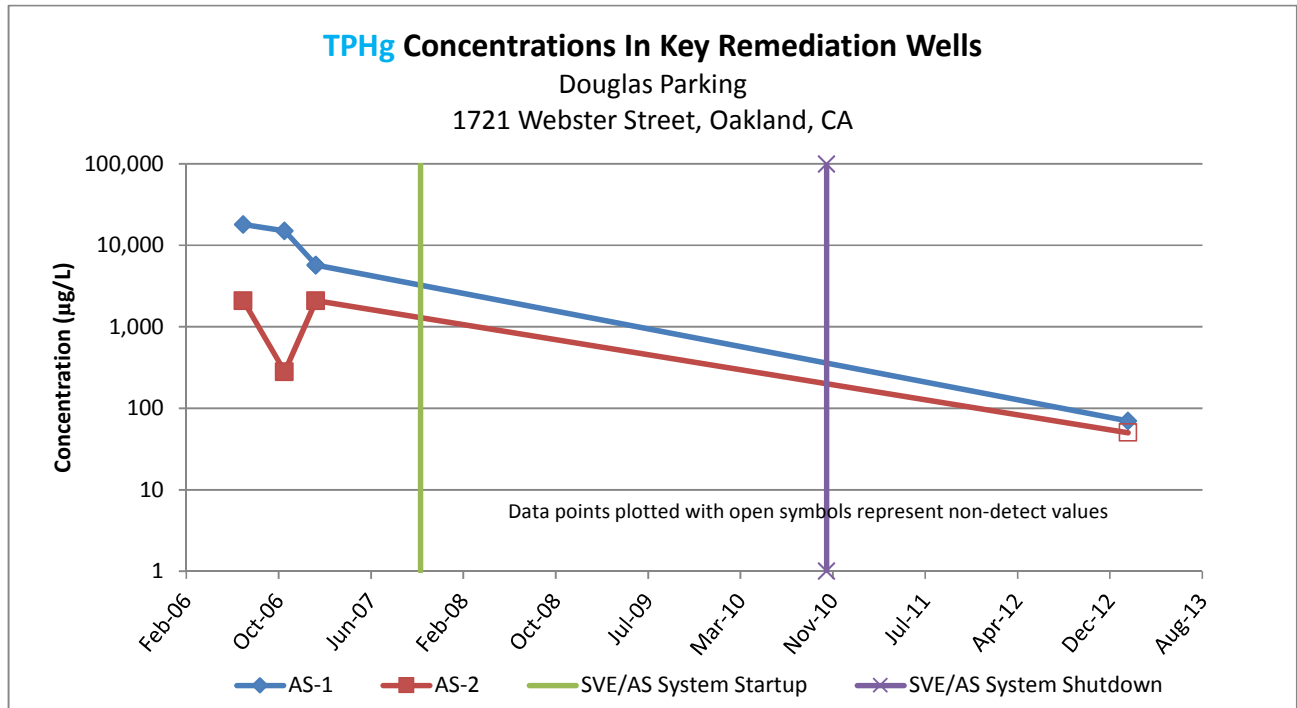
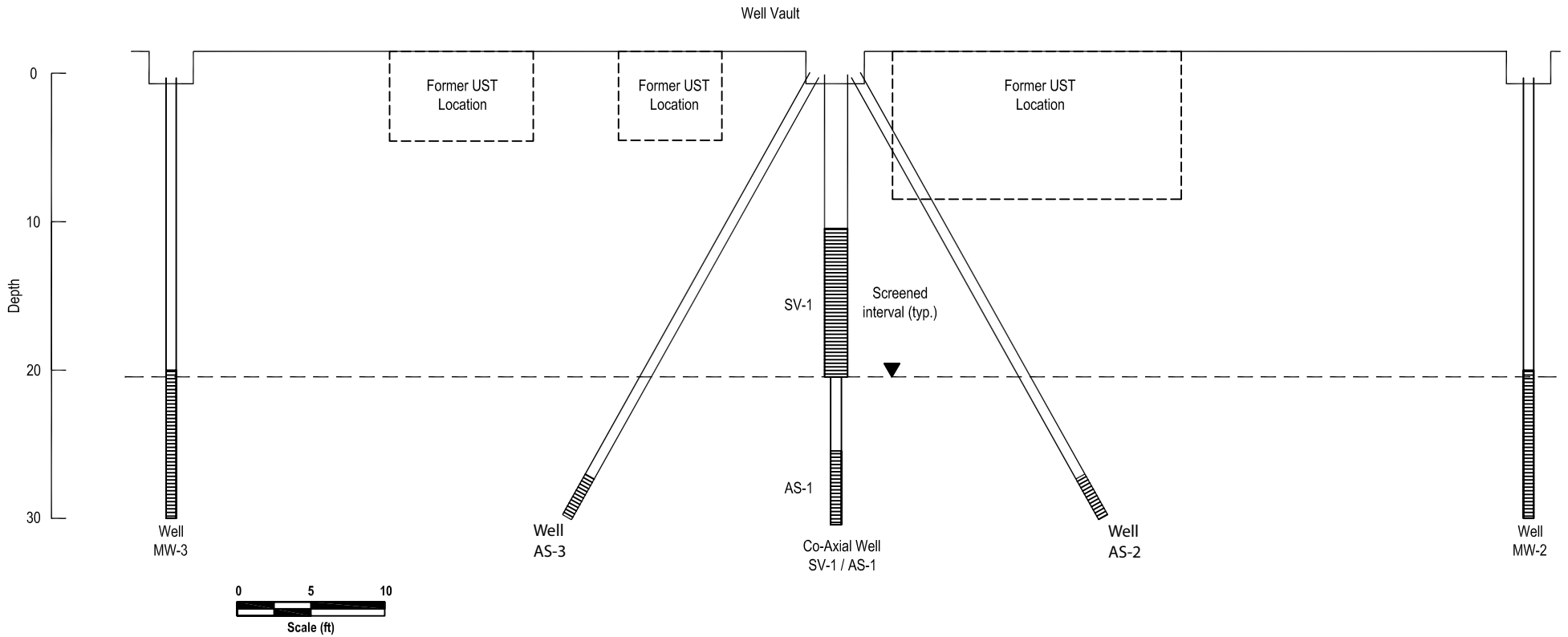



Figure 5 - TPHg and Benzene Trends in Key Remediation Wells



Figure

6

| EXPLANATION   |  |
|---|--|
| MW-1  | Groundwater monitoring well                    |
| SV-1, AS-1  | Remediation well                               |
|  | Former Underground Storage Tanks/Dispensers    |
| AS-2  | Screen locations for slanted remediation wells |

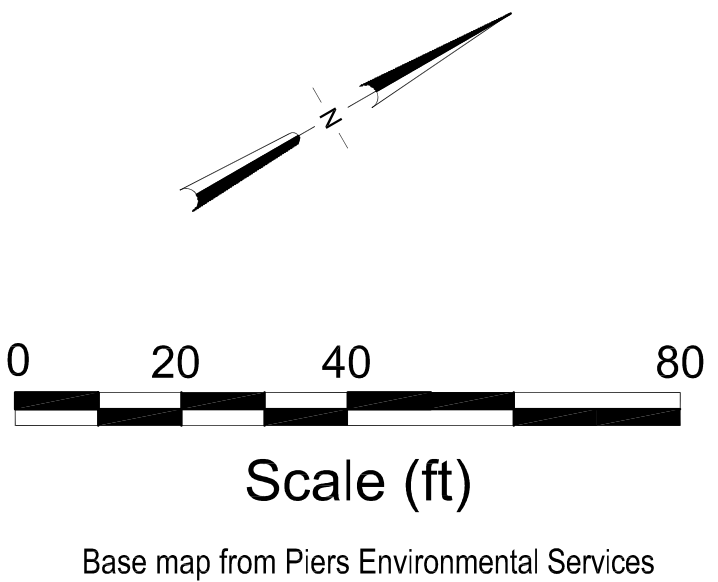
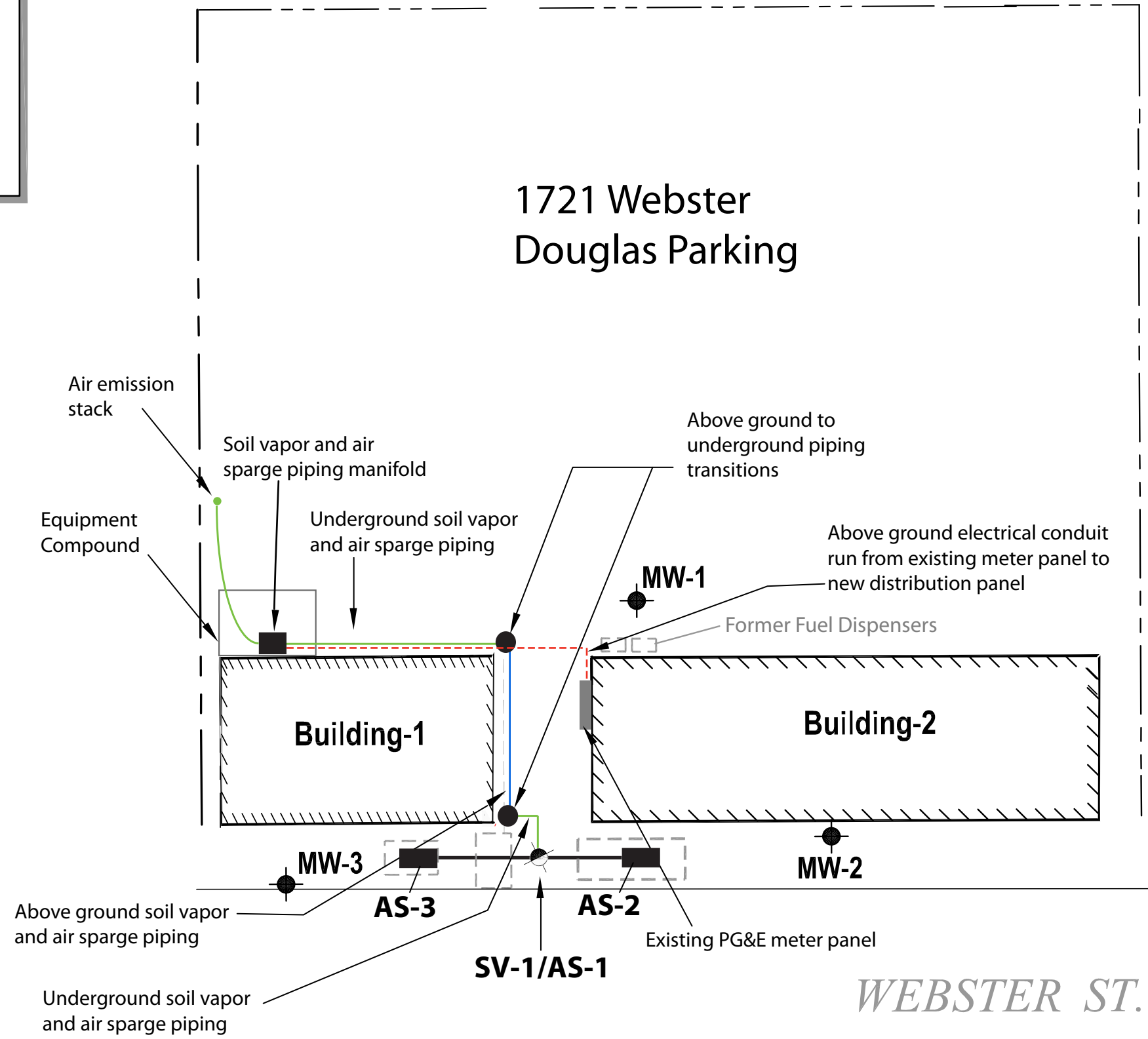


Figure 7

**Douglas Parking**  
 1721 Webster Street  
 Oakland, California



**Remediation System  
 Layout**

# PANGEA

**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well ID<br><i>TOC</i> | Date       | Depth to Water (ft) | Groundwater Elevation (ft amsl) | TPHg<br>← | Benzene | Toluene | Ethylbenzene<br>(µg/L) | Xylenes<br>→ | MTBE |
|--------------------------------|------------|---------------------|---------------------------------|-----------|---------|---------|------------------------|--------------|------|
| <b>Monitoring Wells</b>        |            |                     |                                 |           |         |         |                        |              |      |
| MW-1                           | 12/2/1994  | 19.42               | 9.83                            | ND        | ND      | ND      | ND                     | ND           | -    |
| 29.25                          | 3/6/1995   | 20.69               | 9.04                            | ND        | ND      | ND      | ND                     | ND           | -    |
| 29.73                          | 7/11/1995  | 20.65               | 9.16                            | ND        | ND      | ND      | ND                     | ND           | -    |
| 29.81                          | 5/10/1996  | 20.80               | 9.01                            | ND        | ND      | ND      | ND                     | ND           | -    |
|                                | 10/2/1996  | 21.35               | 8.46                            | -         | -       | -       | -                      | -            | -    |
|                                | 2/28/1997  | 20.57               | 9.24                            | -         | -       | -       | -                      | -            | -    |
|                                | 9/16/1997  | 21.50               | 8.31                            | -         | -       | -       | -                      | -            | -    |
|                                | 2/5/1998   | 20.91               | 8.90                            | -         | -       | -       | -                      | -            | -    |
|                                | 8/11/1998  | 20.50               | 9.31                            | -         | -       | -       | -                      | -            | -    |
|                                | 2/8/1999   | 21.42               | 8.39                            | -         | -       | -       | -                      | -            | -    |
|                                | 2/24/1999  | 22.99               | 6.82                            | -         | -       | -       | -                      | -            | -    |
|                                | 3/3/1999   | 20.84               | 8.97                            | -         | -       | -       | -                      | -            | -    |
|                                | 3/10/1999  | 20.89               | 8.92                            | -         | -       | -       | -                      | -            | -    |
|                                | 3/17/1999  | 20.84               | 8.97                            | -         | -       | -       | -                      | -            | -    |
|                                | 5/4/1999   | 20.80               | 9.01                            | -         | -       | -       | -                      | -            | -    |
|                                | 7/20/1999  | 21.25               | 8.56                            | -         | -       | -       | -                      | -            | -    |
|                                | 10/5/1999  | 21.37               | 8.44                            | -         | -       | -       | -                      | -            | -    |
|                                | 1/7/2000   | 21.65               | 8.16                            | -         | -       | -       | -                      | -            | -    |
|                                | 4/6/2000   | 21.05               | 8.76                            | <50       | <0.5    | <0.5    | <0.5                   | <0.5         | <5.0 |
|                                | 7/31/2000  | 21.13               | 8.68                            | -         | -       | -       | -                      | -            | -    |
|                                | 10/3/2000  | 21.69               | 8.12                            | -         | -       | -       | -                      | -            | -    |
|                                | 1/12/2001  | 22.00               | 7.81                            | -         | -       | -       | -                      | -            | -    |
|                                | 4/11/2001  | 22.16               | 7.65                            | -         | -       | -       | -                      | -            | -    |
|                                | 7/6/2001   | 22.57               | 7.24                            | -         | -       | -       | -                      | -            | -    |
|                                | 10/25/2001 | 22.71               | 7.10                            | -         | -       | -       | -                      | -            | -    |
|                                | 3/4/2002   | 22.53               | 7.28                            | -         | -       | -       | -                      | -            | -    |
|                                | 4/18/2002  | 22.81               | 7.00                            | -         | -       | -       | -                      | -            | -    |
|                                | 7/9/2002   | 22.95               | 6.86                            | -         | -       | -       | -                      | -            | -    |
|                                | 10/4/2002  | 23.13               | 6.68                            | -         | -       | -       | -                      | -            | -    |
|                                | 1/12/2003  | 22.05               | 7.76                            | -         | -       | -       | -                      | -            | -    |
|                                | 4/21/2003  | 21.17               | 8.64                            | -         | -       | -       | -                      | -            | -    |
| 32.75                          | 7/21/2003  | 21.39               | 11.36                           | -         | -       | -       | -                      | -            | -    |
|                                | 10/2/2003  | 21.64               | 11.11                           | -         | -       | -       | -                      | -            | -    |
|                                | 1/15/2004  | 21.10               | 11.65                           | -         | -       | -       | -                      | -            | -    |
|                                | 4/5/2004   | 21.20               | 11.55                           | -         | -       | -       | -                      | -            | -    |
|                                | 8/9/2004   | 22.97               | 9.78                            | -         | -       | -       | -                      | -            | -    |
|                                | 10/7/2004  | 23.55               | 9.20                            | -         | -       | -       | -                      | -            | -    |
|                                | 2/7/2005   | 20.90               | 11.85                           | <50       | <0.5    | <0.5    | <0.5                   | <0.5         | <5.0 |
|                                | 4/5/2005   | 20.60               | 12.15                           | -         | -       | -       | -                      | -            | -    |
|                                | 7/6/2005   | 20.66               | 12.09                           | -         | -       | -       | -                      | -            | -    |
|                                | 10/10/2005 | 21.16               | 11.59                           | -         | -       | -       | -                      | -            | -    |
|                                | 1/26/2006  | 20.73               | 12.02                           | <50       | <0.5    | <0.5    | <0.5                   | <0.5         | <5.0 |
|                                | 4/10/2006  | 20.05               | 12.70                           | -         | -       | -       | -                      | -            | -    |
|                                | 7/6/2006   | 20.90               | 11.85                           | <50       | <0.5    | <0.5    | <0.5                   | <0.5         | <5.0 |
|                                | 10/26/2006 | 21.80               | 10.95                           | <50       | <0.5    | <0.5    | <0.5                   | <0.5         | <5.0 |
|                                | 1/19/2007  | 22.02               | 10.73                           | --        | --      | --      | --                     | --           | --   |
|                                | 4/17/2007  | 22.13               | 10.62                           | --        | --      | --      | --                     | --           | --   |
|                                | 7/6/2007   | 21.83               | 10.92                           | --        | --      | --      | --                     | --           | --   |
|                                | 10/15/2007 | 22.28               | 10.47                           | --        | --      | --      | --                     | --           | --   |
|                                | 1/17/2008  | 22.33               | 10.42                           | <50       | <0.5    | <0.5    | <0.5                   | <0.5         | <5.0 |
|                                | 4/9/2008   | 22.11               | 10.64                           | --        | --      | --      | --                     | --           | --   |
|                                | 7/17/2008  | 22.50               | 10.25                           | --        | --      | --      | --                     | --           | --   |
|                                | 10/27/2008 | 22.75               | 10.00                           | --        | --      | --      | --                     | --           | --   |



# PANGEA

**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well<br>ID<br>TOC | Date                   | Depth to<br>Water<br>(ft) | Groundwater<br>Elevation<br>(ft amsl) | Groundwater Concentrations (µg/L) |                |                |                |                |                |
|----------------------------|------------------------|---------------------------|---------------------------------------|-----------------------------------|----------------|----------------|----------------|----------------|----------------|
|                            |                        |                           |                                       | TPHg                              | Benzene        | Toluene        | Ethylbenzene   | Xylenes        | MTBE           |
| MW-1<br>(cont'd)           | 1/9/2009               | 22.89                     | 9.86                                  | <50                               | <0.5           | <0.5           | <0.5           | <0.5           | <5.0           |
|                            | 4/27/2009              | 22.40                     | 10.35                                 | --                                | --             | --             | --             | --             | --             |
|                            | 7/9/2009               | 22.55                     | 10.20                                 | --                                | --             | --             | --             | --             | --             |
|                            | 2/3/2010               | 22.08                     | 10.67                                 | <50                               | <0.5           | <0.5           | <0.5           | <0.5           | <5.0           |
|                            | 7/13/2010              | 21.20                     | 11.55                                 | ---                               | ---            | ---            | ---            | ---            | ---            |
|                            | 1/17/2011              |                           |                                       | Well Inaccessible                 |                |                |                |                |                |
|                            | 7/12/2011              | 20.72                     | 12.03                                 | --                                | --             | --             | --             | --             | --             |
|                            | 1/11/2012              | 21.33                     | 11.42                                 | <50                               | <0.5           | <0.5           | <0.5           | <0.5           | <5.0           |
|                            | 7/25/2012              | 20.94                     | 11.81                                 | --                                | --             | --             | --             | --             | --             |
|                            | 1/25/2013              | 21.41                     | 11.34                                 | <50                               | <0.5           | <0.5           | <0.5           | <0.5           | <5.0           |
|                            | 7/29/2013              | 22.14                     | 10.61                                 | --                                | --             | --             | --             | --             | --             |
|                            | 1/28/2014              | 22.75                     | 10.00                                 | <50                               | <0.5           | <0.5           | <0.5           | <0.5           | <5.0           |
|                            | 7/24/2014              | 22.84                     | 9.91                                  | --                                | --             | --             | --             | --             | --             |
|                            | <b>1/22/2015</b>       | <b>22.45</b>              | <b>10.30</b>                          | <b>&lt;50</b>                     | <b>&lt;0.5</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b> | <b>&lt;5.0</b> |
|                            | MW-2<br>27.10<br>27.40 | 12/2/1994                 | 19.50                                 | 7.60                              | 61,300         | 3,000          | 3,900          | 160            | 4,500          |
| 3/6/1995                   |                        | 18.49                     | 8.61                                  | 98,000                            | 8,400          | 16,000         | 2,000          | 2,600          | -              |
| 7/11/1995                  |                        | 18.45                     | 8.95                                  | 38,000                            | 3,100          | 7,500          | 940            | 3,700          | -              |
| 5/10/1996                  |                        | 18.56                     | 8.84                                  | 63,000                            | 7,400          | 16,000         | 1,500          | 6,000          | -              |
| 10/2/1996                  |                        | 19.15                     | 8.25                                  | 21,000                            | 2,200          | 3,400          | 430            | 1,600          | -              |
| 2/28/1997                  |                        | 18.43                     | 8.97                                  | 39,000                            | 4,700          | 9,600          | 950            | 4,200          | ND             |
| 9/16/1997                  |                        | 19.26                     | 8.14                                  | 29,000                            | 3,300          | 5,800          | 690            | 2,900          | <620           |
| 2/5/1998                   |                        | 18.66                     | 8.74                                  | 10,000                            | 1,000          | 2,000          | 170            | 860            | <330           |
| 8/11/1998                  |                        | 18.41                     | 8.99                                  | 12,000                            | 1,200          | 2,300          | 260            | 1,400          | 300            |
| 2/8/1999                   |                        | 19.84                     | 7.56                                  | 5,500                             | 740            | 1,200          | 150            | 780            | 60             |
| 2/17/1999                  |                        | 18.94                     | 8.46                                  | -                                 | -              | -              | -              | -              | -              |
| 2/24/1999                  |                        | 20.76                     | 6.64                                  | -                                 | -              | -              | -              | -              | -              |
| 3/3/1999                   |                        | 18.55                     | 8.85                                  | -                                 | -              | -              | -              | -              | -              |
| 3/10/1999                  |                        | 20.74                     | 6.66                                  | -                                 | -              | -              | -              | -              | -              |
| 3/17/1999                  |                        | 18.57                     | 8.83                                  | -                                 | -              | -              | -              | -              | -              |
| 5/4/1999                   |                        | 18.55                     | 8.85                                  | 90,000                            | 9,200          | 21,000         | 1,600          | 10,000         | 560            |
| 7/20/1999                  |                        | 18.98                     | 8.42                                  | 28,000                            | 2,100          | 3,700          | 900            | 4,200          | <860           |
| 10/5/1999                  |                        | 19.10                     | 8.30                                  | 11,000                            | 870            | 180            | 30             | 1,400          | <110           |
| 1/7/2000                   |                        | 19.41                     | 7.99                                  | 15,000                            | 1,300          | 2,100          | 440            | 1,800          | <14            |
| 4/6/2000                   |                        | 18.80                     | 8.60                                  | 17,000                            | 1,800          | 3,100          | 500            | 2,200          | <50            |
| 7/31/2000                  |                        | 18.87                     | 8.53                                  | 17,000                            | 1,500          | 2,700          | 430            | 2,100          | <200           |
| 10/3/2000                  |                        | 19.45                     | 7.95                                  | 27,000                            | 2,500          | 4,000          | 660            | 2,900          | <50            |
| 1/12/2001                  |                        | 19.80                     | 7.60                                  | 25,000                            | 2,700          | 4,100          | 670            | 3,000          | <200           |
| 4/11/2001                  |                        | 20.03                     | 7.37                                  | 97,000                            | 9,500          | 21,000         | 2,200          | 7,900          | <200           |
| 7/6/2001                   |                        | 20.19                     | 7.21                                  | 3,500                             | 500            | 150            | 11             | 420            | <5.0           |
| 10/25/2001                 |                        | 20.35                     | 7.05                                  | 3,800                             | 620            | 230            | 70             | 400            | <50            |
| 3/4/2002                   |                        | 20.37                     | 7.03                                  | 46,000                            | 7,300          | 12,000         | 870            | 3,200          | <500           |
| 4/18/2002                  |                        | 20.15                     | 7.25                                  | 68,000                            | 5,100          | 8,900          | 1,100          | 4,000          | <1,000         |
| 7/9/2002                   |                        | 21.09                     | 6.31                                  | 1,000                             | 200            | 8.9            | 0.67           | 82             | <10            |
| 10/4/2002                  |                        | 21.28                     | 6.12                                  | 270                               | 100            | 3.4            | 0.53           | 10             | <5.0           |
| 1/12/2003                  | 20.59                  | 6.81                      | 67,000                                | 7,600                             | 13,000         | 1,400          | 5,600          | <500           |                |
| 4/21/2003                  | 19.98                  | 7.42                      | 78,000                                | 7,700                             | 12,000         | 1,900          | 6,900          | <500           |                |
| 7/21/2003                  | 20.08                  | 10.32                     | 1,800                                 | 360                               | 16             | <5.0           | 190            | <50            |                |
| 10/2/2003                  | 20.41                  | 9.99                      | 4,000                                 | 790                               | 110            | 60             | 350            | <50            |                |
| 1/15/2004                  | 19.93                  | 10.47                     | 8,100                                 | 6.1                               | 23             | 44             | 530            | <50            |                |
| 4/5/2004                   | 18.99                  | 11.41                     | 14,000                                | 1,600                             | 2,100          | 550            | 2,500          | <500           |                |
| 8/9/2004                   | 19.79                  | 10.61                     | 1,200                                 | 210                               | 16             | 14             | 100            | <20            |                |
| 10/7/2004                  | 20.26                  | 10.14                     | 1,100                                 | 2.3                               | 9.8            | 2.9            | 36             | <5.0           |                |
| 2/7/2005                   | 18.80                  | 11.60                     | 45,000                                | 4,400                             | 4,800          | 1,400          | 5,800          | <200           |                |
| 4/5/2005                   | 18.40                  | 12.00                     | 34,000                                | 3,700                             | 3,600          | 1,200          | 5,300          | <500 (<5.0)    |                |

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**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well<br>ID<br>TOC | Date             | Depth to<br>Water<br>(ft) | Groundwater<br>Elevation<br>(ft amsl) | Groundwater Concentrations (µg/L) |            |            |              |           |               |
|----------------------------|------------------|---------------------------|---------------------------------------|-----------------------------------|------------|------------|--------------|-----------|---------------|
|                            |                  |                           |                                       | TPHg<br>←                         | Benzene    | Toluene    | Ethylbenzene | Xylenes   | MTBE<br>→     |
| MW-2                       | 7/6/2005         | 18.48                     | 11.92                                 | 24,000                            | 1,600      | 1,700      | 570          | 2,800     | <500          |
| (cont'd)                   | 10/10/2005       | 19.00                     | 11.40                                 | 25,000                            | 1,700      | 2,100      | 710          | 3,200     | <500          |
|                            | 1/26/2006        | 18.58                     | 11.82                                 | 60,000                            | 4,600      | 7,200      | 1,600        | 6,900     | <1,000        |
|                            | 4/10/2006        | 17.84                     | 12.56                                 | 56,000                            | 4,900      | 7,500      | 1,200        | 7,400     | <500          |
|                            | 7/6/2006         | 18.76                     | 11.64                                 | 28,000                            | 1,900      | 1,700      | 720          | 2,900     | <500          |
|                            | 10/26/2006       | 19.60                     | 10.80                                 | 43,000                            | 2,800      | 2,500      | 1,700        | 7,600     | <500          |
|                            | 1/19/2007        | 19.84                     | 10.56                                 | 31,000                            | 2,700      | 2,400      | 1,400        | 5,800     | <150          |
|                            | 4/17/2007        | 19.90                     | 10.50                                 | 37,000                            | 3,200      | 2,900      | 1,600        | 6,400     | <400          |
|                            | 7/6/2007         | 19.63                     | 10.77                                 | 30,000                            | 3,200      | 2,000      | 1,500        | 5,200     | <250          |
|                            | 10/15/2007       | 20.11                     | 10.29                                 | 20,000                            | 1,200      | 990        | 650          | 2,300     | <500          |
|                            | 1/17/2008        | 20.10                     | 10.30                                 | 38,000                            | 2,900      | 5,100      | 1,200        | 5,000     | <210          |
|                            | 4/9/2008         | 20.12                     | 10.28                                 | 51,000                            | 3,000      | 6,400      | 1,700        | 6,500     | <250          |
|                            | 7/17/2008        | 20.01                     | 10.39                                 | 22,000                            | 180        | 500        | 660          | 2,100     | <250          |
|                            | 10/27/2008       | 20.61                     | 9.79                                  | 26,000                            | 570        | 2,100      | 670          | 3,400     | <50           |
|                            | 1/9/2009         | 20.80                     | 9.60                                  | 16,000                            | 240        | 680        | 460          | 3,000     | <100          |
|                            | 4/27/2009        | 20.17                     | 10.23                                 | 16,000                            | 130        | 660        | 570          | 3,600     | <500          |
|                            | 7/9/2009         | 20.36                     | 10.04                                 | 8,500                             | 30         | 110        | 250          | 1,400     | <100          |
|                            | 2/3/2010         | 19.84                     | 10.56                                 | 22,000                            | 47         | 140        | 500          | 3,000     | <100          |
|                            | 7/13/2010        | 19.08                     | 11.32                                 | 1,900                             | 3.5        | 5.8        | 38           | 110       | <5.0          |
|                            | 1/17/2011        | 19.02                     | 11.38                                 | 17,000                            | 23         | 100        | 330          | 2,200     | <100          |
|                            | 7/12/2011        | 18.52                     | 11.88                                 | 15,000                            | 22         | 30         | 190          | 740       | <50           |
|                            | 1/12/2011        | 19.18                     | 11.22                                 | 20,000                            | 17         | 47         | 250          | 2,100     | <84           |
|                            | 7/25/2012        | 18.83                     | 11.57                                 | 440                               | <0.5       | 2.2        | 1.0          | 39        | <5.0          |
|                            | 1/25/2013        | 19.21                     | 11.19                                 | 8,300                             | 17         | 11         | 140          | 510       | <50           |
|                            | 7/29/2013        | 19.94                     | 10.46                                 | 8,000                             | 13         | 13         | 200          | 100       | <25           |
|                            | 1/28/2014        | 20.56                     | 9.84                                  | 5,900                             | 10         | 7.3        | 100          | 80        | <50           |
|                            | 7/24/2014        | 20.61                     | 9.79                                  | 2,100                             | 1.5        | 3.1        | 21           | 37        | <5.0          |
|                            | <b>1/22/2015</b> | <b>20.24</b>              | <b>10.16</b>                          | <b>1,700</b>                      | <b>3.3</b> | <b>3.0</b> | <b>8.0</b>   | <b>25</b> | <b>&lt;10</b> |
| MW-3                       | 12/2/1994        | 22.15                     | 7.35                                  | 394,000                           | 1,200      | ND         | 1,800        | 4,000     | -             |
| 29.50                      | 3/6/1995         | 20.09                     | 9.16                                  | 21,000                            | 400        | 150        | 24           | 62        | -             |
| 29.25                      | 7/11/1995        | 19.99                     | 9.57                                  | 12,000                            | ND         | 10         | 16           | 99        | -             |
| 29.56                      | 5/10/1996        | 20.24                     | 9.32                                  | 8,600                             | ND         | 7.6        | 16           | 84        | -             |
|                            | 10/2/1996        | 20.90                     | 8.66                                  | 11,000                            | ND         | 7.4        | 19           | 92        | -             |
|                            | 2/28/1997        | 20.12                     | 9.44                                  | 6,000                             | ND         | 4.4        | 17           | 88        | 50            |
|                            | 9/16/1997        | 20.97                     | 8.59                                  | 6,500                             | <0.5       | 0.69       | 1.2          | 6.7       | <5.0          |
|                            | 2/5/1998         | 20.39                     | 9.17                                  | 5,400                             | <0.5       | 6.3        | 15           | 86        | <63           |
|                            | 8/11/1998        | 19.95                     | 9.61                                  | 2,700                             | <0.5       | 3.5        | 3.2          | 12        | <10           |
|                            | 2/8/1999         | 20.58                     | 8.98                                  | 6,100                             | <0.5       | 8.1        | 18           | 80        | <140          |
|                            | 2/17/1999        | 20.53                     | 9.03                                  | -                                 | -          | -          | -            | -         | -             |
|                            | 2/24/1999        | 22.53                     | 7.03                                  | -                                 | -          | -          | -            | -         | -             |
|                            | 3/3/1999         | 20.28                     | 9.28                                  | -                                 | -          | -          | -            | -         | -             |
|                            | 3/10/1999        | 22.45                     | 7.11                                  | -                                 | -          | -          | -            | -         | -             |
|                            | 3/17/1999        | 20.26                     | 9.30                                  | -                                 | -          | -          | -            | -         | -             |
|                            | 5/4/1999         | 20.24                     | 9.32                                  | 11,000                            | <2         | <2         | 9.8          | 140       | <10           |
|                            | 7/20/1999        | 20.68                     | 8.88                                  | 11,000                            | <0.5       | 3.1        | 13           | 88        | <80           |
|                            | 10/5/1999        | 20.81                     | 8.75                                  | 31,000                            | 62         | <0.5       | 21           | 170       | <90           |
|                            | 1/7/2000         | 21.09                     | 8.47                                  | 13,000                            | <0.5       | <2         | 21           | 140       | <80           |
|                            | 4/6/2000         | 20.48                     | 9.08                                  | 5,300                             | 1.5        | 1.4        | 9.8          | 60        | <30           |
|                            | 7/31/2000        | 20.62                     | 8.94                                  | 7,100                             | 3.5        | 1.0        | 12           | 66        | <5.0          |
|                            | 10/3/2000        | 21.13                     | 8.43                                  | 8,000                             | <0.5       | 3.3        | 11           | 70        | <40           |
|                            | 1/12/2001        | 21.45                     | 8.11                                  | 11,000                            | 4.3        | 6.7        | 11           | 73        | <70           |
|                            | 4/11/2001        | 21.69                     | 7.87                                  | 10,000                            | <0.5       | <0.5       | 11           | 65        | <10           |
|                            | 7/6/2001         | 21.60                     | 7.96                                  | 13,000                            | 5.3        | 1.6        | 11           | 58        | <5.0          |
|                            | 10/25/2001       | 21.70                     | 7.86                                  | 11,000                            | <0.5       | 3.0        | 15           | 70        | <10           |

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**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well<br>ID<br>TOC | Date             | Depth to<br>Water<br>(ft) | Groundwater<br>Elevation<br>(ft amsl) | (µg/L)       |                |                |                |                |               |
|----------------------------|------------------|---------------------------|---------------------------------------|--------------|----------------|----------------|----------------|----------------|---------------|
|                            |                  |                           |                                       | TPHg         | Benzene        | Toluene        | Ethylbenzene   | Xylenes        | MTBE          |
| MW-3                       | 3/4/2002         | 21.65                     | 7.91                                  | 1,900        | 1.3            | 0.8            | <0.5           | 15             | <5.0          |
| (cont'd)                   | 4/18/2002        | 21.77                     | 7.79                                  | 1,500        | 1.0            | 0.97           | 1.3            | 5.8            | <5            |
|                            | 7/9/2002         | 22.03                     | 7.53                                  | 13,000       | 6.8            | 5.7            | 13             | 59             | <90           |
|                            | 10/4/2002        | 22.15                     | 7.41                                  | 8,400        | <10            | <10            | <10            | 42             | <100          |
|                            | 1/12/2003        | 21.13                     | 8.43                                  | 9,000        | 9.5            | 5.1            | 8.5            | 46             | <90           |
|                            | 4/21/2003        | 20.63                     | 8.93                                  | 10,000       | <5.0           | <5.0           | 8.5            | 32             | <50           |
| 32.56                      | 7/21/2003        | 20.68                     | 11.88                                 | 9,600        | <2.5           | <2.5           | 7.4            | 39             | 48 (<1.0)     |
|                            | 10/2/2003        | 20.99                     | 11.57                                 | 12,000       | <5.0           | <5.0           | 10             | 40             | <90           |
|                            | 1/15/2004        | 20.74                     | 11.82                                 | 13,000       | 37             | 41             | 78             | 930            | <50           |
|                            | 4/5/2004         | 20.59                     | 11.97                                 | 4,500        | <1.7           | <1.7           | <1.7           | 12             | <17           |
|                            | 8/9/2004         | 22.18                     | 10.38                                 | 2,100        | <1.0           | 3.7            | <1.0           | 8.1            | <10           |
|                            | 10/7/2004        | 22.79                     | 9.77                                  | 2,400        | 6.5            | 26             | 7.5            | 89             | <15           |
|                            | 2/7/2005         | 20.35                     | 12.21                                 | 6,800        | 2.2            | 5.6            | 2.0            | 12             | <30           |
|                            | 4/5/2005         | 19.95                     | 12.61                                 | 6,100        | 2.3            | 2.6            | 1.3            | 8.3            | <45 (<0.5)    |
|                            | 7/6/2005         | 19.93                     | 12.63                                 | 4,500        | <1.0           | 1.5            | 1.0            | 8.3            | <10           |
|                            | 10/10/2005       | 20.45                     | 12.11                                 | 3,800        | 0.73           | <0.5           | 0.98           | 5.7            | <15           |
|                            | 1/26/2006        | 20.05                     | 12.51                                 | 5,100        | <0.5           | 1.1            | <0.5           | 6.6            | <15           |
|                            | 4/10/2006        | 19.39                     | 13.17                                 | 1,900        | 0.55           | 1.6            | 0.51           | 4.1            | <10           |
|                            | 7/6/2006         | 20.25                     | 12.31                                 | 5,600        | <1.0           | 2.3            | <1.0           | 6.4            | <20           |
|                            | 10/26/2006       | 21.07                     | 11.49                                 | 8,000        | 2.5            | 1.0            | 2.3            | 12             | <35           |
|                            | 1/19/2007        | 21.38                     | 11.18                                 | 77,000       | 19             | 40             | 9.5            | 130            | <300          |
|                            | 4/17/2007        | 21.45                     | 11.11                                 | 7,400        | 2.7            | 6.6            | 1.1            | 12             | <40           |
|                            | 7/6/2007         | 21.29                     | 11.27                                 | 7,100        | 2.4            | 5.6            | 0.85           | 10             | <30           |
|                            | 10/15/2007       | 21.62                     | 10.94                                 | 10,000       | <5.0           | <5.0           | <5.0           | 14             | <50           |
|                            | 1/17/2008        | 21.68                     | 10.88                                 | 6,400        | 1.8            | <0.5           | 1.0            | 8.4            | 23            |
|                            | 4/9/2008         | 21.42                     | 11.14                                 | 4,700        | 1.7            | 2.2            | <0.5           | 3.8            | <18           |
|                            | 7/17/2008        | 22.10                     | 10.46                                 | 7,700        | 2.9            | 3.1            | 1.4            | 11             | <60           |
|                            | 10/27/2008       | 22.13                     | 10.43                                 | 9,700        | <1.7           | 1.8            | 2.3            | 11             | <17           |
|                            | 1/9/2009         | 22.27                     | 10.29                                 | 9,800        | 1.7            | 2.0            | 3.0            | 14             | <17           |
|                            | 4/27/2009        | 21.74                     | 10.82                                 | 8,700        | 1.9            | 3.3            | <1.7           | 11             | <50           |
|                            | 7/9/2009         | 21.92                     | 10.64                                 | 10,000       | <2.5           | 4.1            | 2.6            | 11             | <60           |
|                            | 2/3/2010         | 21.55                     | 11.01                                 | 5,300        | 1.5            | 2.3            | <0.5           | 2.7            | <25           |
|                            | 7/13/2010        | 21.31                     | 11.25                                 | 4,400        | <2.5           | 9.0            | <2.5           | 4.6            | <25           |
|                            | 1/17/2011        | 20.75                     | 11.81                                 | 4,100        | 1.2            | 1.8            | <0.5           | 2.7            | <20           |
|                            | 7/12/2011        | 20.14                     | 12.42                                 | 4,500        | 2.4            | 2.8            | <0.5           | 5.0            | <25           |
|                            | 1/11/2012        | 20.80                     | 11.76                                 | 3,000        | 1.1            | 1.6            | <0.5           | 1.9            | <15           |
|                            | 7/25/2012        | 20.44                     | 12.12                                 | 5,400        | <1.7           | <1.7           | <1.7           | 4.1            | <17           |
|                            | 1/25/2013        | 20.84                     | 11.72                                 | 4,900        | <1.7           | 2.7            | <1.7           | 3.5            | <17           |
|                            | 7/29/2013        | 21.48                     | 11.08                                 | 9,700        | <2.5           | <2.5           | <2.5           | <2.5           | <25           |
|                            | 1/28/2014        | 22.08                     | 10.48                                 | 12,000       | 2.8            | 2.8            | <2.5           | 4.6            | <25           |
|                            | 7/24/2014        | 22.15                     | 10.41                                 | 6,700        | 2.2            | <1.7           | 1.9            | 5.2            | <35           |
|                            | <b>1/22/2015</b> | <b>21.76</b>              | <b>10.80</b>                          | <b>8,900</b> | <b>&lt;5.0</b> | <b>&lt;5.0</b> | <b>&lt;5.0</b> | <b>&lt;5.0</b> | <b>&lt;50</b> |
| MW-4                       | 5/10/1996        | 16.98                     | 8.31                                  | 14,000       | ND             | 1,200          | 720            | 3,100          | -             |
| 25.29                      | 10/2/1996        | 17.65                     | 7.64                                  | 12,000       | ND             | 650            | 580            | 2,200          | -             |
|                            | 2/28/1997        | 16.80                     | 8.49                                  | 13,000       | ND             | 1,100          | 750            | 2,700          | 110           |
|                            | 9/17/1997        | 17.93                     | 7.36                                  | 13,000       | <2.5           | 820            | 750            | 2,900          | <190          |
|                            | 2/5/1998         | 16.78                     | 8.51                                  | 13,000       | <1.0           | 690            | 690            | 2,900          | <170          |
|                            | 8/11/1998        | 16.59                     | 8.70                                  | 15,000       | <5             | 360            | 520            | 1,900          | 280           |
|                            | 2/8/1999         | 17.10                     | 8.19                                  | 9,800        | <5             | 680            | 770            | 2,200          | 300           |
|                            | 2/24/1999        | 18.95                     | 6.34                                  | -            | -              | -              | -              | -              | -             |
|                            | 3/3/1999         | 16.80                     | 8.49                                  | -            | -              | -              | -              | -              | -             |
|                            | 3/10/1999        | 16.86                     | 8.43                                  | -            | -              | -              | -              | -              | -             |
|                            | 3/17/1999        | 16.82                     | 8.47                                  | -            | -              | -              | -              | -              | -             |
|                            | 5/4/1999         | 16.86                     | 8.43                                  | 11,000       | 46             | 600            | 620            | 1,900          | <100          |

# PANGEA

**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well<br>ID<br>TOC | Date       | Depth to<br>Water<br>(ft) | Groundwater<br>Elevation<br>(ft amsl) | TPHg<br>< | Benzene | Toluene | Ethylbenzene<br>(µg/L) | Xylenes | MTBE<br>>   |
|----------------------------|------------|---------------------------|---------------------------------------|-----------|---------|---------|------------------------|---------|-------------|
|                            |            |                           |                                       |           |         |         |                        |         |             |
| MW-4                       | 7/20/1999  | 17.30                     | 7.99                                  | 13,000    | <0.5    | 470     | 7.0                    | 2,000   | <150        |
| (cont'd)                   | 10/5/1999  | 17.43                     | 7.86                                  | 18,000    | 4.4     | 720     | 800                    | 2,100   | <120        |
|                            | 1/7/2000   | 17.78                     | 7.51                                  | 18,000    | <2      | 930     | 990                    | 2,700   | <30         |
|                            | 4/6/2000   | 17.17                     | 8.12                                  | 8,000     | 31      | 390     | 530                    | 1,300   | <10         |
|                            | 7/31/2000  | 17.21                     | 8.08                                  | 6,200     | 13      | 170     | 460                    | 850     | <10         |
|                            | 10/3/2000  | 18.00                     | 7.29                                  | 14,000    | 42      | 820     | 730                    | 2,000   | <50         |
|                            | 1/12/2001  | 18.20                     | 7.09                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 4/11/2001  | 18.31                     | 6.98                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 7/6/2001   | 18.35                     | 6.94                                  | 470       | 2.3     | 1.6     | 0.81                   | 43      | <5.0        |
|                            | 10/25/2001 | 18.47                     | 6.82                                  | 110       | 0.70    | <0.5    | <0.5                   | 3.3     | <5.0        |
|                            | 3/4/2002   | 18.43                     | 6.86                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 4/18/2002  | 18.61                     | 6.68                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 7/9/2002   | 19.50                     | 5.79                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 10/4/2002  | 19.83                     | 5.46                                  | 310       | 2.0     | 2.9     | 13                     | 16      | <0.5        |
|                            | 1/12/2003  | 19.07                     | 6.22                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 4/21/2003  | 18.71                     | 6.58                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
| 28.29                      | 7/21/2003  | 18.81                     | 9.48                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 10/2/2003  | 19.02                     | 9.27                                  | 59        | 0.78    | <0.5    | 1.1                    | 0.91    | <5.0        |
|                            | 1/15/2004  | 18.68                     | 9.61                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 4/5/2004   | 17.41                     | 10.88                                 | 6,200     | 29      | 250     | 450                    | 730     | <100        |
|                            | 8/9/2004   | 19.07                     | 9.22                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 10/7/2004  | 19.65                     | 8.64                                  | <50       | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 2/7/2005   | 17.21                     | 11.08                                 | 8,700     | 48      | 340     | 550                    | 720     | <100        |
|                            | 4/5/2005   | 16.78                     | 11.51                                 | 6,900     | 27      | 290     | 520                    | 660     | <170 (<0.5) |
|                            | 7/6/2005   | 16.98                     | 11.31                                 | 5,600     | <5.0    | 130     | 470                    | 480     | <50         |
|                            | 10/10/2005 | 17.59                     | 10.70                                 | 6,300     | 23      | 78      | 530                    | 430     | <50         |
|                            | 1/26/2006  | 17.08                     | 11.21                                 | 5,600     | 41      | 68      | 400                    | 290     | <120        |
|                            | 4/10/2006  | 16.27                     | 12.02                                 | 2,900     | 39      | 32      | 200                    | 140     | <60         |
|                            | 7/6/2006   | 17.20                     | 11.09                                 | 5,400     | 65      | 59      | 340                    | 150     | <120        |
|                            | 10/26/2006 | 18.06                     | 10.23                                 | 7,200     | 72      | 46      | 460                    | 200     | <150        |
|                            | 1/19/2007  | 18.29                     | 10.00                                 | 7,100     | 140     | 35      | 520                    | 150     | <200        |
|                            | 4/17/2007  | 18.30                     | 9.99                                  | 4,900     | 90      | 32      | 290                    | 89      | <110        |
|                            | 7/6/2007   | 18.00                     | 10.29                                 | 4,600     | 91      | 30      | 210                    | 55      | <90         |
|                            | 10/15/2007 | 18.52                     | 9.77                                  | 8,600     | 200     | 62      | 480                    | 110     | <210        |
|                            | 1/17/2008  | 18.46                     | 9.83                                  | 820       | 15      | 3.7     | 25                     | 9.3     | <10         |
|                            | 4/9/2008   | 18.23                     | 10.06                                 | 3,600     | 55      | 20      | 160                    | 64      | <60         |
|                            | 7/17/2008  | 18.72                     | 9.57                                  | 6,500     | 210     | 47      | 510                    | 180     | <180        |
|                            | 10/27/2008 | 19.07                     | 9.22                                  | 7,700     | 200     | 28      | 450                    | 87      | <150        |
|                            | 1/9/2009   | 19.12                     | 9.17                                  | 4,400     | 180     | 34      | 180                    | 93      | <150        |
|                            | 4/27/2009  | 18.52                     | 9.77                                  | 2,500     | 110     | 24      | 190                    | 69      | <150        |
|                            | 7/9/2009   | 18.78                     | 9.51                                  | 5,600     | 150     | 34      | 270                    | 83      | <250        |
|                            | 2/3/2010   | 18.24                     | 10.05                                 | 2,900     | 38      | 20      | 69                     | 54      | <50         |
|                            | 7/13/2010  | 17.59                     | 10.70                                 | 1,100     | 20      | 7.6     | 43                     | 26      | <60         |
|                            | 1/17/2011  | 17.42                     | 10.87                                 | 2,900     | 16      | 43      | 60                     | 99      | <15         |
|                            | 7/12/2011  | 17.01                     | 11.28                                 | <50       | <0.5    | 0.56    | 0.52                   | 0.93    | <5.0        |
|                            | 1/11/2012  | 17.68                     | 10.61                                 | 4,100     | 52      | 52      | 49                     | 130     | <90         |
|                            | 7/25/2012  | 17.26                     | 11.03                                 | 100       | 1.2     | <0.5    | <0.5                   | <0.5    | <5.0        |
|                            | 1/25/2013  | 17.58                     | 10.71                                 | 3,500     | 33      | 20      | 23                     | 65      | <35         |
|                            | 7/29/2013  | 18.34                     | 9.95                                  | 97        | 4.7     | <0.5    | <0.5                   | 0.70    | <10         |

# PANGEA

**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well<br>ID<br>TOC | Date             | Depth to<br>Water<br>(ft) | Groundwater<br>Elevation<br>(ft amsl) | TPHg<br><     | Benzene        | Toluene        | Ethylbenzene<br>(µg/L) | Xylenes        | MTBE<br>>      |
|----------------------------|------------------|---------------------------|---------------------------------------|---------------|----------------|----------------|------------------------|----------------|----------------|
|                            |                  |                           |                                       |               |                |                |                        |                |                |
| MW-4<br>(cont'd)           | 1/28/2014        | 18.99                     | 9.30                                  | <50           | 1.2            | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/24/2014        | 19.05                     | 9.24                                  | 4,200         | 83             | 19             | 40                     | 32             | <50            |
|                            | <b>1/22/2015</b> | <b>18.57</b>              | <b>9.72</b>                           | <b>&lt;50</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b>         | <b>&lt;0.5</b> | <b>&lt;5.0</b> |
| MW-5<br>21.97              | 5/10/1996        | 14.60                     | 7.37                                  | ND            | ND             | ND             | ND                     | ND             | -              |
|                            | 10/2/1996        | 15.25                     | 6.72                                  | ND            | ND             | ND             | ND                     | ND             | -              |
|                            | 2/28/1997        | 14.31                     | 7.66                                  | ND            | ND             | ND             | ND                     | ND             | ND             |
|                            | 9/17/1997        | 15.18                     | 6.79                                  | <0.5          | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 2/5/1998         | 13.64                     | 8.33                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 8/11/1998        | 13.92                     | 8.05                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 2/8/1999         | 14.19                     | 7.78                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 2/24/1999        | 16.18                     | 5.79                                  | -             | -              | -              | -                      | -              | -              |
|                            | 3/3/1999         | 14.23                     | 7.74                                  | -             | -              | -              | -                      | -              | -              |
|                            | 3/10/1999        | 14.32                     | 7.65                                  | -             | -              | -              | -                      | -              | -              |
|                            | 3/17/1999        | 14.25                     | 7.72                                  | -             | -              | -              | -                      | -              | -              |
|                            | 5/4/1999         | 14.41                     | 7.56                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/20/1999        | 14.44                     | 7.53                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/5/1999        | 14.79                     | 7.18                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/7/2000*        | 15.23                     | 6.74                                  | -             | -              | -              | -                      | -              | -              |
|                            | 4/6/2000         | 14.74                     | 7.23                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/31/2000        | 14.52                     | 7.45                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/3/2000        | 15.37                     | 6.60                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/12/2001        | 15.70                     | 6.27                                  | 6,400         | 13             | 290            | 450                    | 1,100          | <40            |
|                            | 4/11/2001        | 15.78                     | 6.19                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/6/2001         | 15.97                     | 6.00                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/25/2001       | 16.05                     | 5.92                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 3/4/2002         | 16.21                     | 5.76                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/18/2002        | 16.59                     | 5.38                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/9/2002         | 16.94                     | 5.03                                  | 170           | 1.0            | 0.65           | 2.1                    | 4.0            | <15            |
|                            | 10/4/2002        | 17.14                     | 4.83                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/12/2003        | 16.58                     | 5.39                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/21/2003        | 15.90                     | 6.07                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/21/2003        | 16.03                     | 8.96                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/2/2003        | 16.33                     | 8.66                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/15/2004        | 16.21                     | 8.78                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/5/2004         | 15.01                     | 9.98                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 8/9/2004         | 16.85                     | 8.14                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
| 10/7/2004                  | 17.48            | 7.51                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 2/7/2005                   | 16.52            | 8.47                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 4/5/2005                   | 14.45            | 10.54                     | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0 (<0.5)    |                |
| 7/6/2005                   | 14.85            | 10.14                     | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 10/10/2005                 | 15.44            | 9.55                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 1/26/2006                  | 14.96            | 10.03                     | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 4/10/2006                  | 14.01            | 10.98                     | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 7/6/2006                   | 15.17            | 9.82                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 10/26/2006                 | 15.94            | 9.05                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 1/19/2007                  | 16.05            | 8.94                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 4/17/2007                  | 15.99            | 9.00                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 7/6/2007                   | 15.50            | 9.49                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 10/15/2007                 | 16.27            | 8.72                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 1/17/2008                  | 15.10            | 9.89                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 4/9/2008                   | 15.96            | 9.03                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 7/17/2008                  | 16.44            | 8.55                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 10/27/2008                 | 16.78            | 8.21                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 1/9/2009                   | 16.75            | 8.24                      | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |

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**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well ID<br>TOC | Date             | Depth to Water (ft) | Groundwater Elevation (ft amsl) | TPHg<br>←     | Benzene        | Toluene        | Ethylbenzene<br>(µg/L) | Xylenes        | MTBE<br>→      |
|-------------------------|------------------|---------------------|---------------------------------|---------------|----------------|----------------|------------------------|----------------|----------------|
| MW-5<br>(cont'd)        | 4/27/2009        | 16.21               | 8.78                            | --            | --             | --             | --                     | --             | --             |
|                         | 7/9/2009         | 16.48               | 8.51                            | --            | --             | --             | --                     | --             | --             |
|                         | 2/3/2010         | 15.77               | 9.22                            | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                         | 7/13/2010        | 15.34               | 9.65                            | ---           | ---            | ---            | ---                    | ---            | ---            |
|                         | 1/17/2011        | 14.93               | 10.06                           | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                         | 7/12/2011        | 14.81               | 10.18                           | --            | --             | --             | --                     | --             | --             |
|                         | 1/11/2012        | 15.44               | 9.55                            | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                         | 7/25/2012        | 14.79               | 10.20                           | --            | --             | --             | --                     | --             | --             |
|                         | 1/25/2013        | 15.21               | 9.78                            | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                         | 7/29/2013        | 16.03               | 8.96                            | --            | --             | --             | --                     | --             | --             |
|                         | 1/28/2014        | 16.65               | 8.34                            | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                         | 7/24/2014        | 16.75               | 8.24                            | --            | --             | --             | --                     | --             | --             |
|                         | <b>1/22/2015</b> | <b>16.25</b>        | <b>8.74</b>                     | <b>&lt;50</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b>         | <b>&lt;0.5</b> | <b>&lt;0.5</b> |
|                         | MW-6<br>30.99    | 6/30/2003           | 19.60                           | 11.39         | 68,000         | 950            | 6,000                  | 2,400          | 10,000         |
| 7/21/2003               |                  | 19.67               | 11.32                           | 120,000       | 170            | 1,400          | 1,100                  | 10,000         | <1,000         |
| 10/2/2003               |                  | 19.97               | 11.02                           | 16,000        | 7.6            | 200            | 38                     | 1,800          | <100           |
| 1/15/2004               |                  | 19.55               | 11.44                           | 14,000        | 48             | 51             | 94                     | 1,100          | <50            |
| 4/5/2004                |                  | 19.17               | 11.82                           | 24,000        | 180            | 900            | 430                    | 1,800          | <500           |
| 8/9/2004                |                  | 20.98               | 10.01                           | 5,300         | 6.4            | 25             | 5.3                    | 69             | <17 (<0.5)     |
| 10/7/2004               |                  | 21.52               | 9.47                            | 5,600         | 11             | 58             | 18                     | 210            | <50 (<0.5)     |
| 2/7/2005                |                  | 19.00               | 11.99                           | 31,000        | 120            | 620            | 310                    | 1,200          | <500           |
| 4/5/2005                |                  | 18.60               | 12.39                           | 21,000        | 170            | 1,100          | 350                    | 1,300          | <500 (<5.0)    |
| 7/6/2005                |                  | 18.56               | 12.43                           | 26,000        | 130            | 920            | 320                    | 1,200          | <500           |
| 10/10/2005              |                  | 19.99               | 11.00                           | 19,000        | 140            | 840            | 250                    | 980            | <500           |
| 1/26/2006               |                  | 18.70               | 12.29                           | 10,000        | 140            | 1,100          | 270                    | 1,200          | <170           |
| 4/10/2006               |                  | 18.04               | 12.95                           | 13,000        | 140            | 1,000          | 280                    | 1,000          | <250           |
| 7/6/2006                |                  | 18.80               | 12.19                           | 17,000        | 150            | 1,000          | 290                    | 1,000          | <250           |
| 10/26/2006              |                  | 19.62               | 11.37                           | 23,000        | 230            | 660            | 470                    | 1,500          | <500           |
| 1/19/2007               |                  | 19.92               | 11.07                           | 18,000        | 190            | 620            | 350                    | 1,100          | <150           |
| 4/17/2007               |                  | 19.97               | 11.02                           | 23,000        | 380            | 1,400          | 590                    | 2,000          | <450           |
| 7/6/2007                |                  | 19.81               | 11.18                           | 28,000        | 600            | 3,000          | 900                    | 2,700          | <500           |
| 10/15/2007              |                  | 20.15               | 10.84                           | 25,000        | 290            | 680            | 410                    | 1,100          | <250           |
| 10/15/2007              |                  | 20.15               | 10.84                           | 25,000        | 290            | 680            | 410                    | 1,100          | <250           |
| 1/17/2007               |                  | 20.22               | 10.77                           | 16,000        | 200            | 130            | 130                    | 460            | <150           |
| 4/9/2008                |                  | 19.86               | 11.13                           | 18,000        | 320            | 870            | 480                    | 1,500          | <250           |
| 7/17/2008               |                  | 20.36               | 10.63                           | 18,000        | 320            | 510            | 420                    | 1,200          | <500           |
| 10/27/2008              |                  | 20.69               | 10.30                           | 31,000        | 320            | 320            | 410                    | 990            | <350           |
| 1/9/2009                |                  | 20.83               | 10.16                           | 22,000        | 340            | 390            | 560                    | 1,400          | <250           |
| 4/27/2009               |                  | 20.27               | 10.72                           | 13,000        | 110            | 97             | 380                    | 1,100          | <350           |
| 7/9/2009                |                  | 20.43               | 10.56                           | 18,000        | 250            | 520            | 470                    | 1,300          | <450           |
| 2/3/2010                |                  | 20.14               | 10.85                           | 6,200         | 82             | 180            | 190                    | 550            | <150           |
| 7/13/2010               |                  | 19.29               | 11.70                           | 12,000        | 260            | 420            | 480                    | 1,600          | <450           |
| 1/17/2011               |                  | 19.31               | 11.68                           | 4,900         | 70             | 52             | 210                    | 500            | <50            |
| 7/12/2011               |                  | 18.73               | 12.26                           | 1,400         | 20             | 8.5            | 64                     | 130            | <30            |
| 1/11/2012               |                  | 19.39               | 11.60                           | 6,000         | 100            | 38             | 310                    | 700            | <210           |
| 7/25/2012               | 19.02            | 11.97               | 2,800                           | 31            | 13             | 140            | 240                    | <75            |                |
| 1/25/2013               | 19.35            | 11.64               | 5,400                           | 86            | 34             | 310            | 620                    | <100           |                |
| 7/29/2013               | 19.97            | 11.02               | 82                              | 1.2           | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 1/28/2014               | 20.60            | 10.39               | 2,600                           | 36            | 11             | 52             | 53                     | <50            |                |
| 7/24/2014               | 20.70            | 10.29               | 9,600                           | 160           | 53             | 410            | 590                    | <70            |                |
| <b>1/22/2015</b>        | <b>20.31</b>     | <b>10.68</b>        | <b>7,600</b>                    | <b>25</b>     | <b>13</b>      | <b>53</b>      | <b>86</b>              | <b>&lt;50</b>  |                |



# PANGEA

**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well<br>ID<br>TOC | Date             | Depth to<br>Water<br>(ft) | Groundwater<br>Elevation<br>(ft amsl) | TPHg<br>←     | Benzene        | Toluene        | Ethylbenzene<br>(µg/L) | Xylenes        | MTBE<br>→      |
|----------------------------|------------------|---------------------------|---------------------------------------|---------------|----------------|----------------|------------------------|----------------|----------------|
|                            |                  |                           |                                       |               |                |                |                        |                |                |
| MW-7                       | 6/30/2003        | 21.40                     | 11.71                                 | 170           | <0.5           | 2.1            | 2.0                    | 8.7            | <5.0           |
| 33.11                      | 7/21/2003        | 21.44                     | 11.67                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/2/2003        | 21.73                     | 11.38                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/15/2004        | 21.57                     | 11.54                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/5/2004         | 20.84                     | 12.27                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 8/9/2004         | 22.68                     | 10.43                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/7/2004        | 23.27                     | 9.84                                  | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 2/7/2005         | 20.60                     | 12.51                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/5/2005         | 20.22                     | 12.89                                 | <50           | <0.5           | 0.75           | <0.5                   | <0.5           | <5.0 (<0.5)    |
|                            | 7/6/2005         | 20.25                     | 12.86                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/10/2005       | 20.70                     | 12.41                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/26/2006        | 20.32                     | 12.79                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/10/2006        | 19.62                     | 13.49                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/6/2006         | 20.47                     | 12.64                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/26/2006       | 21.30                     | 11.81                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/19/2007        | 21.62                     | 11.49                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/17/2007        |                           | 11.49                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/6/2007         | 21.59                     | 11.52                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/15/2007       | 21.85                     | 11.26                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/17/2007        | 21.90                     | 11.21                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/9/2008         | 21.61                     | 11.50                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/17/2008        | 22.09                     | 11.02                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 10/27/2008       | 22.39                     | 10.72                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/9/2009         | 22.52                     | 10.59                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 4/27/2009        | 21.98                     | 11.13                                 | --            | --             | --             | --                     | --             | --             |
|                            | 7/9/2009         | 22.18                     | 10.93                                 | --            | --             | --             | --                     | --             | --             |
|                            | 2/3/2010         | 21.87                     | 11.24                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/13/2010        | 21.01                     | 12.10                                 | --            | --             | --             | --                     | --             | --             |
|                            | 1/17/2011        | 21.07                     | 12.04                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/12/2011        | 20.72                     | 12.39                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 1/11/2012        | 21.13                     | 11.98                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/25/2012        | 20.75                     | 12.36                                 | --            | --             | --             | --                     | --             | --             |
|                            | 1/25/2013        | 21.10                     | 12.01                                 | <50           | <0.5           | <0.5           | <0.5                   | <0.5           | <5.0           |
|                            | 7/29/2013        | 21.70                     | 11.41                                 | --            | --             | --             | --                     | --             | --             |
| 1/28/2014                  | 22.34            | 10.77                     | <50                                   | <0.5          | <0.5           | <0.5           | <0.5                   | <5.0           |                |
| 7/24/2014                  | 22.41            | 10.70                     | --                                    | --            | --             | --             | --                     | --             |                |
|                            | <b>1/22/2015</b> | <b>21.99</b>              | <b>11.12</b>                          | <b>&lt;50</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b> | <b>&lt;0.5</b>         | <b>&lt;0.5</b> | <b>&lt;5.0</b> |
| AS-1                       | 7/6/2006         | 19.53                     | --                                    | 18,000        | 2,700          | 570            | 700                    | 1,900          | <500           |
|                            | 10/26/2006       | 20.33                     | --                                    | 15,000        | 1,900          | 340            | 360                    | 1,400          | <250           |
|                            | 1/19/2007        | 20.64                     | --                                    | 5,700         | 1,100          | 110            | 88                     | 630            | <50            |
|                            | 1/19/2007        | 20.64                     | --                                    | 5,700         | 1,100          | 110            | 88                     | 630            | <50            |
|                            | 4/17/2007        | 20.71                     | --                                    | --            | --             | --             | --                     | --             | --             |
|                            | 7/16/2007        | --                        | --                                    | --            | --             | --             | --                     | --             | --             |
|                            | 10/15/2007       | --                        | --                                    | --            | --             | --             | --                     | --             | --             |
|                            | 1/17/2008        | --                        | --                                    | --            | --             | --             | --                     | --             | --             |
|                            | 4/9/2008         | --                        | --                                    | --            | --             | --             | --                     | --             | --             |
|                            | 1/25/2013        | --                        | --                                    | 70            | 10             | <0.5           | <0.5                   | <0.5           | <5.0           |
| AS-2                       | 7/6/2006         | 22.26                     | --                                    | 2,100         | 6.1            | <0.5           | 33                     | 200            | <20            |
|                            | 10/26/2006       | 23.25                     | --                                    | 280           | 1.1            | <0.5           | <0.5                   | 6.0            | <15            |
|                            | 1/19/2007        | 23.61                     | --                                    | 2,100         | 2.3            | <0.5           | 96                     | 310            | <35            |
|                            | 4/17/2007        | 23.70                     | --                                    | --            | --             | --             | --                     | --             | --             |
|                            | 7/16/2007        | --                        | --                                    | --            | --             | --             | --                     | --             | --             |
|                            | 10/15/2007       | --                        | --                                    | --            | --             | --             | --                     | --             | --             |

# PANGEA

**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well ID<br><i>TOC</i> | Date       | Depth to Water (ft) | Groundwater Elevation (ft amsl) | TPHg    | Benzene | Toluene | Ethylbenzene<br>(µg/L) | Xylenes | MTBE |
|--------------------------------|------------|---------------------|---------------------------------|---------|---------|---------|------------------------|---------|------|
| AS-2                           | 1/17/2008  | --                  | --                              | --      | --      | --      | --                     | --      | --   |
| (cont'd)                       | 4/9/2008   | --                  | --                              | --      | --      | --      | --                     | --      | --   |
|                                | 1/25/2013  | 22.02               | --                              | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
| AS-3                           | 7/6/2006   | 21.77               | --                              | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 10/26/2006 | 22.66               | --                              | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 1/19/2007  | 22.97               | --                              | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 4/17/2007  | 23.06               | --                              | --      | --      | --      | --                     | --      | --   |
|                                | 7/16/2007  | --                  | --                              | --      | --      | --      | --                     | --      | --   |
|                                | 10/15/2007 | --                  | --                              | --      | --      | --      | --                     | --      | --   |
|                                | 1/17/2008  | --                  | --                              | --      | --      | --      | --                     | --      | --   |
|                                | 4/9/2008   | --                  | --                              | --      | --      | --      | --                     | --      | --   |
|                                | 1/25/2013  | 22.60               | --                              | <50     | <0.5    | <0.5    | 0.55                   | <0.5    | <5.0 |
| Trip Blank                     | 01/12/01   | -                   | -                               | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 4/11/2001  | -                   | -                               | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 7/6/2001   | -                   | -                               | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 3/4/2002   | -                   | -                               | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 10/2/2003  | -                   | -                               | <50     | <0.5    | <0.5    | <0.5                   | <0.5    | <5.0 |
|                                | 10/15/2007 | --                  | --                              | --      | --      | --      | --                     | --      | --   |
| <b>Grab Groundwater</b>        |            |                     |                                 |         |         |         |                        |         |      |
| SB-A                           | 2/22/1996  | --                  | --                              | 16,000  | 38      | 16      | 180                    | 620     | --   |
| SB-B                           | 2/22/1996  | --                  | --                              | 20,000  | 100     | 29      | 320                    | 590     | --   |
| SB-C                           | 2/22/1996  | --                  | --                              | 1,200   | 130     | 100     | 68                     | 230     | --   |
| SB-D                           | 2/22/1996  | --                  | --                              | 7,400   | 550     | 110     | 160                    | 89      | --   |
| SB-E                           | 2/23/1996  | --                  | --                              | 16,000  | 31      | 160     | 390                    | 1,400   | --   |
| SB-F                           | 2/23/1996  | --                  | --                              | <50     | <0.5    | 1.4     | <0.5                   | 2.3     | --   |
| SB-G                           | 2/23/1996  | --                  | --                              | 5,200   | 1.3     | <0.5    | 0.7                    | <0.5    | --   |
| EB-1GWS                        | 7/8/1994   | --                  | --                              | 62,000  | <0.5    | 26      | 850.0                  | 8,900   | --   |
| EB-2GWS                        | 7/8/1994   | --                  | --                              | 160,000 | 5,300   | 20,000  | 2,100                  | 17,000  | --   |
| EB-3GWS                        | 7/8/1994   | --                  | --                              | 87,000  | 1,400   | 21,000  | 1,700                  | 19,000  | --   |
| EB-4GWS                        | 7/8/1994   | --                  | --                              | 350,000 | 290     | 1,300   | 3,200                  | 31,000  | --   |
| EB-5GWS                        | 7/8/1994   | --                  | --                              | 120,000 | 2,100.0 | 13,000  | 1,300.0                | 16,000  | --   |
| EB-6GWS                        | 7/8/1994   | --                  | --                              | 230,000 | 10,000  | 34,000  | 2,300                  | 16,000  | --   |

# PANGEA

**Table 1 - Groundwater Elevation and Analytical Data.**

Douglas Parking Company, 1721 Webster Street, Oakland, California

| Boring / Well<br>ID<br><i>TOC</i> | Date | Depth to<br>Water<br>(ft) | Groundwater<br>Elevation<br>(ft amsl) | TPHg<br>< | Benzene | Toluene | Ethylbenzene<br>(µg/L) | Xylenes | MTBE<br>> |
|-----------------------------------|------|---------------------------|---------------------------------------|-----------|---------|---------|------------------------|---------|-----------|
|-----------------------------------|------|---------------------------|---------------------------------------|-----------|---------|---------|------------------------|---------|-----------|

**Notes and Abbreviations:**

TOC = Top of casing elevations in feet above mean sea level.

ft amsl = Measured in feet above mean sea level

µg/L = Micrograms per liter.

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015C.

BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B.

MTBE = Methyl tertiary butyl ether by EPA Method 8021B, and by EPA Method 8260 in parenthesis.

<0.5 = Concentration not detected above specific laboratory reporting limit.

-- = Not analyzed, not sampled, or not applicable.

ND = Not detected.

Data prior to 7/11/95 from Gen Tech and Piers Environmental Quarterly Groundwater Monitoring Reports dated December 2, 1994 and March 6, 1995, respectively.

On July 31, 2003, Virgil Chavez Land Surveying of Vallejo, California surveyed monitoring wells using a benchmark in the top of the curb near the SW return of the NW corner of 34th and Broadway.

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date     | Sample ID                     | FIELD MEASUREMENTS         |                              |                             |                   | ANALYTICAL RESULTS   |                         | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments   |
|----------|-------------------------------|----------------------------|------------------------------|-----------------------------|-------------------|----------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|--|
|          |                               | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Vapor Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv) | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |  |
| 10/29/07 | N/A                           | 1.0                        | 0                            | 0                           | 0                 | 0                    | 0                       | 0                               | 0                                 | 0                                  | 0                                    | no                           | System start up  |
| 10/29/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 1.5                        | 104                          | 68                          | 3,400             | 9,600                | 76                      | 320.3                           | 6.7                               | 2.30                               | 0.05                                 | no                           |  |
|          |                               |                            |                              |                             | 8                 | 23                   | ND<0.077                |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 0                 | 27                   | 0.15                    |                                 |                                   |                                    |                                      |                              |  |
| 10/30/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 24.3                       | 50                           | 27                          | 37,000            | 9,000                | 74                      | 144.4                           | 143.8                             | 1.08                               | 1.07                                 | no                           | Readings upon arrival  |
|          |                               |                            |                              |                             | 635               | ND<7.0               | ND<0.077                |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 700               | 60                   | 0.29                    |                                 |                                   |                                    |                                      |                              |  |
| 10/30/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 25.2                       | 45                           | 27                          | 3,200             | 1,500                | 11                      | 21.7                            | 144.6                             | 0.14                               | 1.08                                 | no                           | readings after dilution air introduced to reduce noise and limit hydrocarocarbon loading on carbon (prevent thermal excursion/fire). |
|          |                               |                            |                              |                             | 620               | ND<7.0               | ND<0.077                |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 530               | ND<7.0               | ND<0.077                |                                 |                                   |                                    |                                      |                              |  |
| 10/31/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 48.8                       | 40                           | 27                          | 922*              | 880                  | 8.6                     | 11.3                            | 155.7                             | 0.10                               | 1.17                                 | no                           | Dilution airflow set at ~25% of total flow   |
|          |                               |                            |                              |                             | 0*                | ND<7.0               | ND<0.077                |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 0*                | ND<7.0               | ND<0.077                |                                 |                                   |                                    |                                      |                              |  |
| 11/01/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 78.8                       | 39                           | 27                          | 1,475             | ---                  | ---                     | 11.0                            | 169.5                             | 0.10                               | 1.30                                 | no                           |  |
|          |                               |                            |                              |                             | 14                | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 9                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
| 11/02/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 100.2                      | 40                           | 27                          | 736               | ---                  | ---                     | 11.3                            | 179.6                             | 0.10                               | 1.39                                 | no                           | Shut system down at 100.5 hours for weekend  |
|          |                               |                            |                              |                             | 19                | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 10                | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
| 11/05/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 100.9                      | 38                           | 27                          | 1,546             | ---                  | ---                     | 10.7                            | 179.9                             | 0.10                               | 1.39                                 | no                           | Restart system at 100.5 hours on 11/5/07   |
|          |                               |                            |                              |                             | 30                | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 4                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
| 11/06/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 126.7                      | 38                           | 27                          | 213               | ---                  | ---                     | 10.7                            | 191.4                             | 0.10                               | 1.49                                 | no                           |  |
|          |                               |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
| 11/07/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 154.7                      | 45                           | 27                          | 170               | ---                  | ---                     | 12.7                            | 206.2                             | 0.11                               | 1.62                                 | no                           |  |
|          |                               |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
|          |                               |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date     | Sample ID                     | FIELD MEASUREMENTS         |                              |                       |                   | ANALYTICAL RESULTS   |                         | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments   |
|----------|-------------------------------|----------------------------|------------------------------|-----------------------|-------------------|----------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|--|
|          |                               | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv) | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |  |
| 11/08/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 178.2                      | 47                           | 27                    | 160<br>0<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 13.3                            | 219.2                             | 0.12                               | 1.74                                 | no                           | Lab analysis performed for methane; 2.4 ul/L detected in SYS EFF   |
| 11/09/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 200.3                      | 45                           | 31                    | 163<br>0<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 12.7                            | 230.9                             | 0.11                               | 1.84                                 | no                           | Shut system down at 200.3 hours for weekend                        |
| 11/12/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 206.3                      | 42                           | 28                    | 211<br>0<br>2     | ---<br>---<br>---    | ---<br>---<br>---       | 11.9                            | 233.9                             | 0.11                               | 1.87                                 | yes                          | Restart system at 200.3 hours on 11/12/07; start air sparge system |
| 11/13/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 225.6                      | 46                           | 28                    | 2,937<br>0<br>4   | ---<br>---<br>---    | ---<br>---<br>---       | 13.0                            | 244.3                             | 0.12                               | 1.96                                 | yes                          |  |
| 11/14/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 253.0                      | 45                           | 28                    | 4,113<br>0<br>0   | ---<br>---<br>---    | ---<br>---<br>---       | 12.7                            | 258.9                             | 0.11                               | 2.09                                 | yes                          |  |
| 11/15/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 278.4                      | 45                           | 28                    | 2,810<br>0<br>0   | ---<br>---<br>---    | ---<br>---<br>---       | 12.7                            | 272.3                             | 0.11                               | 2.21                                 | yes                          |  |
| 11/16/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 301.4                      | 43                           | 28                    | 2,570<br>0<br>0   | ---<br>---<br>---    | ---<br>---<br>---       | 12.1                            | 283.9                             | 0.11                               | 2.31                                 | yes                          |  |
| 11/17/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 327.1                      | 42                           | 41                    | 11<br>0<br>0      | ---<br>---<br>---    | ---<br>---<br>---       | 11.9                            | 296.6                             | 0.11                               | 2.42                                 | yes                          |  |
| 11/18/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 352.1                      | 44                           | 41                    | 530<br>0<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 12.4                            | 309.6                             | 0.11                               | 2.54                                 | yes                          |  |
| 11/19/07 | SYS-INF<br>SYS-MID<br>SYS-EFF | 375.2                      | 42                           | 41                    | 24<br>0<br>0      | 22<br>---<br>---     | <0.077<br>---<br>---    | 0.3                             | 309.9                             | 0.00                               | 2.54                                 | yes                          |  |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date       | Sample ID                     | FIELD MEASUREMENTS         |                              |                             |                   | ANALYTICAL RESULTS   |                            | REMOVAL                    |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments  |
|------------|-------------------------------|----------------------------|------------------------------|-----------------------------|-------------------|----------------------|----------------------------|----------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|---|
|            |                               | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Vapor Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv)    | SVE Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |   |
| 11/20/07   | SYS-INF<br>SYS-MID<br>SYS-EFF | 398.8                      | 49                           | 68                          | 660<br>0<br>0     | ---<br>---<br>---    | ---                        | 0.3                        | 310.2                             | 0.00                               | 2.54                                 | yes                          | Increased system vacuum by closing off recirculation valve on blower.             |
| 11/26/07   | SYS-INF<br>SYS-MID<br>SYS-EFF | 426.3                      | 49                           | 68                          | 1,800<br>0<br>0   | ---<br>---<br>---    | ---                        | 0.3                        | 310.6                             | 0.00                               | 2.54                                 | yes                          | Received verbal approval from BAAQMD to decrease monitoring from daily to weekly. |
| 12/03/07   | SYS-INF<br>SYS-MID<br>SYS-EFF | 593.5                      | 48                           | 61                          | 1,300<br>0<br>0   | ---<br>---<br>---    | ---                        | 0.3                        | 313.0                             | 0.00                               | 2.54                                 | yes                          |   |
| 12/14/07   | SYS-INF<br>SYS-MID<br>SYS-EFF | 853.0                      | 52                           | 54                          | 280<br>0<br>0     | 280<br><7.0<br><7.0  | 0.17<br><0.077<br><0.077   | 4.7                        | 363.5                             | 0.003                              | 2.57                                 | yes                          |   |
| 12/21/07   | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,021.5                    | 58                           | 54                          | 0<br>0<br>0       | 170<br><7.0<br><7.0  | 0.14<br><0.077<br><0.077   | 3.2                        | 385.7                             | 0.00                               | 2.58                                 | yes                          | SVE shutdown after reading, restarted   |
| 12/27/07   | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,163.5                    | 40                           | 54                          | NM<br>NM<br>NM    | ---<br>---<br>---    | ---                        | 2.2                        | 398.6                             | 0.00                               | 2.59                                 | yes                          | SVE shutdown on arrival, restart and monitor                                      |
| 12/28/07   | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,188.5                    | 50                           | 54                          | 14<br>0<br>0      | 14<br><7.0<br><7.0   | <0.077<br><0.077<br><0.077 | 0.2                        | 398.8                             | 0.00                               | 2.59                                 | yes                          |   |
| 01/03/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,329.5                    | 51                           | 54                          | 50<br>0<br>0      | 50<br>15<br><7.0     | <0.077<br><0.077<br><0.077 | 0.8                        | 403.6                             | 0.00                               | 2.59                                 | yes                          |   |
| 01/10/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,430.2                    | 50                           | 54                          | 0<br>0<br>0       | 16<br>13<br><7.0     | <0.077<br><0.077<br><0.077 | 0.3                        | 404.7                             | 0.00                               | 2.59                                 | no                           | AS system off while sampling  |
| 1/15/2008* | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,546.0                    | 50                           | 81                          | --                | 1,200<br>7.7<br><7.0 | 2.1<br><0.077<br><0.077    | 19.2                       | 497.6                             | 0.03                               | 2.74                                 | yes                          |   |



**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date       | Sample ID                     | FIELD MEASUREMENTS         |                              |                       |                   | ANALYTICAL RESULTS    |                         | REMOVAL                    |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments   |
|------------|-------------------------------|----------------------------|------------------------------|-----------------------|-------------------|-----------------------|-------------------------|----------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|--|
|            |                               | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv)  | Benzene Lab Data (ppmv) | SVE Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |  |
| 1/23/2008* | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,694.5                    | 50                           | 95                    | --                | 1,300<br>11<br><7.0   | 1.6<br><0.077<br><0.077 | 20.9                       | 626.6                             | 0.02                               | 2.88                                 | yes                          |  |
| 01/30/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 1,864.6                    | 49                           | 81                    | --                | 2,300<br>24<br><7.0   | 2.6<br><0.077<br><0.077 | 36.2                       | 882.9                             | 0.04                               | 3.15                                 | yes                          |  |
| 02/06/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,027.5                    | 50                           | 81                    | --                | 1,700<br>43<br><7.0   | 2.9<br><0.077<br><0.077 | 27.3                       | 1,068.0                           | 0.04                               | 3.43                                 | yes                          |  |
| 02/12/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,173.3                    | 60                           | 95                    | --                | 1,500<br>520<br>28    | 1.7<br>1.1<br><0.077    | 28.9                       | 1,243.4                           | 0.03                               | 3.61                                 | yes                          |  |
| 02/21/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,394.1                    | 65                           | 95                    | --                | ---                   | ---                     | 31.3                       | 1,531.2                           | 0.03                               | 3.91                                 | yes                          | Samples not picked up by the courier before hold time expired.   |
| 02/29/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,580.5                    | 27                           | 95                    | --                | 1,100<br>890<br><7.0  | 1.4<br>5.3<br><0.077    | 9.5                        | 1,605.2                           | 0.01                               | 3.99                                 | yes                          | System shut down for future changeout of carbon in first vessel. |
| 04/07/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,581.4                    | 44                           | 7.5                   | --                | 1,100<br>---          | 1.4<br>---              | 15.5                       | 1,605.8                           | 0.02                               | 3.99                                 | yes                          | Restart system after carbon changeout                            |
| 04/10/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,650.3                    | 26                           | 7                     | --                | 1,200<br><7.0<br><7.0 | 3.6<br><0.077<br><0.077 | 10.0                       | 1,634.5                           | 0.03                               | 4.07                                 | yes                          |  |
| 04/17/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,826.1                    | 28                           | 8                     | 962<br>3<br>3     | ---                   | ---                     | 10.8                       | 1,713.5                           | 0.03                               | 4.29                                 | yes                          |  |
| 04/23/08   | SYS-INF<br>SYS-MID<br>SYS-EFF | 2,969.4                    | 26                           | 7.5                   | --                | 1,100<br><7.0<br><7.0 | 1.5<br><0.077<br><0.077 | 9.2                        | 1,768.2                           | 0.01                               | 4.36                                 | yes                          |  |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date     | Sample ID                     | FIELD MEASUREMENTS         |                              |                       |                   | ANALYTICAL RESULTS   |                         | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments |
|----------|-------------------------------|----------------------------|------------------------------|-----------------------|-------------------|----------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|----------|
|          |                               | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv) | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |          |
| 04/30/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 3,136.8                    | 23                           | 7.5                   | --                | 780<br><7.0<br><7.0  | 1.4<br><0.077<br><0.077 | 5.8                             | 1,808.4                           | 0.01                               | 4.42                                 | yes                          |          |
| 05/07/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 3,304.6                    | 28                           | 8                     | 378<br>0<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 7.0                             | 1,857.4                           | 0.01                               | 4.50                                 | yes                          |          |
| 05/14/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 3,472.2                    | 26                           | 8                     | 523<br>6<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 6.5                             | 1,902.8                           | 0.01                               | 4.57                                 | yes                          |          |
| 05/23/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 3,690.2                    | 28                           | 7                     | 264<br>0<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 7.0                             | 1,966.5                           | 0.01                               | 4.68                                 | yes                          |          |
| 05/30/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 3,859.2                    | 36                           | 7                     | 317<br>1<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 9.0                             | 2,029.9                           | 0.01                               | 4.78                                 | yes                          |          |
| 06/05/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 3,999.6                    | 38                           | 7                     | 350<br>0<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 9.5                             | 2,085.5                           | 0.02                               | 4.87                                 | yes                          |          |
| 06/13/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 4,193.1                    | 38                           | 7                     | --                | 700<br><7.0<br><7.0  | 1.6<br><0.077<br><0.077 | 8.5                             | 2,154.3                           | 0.02                               | 5.01                                 | yes                          |          |
| 06/19/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 4336.7                     | 25                           | 7                     | 349<br>--<br>0    | ---<br>---<br>---    | ---<br>---<br>---       | 5.6                             | 2,187.9                           | 0.01                               | 5.08                                 | yes                          |          |
| 06/27/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 4,529.7                    | 25                           | 7                     | 335<br>0<br>0     | ---<br>---<br>---    | ---<br>---<br>---       | 5.6                             | 2,233.1                           | 0.01                               | 5.18                                 | yes                          |          |
| 07/10/08 | SYS-INF<br>SYS-MID<br>SYS-EFF | 4,839.0                    | 56                           | 8                     | 256<br>40<br>0    | ---<br>---<br>---    | ---<br>---<br>---       | 12.6                            | 2,395.2                           | 0.03                               | 5.51                                 | yes                          |          |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date        | Sample ID | FIELD MEASUREMENTS         |                              |                             |                   | ANALYTICAL RESULTS   |                         | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments |
|-------------|-----------|----------------------------|------------------------------|-----------------------------|-------------------|----------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|----------|
|             |           | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Vapor Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv) | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |          |
| 07/18/08    | SYS-INF   | 5,032.0                    | 33                           | 8                           | 330               | ---                  | 7.4                     | 2,454.8                         | 0.02                              | 5.64                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 174               | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
| 7/24/2008** | SYS-INF   | 5,178.0                    | 33                           | 8                           | 360               | ---                  | 7.4                     | 2,499.8                         | 0.02                              | 5.73                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 187               | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
| 8/1/2008**  | SYS-INF   | 5,368.0                    | 33                           | 8                           | 248               | ---                  | 7.4                     | 2,558.5                         | 0.02                              | 5.85                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 193               | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
| 8/8/2008**  | SYS-INF   | 5,536.7                    | 17                           | 4.5                         | 146               | ---                  | 3.8                     | 2,585.3                         | 0.01                              | 5.91                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 153               | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
| 8/18/2008** | SYS-INF   | 5,774.1                    | 17                           | 4.5                         | 365               | 840                  | 4.6                     | 2,630.7                         | 0.01                              | 5.96                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 170               | 140                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | <7.0                 |                         |                                 |                                   |                                    |                                      |                              |          |
| 08/22/08    | SYS-INF   | 5,873.9                    | 17                           | 4                           | 325               | ---                  | 4.6                     | 2,649.7                         | 0.01                              | 5.98                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 207               | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
| 09/05/08    | SYS-INF   | 6,208.4                    | 14                           | 5                           | 385               | ---                  | 3.6                     | 2,700.4                         | 0.004                             | 6.05                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 219               | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 23                | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
| 10/06/08    | SYS-INF   | 6,211.0                    | 13                           | 5                           | 443               | 1,000                | 3.4                     | 2,700.8                         | 0.004                             | 6.05                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 23                | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | <7.0                 |                         |                                 |                                   |                                    |                                      |                              |          |
| 10/14/08    | SYS-INF   | 6,405.0                    | 15                           | 5                           | 215               | ---                  | 4.7                     | 2,738.4                         | 0.00                              | 6.05                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
| 10/23/08    | SYS-INF   | 6,615.7                    | 14                           | 5                           | 205               | ---                  | 4.5                     | 2,777.8                         | 0.01                              | 6.11                               | yes                                  |                              |          |
|             | SYS-MID   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |
|             | SYS-EFF   |                            |                              |                             | 0                 | ---                  |                         |                                 |                                   |                                    |                                      |                              |          |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date     | Sample ID | FIELD MEASUREMENTS         |                              |                      |                   | ANALYTICAL RESULTS   |                         | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments  |
|----------|-----------|----------------------------|------------------------------|----------------------|-------------------|----------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|---|
|          |           | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Vapor Applied ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv) | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |   |
| 10/29/08 | SYS-INF   | 6,760.3                    | 21                           | 5                    | 160               | ---                  | ---                     | 6.6                             | 2,817.5                           | 0.01                               | 6.17                                 | yes                          |   |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 11/17/08 | SYS-INF   | 7,221.4                    | 20                           | 5                    | 98                | ---                  | ---                     | 6.3                             | 2,937.6                           | 0.01                               | 6.37                                 | yes                          |   |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 11/25/08 | SYS-INF   | 7,413.9                    | 19                           | 5                    | 24                | ---                  | ---                     | 6.1                             | 2,986.5                           | 0.01                               | 6.45                                 | yes                          |   |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 12/05/08 | SYS-INF   | 7,652.3                    | 15                           | 5                    | 74                | ---                  | ---                     | 4.8                             | 3,034.3                           | 0.01                               | 6.53                                 | yes                          | Shutdown system to conduct maintenance on blower. Greased fittings and lowered motor speed at |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 12/16/08 | SYS-INF   | 7,915.0                    | 15                           | 5                    | 21                | 77                   | <0.077                  | 0.4                             | 3,038.4                           | 0.00                               | 6.53                                 | yes                          |   |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | <7.0                 | <0.077                  |                                 |                                   |                                    |                                      |                              |   |
| 12/23/08 | SYS-INF   | 8,079.4                    | 20                           | 5                    | 22                | ---                  | ---                     | 0.5                             | 3,041.7                           | 0.00                               | 6.53                                 | yes                          |   |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 12/31/08 | SYS-INF   | 8,277.1                    | 30                           | 5                    | 24                | ---                  | ---                     | 0.7                             | 3,047.8                           | 0.00                               | 6.53                                 | yes                          |   |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 01/06/09 | SYS-INF   | 8,416.9                    | 27                           | 5                    | 28                | ---                  | ---                     | 0.7                             | 3,051.6                           | 0.00                               | 6.53                                 | yes                          | Greased blower  |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 01/20/09 | SYS-INF   | 8,756.6                    | 27                           | 5                    | NM                | ---                  | ---                     | 0.7                             | 3,061.1                           | 0.00                               | 6.53                                 | yes                          | Shutdown system to evaluate effectiveness of remediation on groundwater.                      |
|          | SYS-MID   |                            |                              |                      | ---               | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | ---               | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
| 02/06/09 | SYS-INF   | 8,756.6                    | 25                           | 5                    | 50                | 50                   | <0.077                  | 0.4                             | 3,061.1                           | 0.00                               | 6.53                                 | yes                          | Restart system  |
|          | SYS-MID   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |
|          | SYS-EFF   |                            |                              |                      | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |   |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date     | Sample ID | FIELD MEASUREMENTS         |                              |                             |                   | ANALYTICAL RESULTS   |                         | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments                        |
|----------|-----------|----------------------------|------------------------------|-----------------------------|-------------------|----------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|---------------------------------|
|          |           | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Vapor Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv) | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |                                 |
| 02/26/09 | SYS-INF   | 9,002.6                    | 22                           | 5                           | 13                | ---                  | ---                     | 0.3                             | 3,064.6                           | 0.00                               | 6.53                                 | yes                          | Restart system, off on arrival  |
|          | SYS-MID   |                            |                              |                             | 1                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 03/06/09 | SYS-INF   | 9,197.4                    | 23                           | 5                           | 5                 | ---                  | ---                     | 0.4                             | 3,067.6                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 03/13/09 | SYS-INF   | 9,360.4                    | 22                           | 5                           | NM                | 20                   | <0.077                  | 0.1                             | 3,068.5                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | NM                | <7.0                 | <0.077                  |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | NM                | <7.0                 | <0.077                  |                                 |                                   |                                    |                                      |                              |                                 |
| 03/18/09 | SYS-INF   | 9,480.4                    | 21                           | 5                           | 5                 | ---                  | ---                     | 0.1                             | 3,069.2                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 03/26/09 | SYS-INF   | 9,675.1                    | 21                           | 5                           | 5                 | ---                  | ---                     | 0.1                             | 3,070.3                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 04/03/09 | SYS-INF   | 9,868.7                    | 21                           | 5                           | 4                 | ---                  | ---                     | 0.1                             | 3,071.4                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 04/10/09 | SYS-INF   | 10,035.7                   | 22                           | 5                           | 1                 | ---                  | ---                     | 0.1                             | 3,072.4                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 04/17/09 | SYS-INF   | 10,203.7                   | 21                           | 5                           | 4                 | ---                  | ---                     | 0.1                             | 3,073.3                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 04/24/09 | SYS-INF   | 10,366.7                   | 19                           | 5                           | 4                 | ---                  | ---                     | 0.1                             | 3,074.2                           | 0.00                               | 6.53                                 | yes                          | Shut AS/SVE off for upcoming QM |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 05/01/09 | SYS-INF   | 10,366.7                   | 20                           | 5                           | 3                 | ---                  | ---                     | 0.1                             | 3,074.2                           | 0.00                               | 6.53                                 | yes                          | Restart SVE/AS                  |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 05/08/09 | SYS-INF   | 10,543.3                   | 21                           | 5                           | 15                | ---                  | ---                     | 0.1                             | 3,075.1                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
| 05/15/09 | SYS-INF   | 10,711.8                   | 20                           | 5                           | 32                | ---                  | ---                     | 0.1                             | 3,076.0                           | 0.00                               | 6.53                                 | yes                          |                                 |
|          | SYS-MID   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |
|          | SYS-EFF   |                            |                              |                             | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |                                 |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date     | Sample ID                     | FIELD MEASUREMENTS         |                              |                             |                   | ANALYTICAL RESULTS   |                          | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments |  |
|----------|-------------------------------|----------------------------|------------------------------|-----------------------------|-------------------|----------------------|--------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|----------|--|
|          |                               | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Vapor Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv)  | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |          |  |
| 05/22/09 | SYS-INF<br>SYS-MID<br>SYS-EFF | 10,879.5                   | 0                            | 0                           | NM<br>NM<br>NM    | ---<br>---<br>---    | ---                      | ---                             | 0.0                               | 3,076.0                            | 0.00                                 | 6.53                         | no       | AS compressor down; shut SVE off           |
| 09/18/09 | SYS-INF<br>SYS-MID<br>SYS-EFF | 10,879.5                   | 22                           | 5                           | 41<br>0<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.1                               | 3,076.0                            | 0.00                                 | 6.53                         | yes      | Restart AS and SVE after repairing AS comp |
| 10/30/09 | SYS-INF<br>SYS-MID<br>SYS-EFF | 11,889.8                   | 20                           | 5                           | 35<br>0<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.1                               | 3,081.5                            | 0.00                                 | 6.53                         | no       | SVE on, AS comp has blown fuse             |
| 11/30/09 | SYS-INF<br>SYS-MID<br>SYS-EFF | 12,631.8                   | 20                           | 5                           | 31<br>0<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.1                               | 3,085.4                            | 0.00                                 | 6.53                         | yes      | Replace fuse, restart AS                   |
| 12/16/09 | SYS-INF<br>SYS-MID<br>SYS-EFF | 13,017.6                   | 22                           | 5                           | 22<br>0<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.1                               | 3,087.7                            | 0.00                                 | 6.53                         | yes      |  |
| 01/18/10 | SYS-INF<br>SYS-MID<br>SYS-EFF | 13,808.6                   | 24                           | 5                           | 27<br>0<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.2                               | 3,092.8                            | 0.00                                 | 6.53                         | yes      |  |
| 02/03/10 | SYS-INF<br>SYS-MID<br>SYS-EFF | 14,193.0                   | 12                           | 4                           | 34<br>0<br>0      | 72<br><7.0<br><7.0   | 0.25<br><0.077<br><0.077 | ---                             | 0.3                               | 3,097.2                            | 0.00                                 | 6.53                         | yes      | Serviced SVE blower, collected lab samples |
| 04/07/10 | SYS-INF<br>SYS-MID<br>SYS-EFF | 15,701.1                   | 12                           | 5                           | 45<br>0<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.3                               | 3,114.6                            | 0.00                                 | 6.58                         | no       | AS off, compressor non-op                  |
| 05/07/10 | SYS-INF<br>SYS-MID<br>SYS-EFF | 16,425.2                   | 27                           | 0                           | 43<br>0<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.6                               | 3,133.4                            | 0.00                                 | 6.64                         | no       | AS off, compressor non-op                  |
| 06/07/10 | SYS-INF<br>SYS-MID<br>SYS-EFF | 17,168.0                   | 27                           | 0                           | 46<br>0<br>0      | 84<br><7.0<br><7.0   | 0.29<br><0.077<br><0.077 | ---                             | 0.7                               | 3,155.5                            | 0.00                                 | 6.71                         | no       | AS off, compressor non-op                  |
| 07/15/10 | SYS-INF<br>SYS-MID<br>SYS-EFF | 18,075.8                   | 23                           | 0                           | 4<br>2<br>0       | ---<br>---<br>---    | ---                      | ---                             | 0.6                               | 3,179.1                            | 0.00                                 | 6.79                         | no       | AS off, compressor non-op                  |
| 08/18/10 | SYS-INF<br>SYS-MID<br>SYS-EFF | 18,434.1                   | 30                           | 0                           | 26<br>2<br>0      | ---<br>---<br>---    | ---                      | ---                             | 0.8                               | 3,191.3                            | 0.00                                 | 6.82                         | no       | Restart system, off on arrival             |

**Table 2. SVE/AS System Performance Summary - 1721 Webster Street, Oakland, California**

| Date     | Sample ID | FIELD MEASUREMENTS         |                              |                       |                   | ANALYTICAL RESULTS   |                         | REMOVAL                         |                                   |                                    |                                      | Air Sparge Unit on? (yes/no) | Comments   |
|----------|-----------|----------------------------|------------------------------|-----------------------|-------------------|----------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|--------------------------------------|------------------------------|--|
|          |           | Hour Meter Reading (hours) | System Vapor Flow Rate (cfm) | Applied Vacuum ("H2O) | FID Reading (ppm) | TPHg Lab Data (ppmv) | Benzene Lab Data (ppmv) | SVE TPHg Removal Rate (lbs/day) | Cumulative SVE TPHg Removal (lbs) | SVE Benzene Removal Rate (lbs/day) | Cumulative SVE Benzene Removal (lbs) |                              |  |
| 09/22/10 | SYS-INF   | 19,173.6                   | 25                           | 0                     | 17                | 66                   | 0.21                    | 0.5                             | 3,208.0                           | 0.00                               | 6.87                                 | no                           | Restart system, off on arrival                                     |
|          | SYS-MID   |                            |                              |                       | 2                 | <7.0                 | <0.077                  |                                 |                                   |                                    |                                      |                              |  |
|          | SYS-EFF   |                            |                              |                       | 0                 | <7.0                 | <0.077                  |                                 |                                   |                                    |                                      |                              |  |
| 10/22/10 | SYS-INF   | 19,345.1                   | 25                           | 0                     | 14                | ---                  | ---                     | 0.5                             | 3,211.8                           | 0.00                               | 6.88                                 | no                           | Restart system, off on arrival                                     |
|          | SYS-MID   |                            |                              |                       | 1                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
|          | SYS-EFF   |                            |                              |                       | 0                 | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
| 11/23/10 | SYS-INF   | 19,395.5                   | 0                            | 0                     | NM                | ---                  | ---                     | 0.0                             | 3,211.8                           | 0.00                               | 6.88                                 | no                           | Off on arrival, system shutdown October 26, 2010 for rainy season. |
|          | SYS-MID   |                            |                              |                       | NM                | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |
|          | SYS-EFF   |                            |                              |                       | NM                | ---                  | ---                     |                                 |                                   |                                    |                                      |                              |  |

Notes:

NM = not measured

cfm = cubic feet per minute.

ppmv = Parts per million by volume

lbs = Pounds

"H2O = Inches of water

SVE/AS = Soil vapor extraction and air sparge

FID = Flame Ionization Detector.

Hydrocarbon Removal/Emission Rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

Rate = vapor analytical concentration (ppmv) x system flowrate (scfm) x (1lb-mole/386 ft<sup>3</sup>) x molecular weight (86 lb/lb-mole for TPH-Gas hexane) x 1440 min/day x 1/1,000,000.

\* = Subtracted carbon tip readings of 28, 17, and 10, respectively, from influent, midpoint and effluent readings without carbon tip to account for methane.

(--) = not sampled

\*Soil vapor flow rates were not measured on 1/15/08 and 1/23/08 due to equipment breakage. For hydrocarbon mass removal calculation purposes, the flow rate recorded during the 1/10/08 visit was used.

\*\*Vapor flow meter being serviced from 7-24-2008 through 8-18-2008. Flow rates assumed from previous data, field observations, and adjustments made to system.

## **APPENDIX A**

### Groundwater Monitoring Program



**Table A - Groundwater Monitoring Program**  
Douglas Parking Company, 1721 Webster Street, Oakland, CA.

| Well ID  | Well Type | Screened Interval (ft bgs) | Well Location for Monitoring | Casing Diam. (in) | Gauge Frequency | Sample Frequency | TPH <sub>g</sub> /BTEX/MTBE | TAME/TBA/DIPE/ETBE/MTBE |
|--|-----------|----------------------------|------------------------------|-------------------|-----------------|------------------|-----------------------------|-------------------------|
| <b>Onsite Monitoring and Remediation Wells</b> |           |                            |                              |                   |                 |                  |                             |                         |
| MW-1   | Mon       | 17-30                      | Source Area                  | 2                 | 1st, 3rd        | 1st              | 1st                         | ---                     |
| MW-2   | Mon       | 19.5-29.5                  | Downgradient                 | 2                 | 1st, 3rd        | 1st, 3rd         | 1st, 3rd                    | ---                     |
| MW-3   | Mon       | 20-30                      | Upgradient                   | 2                 | 1st, 3rd        | 1st, 3rd         | 1st, 3rd                    | ---                     |
| AS-1   | Rem       | 27-30                      | Source Area                  | 1                 | ---             | ---              | ---                         | ---                     |
| AS-2   | Rem       | 27-30                      | Source Area                  | 2                 | ---             | ---              | ---                         | ---                     |
| AS-3   | Rem       | 27-30                      | Source Area                  | 2                 | ---             | ---              | ---                         | ---                     |
| <b>Offsite Monitoring Wells</b>                |           |                            |                              |                   |                 |                  |                             |                         |
| MW-4   | Mon       | 15-30                      | Mid-Downgradient             | 2                 | 1st, 3rd        | 1st, 3rd         | 1st, 3rd                    | ---                     |
| MW-5   | Mon       | 10-25                      | Downgradient                 | 2                 | 1st, 3rd        | 1st              | 1st                         | ---                     |
| MW-6   | Mon       | 15-30                      | Crossgradient                | 2                 | 1st, 3rd        | 1st, 3rd         | 1st, 3rd                    | ---                     |
| MW-7   | Mon       | 15-30                      | Upgradient                   | 2                 | 1st, 3rd        | 1st              | 1st                         | ---                     |

Notes and Abbreviations:

1st = Sampled during the 1st quarter, typically January

1st, 3rd = Sampled during the 1st and 3rd quarters, typically January and July

Mon = Groundwater Monitoring Only

Rem= Remediation Well Only

--- = None or not applicable

AS-1 = Air Sparging Well


## **APPENDIX B**

Groundwater Monitoring Field Data Sheets

Well Gauging Data Sheet

|   |   |
|---|---|
| Project.Task #: 1135.001 242              | Project Name: Douglas Parking -1721 Webster |
| Address: 1721 Webster Street, Oakland, CA | Date: 1/22/15                               |

|                   |   |
|-------------------|---|
| Name: Sanjiv Gill | Signature:  |
|-------------------|---|

| Well ID | Well Size (in.) | Time  | Depth to Immiscible Liquid (ft) | Thickness of Immiscible Liquid (ft) | Depth to Water (ft) | Total Depth (ft) | Measuring Point  |
|---------|-----------------|-------|---------------------------------|-------------------------------------|---------------------|------------------|--|
| MW-1    | 2               | 06:25 |                                 |                                     | 22.45               | 26.65            | TOC  |
| MW-2    | 2               | 02:00 |                                 |                                     | 20.24               | 25.95            |  |
| MW-3    | 2               | 02:05 |                                 |                                     | 21.76               | 26.90            |  |
| MW-4    | 2               | 01:50 |                                 |                                     | 18.57               | 29.42            |  |
| MW-5    | 2               | 01:30 |                                 |                                     | 16.25               | 24.50            |  |
| MW-6    | 2               | 01:55 |                                 |                                     | 20.31               | 25.79            |  |
| MW-7    | 2               | 01:40 |                                 |                                     | 21.99               | 28.46            |  |
|         |                 |       |                                 |                                     |                     |                  |  |
|         |                 |       |                                 |                                     |                     |                  |  |
|         |                 |       |                                 |                                     |                     |                  |  |
|         |                 |       |                                 |                                     |                     |                  |  |

Comments:

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## MONITORING FIELD DATA SHEET

Well ID: MLW-1

|   |             |             |            |                               |           |           |            |                             |
|---|-------------|-------------|------------|-------------------------------|-----------|-----------|------------|-----------------------------|
| Project.Task #: 1135.001.228              |             |             |            | Project Name: Douglas Parking |           |           |            |                             |
| Address: 1721 Webster Street, Oakland, CA |             |             |            |                               |           |           |            |                             |
| Date: 1/22/15                             |             |             |            | Weather: <u>Clear</u>         |           |           |            |                             |
| Well Diameter: <u>2"</u>                  |             |             |            | Volume/ft.                    | 1" = 0.04 | 3" = 0.37 | 6" = 1.47  | radius <sup>2</sup> * 0.163 |
|   |             |             |            | 2" = 0.16                     | 4" = 0.65 |           |            |                             |
| Total Depth (TD): <u>26.65</u>            |             |             |            | Depth to Product:             |           |           |            |                             |
| Depth to Water (DTW): <u>22.45</u>        |             |             |            | Product Thickness:            |           |           |            |                             |
| Water Column Height: <u>4.20</u>          |             |             |            | 1 Casing Volume: <u>0.67</u>  |           | gallons   |            |                             |
| Reference Point: TOC                      |             |             |            | 3 Casing Volumes: <u>2.01</u> |           | gallons   |            |                             |
| Purging Device: Disposable Bailer         |             |             |            |                               |           |           |            |                             |
| Sampling Device: Disposable Bailer        |             |             |            |                               |           |           |            |                             |
| Time                                      | Temp ©      | pH          | Cond (µs)  | NTU                           | DO(mg/L)  | ORP (mV)  | Vol(gal)   | DTW                         |
| <u>06:40</u>                              | <u>17.1</u> | <u>7.45</u> | <u>610</u> |                               |           |           | <u>1.0</u> |                             |
| <u>06:45</u>                              | <u>17.6</u> | <u>7.43</u> | <u>629</u> |                               |           |           | <u>1.5</u> |                             |
| <u>06:50</u>                              | <u>17.5</u> | <u>7.51</u> | <u>617</u> |                               |           |           | <u>2.0</u> |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |

Comments: pre purge DO = 0.49 mg/l  
pre purge ORP = -6mV

|   |   |
|---|---|
| Sample ID: <u>MLW-1</u>                             | Sample Time: <u>06:55</u>   |
| Laboratory: <u>McC Campbell</u>                     | Sample Date: <u>1/22/15</u>   |
| Containers/Preservative: <u>3Voa's (HCL)</u>        |   |
| Analyzed for: <u>TPHg/BTEX/MTBE</u>                 |   |
| Sampler Name: <u>Steve Hunter</u> <i>Samir Gill</i> | Signature:  |

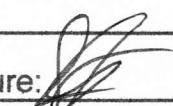
## MONITORING FIELD DATA SHEET

Well ID: ML-2

|   |             |             |            |                               |           |           |            |           |           |                             |
|---|-------------|-------------|------------|-------------------------------|-----------|-----------|------------|-----------|-----------|-----------------------------|
| Project.Task #: 1135.001.228              |             |             |            | Project Name: Douglas Parking |           |           |            |           |           |                             |
| Address: 1721 Webster Street, Oakland, CA |             |             |            |                               |           |           |            |           |           |                             |
| Date: 1/22/15                             |             |             |            | Weather: <u>Clear</u>         |           |           |            |           |           |                             |
| Well Diameter: <u>2''</u>                 |             |             |            | Volume/ft.                    | 1" = 0.04 | 3" = 0.37 | 6" = 1.47  | 2" = 0.16 | 4" = 0.65 | radius <sup>2</sup> * 0.163 |
| Total Depth (TD): <u>25.95</u>            |             |             |            | Depth to Product:             |           |           |            |           |           |                             |
| Depth to Water (DTW): <u>20.24</u>        |             |             |            | Product Thickness:            |           |           |            |           |           |                             |
| Water Column Height: <u>5.71</u>          |             |             |            | 1 Casing Volume: <u>0.91</u>  |           | gallons   |            |           |           |                             |
| Reference Point: TOC                      |             |             |            | 3 Casing Volumes: <u>2.73</u> |           | gallons   |            |           |           |                             |
| Purging Device: Disposable Bailer         |             |             |            |                               |           |           |            |           |           |                             |
| Sampling Device: Disposable Bailer        |             |             |            |                               |           |           |            |           |           |                             |
| Time                                      | Temp ©      | pH          | Cond (µs)  | NTU                           | DO(mg/L)  | ORP (mV)  | Vol(gal)   | DTW       |           |                             |
| <u>04:55</u>                              | <u>18.1</u> | <u>6.93</u> | <u>550</u> |                               |           |           | <u>1.0</u> |           |           |                             |
| <u>05:00</u>                              | <u>17.7</u> | <u>6.95</u> | <u>541</u> |                               |           |           | <u>2.0</u> |           |           |                             |
| <u>05:05</u>                              | <u>17.9</u> | <u>7.01</u> | <u>539</u> |                               |           |           | <u>3.0</u> |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |
|   |             |             |            |                               |           |           |            |           |           |                             |

Comments:

pre-purge DO = 0.21 mg/L  
pre-purge ORP = -95 mV

|   |  |   |  |
|---|--|---|--|
| Sample ID: <u>ML-2</u>                                      |  | Sample Time: <u>05:10</u>   |  |
| Laboratory: <u>McC Campbell</u>                             |  | Sample Date: <u>1/22/15</u>   |  |
| Containers/Preservative: <u>3Voa's (HCL)</u>                |  |   |  |
| Analyzed for: <u>TPHg/BTEX/MTBE</u>                         |  |   |  |
| Sampler Name: <u>Sanjay GILL</u><br><del>Steve Hunter</del> |  | Signature:  |  |


## MONITORING FIELD DATA SHEET

Well ID: MW-3

| Project.Task #: 1135.001.228              |             |             |            | Project Name: Douglas Parking |           |           |            |                             |
|---|-------------|-------------|------------|-------------------------------|-----------|-----------|------------|-----------------------------|
| Address: 1721 Webster Street, Oakland, CA |             |             |            |                               |           |           |            |                             |
| Date: 1/22/15                             |             |             |            | Weather: <u>Clear</u>         |           |           |            |                             |
| Well Diameter: <u>2''</u>                 |             |             |            | Volume/ft.                    | 1" = 0.04 | 3" = 0.37 | 6" = 1.47  | radius <sup>2</sup> * 0.163 |
|   |             |             |            | 2" = 0.16                     | 4" = 0.65 |           |            |                             |
| Total Depth (TD): <u>26.90</u>            |             |             |            | Depth to Product:             |           |           |            |                             |
| Depth to Water (DTW): <u>21.76</u>        |             |             |            | Product Thickness:            |           |           |            |                             |
| Water Column Height: <u>5.14</u>          |             |             |            | 1 Casing Volume: <u>0.82</u>  |           | gallons   |            |                             |
| Reference Point: TOC                      |             |             |            | 3 Casing Volumes: <u>2.46</u> |           | gallons   |            |                             |
| Purging Device: Disposable Bailer         |             |             |            |                               |           |           |            |                             |
| Sampling Device: Disposable Bailer        |             |             |            |                               |           |           |            |                             |
| Time                                      | Temp @      | pH          | Cond (µs)  | NTU                           | DO(mg/L)  | ORP (mV)  | Vol(gal)   | DTW                         |
| <u>05:30</u>                              | <u>18.5</u> | <u>6.77</u> | <u>492</u> |                               |           |           | <u>1.0</u> |                             |
| <u>05:35</u>                              | <u>18.3</u> | <u>6.68</u> | <u>505</u> |                               |           |           | <u>2.0</u> |                             |
| <u>05:40</u>                              | <u>18.5</u> | <u>6.74</u> | <u>496</u> |                               |           |           | <u>2.5</u> |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |

Comments:

pre purge DO = 0.73 mg/l  
pre purge ORP = -99 mV

|  |  |   |  |
|--|--|---|--|
| Sample ID: <u>MW-3</u>                       |  | Sample Time: <u>05:45</u>   |  |
| Laboratory: <u>McC Campbell</u>              |  | Sample Date: <u>1/22/15</u>   |  |
| Containers/Preservative: <u>3Voa's (HCL)</u> |  |   |  |
| Analyzed for: <u>TPHg/BTEX/MTBE</u>          |  |   |  |
| Sampler Name: <u>Steve Hunter</u>            |  | Signature:  |  |


## MONITORING FIELD DATA SHEET

Well ID: MW-4

|   |             |             |            |                               |           |                             |            |     |
|---|-------------|-------------|------------|-------------------------------|-----------|-----------------------------|------------|-----|
| Project.Task #: 1135.001.228              |             |             |            | Project Name: Douglas Parking |           |                             |            |     |
| Address: 1721 Webster Street, Oakland, CA |             |             |            |                               |           |                             |            |     |
| Date: 1/22/15                             |             |             |            | Weather: <u>Clear</u>         |           |                             |            |     |
| Well Diameter: <u>2''</u>                 |             |             |            | Volume/ft.                    | 1" = 0.04 | 3" = 0.37                   | 6" = 1.47  |     |
|   |             |             |            | 2" = 0.16                     | 4" = 0.65 | radius <sup>2</sup> * 0.163 |            |     |
| Total Depth (TD): <u>29.42</u>            |             |             |            | Depth to Product:             |           |                             |            |     |
| Depth to Water (DTW): <u>18.57</u>        |             |             |            | Product Thickness:            |           |                             |            |     |
| Water Column Height: <u>10.85</u>         |             |             |            | 1 Casing Volume: <u>1.73</u>  |           | gallons                     |            |     |
| Reference Point: TOC                      |             |             |            | 3 Casing Volumes: <u>5.19</u> |           | gallons                     |            |     |
| Purging Device: Disposable Bailer         |             |             |            |                               |           |                             |            |     |
| Sampling Device: Disposable Bailer        |             |             |            |                               |           |                             |            |     |
| Time                                      | Temp ©      | pH          | Cond (µs)  | NTU                           | DO(mg/L)  | ORP (mV)                    | Vol(gal)   | DTW |
| <u>03:45</u>                              | <u>17.7</u> | <u>7.03</u> | <u>658</u> |                               |           |                             | <u>1.5</u> |     |
| <u>03:50</u>                              | <u>17.9</u> | <u>7.15</u> | <u>672</u> |                               |           |                             | <u>3.0</u> |     |
| <u>03:55</u>                              | <u>18.3</u> | <u>7.12</u> | <u>684</u> |                               |           |                             | <u>5.0</u> |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |

Comments:

*pre purge DO = 0.36mg/L  
per purge ORP = -30mV*

|                                       |  |   |  |
|---------------------------------------|--|---|--|
| Sample ID: <u>MW-4</u>                |  | Sample Time: <u>04:00</u>   |  |
| Laboratory: McCampbell                |  | Sample Date: 1/22/15  |  |
| Containers/Preservative: 3Voa's (HCL) |  |   |  |
| Analyzed for: TPHg/BTEX/MTBE          |  |   |  |
| Sampler Name: <u>Steve Hunter</u>     |  | Signature:  |  |


## MONITORING FIELD DATA SHEET

Well ID: *MW-5*

| Project.Task #: 1135.001.228              |             |             |            | Project Name: Douglas Parking |           |           |            |                             |
|---|-------------|-------------|------------|-------------------------------|-----------|-----------|------------|-----------------------------|
| Address: 1721 Webster Street, Oakland, CA |             |             |            |                               |           |           |            |                             |
| Date: 1/22/15                             |             |             |            | Weather: <i>Clear</i>         |           |           |            |                             |
| Well Diameter: <i>2"</i>                  |             |             |            | Volume/ft.                    | 1" = 0.04 | 3" = 0.37 | 6" = 1.47  | radius <sup>2</sup> * 0.163 |
|   |             |             |            | 2" = 0.16                     | 4" = 0.65 |           |            |                             |
| Total Depth (TD): <i>24.50</i>            |             |             |            | Depth to Product:             |           |           |            |                             |
| Depth to Water (DTW): <i>16.25</i>        |             |             |            | Product Thickness:            |           |           |            |                             |
| Water Column Height: <i>8.25</i>          |             |             |            | 1 Casing Volume: <i>1.32</i>  |           | gallons   |            |                             |
| Reference Point: TOC                      |             |             |            | 3 Casing Volumes: <i>3.96</i> |           | gallons   |            |                             |
| Purging Device: Disposable Bailer         |             |             |            |                               |           |           |            |                             |
| Sampling Device: Disposable Bailer        |             |             |            |                               |           |           |            |                             |
| Time                                      | Temp ©      | pH          | Cond (µs)  | NTU                           | DO(mg/L)  | ORP (mV)  | Vol(gal)   | DTW                         |
| <i>02:30</i>                              | <i>17.2</i> | <i>7.34</i> | <i>718</i> |                               |           |           | <i>1.5</i> |                             |
| <i>02:35</i>                              | <i>17.2</i> | <i>7.26</i> | <i>710</i> |                               |           |           | <i>3.0</i> |                             |
| <i>02:40</i>                              | <i>17.5</i> | <i>7.29</i> | <i>705</i> |                               |           |           | <i>4.0</i> |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |
|   |             |             |            |                               |           |           |            |                             |

Comments:

*pre purge DO = 0.84 mg/l*  
*pre purge ORP = -36 mV*

|                                       |  |   |  |
|---------------------------------------|--|---|--|
| Sample ID: <i>MW-5</i>                |  | Sample Time: <i>02:45</i>   |  |
| Laboratory: McCampbell                |  | Sample Date: 1/22/15  |  |
| Containers/Preservative: 3Voa's (HCL) |  |   |  |
| Analyzed for: TPHg/BTEX/MTBE          |  |   |  |
| Sampler Name: <i>Steve Hunter</i>     |  | Signature:  |  |




## MONITORING FIELD DATA SHEET

Well ID: MW-6

| Project.Task #: 1135.001.228              |             |             |            | Project Name: Douglas Parking |           |                             |            |     |
|---|-------------|-------------|------------|-------------------------------|-----------|-----------------------------|------------|-----|
| Address: 1721 Webster Street, Oakland, CA |             |             |            |                               |           |                             |            |     |
| Date: 1/22/15                             |             |             |            | Weather: <u>Clear</u>         |           |                             |            |     |
| Well Diameter: <u>2"</u>                  |             |             |            | Volume/ft.                    | 1" = 0.04 | 3" = 0.37                   | 6" = 1.47  |     |
|   |             |             |            | 2" = 0.16                     | 4" = 0.65 | radius <sup>2</sup> * 0.163 |            |     |
| Total Depth (TD): <u>25.79</u>            |             |             |            | Depth to Product:             |           |                             |            |     |
| Depth to Water (DTW): <u>20.31</u>        |             |             |            | Product Thickness:            |           |                             |            |     |
| Water Column Height: <u>5.48</u>          |             |             |            | 1 Casing Volume: <u>0.87</u>  |           | gallons                     |            |     |
| Reference Point: TOC                      |             |             |            | 3 Casing Volumes: <u>2.61</u> |           | gallons                     |            |     |
| Purging Device: Disposable Bailer         |             |             |            |                               |           |                             |            |     |
| Sampling Device: Disposable Bailer        |             |             |            |                               |           |                             |            |     |
| Time                                      | Temp ©      | pH          | Cond (µs)  | NTU                           | DO(mg/L)  | ORP (mV)                    | Vol(gal)   | DTW |
| <u>04:20</u>                              | <u>17.9</u> | <u>6.59</u> | <u>749</u> |                               |           |                             | <u>1.5</u> |     |
| <u>04:25</u>                              | <u>18.2</u> | <u>6.66</u> | <u>752</u> |                               |           |                             | <u>2.0</u> |     |
| <u>04:30</u>                              | <u>18.7</u> | <u>6.69</u> | <u>754</u> |                               |           |                             | <u>2.5</u> |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |

Comments:

pre purge DO = 0.10 mg/l  
pre purge ORP = -13 mV

|                                       |  |  |  |
|---------------------------------------|--|--|--|
| Sample ID: <u>MW-6</u>                |  | Sample Time: <u>04:35</u>  |  |
| Laboratory: McCampbell                |  | Sample Date: 1/22/15   |  |
| Containers/Preservative: 3Voa's (HCL) |  |  |  |
| Analyzed for: TPHg/BTEX/MTBE          |  |  |  |
| Sampler Name: <u>Steve Hunter</u>     |  | Signature:  |  |


## MONITORING FIELD DATA SHEET

Well ID: ML-7

| Project.Task #: 1135.001.228              |             |             |            | Project Name: Douglas Parking |           |                             |            |     |
|---|-------------|-------------|------------|-------------------------------|-----------|-----------------------------|------------|-----|
| Address: 1721 Webster Street, Oakland, CA |             |             |            |                               |           |                             |            |     |
| Date: 1/22/15                             |             |             |            | Weather: <u>Clear</u>         |           |                             |            |     |
| Well Diameter: <u>2"</u>                  |             |             |            | Volume/ft.                    | 1" = 0.04 | 3" = 0.37                   | 6" = 1.47  |     |
|   |             |             |            | 2" = 0.16                     | 4" = 0.65 | radius <sup>2</sup> * 0.163 |            |     |
| Total Depth (TD): <u>28.46</u>            |             |             |            | Depth to Product:             |           |                             |            |     |
| Depth to Water (DTW): <u>21.99</u>        |             |             |            | Product Thickness:            |           |                             |            |     |
| Water Column Height: <u>6.47</u>          |             |             |            | 1 Casing Volume: <u>1.03</u>  |           | gallons                     |            |     |
| Reference Point: TOC                      |             |             |            | 3 Casing Volumes: <u>3.09</u> |           | gallons                     |            |     |
| Purging Device: Disposable Bailer         |             |             |            |                               |           |                             |            |     |
| Sampling Device: Disposable Bailer        |             |             |            |                               |           |                             |            |     |
| Time                                      | Temp @      | pH          | Cond (µs)  | NTU                           | DO(mg/L)  | ORP (mV)                    | Vol(gal)   | DTW |
| <u>03:10</u>                              | <u>17.5</u> | <u>7.08</u> | <u>629</u> |                               |           |                             | <u>1.0</u> |     |
| <u>03:15</u>                              | <u>17.7</u> | <u>7.11</u> | <u>624</u> |                               |           |                             | <u>2.0</u> |     |
| <u>03:20</u>                              | <u>17.7</u> | <u>7.15</u> | <u>638</u> |                               |           |                             | <u>3.0</u> |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |
|   |             |             |            |                               |           |                             |            |     |

Comments:

pre purge DO = 0.46 mg/l  
pre purge ORP = -81 mV

|                                       |  |   |  |
|---------------------------------------|--|---|--|
| Sample ID: <u>ML-7</u>                |  | Sample Time: <u>03:25</u>   |  |
| Laboratory: McCampbell                |  | Sample Date: 1/22/15  |  |
| Containers/Preservative: 3Voa's (HCL) |  |   |  |
| Analyzed for: TPHg/BTEX/MTBE          |  |   |  |
| Sampler Name: <u>Steve Hunter</u>     |  | Signature:  |  |

## **APPENDIX C**

Laboratory Analytical Reports



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1501626

**Report Created for:** Pangea Environmental Svcs., Inc.  
1710 Franklin Street, Ste. 200  
Oakland, CA 94612

**Project Contact:** Morgan Gillies  
**Project P.O.:**  
**Project Name:** #1135.001; Douglas-Webster St

**Project Received:** 01/22/2015

Analytical Report reviewed & approved for release on 01/28/2015 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***





## Glossary of Terms & Qualifier Definitions

**Client:** Pangea Environmental Svcs., Inc.  
**Project:** #1135.001; Douglas-Webster St  
**WorkOrder:** 1501626

### Glossary Abbreviation

|              |  |
|--------------|--|
| 95% Interval | 95% Confident Interval   |
| DF           | Dilution Factor  |
| DUP          | Duplicate  |
| EDL          | Estimated Detection Limit  |
| ITEF         | International Toxicity Equivalence Factor  |
| LCS          | Laboratory Control Sample  |
| MB           | Method Blank   |
| MB % Rec     | % Recovery of Surrogate in Method Blank, if applicable                                   |
| MDL          | Method Detection Limit   |
| ML           | Minimum Level of Quantitation  |
| MS           | Matrix Spike   |
| MSD          | Matrix Spike Duplicate   |
| ND           | Not detected at or above the indicated MDL or RL   |
| NR           | Data Not Reported due to matrix interference or insufficient sample amount.              |
| PF           | Prep Factor  |
| RD           | Relative Difference  |
| RL           | Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.) |
| RPD          | Relative Percent Deviation   |
| RRT          | Relative Retention Time  |
| SPK Val      | Spike Value  |
| SPKRef Val   | Spike Reference Value  |
| TEQ          | Toxicity Equivalence   |

### Analytical Qualifiers

|    |  |
|----|--|
| S  | spike recovery outside accepted recovery limits  |
| b1 | aqueous sample that contains greater than ~1 vol. % sediment   |
| c4 | surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram. |
| d1 | weakly modified or unmodified gasoline is significant  |
| d2 | heavier gasoline range compounds are significant (aged gasoline?)  |
| d9 | no recognizable pattern  |



## Analytical Report

**Client:** Pangea Environmental Svcs., Inc.  
**Project:** #1135.001; Douglas-Webster St  
**Date Received:** 1/22/15 10:19  
**Date Prepared:** 1/23/15-1/25/15

**WorkOrder:** 1501626  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

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

| Client ID | Lab ID       | Matrix/ExtType | Date Collected   | Instrument | Batch ID |
|-----------|--------------|----------------|------------------|------------|----------|
| MW-1      | 1501626-001A | Water          | 01/22/2015 06:55 | GC3        | 100377   |

| Analytes     | Result | RL   | DF | Date Analyzed    |
|--------------|--------|------|----|------------------|
| TPH(g)       | ND     | 50   | 1  | 01/23/2015 13:52 |
| MTBE         | ND     | 5.0  | 1  | 01/23/2015 13:52 |
| Benzene      | ND     | 0.50 | 1  | 01/23/2015 13:52 |
| Toluene      | ND     | 0.50 | 1  | 01/23/2015 13:52 |
| Ethylbenzene | ND     | 0.50 | 1  | 01/23/2015 13:52 |
| Xylenes      | ND     | 0.50 | 1  | 01/23/2015 13:52 |

| Surrogates | REC (%) | Limits | Analytical Comments: b1 |
|------------|---------|--------|-------------------------|
| aaa-TFT_2  | 101     | 70-130 | 01/23/2015 13:52        |

Analyst(s): IA

| Client ID | Lab ID       | Matrix/ExtType | Date Collected   | Instrument | Batch ID |
|-----------|--------------|----------------|------------------|------------|----------|
| MW-2      | 1501626-002A | Water          | 01/22/2015 05:10 | GC3        | 100377   |

| Analytes     | Result | RL   | DF | Date Analyzed    |
|--------------|--------|------|----|------------------|
| TPH(g)       | 1700   | 50   | 1  | 01/23/2015 14:22 |
| MTBE         | ND     | 10   | 1  | 01/23/2015 14:22 |
| Benzene      | 3.3    | 0.50 | 1  | 01/23/2015 14:22 |
| Toluene      | 3.0    | 0.50 | 1  | 01/23/2015 14:22 |
| Ethylbenzene | 8.0    | 0.50 | 1  | 01/23/2015 14:22 |
| Xylenes      | 25     | 0.50 | 1  | 01/23/2015 14:22 |

| Surrogates | REC (%) | Qualifiers | Limits | Analytical Comments: d1,c4 |
|------------|---------|------------|--------|----------------------------|
| aaa-TFT_2  | 182     | S          | 70-130 | 01/23/2015 14:22           |

Analyst(s): IA

(Cont.)



## Analytical Report

**Client:** Pangea Environmental Svcs., Inc.  
**Project:** #1135.001; Douglas-Webster St  
**Date Received:** 1/22/15 10:19  
**Date Prepared:** 1/23/15-1/25/15

**WorkOrder:** 1501626  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

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

| Client ID | Lab ID       | Matrix/ExtType | Date Collected   | Instrument | Batch ID |
|-----------|--------------|----------------|------------------|------------|----------|
| MW-3      | 1501626-003A | Water          | 01/22/2015 05:45 | GC3        | 100377   |

| Analytes     | Result | RL  | DF | Date Analyzed    |
|--------------|--------|-----|----|------------------|
| TPH(g)       | 8900   | 500 | 10 | 01/24/2015 21:03 |
| MTBE         | ND     | 50  | 10 | 01/24/2015 21:03 |
| Benzene      | ND     | 5.0 | 10 | 01/24/2015 21:03 |
| Toluene      | ND     | 5.0 | 10 | 01/24/2015 21:03 |
| Ethylbenzene | ND     | 5.0 | 10 | 01/24/2015 21:03 |
| Xylenes      | ND     | 5.0 | 10 | 01/24/2015 21:03 |

| Surrogates | REC (%) | Qualifiers | Limits | Analytical Comments: d2,d9,c4 |
|------------|---------|------------|--------|-------------------------------|
| aaa-TFT_2  | 168     | S          | 70-130 | 01/24/2015 21:03              |

Analyst(s): IA

| Client ID | Lab ID       | Matrix/ExtType | Date Collected   | Instrument | Batch ID |
|-----------|--------------|----------------|------------------|------------|----------|
| MW-4      | 1501626-004A | Water          | 01/22/2015 04:00 | GC3        | 100391   |

| Analytes     | Result | RL   | DF | Date Analyzed    |
|--------------|--------|------|----|------------------|
| TPH(g)       | ND     | 50   | 1  | 01/24/2015 23:29 |
| MTBE         | ND     | 5.0  | 1  | 01/24/2015 23:29 |
| Benzene      | ND     | 0.50 | 1  | 01/24/2015 23:29 |
| Toluene      | ND     | 0.50 | 1  | 01/24/2015 23:29 |
| Ethylbenzene | ND     | 0.50 | 1  | 01/24/2015 23:29 |
| Xylenes      | ND     | 0.50 | 1  | 01/24/2015 23:29 |

| Surrogates | REC (%) | Limits |
|------------|---------|--------|
| aaa-TFT_2  | 106     | 70-130 |

Analyst(s): IA



## Analytical Report

**Client:** Pangea Environmental Svcs., Inc.  
**Project:** #1135.001; Douglas-Webster St  
**Date Received:** 1/22/15 10:19  
**Date Prepared:** 1/23/15-1/25/15

**WorkOrder:** 1501626  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

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

| Client ID | Lab ID       | Matrix/ExtType | Date Collected   | Instrument | Batch ID |
|-----------|--------------|----------------|------------------|------------|----------|
| MW-5      | 1501626-005A | Water          | 01/22/2015 02:45 | GC3        | 100391   |

| Analytes     | Result | RL   | DF | Date Analyzed    |
|--------------|--------|------|----|------------------|
| TPH(g)       | ND     | 50   | 1  | 01/24/2015 23:58 |
| MTBE         | ND     | 5.0  | 1  | 01/24/2015 23:58 |
| Benzene      | ND     | 0.50 | 1  | 01/24/2015 23:58 |
| Toluene      | ND     | 0.50 | 1  | 01/24/2015 23:58 |
| Ethylbenzene | ND     | 0.50 | 1  | 01/24/2015 23:58 |
| Xylenes      | ND     | 0.50 | 1  | 01/24/2015 23:58 |

| Surrogates | REC (%) | Limits | Date Analyzed    |
|------------|---------|--------|------------------|
| aaa-TFT_2  | 109     | 70-130 | 01/24/2015 23:58 |

Analyst(s): IA

| Client ID | Lab ID       | Matrix/ExtType | Date Collected   | Instrument | Batch ID |
|-----------|--------------|----------------|------------------|------------|----------|
| MW-6      | 1501626-006A | Water          | 01/22/2015 04:35 | GC3        | 100391   |

| Analytes     | Result      | RL  | DF | Date Analyzed    |
|--------------|-------------|-----|----|------------------|
| TPH(g)       | <b>7600</b> | 500 | 10 | 01/25/2015 00:27 |
| MTBE         | ND          | 50  | 10 | 01/25/2015 00:27 |
| Benzene      | <b>25</b>   | 5.0 | 10 | 01/25/2015 00:27 |
| Toluene      | <b>13</b>   | 5.0 | 10 | 01/25/2015 00:27 |
| Ethylbenzene | <b>53</b>   | 5.0 | 10 | 01/25/2015 00:27 |
| Xylenes      | <b>86</b>   | 5.0 | 10 | 01/25/2015 00:27 |

| Surrogates | REC (%) | Limits | Analytical Comments: d1 | Date Analyzed    |
|------------|---------|--------|-------------------------|------------------|
| aaa-TFT_2  | 109     | 70-130 |                         | 01/25/2015 00:27 |

Analyst(s): IA





## Analytical Report

**Client:** Pangea Environmental Svcs., Inc.  
**Project:** #1135.001; Douglas-Webster St  
**Date Received:** 1/22/15 10:19  
**Date Prepared:** 1/23/15-1/25/15

**WorkOrder:** 1501626  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

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

| Client ID | Lab ID       | Matrix/ExtType | Date Collected   | Instrument | Batch ID |
|-----------|--------------|----------------|------------------|------------|----------|
| MW-7      | 1501626-007A | Water          | 01/22/2015 03:25 | GC3        | 100391   |

| Analytes     | Result | RL   | DF | Date Analyzed    |
|--------------|--------|------|----|------------------|
| TPH(g)       | ND     | 50   | 1  | 01/25/2015 00:56 |
| MTBE         | ND     | 5.0  | 1  | 01/25/2015 00:56 |
| Benzene      | ND     | 0.50 | 1  | 01/25/2015 00:56 |
| Toluene      | ND     | 0.50 | 1  | 01/25/2015 00:56 |
| Ethylbenzene | ND     | 0.50 | 1  | 01/25/2015 00:56 |
| Xylenes      | ND     | 0.50 | 1  | 01/25/2015 00:56 |

| Surrogates | REC (%) | Limits | Date Analyzed    |
|------------|---------|--------|------------------|
| aaa-TFT_2  | 107     | 70-130 | 01/25/2015 00:56 |

Analyst(s): IA



## Quality Control Report

**Client:** Pangea Environmental Svcs., Inc.  
**Date Prepared:** 1/23/15  
**Date Analyzed:** 1/23/15  
**Instrument:** GC3  
**Matrix:** Water  
**Project:** #1135.001; Douglas-Webster St

**WorkOrder:** 1501626  
**BatchID:** 100377  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L  
**Sample ID:** MB/LCS-100377  
 1501690-003AMS/MSD

### QC Summary Report for SW8021B/8015Bm

| Analyte      | MB Result | LCS Result | RL   | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|--------------|-----------|------------|------|---------|------------|----------|------------|
| TPH(btex)    | ND        | 58.7       | 40   | 60      | -          | 98       | 70-130     |
| MTBE         | ND        | 12.0       | 5.0  | 10      | -          | 120      | 70-130     |
| Benzene      | ND        | 10.6       | 0.50 | 10      | -          | 106      | 70-130     |
| Toluene      | ND        | 10.7       | 0.50 | 10      | -          | 107      | 70-130     |
| Ethylbenzene | ND        | 10.6       | 0.50 | 10      | -          | 106      | 70-130     |
| Xylenes      | ND        | 32.0       | 0.50 | 30      | -          | 107      | 70-130     |

**Surrogate Recovery**

|           |      |      |  |    |     |     |        |
|-----------|------|------|--|----|-----|-----|--------|
| aaa-TFT_2 | 11.1 | 10.2 |  | 10 | 111 | 102 | 70-130 |
|-----------|------|------|--|----|-----|-----|--------|

| Analyte      | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD  | RPD Limit |
|--------------|-----------|------------|---------|------------|---------|----------|---------------|------|-----------|
| TPH(btex)    | 55.9      | 57.1       | 60      | ND         | 93      | 95       | 70-130        | 1.98 | 20        |
| MTBE         | 9.63      | 10.2       | 10      | ND         | 96      | 102      | 70-130        | 5.81 | 20        |
| Benzene      | 10.3      | 11.2       | 10      | ND         | 102     | 111      | 70-130        | 8.32 | 20        |
| Toluene      | 10.3      | 11.2       | 10      | ND         | 103     | 112      | 70-130        | 8.26 | 20        |
| Ethylbenzene | 10.3      | 11.1       | 10      | ND         | 103     | 111      | 70-130        | 7.63 | 20        |
| Xylenes      | 30.8      | 33.3       | 30      | ND         | 102     | 110      | 70-130        | 7.98 | 20        |

**Surrogate Recovery**

|           |      |      |    |  |     |     |        |      |    |
|-----------|------|------|----|--|-----|-----|--------|------|----|
| aaa-TFT_2 | 10.0 | 10.4 | 10 |  | 100 | 104 | 70-130 | 3.44 | 20 |
|-----------|------|------|----|--|-----|-----|--------|------|----|

(Cont.)



## Quality Control Report

**Client:** Pangea Environmental Svcs., Inc.  
**Date Prepared:** 1/23/15  
**Date Analyzed:** 1/24/15  
**Instrument:** GC3  
**Matrix:** Water  
**Project:** #1135.001; Douglas-Webster St

**WorkOrder:** 1501626  
**BatchID:** 100391  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L  
**Sample ID:** MB/LCS-100391  
 1501626-007AMS/MSD

### QC Summary Report for SW8021B/8015Bm

| Analyte      | MB Result | LCS Result | RL   | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|--------------|-----------|------------|------|---------|------------|----------|------------|
| TPH(btex)    | ND        | 61.7       | 40   | 60      | -          | 103      | 70-130     |
| MTBE         | ND        | 10.7       | 5.0  | 10      | -          | 107      | 70-130     |
| Benzene      | ND        | 10.7       | 0.50 | 10      | -          | 107      | 70-130     |
| Toluene      | ND        | 10.7       | 0.50 | 10      | -          | 107      | 70-130     |
| Ethylbenzene | ND        | 10.5       | 0.50 | 10      | -          | 105      | 70-130     |
| Xylenes      | ND        | 31.7       | 0.50 | 30      | -          | 106      | 70-130     |

**Surrogate Recovery**

|           |      |      |  |    |     |     |        |
|-----------|------|------|--|----|-----|-----|--------|
| aaa-TFT_2 | 10.6 | 10.0 |  | 10 | 106 | 100 | 70-130 |
|-----------|------|------|--|----|-----|-----|--------|

| Analyte      | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD  | RPD Limit |
|--------------|-----------|------------|---------|------------|---------|----------|---------------|------|-----------|
| TPH(btex)    | 56.5      | 59.9       | 60      | ND         | 94      | 100      | 70-130        | 5.75 | 20        |
| MTBE         | 9.31      | 10.3       | 10      | ND         | 93      | 103      | 70-130        | 9.91 | 20        |
| Benzene      | 10.7      | 11.1       | 10      | ND         | 107     | 111      | 70-130        | 4.09 | 20        |
| Toluene      | 10.5      | 11.1       | 10      | ND         | 105     | 111      | 70-130        | 5.76 | 20        |
| Ethylbenzene | 10.0      | 11.1       | 10      | ND         | 100     | 111      | 70-130        | 10.6 | 20        |
| Xylenes      | 30.3      | 33.3       | 30      | ND         | 101     | 111      | 70-130        | 9.26 | 20        |

**Surrogate Recovery**

|           |      |      |    |  |     |     |        |      |    |
|-----------|------|------|----|--|-----|-----|--------|------|----|
| aaa-TFT_2 | 10.2 | 10.0 | 10 |  | 102 | 100 | 70-130 | 1.94 | 20 |
|-----------|------|------|----|--|-----|-----|--------|------|----|



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1501626

ClientCode: PEO

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Morgan Gillies  
Pangea Environmental Svcs., Inc.  
1710 Franklin Street, Ste. 200  
Oakland, CA 94612  
(510) 836-3700    FAX: (510) 836-3709

Email: mgillies@pangeaenv.com  
cc/3rd Party:  
PO:  
ProjectNo: #1135.001; Douglas-Webster St

**Bill to:**

Bob Clark-Riddell  
Pangea Environmental Svcs., Inc.  
1710 Franklin Street, Ste. 200  
Oakland, CA 94612

**Requested TAT:**

**5 days**

*Date Received:*    **01/22/2015**

*Date Printed:*    **01/22/2015**

| Lab ID      | Client ID | Matrix | Collection Date | Hold                     | Requested Tests (See legend below) |   |   |   |   |   |   |   |   |    |    |    |  |
|-------------|-----------|--------|-----------------|--------------------------|------------------------------------|---|---|---|---|---|---|---|---|----|----|----|--|
|             |           |        |                 |                          | 1                                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |  |
| 1501626-001 | MW-1      | Water  | 1/22/2015 6:55  | <input type="checkbox"/> | A                                  | A |   |   |   |   |   |   |   |    |    |    |  |
| 1501626-002 | MW-2      | Water  | 1/22/2015 5:10  | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |    |    |    |  |
| 1501626-003 | MW-3      | Water  | 1/22/2015 5:45  | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |    |    |    |  |
| 1501626-004 | MW-4      | Water  | 1/22/2015 4:00  | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |    |    |    |  |
| 1501626-005 | MW-5      | Water  | 1/22/2015 2:45  | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |    |    |    |  |
| 1501626-006 | MW-6      | Water  | 1/22/2015 4:35  | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |    |    |    |  |
| 1501626-007 | MW-7      | Water  | 1/22/2015 3:25  | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |    |    |    |  |

**Test Legend:**

|    |          |    |              |   |  |   |  |    |  |
|----|----------|----|--------------|---|--|---|--|----|--|
| 1  | G-MBTX_W | 2  | PREDF REPORT | 3 |  | 4 |  | 5  |  |
| 6  |          | 7  |              | 8 |  | 9 |  | 10 |  |
| 11 |          | 12 |              |   |  |   |  |    |  |

**Prepared by: Maria Venegas**

**Comments:**

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



## WORK ORDER SUMMARY

**Client Name:** PANGEA ENVIRONMENTAL SVCS., INC.

**QC Level:** LEVEL 2

**Work Order:** 1501626

**Project:** #1135.001; Douglas-Webster St

**Client Contact:** Morgan Gillies

**Date Received:** 1/22/2015

**Comments:**

**Contact's Email:** mgillies@pangeaenv.com

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

| Lab ID       | Client ID | Matrix | Test Name                | Containers /Composites | Bottle & Preservative | De-chlorinated           | Collection Date & Time | TAT    | Sediment Content | Hold                     | SubOut |
|--------------|-----------|--------|--------------------------|------------------------|-----------------------|--------------------------|------------------------|--------|------------------|--------------------------|--------|
| 1501626-001A | MW-1      | Water  | SW8021B/8015Bm (G/MBTEX) | 3                      | VOA w/ HCl            | <input type="checkbox"/> | 1/22/2015 6:55         | 5 days | 5%+              | <input type="checkbox"/> |        |
| 1501626-002A | MW-2      | Water  | SW8021B/8015Bm (G/MBTEX) | 3                      | VOA w/ HCl            | <input type="checkbox"/> | 1/22/2015 5:10         | 5 days | Present          | <input type="checkbox"/> |        |
| 1501626-003A | MW-3      | Water  | SW8021B/8015Bm (G/MBTEX) | 3                      | VOA w/ HCl            | <input type="checkbox"/> | 1/22/2015 5:45         | 5 days | Present          | <input type="checkbox"/> |        |
| 1501626-004A | MW-4      | Water  | SW8021B/8015Bm (G/MBTEX) | 3                      | VOA w/ HCl            | <input type="checkbox"/> | 1/22/2015 4:00         | 5 days | Present          | <input type="checkbox"/> |        |
| 1501626-005A | MW-5      | Water  | SW8021B/8015Bm (G/MBTEX) | 3                      | VOA w/ HCl            | <input type="checkbox"/> | 1/22/2015 2:45         | 5 days | Present          | <input type="checkbox"/> |        |
| 1501626-006A | MW-6      | Water  | SW8021B/8015Bm (G/MBTEX) | 3                      | VOA w/ HCl            | <input type="checkbox"/> | 1/22/2015 4:35         | 5 days | Present          | <input type="checkbox"/> |        |
| 1501626-007A | MW-7      | Water  | SW8021B/8015Bm (G/MBTEX) | 3                      | VOA w/ HCl            | <input type="checkbox"/> | 1/22/2015 3:25         | 5 days | Present          | <input type="checkbox"/> |        |

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
 - MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1501626

**McCAMPBELL ANALYTICAL, INC.**

1534 Willow Pass Road  
Pittsburg, CA 94565

Website: [www.mccampbell.com](http://www.mccampbell.com) Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: (925) 252-9262 Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**

TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

EDF Required? <sup>yes</sup> Coelt (Normal) No Write On (DW) No

Report To: Morgan Gillies Bill To: Pangea  
Company: Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200, Oakland, CA 94612  
E-Mail: [mgillies@pangeaenv.com](mailto:mgillies@pangeaenv.com)  
Tele: (510) 836-3702 Fax: (510) 836-3709  
Project #: 1135.001 Project Name: Douglas - Webster St  
Project Location: 1721 Webster St., Oakland, CA  
Sampler Signature: *Muskan Environmental Sampling*

| Analysis Request                         |  |   |                                      |                       |                            |                |                           |                 |                 | Other                  | Comments             |  |                             |                             |                             |   |  |
|--|--|---|--------------------------------------|-----------------------|----------------------------|----------------|---------------------------|-----------------|-----------------|------------------------|----------------------|--|-----------------------------|-----------------------------|-----------------------------|---|--|
| BTEX & TPH as Gas (602/8020 + 8015)/MTBE | TPH as Diesel (8015) w/ Silica Gel Cleanup | Total Petroleum Oil & Grease (5520 E&F/B&F) | Total Petroleum Hydrocarbons (418.1) | EPA 601 / 8010 / 8021 | BTEX ONLY (EPA 602 / 8020) | EPA 608 / 8081 | EPA 608 / 8082 PCB's ONLY | EPA 8140 / 8141 | EPA 8150 / 8151 | EPA 524.2 / 624 / 8260 | EPA 525 / 625 / 8270 | PAH's / PNA's by EPA 625 / 8270 / 8310 | CAM-17 Metals (6010 / 6020) | LUFT 5 Metals (6010 / 6020) | Lead (200.8 / 200.9 / 6010) | Five fuel oxygenates by EPA Method 8260 | Filter Samples for Metals analysis: Yes / No |
|  |  |   |                                      |                       |                            |                |                           |                 |                 |                        |                      |  |                             |                             |                             |   |  |
|  |  |   |                                      |                       |                            |                |                           |                 |                 |                        |                      |  |                             |                             |                             |   |  |
|  |  |   |                                      |                       |                            |                |                           |                 |                 |                        |                      |  |                             |                             |                             |   |  |
|  |  |   |                                      |                       |                            |                |                           |                 |                 |                        |                      |  |                             |                             |                             |   |  |
|  |  |   |                                      |                       |                            |                |                           |                 |                 |                        |                      |  |                             |                             |                             |   |  |
|  |  |   |                                      |                       |                            |                |                           |                 |                 |                        |                      |  |                             |                             |                             |   |  |
|  |  |   |                                      |                       |                            |                |                           |                 |                 |                        |                      |  |                             |                             |                             |   |  |

+  
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+  
+  
+  
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+  
+

| SAMPLE ID | LOCATION (Field Point Name) | SAMPLING |       | # Containers | Type Containers | MATRIX |      |     |        |       | METHOD PRESERVED |     |                  |       |  |  |  |
|-----------|-----------------------------|----------|-------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|--|--|--|
|           |                             | Date     | Time  |              |                 | Water  | Soil | Air | Sludge | Other | ICE              | HCL | HNO <sub>3</sub> | Other |  |  |  |
| MW-1      |                             | 1/22/15  | 06:55 | 3            | VOR             | X      |      |     |        |       | X                | X   |                  |       |  |  |  |
| MW-2      |                             |          | 05:10 |              |                 |        |      |     |        |       |                  |     |                  |       |  |  |  |
| MW-3      |                             |          | 05:45 |              |                 |        |      |     |        |       |                  |     |                  |       |  |  |  |
| MW-4      |                             |          | 04:00 |              |                 |        |      |     |        |       |                  |     |                  |       |  |  |  |
| MW-5      |                             |          | 02:45 |              |                 |        |      |     |        |       |                  |     |                  |       |  |  |  |
| MW-6      |                             |          | 04:35 |              |                 |        |      |     |        |       |                  |     |                  |       |  |  |  |
| MW-7      |                             |          | 03:25 |              |                 | X      |      |     |        |       | X                | X   |                  |       |  |  |  |

Relinquished By: *[Signature]* Date: 1/22/14 Time: 0840 Received By: *[Signature]*

Relinquished By: Date: Time: Received By:

Relinquished By: Date: Time: Received By:

ICE/t° 3.2  
GOOD CONDITION  
HEAD SPACE ABSENT  
DECHLORINATED IN LAB  
APPROPRIATE CONTAINERS  
PRESERVED IN LAB

COMMENTS:

VOAS O&G METALS OTHER  
PRESERVATION pH<2





### Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.** Date and Time Received: **1/22/2015 10:19:25 AM**  
 Project Name: **#1135.001; Douglas-Webster St** LogIn Reviewed by: **Maria Venegas**  
 WorkOrder No: **1501626** Matrix: Water Carrier: Client Drop-In

**Chain of Custody (COC) Information**

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

**Sample Receipt Information**

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

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

All samples received within holding time? Yes  No   
 Sample/Temp Blank temperature Temp: 3.2°C NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

**UCMR3 Samples:**

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

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

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 Comments: