



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

January 23, 2013

Mr. Denis Brown  
Shell Oil Products US  
20945 S. Wilmington Ave.  
Carson, CA 90810-1039

Zheng Xiaoyi  
639 Kearney Street  
El Cerrito, CA 94530-3126

Au Energy LLC  
c/o Nick Goyal  
41805 Albrae Street, 2<sup>nd</sup> Floor  
Fremont, CA 94538-3120

Subject: Case Closure for Fuel Leak Case No. RO0000303 and GeoTracker Global ID T0600101240, Shell#13-5676, 230 West MacArthur Boulevard, Oakland, CA 94611

Dear Mr. Brown, Mr. Goyal, and Zheng Xiaoyi:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>) and the Alameda County Environmental Health website (<http://www.acgov.org/aceh/index.htm>).

#### SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Total Petroleum hydrocarbons as gasoline remains in soil at concentrations up to 2,700 ppm.
- Total Petroleum hydrocarbons as gasoline remains in groundwater at concentrations up to 7,600 ppb.
- As described in section IV of the attached Case Closure Summary, the case was closed with Site Management Requirements that limit future land use to the current commercial land use as a gasoline service station only.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Donna L. Drogos".

Donna L. Drogos, P.E.  
Division Chief

Enclosures:

1. Remedial Action Completion Certification
2. Case Closure Summary

cc:

Leroy Griffin (w/enc)  
Oakland Fire Department  
250 Frank H. Ogawa Plaza, Ste. 3341  
Oakland, CA 94612-2032  
(Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))

Closure Unit  
State Water Resources Control Board  
UST Cleanup Fund  
P.O. Box 944212  
Sacramento, CA 94244-2120  
(uploaded to GeoTracker)

Peter Schaefer  
Conestoga-Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608 2032  
(Sent via E-mail to: [pschaefer@croworld.com](mailto:pschaefer@croworld.com))

Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Jerry Wickham, ACEH (Sent via E-mail to: [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org))

GeoTracker (w/enc)  
eFile (w/orig enc)

ALAMEDA COUNTY  
**HEALTH CARE SERVICES**  
AGENCY

ALEX BRISCOE, Director



DEPARTMENT OF ENVIRONMENTAL HEALTH  
OFFICE OF THE DIRECTOR  
1131 HARBOR BAY PARKWAY  
ALAMEDA, CA 94502  
(510) 567-6777  
FAX (510) 337-9135

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**REMEDIAL ACTION COMPLETION CERTIFICATION**

January 23, 2013

Mr. Denis Brown  
Shell Oil Products US  
20945 S. Wilmington Ave.  
Carson, CA 90810-1039

Zheng Xiaoyi  
639 Kearney Street  
El Cerrito, CA 94530-3126

Au Energy LLC  
c/o Nick Goyal  
41805 Albrae Street, 2<sup>nd</sup> Floor  
Fremont, CA 94538-3120

Subject: Case Closure for Fuel Leak Case No. RO0000303 and GeoTracker Global ID T0600101240, Shell#13-5676, 230 West MacArthur Boulevard, Oakland, CA 94611

Dear Mr. Brown, Mr. Goyal, and Zheng Xiaoyi:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

  
Ariu Levi  
Director

**CASE CLOSURE SUMMARY  
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM**

**I. AGENCY INFORMATION**

Date: July 25, 2012

|  |  |
|--|--|
| Agency Name: Alameda County Environmental Health | Address: 1131 Harbor Bay Parkway             |
| City/State/Zip: Alameda, CA 94502-6577           | Phone: (510) 567-6791                        |
| Responsible Staff Person: Jerry Wickham          | Title: Senior Hazardous Materials Specialist |

**II. CASE INFORMATION**

|  |                            |                         |
|--|----------------------------|-------------------------|
| Site Facility Name: Shell #13-5676   |                            |                         |
| Site Facility Address: 230 West MacArthur Boulevard, Oakland, California 94611 |                            |                         |
| RB Case No.: 01-1345   | Local Case No.: STID 3673  | LOP Case No.: RO0000303 |
| URF Filing Dates: 12/12/1989 and 04/26/2005                                    | GeoTracker ID: T0600101240 | APN: 12-986-25-1        |

| Responsible Parties                  | Addresses   | Phone Numbers   |
|--------------------------------------|---|-----------------|
| Denis Brown<br>Shell Oil Products US | 20945 S. Wilmington Avenue<br>Carson, CA 90810      | (707) 865-0251  |
| Au Energy<br>c/o Nick Goyal          | 41805 Albrae Street, FL 2<br>Fremont, CA 94538-3120 | No phone number |
| Zheng Xiaoyi                         | 639 Kearny Street, El Cerrito, CA 94530-3126        | No phone number |

| Tank I.D. No          | Size in Gallons | Contents | Closed In Place/Removed? | Date          |
|-----------------------|-----------------|----------|--------------------------|---------------|
| --                    | 8,000           | Gasoline | Removed                  | November 1987 |
| --                    | 8,000           | Gasoline | Removed                  | November 1987 |
| --                    | 10,000          | Gasoline | Removed                  | November 1987 |
| Dispensers and Piping |                 |          | Upgraded                 | 4/26/2005     |

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

|  |  |   |
|--|--|---|
| Cause and Type of Release: Unknown. The USTs were reported to be in good condition when removed in November 1987.  |  |   |
| Site characterization complete? Yes  | Date Approved By Oversight Agency: ----  |   |
| Monitoring wells installed? Yes  | Number: 5  | Proper screened interval? Yes   |
| Highest GW Depth Below Ground Surface: 10.25 feet  | Lowest Depth: 20.81 feet   | Flow Direction: Generally to the west with periodic variations to the west northwest and west southwest |
| Most Sensitive Current Use: Potential drinking water source.   |  |   |
| <p>Summary of Production Wells in Vicinity:<br/>                 Two wells of unknown use are located approximately one-half mile southwest (down gradient) of the site. Based on the distance from the site, the wells are not expected to be receptors for the site. One well of unknown use is approximately 1,500 feet northeast (up gradient) of the site. Based on the distance and upgradient location, the well is not expected to be a receptor for the site.</p> |  |   |
| Are drinking water wells affected? No  | Aquifer Name: East Bay Plain   |   |
| Is surface water affected? No  | Nearest SW Name: Glen Echo Creek is located approximately 600 feet south of site.                |   |
| Off-Site Beneficial Use Impacts (Addresses/Locations): None  |  |   |
| Reports on file? Yes   | Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department |   |

| TREATMENT AND DISPOSAL OF AFFECTED MATERIAL |   |   |                          |
|---|---|---|--------------------------|
| Material                                    | Amount (Include Units)                    | Action (Treatment or Disposal w/Destination)  | Date                     |
| Tank  | <sup>1)</sup> 2-8,000 gal<br>1-10,000 gal | <sup>1)</sup> Not Reported  | <sup>1)</sup> 11/1987    |
|   | <sup>2)</sup> 550 gal                     | <sup>2)</sup> Not Reported  | <sup>2)</sup> 1988       |
| Piping                                      | ~60 ft                                    | Not Reported  | 4/18/2005                |
| Free Product                                | ---                                       | ---   | 12/1989                  |
| Soil  | <sup>1)</sup> 500 yd <sup>3</sup>         | <sup>1)</sup> Soil disposed of as non-hazardous waste at West Contra Costa Sanitary Landfill (Class III)                  | <sup>1)</sup> 12/21/1987 |
|   | <sup>2)</sup> ~10 yd <sup>3</sup>         | <sup>2)</sup> Soil disposed of as hazardous waste at Chemical Waste Management's facility in Kettleman City, CA           | <sup>2)</sup> 4/18/2005  |
|   | <sup>3)</sup> 200 lbs                     | <sup>3)</sup> Soil disposed of as non-hazardous waste at Altamont Landfill, 10840 Altamont Pass Rd., Livermore, CA, 94550 | <sup>3)</sup> 2/26/2008  |
| Groundwater                                 | ---                                       | ---   | ---                      |

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**  
 (Please see Attachments 2 – 4 for additional information on contaminant locations and concentrations)

| Contaminant       | Soil (ppm)   |              | Groundwater (ppb) |              |
|-------------------|--------------|--------------|-------------------|--------------|
|                   | Before       | After        | Before            | Current      |
| TPH (Gas)         | 5,700        | 2,700        | 34,000(1)         | 7,600(1)     |
| TPH (Diesel)      | <5.0         | <5.0         | Not Analyzed      | Not Analyzed |
| Oil & Grease      | <25.0        | <25.0        | Not Analyzed      | Not Analyzed |
| Benzene           | 4.3          | 4.3          | 1,800(2)          | 150(2)       |
| Toluene           | 6.6          | 9.47         | 1,700(2)          | 10(2)        |
| Ethylbenzene      | 39           | 39.0         | 1,600(2)          | 270(2)       |
| Xylenes           | 325          | 325          | 1,700(2)          | 43(2)        |
| Heavy Metals      | 140(3)       | 140(3)       | Not Analyzed      | Not Analyzed |
| MTBE              | 0.3(4)       | 0.3(4)       | 3,800(5)          | 2.3(5)       |
| Other (8240/8270) | Not Analyzed | Not Analyzed | Not Analyzed      | Not Analyzed |

- (1) The maximum concentration before cleanup is from a grab groundwater sample collected from SB-8 on 4/06/2006; the maximum concentration after cleanup is from a groundwater sample collected from MW-5 on 3/25/2011.
- (2) The maximum concentration before cleanup is from a groundwater sample collected from MW-4 on 6/1/1993; the maximum concentration after cleanup is from a groundwater sample collected from MW-5 on 3/25/2011.
- (3) Lead = 140 ppm; Cadmium, Chromium, Nickel, and Zinc all not analyzed.
- (4) MTBE = 0.3 ppm; TBA = 18 ppm; DIPE = 3.3 ppm; ETBE and TAME<0.25 ppm; EDB and EDC not analyzed.
- (5) MTBE = 3,800 ppb; TBA = 280 ppb; DIPE = 56 ppb; ETBE and TAME<0.5 ppb; EDB and EDC <0.5 ppb.
- (6) MTBE = 2.3 ppb; TBA <100 ppb; DIPE; ETBE and TAME<20.0 ppb; EDB and EDC <0.5 ppb.

#### Site History and Description of Corrective Actions:

The site is an active Shell-branded service station located on the northwest corner of West MacArthur Boulevard and Piedmont Avenue in Oakland, CA. Surrounding land use is commercial.

In April 1986, four exploratory borings (S-A through S-D) were advanced within the area of the tank complex to total depths of 20.5 feet below grade (fbg). Soil samples contained up to 5,700 ppm TPH.

In December 1986, a semi-quantitative soil vapor survey was conducted using a portable gas chromatograph. The soil vapor survey reported "very high" vapor concentrations near the storage tank fills and pump island closest to MacArthur Boulevard. "Moderately high" concentrations were reported beneath much of the remaining area. No additional soil vapor sampling and laboratory analysis was conducted to confirm or quantify these results.

In March 1987, three soil vapor extraction (SVE) wells (VR-1, VR-2, and VR-3) were installed. The SVE treatment system operated between April and November 1987. In August 1987, two soil borings (B-1 and B-2) were advanced to characterize petroleum hydrocarbons remaining in the soil. Soil samples contained up to 1,870 ppm TPHg.

In November 1987, two 8,000-gallon gasoline USTs and one 10,000-gallon gasoline UST were removed. Soil samples collected from the bottom of the UST excavation contained up to 480 ppm TPHg, 4.3 ppm benzene, 2.2 ppm toluene, and 55 ppm xylenes. New USTs were installed in the same excavation.

In August 1989, three soil borings (SB-1, SB-2, and SB-3) were advanced in the area adjacent to the pump islands. Soil samples contained up to 490 ppm TPHg. Benzene was not detected at concentrations above the reporting limit in these soil samples.

On October 10, 1989, three borings (GS-1, GS-2, and GS-3) were advanced to obtain grab groundwater samples from the area adjacent to the pump islands. Grab groundwater samples taken from GS-2 contained up to 8,800 ppb TPHg, 380 ppb benzene, 27 ppb toluene, 1,200 ppb ethylbenzene, and 62 ppb xylenes. These constituents were not detected at concentrations above the reporting limit in the grab groundwater sample from GS-1.

Monitoring well MW-4 was installed in January 1990. In May 1990, six borings (Probe 1 through Probe 6) were advanced in the sidewalk along West MacArthur Boulevard to obtain shallow groundwater samples. Grab groundwater samples contained up to 31,000 ppb TPHg, 430 ppb benzene, 600 ppb toluene, 240 ppb ethylbenzene, and 1,400 ppb xylenes. TPHg and BTEX were not detected at concentrations above the reporting limit in grab groundwater samples collected from borings Probe 1 or Probe 3.

In October 2002, a sensitive receptor survey (SRS) and conduit study identified a storm drain located just west of the site, along West MacArthur Boulevard, as a potential preferential pathway for contaminant migration. In October 2003, an additional SRS was completed to identify basements within 200 feet, surface water, and sensitive habitats within 500 feet, hospitals, residential care and childcare facilities within 1,000 feet, and water wells within one-half mile. No basements were observed within 200 feet and no surface water or sensitive habitats were observed within 500 feet.

In March 2004, two soil borings (SB-1 and SB-2) were drilled adjacent to the storm drain located west of the site, and soil and groundwater samples were collected. Soil samples contained up to 43 ppm TPHg and 0.0099 ppm MTBE. BTEX were not detected at concentrations above the reporting limit in the soil samples. Grab groundwater samples contained up to 10,000 ppb TPHg, 430 ppb benzene, 75 ppb toluene, 98 ppb ethylbenzene, 44 ppb xylenes, and 320 ppb MTBE.

In April 2005, soil samples were collected from beneath the site's dispensers and piping following an upgrade of the site's fueling system. Soil samples contained up to 2,700 ppm TPHg, 4.2 ppm benzene, 6.6 ppm toluene, 39 ppm ethylbenzene, 85 ppm xylenes, and 0.30 ppm MTBE. A UST Unauthorized Release/Contamination Site Report was filed on April 26, 2005 in conjunction with over-excavation of impacted soils. Following over-excavation, eight bottom and side-wall samples were collected. Soils samples contained up to 830 ppm TPHg, 1.4 ppm toluene, 4.1 ppm ethylbenzene, 1.5 ppm xylenes, and 0.017 ppm MTBE.

Site History and Description of Corrective Actions (continued):

In April 2006, four soil borings (SB-4, SB-6, SB-7, and SB-8) were advanced on site. Soil boring SB-8 was converted into on-site groundwater monitoring well MW-5. Soil samples from the borings contained up to 1,510 ppm TPHg, 2.90 ppm benzene, 9.47 ppm toluene, 9.46 ppm ethylbenzene, 70.6 ppm xylenes, 0.00970 ppm MTBE, and 0.0142 ppm di-isopropyl ether (DIPE). Grab groundwater samples contained up to 34,000 ppb TPHg, 404 ppb benzene, 22.5 ppb toluene, 110 ppb ethylbenzene, 56.8 ppb xylenes, 29.2 ppb MTBE, 40.2 ppb tertiary-butyl alcohol (TBA), and 26.6 DIPE.

In February 2008, three off-site soil borings (SB-9, SB-10, and SB-11) were advanced southwest and west of well MW-5 to further delineate groundwater impacts down gradient. One on-site soil boring (SB-12) was drilled adjacent to well MW-5 for groundwater data comparison. MTBE was detected in one soil sample at a concentration of 0.0053 ppm in SB-12 at 15.5 fbg. TPHg, BTEX, TBA, DIPE, ethyl tertiary-butyl ether (ETBE), and tertiary-amyl methyl ether (TAME) were not detected at concentrations above the reporting limit in the soil samples. Off-site grab groundwater samples contained up to 1,700 ppb TPHg, 14 ppb toluene, and 120 ppb MTBE. Benzene, ethylbenzene, xylenes, TBA, DIPE, ETBE, and TAME were not detected in the off-site grab groundwater samples. The on-site grab groundwater sample contained 4,900 ppb TPHg, 120 ppb benzene, 11 ppb toluene, 170 ppb ethylbenzene, 42.2 ppb xylenes, 33 ppb MTBE, 100 ppb TBA, and 11 ppb DIPE.

Groundwater monitoring has been conducted at the site since July 1988. Coordinated monitoring and sampling has been conducted with the adjacent former gas station, currently Oakland Auto works at the property of 240 West MacArthur Boulevard, since the fourth quarter of 2003. Significant seasonal variations in groundwater elevations have been observed. Constituent concentrations have generally been highest in monitoring well and MW-5, which is located immediately down gradient of the former UST and dispenser islands. Overall decreases in constituent concentrations have generally been observed in groundwater monitoring results from the site indicating that natural attenuation of dissolved petroleum hydrocarbons is apparently taking place.

IV. CLOSURE

|   |                          |                    |
|---|--------------------------|--------------------|
| Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes  |                          |                    |
| Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes   |                          |                    |
| Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.  |                          |                    |
| Site Management Requirements: Case closure for this fuel leak site is granted for the current commercial land use as a gasoline service station only. If a change in land use to any residential or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans. |                          |                    |
| Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities. This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.   |                          |                    |
| Should corrective action be reviewed if land use changes? Yes   |                          |                    |
| Was a deed restriction or deed notification filed? No   |                          | Date Recorded: --- |
| Monitoring Wells Decommissioned: No   | Number Decommissioned: 0 | Number Retained: 5 |
| List Enforcement Actions Taken: None  |                          |                    |
| List Enforcement Actions Rescinded: ---   |                          |                    |



**V. ADDITIONAL COMMENTS, DATA, ETC.**

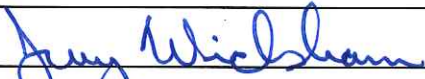
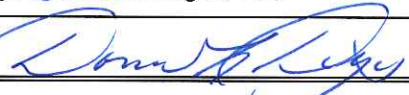
Considerations and/or Variances:

No soil vapor sampling and analysis using currently accepted quantitative methods has been conducted at the site to evaluate the potential for vapor intrusion to indoor air. The only building currently on site is a kiosk in the central portion of the site. Soil sample results indicate that vadose zone soils with elevated concentrations are generally limited to the dispenser area south of the kiosk. The extent of residual contamination in the area of the dispensers and piping was reduced by over-excavation in the dispenser and piping areas in 2005. The maximum concentration of benzene detected during the most recent groundwater sampling event was 150 ppb and the depth to groundwater was greater than 13 feet. Based on the generally low concentrations of benzene remaining in groundwater and depth to groundwater, the potential for vapor migration from the groundwater surface or capillary fringe to indoor air appears unlikely. Given these limiting site conditions, soil vapor sampling does not appear to be warranted at this time. However, the potential for vapor intrusion to indoor air should be evaluated for future site development in areas of residual contamination.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use as a gasoline service station based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend closure for this site.

**VI. LOCAL AGENCY REPRESENTATIVE DATA**

|  |  |
|--|--|
| Prepared by: Jerry Wickham   | Title: Senior Hazardous Materials Specialist |
| Signature:  | Date: 07/25/12                               |
| Approved by: Donna L. Drogos, P.E.   | Title: Division Chief                        |
| Signature:  | Date: 07/25/12                               |

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

**VII. REGIONAL BOARD NOTIFICATION**

|  |                              |
|--|------------------------------|
| Regional Board Staff Name: Cherie McCaulou | Title: Engineering Geologist |
| Notification Date: 07/31/12                |                              |

**VIII. MONITORING WELL DECOMMISSIONING**

|  |   |                    |
|--|---|--------------------|
| Date Requested by ACEH: 10/16/12   | Date of Well Decommissioning Report: 12/17/12 |                    |
| All Monitoring Wells Decommissioned: Yes   | Number Decommissioned: 5                      | Number Retained: 0 |
| Reason Wells Retained: ---   |   |                    |
| Additional requirements for submittal of groundwater data from retained wells: --- |   |                    |
| ACEH Concurrence - Signature: <i>Jerry Wickham</i>                                 |   | Date: 01/22/13     |

**Attachments:**

1. Vicinity Map (2 p)
2. Site Plan (1 p)
3. Groundwater Contour and Chemical Concentration Map, Concentration Graphs, and Cross Sections (5 pp)
4. Soil Analytical Data (7 pp)
5. Groundwater Analytical Data (12 pp)
6. Boring Logs (26 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

## Wickham, Jerry, Env. Health

---

**From:** MCcaulou, Cherie@Waterboards [Cherie.MCcaulou@waterboards.ca.gov]  
**Sent:** Tuesday, July 31, 2012 5:11 PM  
**To:** Wickham, Jerry, Env. Health  
**Subject:** RE: RO303 Pending case closure for RO303 230 West MacArthur, Oakland

Jerry – I received your notification and recommendation for case closure of Case No. RO303. We have no comments. Thank you.

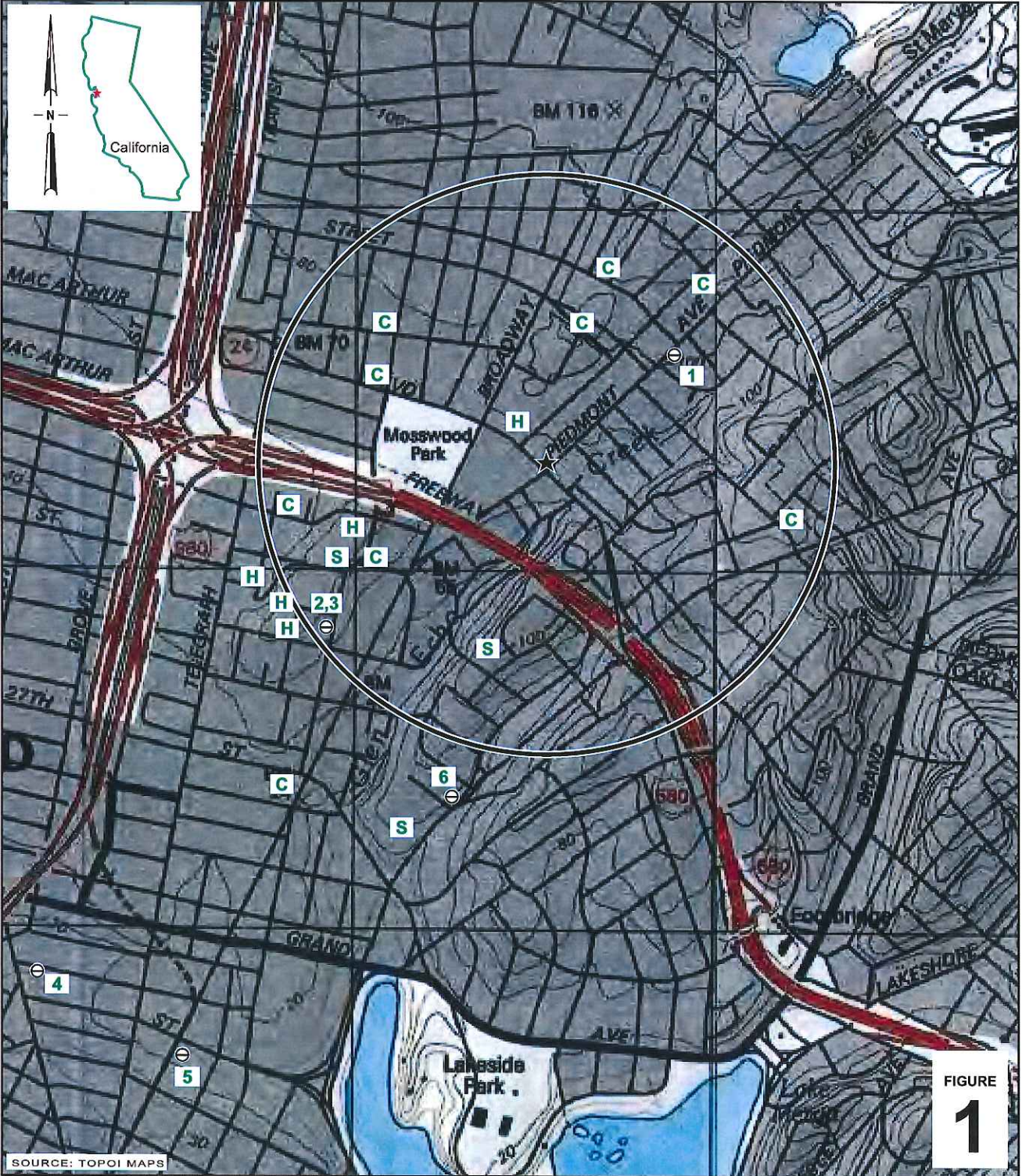
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**From:** Jerry Env. Health Wickham [<mailto:jerry.wickham@acgov.org>]  
**Sent:** Tuesday, July 31, 2012 2:24 PM  
**To:** MCcaulou, Cherie@Waterboards  
**Subject:** RO303 Pending case closure for RO303 230 West MacArthur, Oakland

Hi Cherie,

This email provides notification of pending closure for ACEH case RO303, 230 West MacArthur, Oakland.

Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577  
phone: 510-567-6791  
[jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org)



I:\Shell\16-charts\2409--1240902-Oakland 230 MacArthur\240902-FIGURES\240902 VICINITY.AI

SOURCE: TOPOI MAPS

FIGURE  
**1**

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

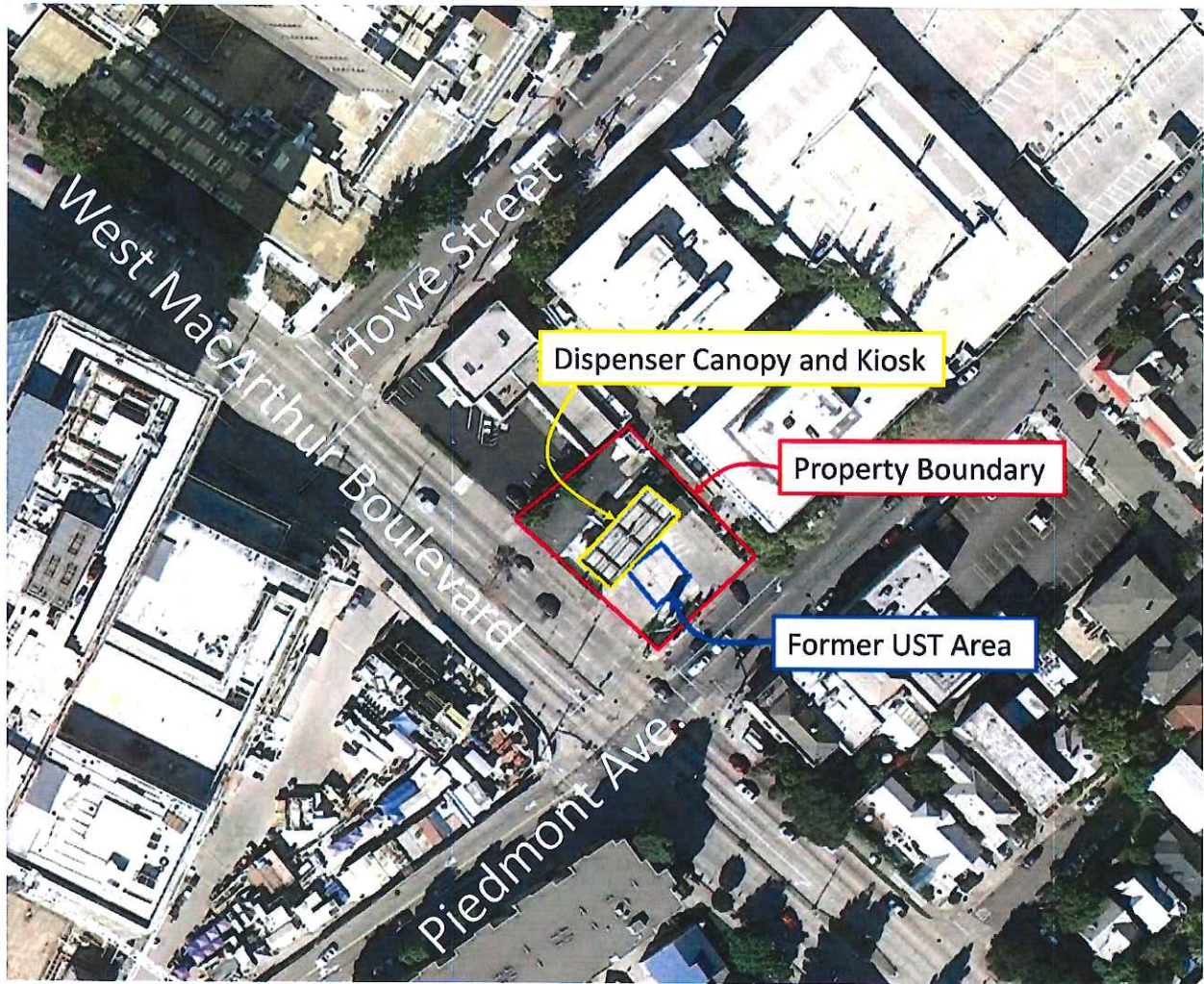
**Shell-branded Service Station**  
230 West MacArthur Boulevard  
Oakland, California



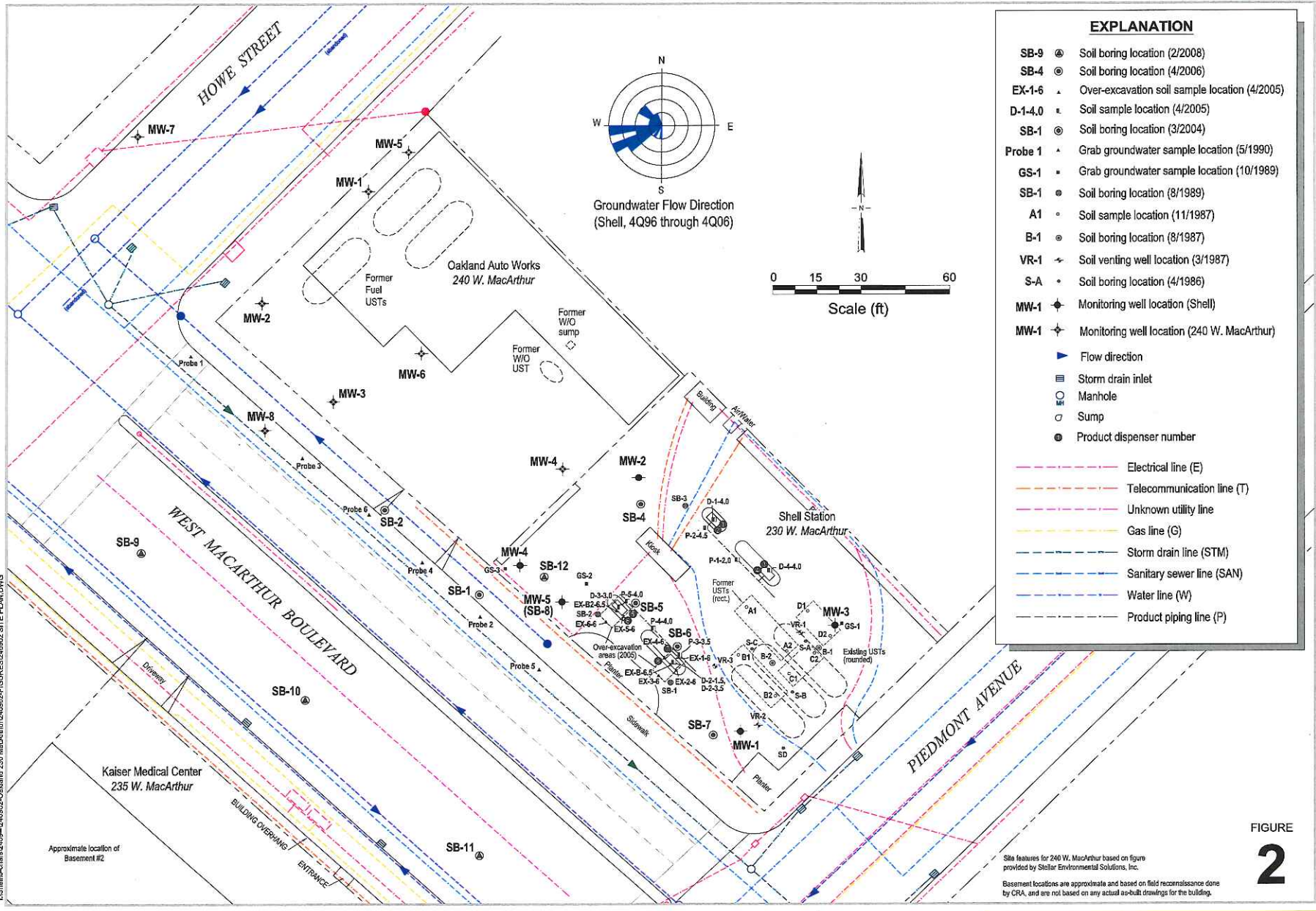
**CONESTOGA-ROVERS  
& ASSOCIATES**

Vicinity Map

**ATTACHMENT 1**



Aerial View of Property (Google, 2012)



| EXPLANATION |   |
|-------------|---|
| SB-9        | Soil boring location (2/2008)                 |
| SB-4        | Soil boring location (4/2006)                 |
| EX-1-6      | Over-excavation soil sample location (4/2005) |
| D-1-4.0     | Soil sample location (4/2005)                 |
| SB-1        | Soil boring location (3/2004)                 |
| Probe 1     | Grab groundwater sample location (5/1990)     |
| GS-1        | Grab groundwater sample location (10/1989)    |
| SB-1        | Soil boring location (8/1989)                 |
| A1          | Soil sample location (11/1987)                |
| B-1         | Soil boring location (8/1987)                 |
| VR-1        | Soil venting well location (3/1987)           |
| S-A         | Soil boring location (4/1986)                 |
| MW-1        | Monitoring well location (Shell)              |
| MW-1        | Monitoring well location (240 W. MacArthur)   |
| ▶           | Flow direction                                |
| ■           | Storm drain inlet                             |
| ○           | Manhole                                       |
| ○           | Sump  |
| ●           | Product dispenser number                      |
| ---         | Electrical line (E)                           |
| ---         | Telecommunication line (T)                    |
| ---         | Unknown utility line                          |
| ---         | Gas line (G)                                  |
| ---         | Storm drain line (STM)                        |
| ---         | Sanitary sewer line (SAN)                     |
| ---         | Water line (W)                                |
| ---         | Product piping line (P)                       |

Site Plan



Shell-branded Service Station  
230 West MacArthur Boulevard  
Oakland, California

FIGURE  
**2**

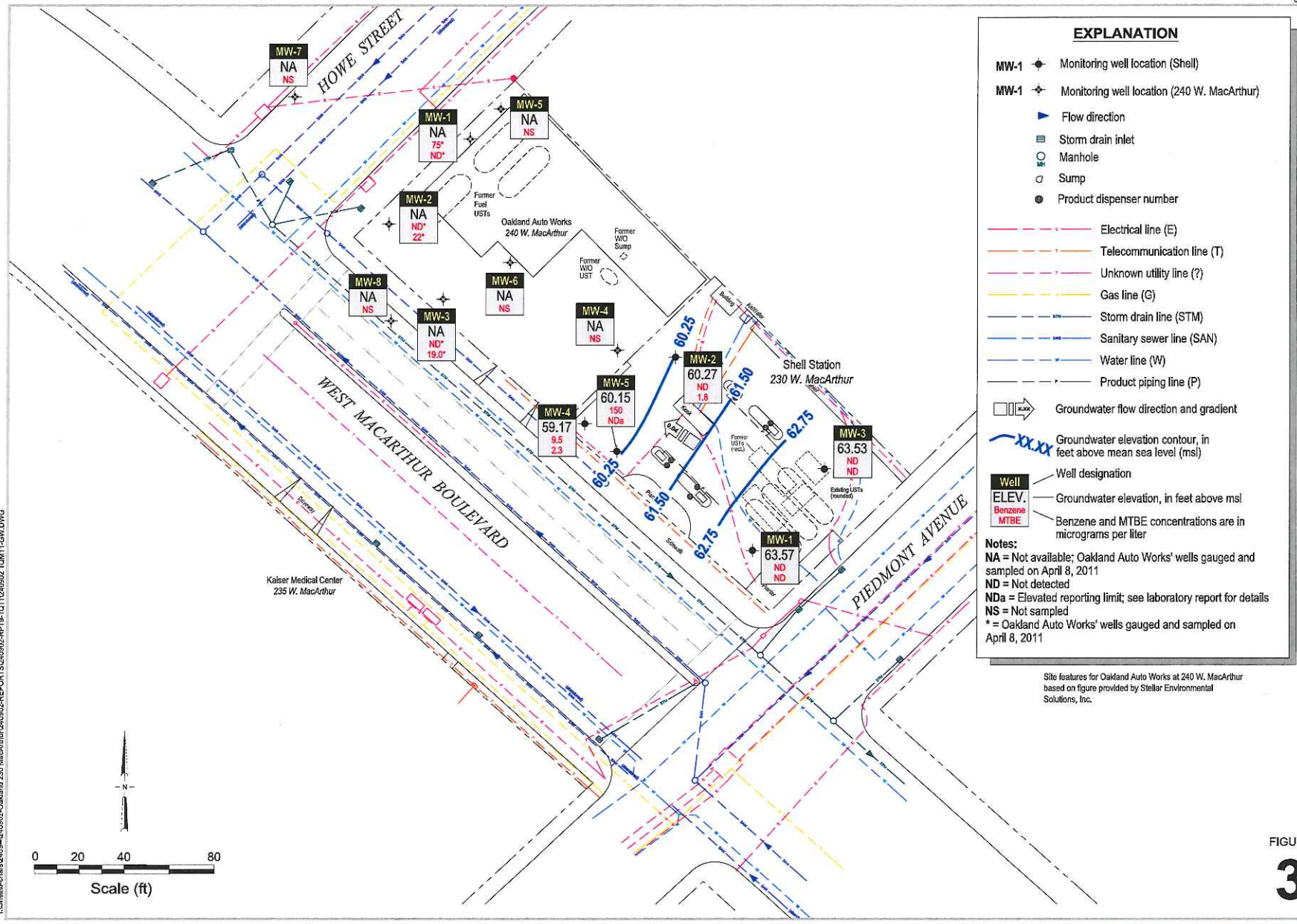
Site features for 240 W. MacArthur based on figure provided by Stellar Environmental Solutions, Inc.  
Basement locations are approximate and based on field reconnaissance done by CRA, and are not based on any actual as-built drawings for the building.

**ATTACHMENT 2**

K:\SV\115-cha\2409-240902-Oakland 230 MacArthur\240902-FIGURES\240902 SITE PLAN.DWG

Approximate location of Basement #2

ISS:shalls-chas/2409--240902-Oakland 230 MacArthur/240902-REPORTS/0902-RPTB-101124/0902 10M11-GW.DWG



Groundwater Contour and Chemical Concentration Map

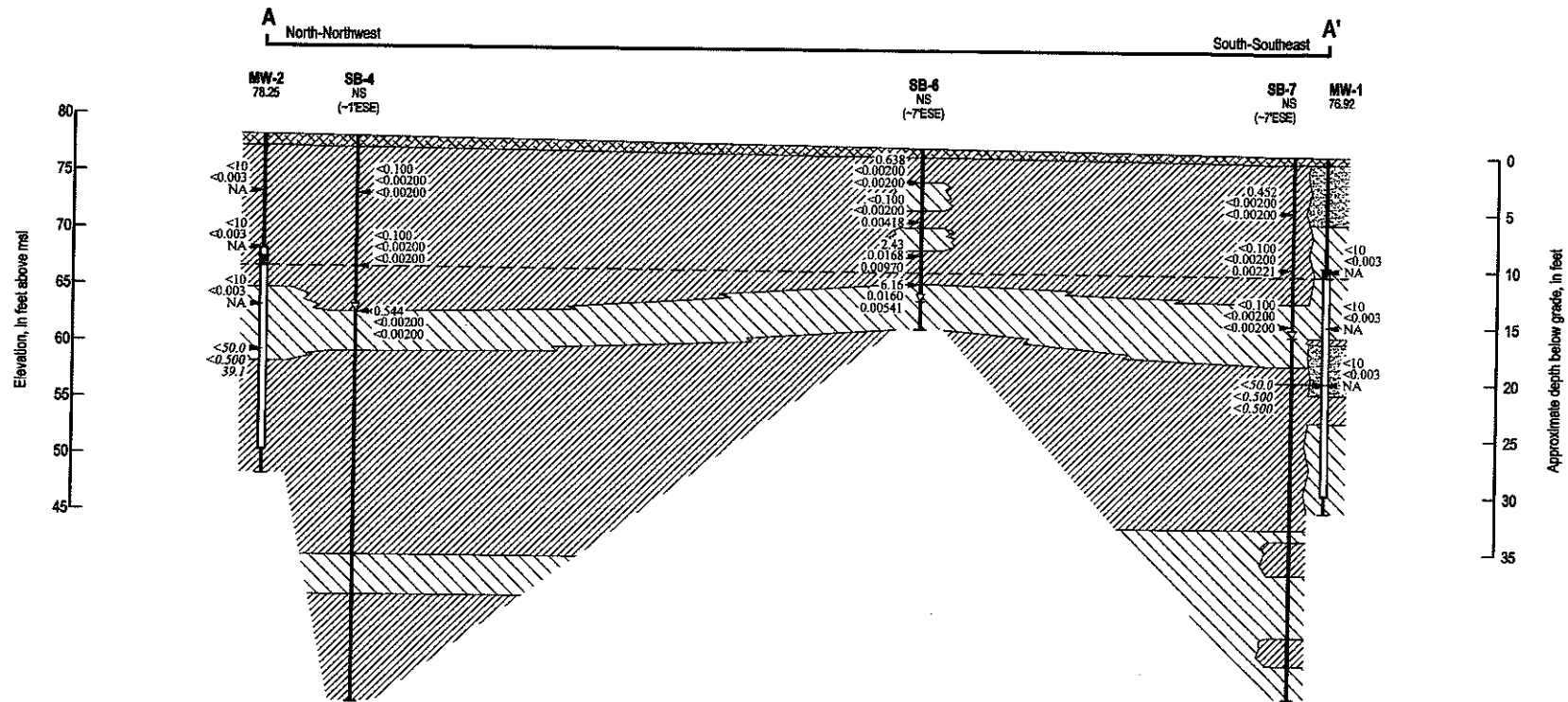


Shell-branded Service Station  
230 West MacArthur Boulevard  
Oakland, California

March 25, 2011

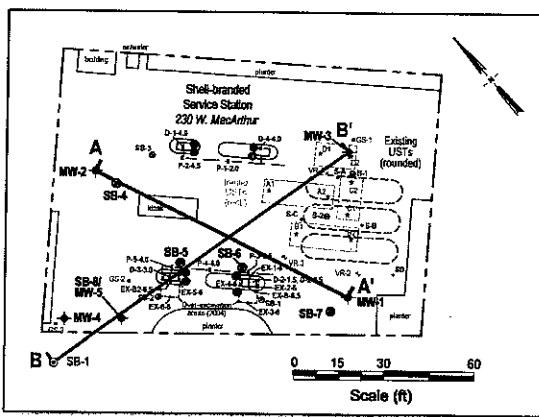
FIGURE 3

Geological Cross-Section A-A'



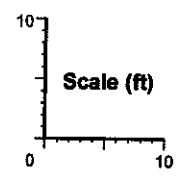
C A M B R I A

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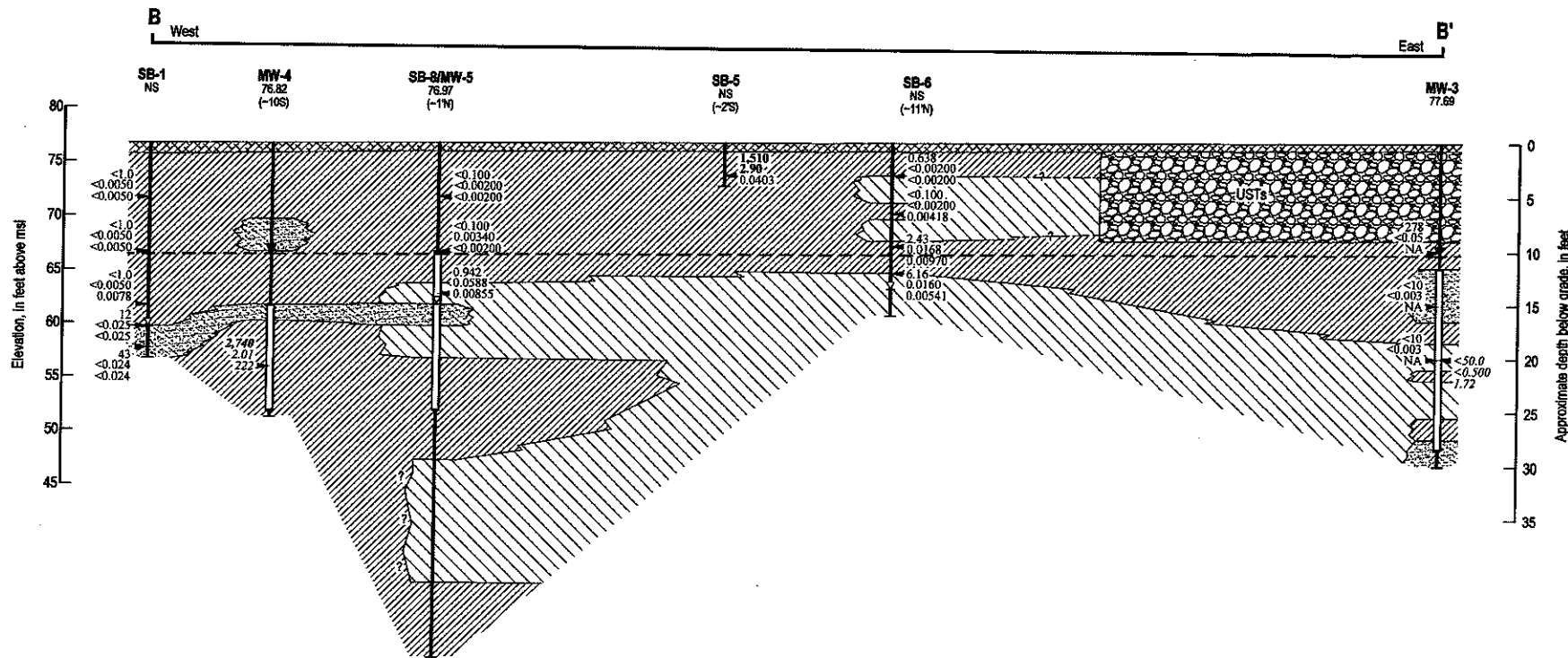
### EXPLANATION

|  |  |  |   |
|--|--|--|---|
|  | Low Estimated Permeability Soils<br>- Clay, Sandy Clay, Silt                     |  | Well ID — Well Designation  |
|  | Moderate Estimated Permeability Soils<br>- Clayey Sand, Silty Sand, Silty Gravel |  | Elev. (offset) — Top of Casing Elevation  |
|  | High Estimated Permeability Soils<br>- Sand, Gravel                              |  | Groundwater Monitoring Well   |
|  | Approximate soil sample location   |  | Well Screen Interval  |
|  | Hydrocarbon concentrations in Soil, in ppm                                       |  | Bottom of boring  |
|  | Not analyzed or not available  |  | Depth of first encountered Groundwater  |
|  |  |  | Depth to Groundwater - 3/30/06  |
|  |  |  | Approximate groundwater sample location   |
|  |  |  | Hydrocarbon concentrations in Groundwater, in ppb - 3/30/06, unless otherwise noted |



**Shell-branded Service Station**  
 230 West MacArthur Boulevard  
 Oakland, California  
 Incident No. 98985741

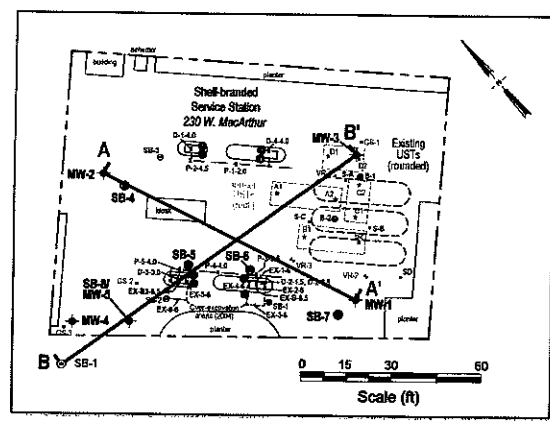




Geological Cross-Section B-B'



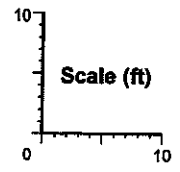
C A M B R I A



**EXPLANATION**

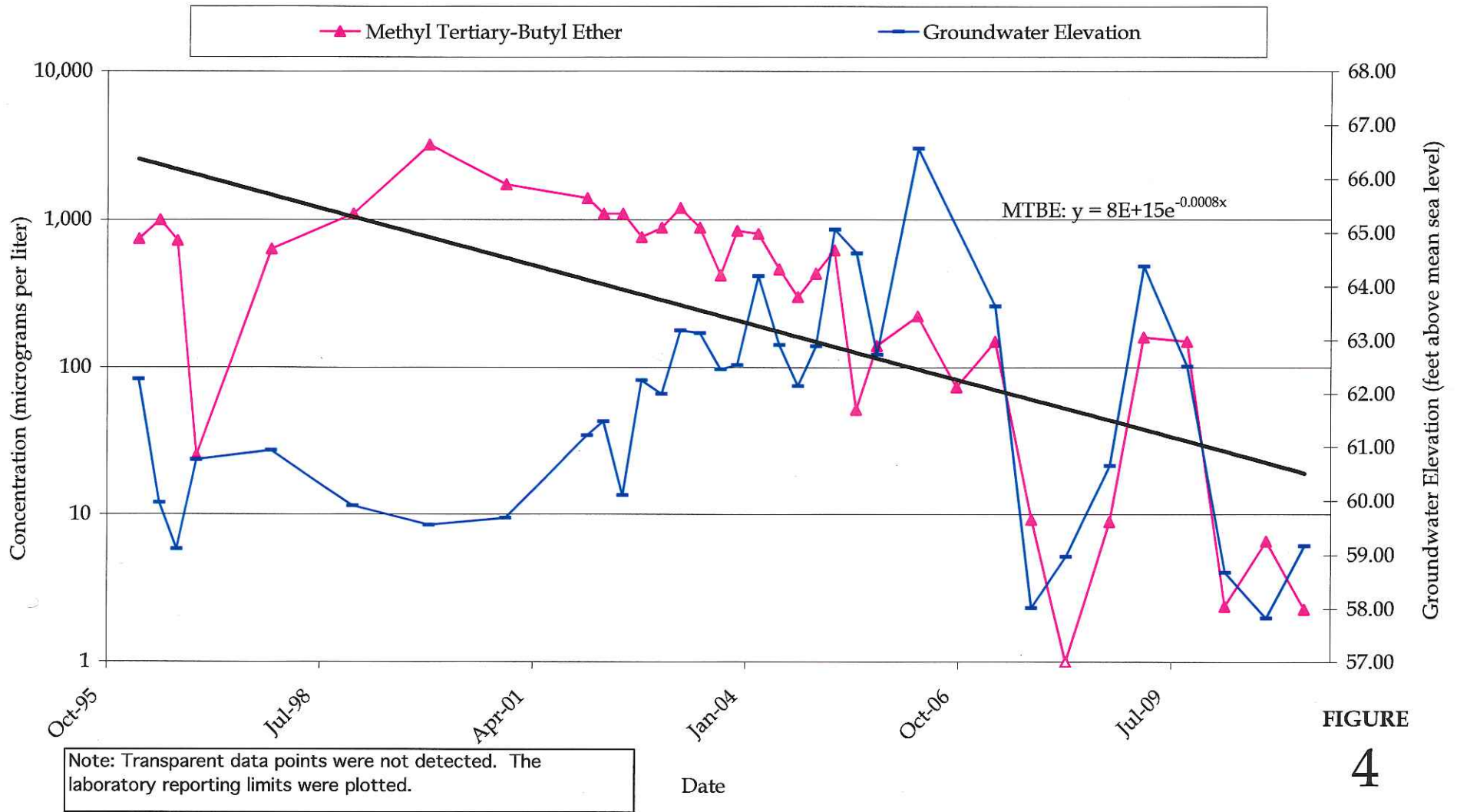
- Low Estimated Permeability Soils - Clay, Sandy Clay, Silt
- Moderate Estimated Permeability Soils - Clayey Sand, Silty Sand, Silty Gravel
- High Estimated Permeability Soils - Sand, Gravel
- UST Pit Backfill
- Approximate soil sample location
- Hydrocarbon concentrations in Soil, in ppm
- Not analyzed or not available
- Well Designation
- Top of Casing Elevation
- Groundwater Monitoring Well
- Well Screen Interval
- Bottom of boring
- Depth of first encountered Groundwater
- Depth to Groundwater - 3/30/06
- Approximate groundwater sample location
- Hydrocarbon concentrations in Groundwater, in ppb - 3/30/06, unless otherwise noted

**Bold values exceed RWQCB ESL**



C:\OAKLAND 230 W. MACARTHUR\DW\F06B-B-F.DWG

**Shell-branded Service Station**  
230 West MacArthur Boulevard  
Oakland, California  
Incident No. 98985741



**FIGURE 4**

Shell-branded Service Station  
 230 West MacArthur Boulevard  
 Oakland, California



**MW-4:**  
 MTBE Concentration and  
 Groundwater Elevation vs. Time

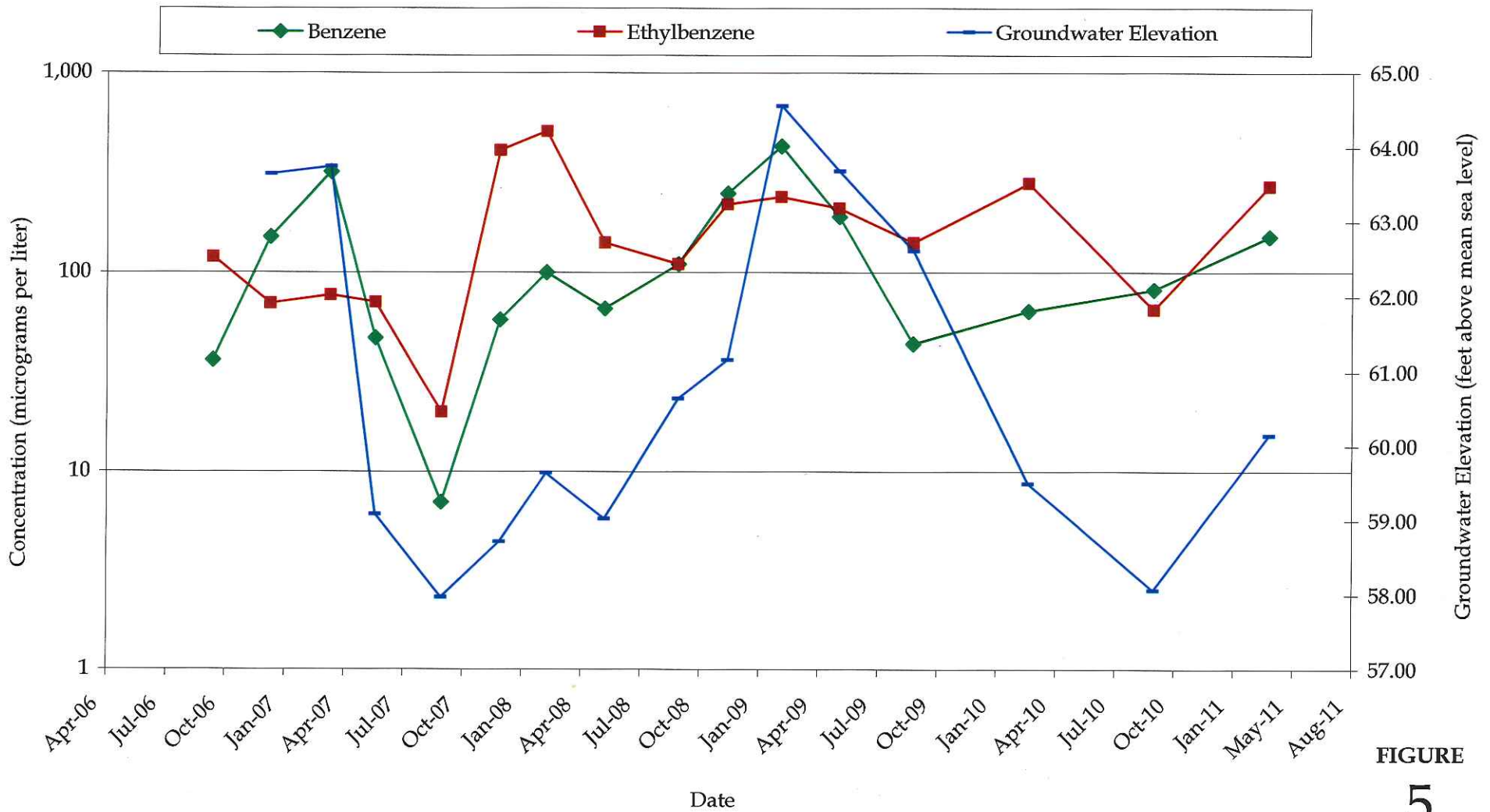


FIGURE  
5

Shell-branded Service Station  
230 West MacArthur Boulevard  
Oakland, California



MW-5:  
Benzene and Ethylbenzene Concentrations  
and Groundwater Elevation versus Time

**TABLE 3**  
**HISTORICAL SOIL ANALYTICAL DATA**  
**SHELL-BRANDED SERVICE STATION**  
**230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Sample ID  | Date      | Depth (fbg) | TPHg               | Benzene | Toluene | Ethyl-benzene | Total Xylenes | MTBE | TBA | DIPE | ETBE | TAME | Total Lead        | Organic Lead |
|------------|-----------|-------------|--------------------|---------|---------|---------------|---------------|------|-----|------|------|------|-------------------|--------------|
| S-A        | 4/14/1986 | 4 - 5.5     | 17 <sup>a</sup>    | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-A        | 4/14/1986 | 8.5 - 10    | 1,200 <sup>a</sup> | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-A        | 4/14/1986 | 11 - 12.5   | 4,300 <sup>a</sup> | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-A        | 4/14/1986 | 13.5 - 15   | ND <sup>a</sup>    | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-B        | 4/14/1986 | 5 - 6.5     | 36 <sup>a</sup>    | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-B        | 4/14/1986 | 8 - 9.5     | 78 <sup>a</sup>    | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-B        | 4/14/1986 | 12 - 13     | 6.4 <sup>a</sup>   | --      | --      | --            | --            | --   | --  | --   | --   | --   | 11.0 <sup>b</sup> | --           |
| S-C        | 4/14/1986 | 4 - 5.5     | ND <sup>a</sup>    | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-C        | 4/14/1986 | 7 - 8.5     | ND <sup>a</sup>    | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-C        | 4/14/1986 | 11 - 12.5   | ND <sup>a</sup>    | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-C        | 4/14/1986 | 13.5 - 15   | 5,700 <sup>a</sup> | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| S-D        | 4/14/1986 | Composite   | 571 <sup>a</sup>   | --      | --      | --            | --            | --   | --  | --   | --   | --   | --                | --           |
| B-1 @ 4'   | 8/28/1987 | 4           | 412                | <0.05   | <0.05   | <0.1          | 5.4           | --   | --  | --   | --   | --   | 65.9 <sup>d</sup> | --           |
| B-1 @ 6'   | 8/28/1987 | 6           | 1,440              | <0.05   | <0.05   | <0.1          | 130           | --   | --  | --   | --   | --   | 26.4 <sup>d</sup> | --           |
| B-1 @ 8'   | 8/28/1987 | 8           | 1,870              | <0.05   | 4.3     | 14            | 325           | --   | --  | --   | --   | --   | 14.3 <sup>d</sup> | --           |
| B-1 @ 10'  | 8/28/1987 | 10          | <10                | <0.05   | <0.050  | <0.1          | <0.1          | --   | --  | --   | --   | --   | <5 <sup>d</sup>   | --           |
| B-1 @ 12'  | 8/28/1987 | 12          | 122                | 0.60    | 0.36    | 0.38          | 0.33          | --   | --  | --   | --   | --   | <5 <sup>d</sup>   | --           |
| B-1 @ 14'  | 8/28/1987 | 14          | 52                 | <0.05   | <0.05   | <0.1          | <0.1          | --   | --  | --   | --   | --   | <5 <sup>d</sup>   | --           |
| B-2 @ 5'   | 8/28/1987 | 5           | <10                | <0.05   | 1.5     | 5.7           | <0.1          | --   | --  | --   | --   | --   | <5 <sup>d</sup>   | --           |
| B-2 @ 6-7' | 8/28/1987 | 6 - 7       | <10                | <0.05   | 0.37    | 0.55          | <0.1          | --   | --  | --   | --   | --   | <5 <sup>d</sup>   | --           |

TABLE 3

HISTORICAL SOIL ANALYTICAL DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

| Sample ID  | Date      | Depth<br>(fbg) | TPHg | Benzene | Toluene | Ethyl-<br>benzene | Total<br>Xylenes | MTBE | TBA | DIPE | ETBE | TAME | Total<br>Lead    | Organic<br>Lead |
|------------|-----------|----------------|------|---------|---------|-------------------|------------------|------|-----|------|------|------|------------------|-----------------|
| B-2 @ 8-9' | 8/28/1987 | 8 - 9          | <10  | 0.5     | 0.4     | 0.3               | <0.1             | --   | --  | --   | --   | --   | <5 <sup>d</sup>  | --              |
| B-2 @ 10'  | 8/28/1987 | 10             | <10  | <0.05   | <0.05   | <0.1              | <0.1             | --   | --  | --   | --   | --   | <5 <sup>d</sup>  | --              |
| B-2 @ 12'  | 8/28/1987 | 12             | <10  | <0.05   | <0.05   | <0.1              | <0.1             | --   | --  | --   | --   | --   | <5 <sup>d</sup>  | --              |
| A1         | 11/5/1987 | 15             | 380  | 1.6     | 2.2     | --                | 55               | --   | --  | --   | --   | --   | --               | --              |
| A2         | 11/5/1987 | 15             | 310  | 1.3     | 1.3     | --                | 33               | --   | --  | --   | --   | --   | --               | --              |
| B1         | 11/5/1987 | 15             | 480  | 4.3     | 0.5     | --                | 22               | --   | --  | --   | --   | --   | --               | --              |
| B2         | 11/5/1987 | 15             | 9.1  | 1.6     | 0.3     | --                | 0.1              | --   | --  | --   | --   | --   | --               | --              |
| C1         | 11/5/1987 | 15             | 12   | 1.5     | <0.1    | --                | 1.1              | --   | --  | --   | --   | --   | --               | --              |
| C2         | 11/5/1987 | 15             | 170  | 4.1     | <0.1    | --                | 2.4              | --   | --  | --   | --   | --   | --               | --              |
| D1         | 11/5/1987 | 15             | 8.6  | <0.1    | <0.1    | --                | <0.10            | --   | --  | --   | --   | --   | --               | --              |
| D2         | 11/5/1987 | 15             | 44   | <0.1    | <0.1    | --                | 5.3              | --   | --  | --   | --   | --   | --               | --              |
| MW1-2      | 7/11/1988 | 10             | <10  | <0.003  | 0.0116  | <0.003            | <0.003           | --   | --  | --   | --   | --   | --               | --              |
| MW1-3      | 7/11/1988 | 15             | <10  | <0.003  | 0.0129  | <0.003            | 0.0051           | --   | --  | --   | --   | --   | --               | --              |
| MW1-4      | 7/11/1988 | 20             | <10  | <0.003  | 0.0230  | <0.003            | <0.003           | --   | --  | --   | --   | --   | --               | --              |
| MW2-1      | 7/11/1988 | 5              | <10  | <0.003  | 0.0161  | <0.003            | <0.003           | --   | --  | --   | --   | --   | --               | --              |
| MW2-2      | 7/11/1988 | 10             | <10  | <0.003  | 0.0093  | <0.003            | <0.003           | --   | --  | --   | --   | --   | --               | --              |
| MW2-3      | 7/11/1988 | 15             | <10  | <0.003  | 0.010   | <0.003            | <0.003           | --   | --  | --   | --   | --   | --               | --              |
| MW3-1      | 7/12/1988 | 10             | 278  | <0.050  | 0.388   | <0.003            | 0.411            | --   | --  | --   | --   | --   | 11 <sup>e</sup>  | --              |
| MW3-2      | 7/12/1988 | 15             | <10  | <0.003  | 0.0367  | <0.003            | <0.003           | --   | --  | --   | --   | --   | 8.3 <sup>e</sup> | --              |
| MW3-3      | 7/12/1988 | 20             | <10  | <0.003  | 0.0304  | 0.0076            | <0.003           | --   | --  | --   | --   | --   | --               | --              |

TABLE 3

**HISTORICAL SOIL ANALYTICAL DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| <i>Sample ID</i> | <i>Date</i> | <i>Depth<br/>(fbg)</i> | <i>TPHg</i> | <i>Benzene</i> | <i>Toluene</i> | <i>Ethyl-<br/>benzene</i> | <i>Total<br/>Xylenes</i> | <i>MTBE</i> | <i>TBA</i> | <i>DIPE</i> | <i>ETBE</i> | <i>TAME</i> | <i>Total<br/>Lead</i> | <i>Organic<br/>Lead</i> |
|------------------|-------------|------------------------|-------------|----------------|----------------|---------------------------|--------------------------|-------------|------------|-------------|-------------|-------------|-----------------------|-------------------------|
| SB1-1            | 8/16/1989   | 5                      | <1.0        | <0.05          | <0.1           | <0.1                      | <0.1                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB1-2            | 8/16/1989   | 10                     | <1.0        | <0.05          | <0.1           | <0.1                      | <0.1                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB1-3            | 8/16/1989   | 15                     | <1.0        | <0.05          | <0.1           | <0.1                      | <0.1                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB1 (composite)  | 8/16/1989   | Composite              | --          | --             | --             | --                        | --                       | --          | --         | --          | --          | --          | 4.5 <sup>a</sup>      | <0.05                   |
| SB2-1            | 8/16/1989   | 5.5                    | <1.0        | <0.05          | <0.1           | <0.1                      | <0.1                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB2-2            | 8/16/1989   | 10.5                   | <1.0        | <0.05          | <0.1           | <0.1                      | <0.1                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB2-3            | 8/16/1989   | 15.5                   | 490         | <0.05          | 0.28           | 1.3                       | 1.0                      | --          | --         | --          | --          | --          | --                    | --                      |
| SB2 (composite)  | 8/16/1989   | Composite              | --          | --             | --             | --                        | --                       | --          | --         | --          | --          | --          | 2.5 <sup>a</sup>      | <0.05                   |
| SB3-1            | 8/16/1989   | 4.5                    | 6.6         | <0.05          | 0.26           | 0.14                      | 0.63                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB3-2            | 8/16/1989   | 9.5                    | <1.0        | <0.05          | <0.1           | <0.1                      | <0.1                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB3-3            | 8/16/1989   | 15.5                   | <1.0        | <0.05          | <0.1           | <0.1                      | <0.1                     | --          | --         | --          | --          | --          | --                    | --                      |
| SB3 (composite)  | 8/16/1989   | Composite              | --          | --             | --             | --                        | --                       | --          | --         | --          | --          | --          | 5.5 <sup>a</sup>      | <0.05                   |
| SB-1-5'          | 3/24/2004   | 5                      | <1.0        | <0.0050        | <0.0050        | <0.0050                   | <0.0050                  | <0.0050     | --         | --          | --          | --          | --                    | --                      |
| SB-1-10'         | 3/24/2004   | 10                     | <1.0        | <0.0050        | <0.0050        | <0.0050                   | <0.0050                  | <0.0050     | --         | --          | --          | --          | --                    | --                      |
| SB-1-15'         | 3/24/2004   | 15                     | <1.0        | <0.0050        | <0.0050        | <0.0050                   | <0.0050                  | 0.0078      | --         | --          | --          | --          | --                    | --                      |
| SB-1-17'         | 3/24/2004   | 17                     | 12          | <0.025         | <0.025         | <0.025                    | <0.025                   | <0.025      | --         | --          | --          | --          | --                    | --                      |
| SB-1-19.5'       | 3/24/2004   | 19.5                   | 43          | <0.024         | <0.024         | <0.024                    | <0.024                   | <0.024      | --         | --          | --          | --          | --                    | --                      |
| SB-2-5'          | 3/24/2004   | 5                      | <1.0        | <0.0050        | <0.0050        | <0.0050                   | <0.0050                  | <0.0050     | --         | --          | --          | --          | --                    | --                      |
| SB-2-10'         | 3/24/2004   | 10                     | <1.0        | <0.0050        | <0.0050        | <0.0050                   | <0.0050                  | <0.0050     | --         | --          | --          | --          | --                    | --                      |
| SB-2-15'         | 3/24/2004   | 15                     | <1.0        | <0.0050        | <0.0050        | <0.0050                   | <0.0050                  | <0.0050     | --         | --          | --          | --          | --                    | --                      |
| SB-2-17'         | 3/24/2004   | 17                     | <1.0        | <0.0050        | <0.0050        | <0.0050                   | <0.0050                  | 0.0099      | --         | --          | --          | --          | --                    | --                      |

TABLE 3

**HISTORICAL SOIL ANALYTICAL DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| <i>Sample ID</i> | <i>Date</i> | <i>Depth (fbg)</i> | <i>TPHg</i>  | <i>Benzene</i> | <i>Toluene</i> | <i>Ethyl-benzene</i> | <i>Total Xylenes</i> | <i>MTBE</i> | <i>TBA</i> | <i>DIPE</i> | <i>ETBE</i> | <i>TAME</i> | <i>Total Lead</i> | <i>Organic Lead</i> |
|------------------|-------------|--------------------|--------------|----------------|----------------|----------------------|----------------------|-------------|------------|-------------|-------------|-------------|-------------------|---------------------|
| SB-2-19.5'       | 3/24/2004   | 19.5               | 10           | <0.025         | <0.025         | <0.025               | <0.025               | <0.025      | --         | --          | --          | --          | --                | --                  |
| D-1-4.0          | 4/18/2005   | 4.0                | <1.0         | <0.0050        | <0.0050        | <0.0050              | <0.0050              | <0.0050     | <0.0050    | <0.0050     | <0.0050     | <0.0050     | 6.2               | --                  |
| D-2-1.5          | 4/18/2005   | 1.5                | <b>1,700</b> | <0.40          | 2.4            | 3.8                  | 5.4                  | <0.40       | <2.0       | <0.40       | <0.40       | <0.40       | 130               | --                  |
| D-2-3.5          | 4/18/2005   | 3.5                | <b>940</b>   | 0.060          | 6.6            | 9.5                  | 85                   | <0.025      | <0.15      | <0.025      | <0.025      | <0.025      | 8.0               | --                  |
| D-3-3.0          | 4/18/2005   | 3.0                | 2.5          | <0.0050        | <0.0050        | <0.0050              | <0.0050              | <0.0050     | <0.0050    | <0.0050     | <0.0050     | <0.0050     | 6.5               | --                  |
| D-4-4.0          | 4/18/2005   | 4.0                | <1.0         | <0.0050        | <0.0050        | <0.0050              | <0.0050              | 0.0050      | <0.0050    | <0.0050     | <0.0050     | <0.0050     | 8.1               | --                  |
| P-1-2.0          | 4/18/2005   | 2.0                | <1.0         | <0.0050        | <0.0050        | <0.0050              | <0.0050              | <0.0050     | <0.0050    | <0.0050     | <0.0050     | <0.0050     | 4.2               | --                  |
| P-2-4.5          | 4/18/2005   | 4.5                | <1.0         | <0.0050        | <0.0050        | <0.0050              | <0.0050              | <0.0050     | <0.0050    | <0.0050     | <0.0050     | <0.0050     | 9.7               | --                  |
| P-3-3.5          | 4/18/2005   | 3.5                | <b>620</b>   | <0.025         | 0.20           | 1.6                  | 6.1                  | 0.066       | 0.18       | <0.025      | <0.025      | <0.025      | 22                | --                  |
| P-4-4.0          | 4/18/2005   | 4.0                | <b>2,700</b> | <b>4.2</b>     | 1.6            | <b>39</b>            | <b>78</b>            | 0.30        | <1.5       | <0.25       | <0.25       | <0.25       | 140               | --                  |
| P-5-4.0          | 4/18/2005   | 4.0                | <b>1,600</b> | <b>0.98</b>    | 0.28           | <b>7.4</b>           | <b>13</b>            | <0.25       | <1.5       | <0.25       | <0.25       | <0.25       | 11                | --                  |
| EX-1-6           | 4/28/2005   | 6.0                | <b>830</b>   | <0.50          | 1.4            | 4.1                  | <0.50                | <0.50       | <2.5       | <1.0        | <0.50       | <0.50       | 7.2               | --                  |
| EX-2-6           | 4/28/2005   | 6.0                | <b>200</b>   | <0.50          | <0.50          | <0.50                | <0.50                | <0.50       | <2.5       | <1.0        | <0.50       | <0.50       | 7.1               | --                  |
| EX-3-6           | 4/28/2005   | 6.0                | 7.3          | <0.0050        | <0.0050        | <0.0050              | <0.0050              | <0.0050     | 0.015      | <0.010      | <0.0050     | <0.0050     | 4.1               | --                  |
| EX-4-6           | 4/28/2005   | 6.0                | 21           | <0.023         | <0.023         | <0.023               | <0.023               | <0.023      | <0.046     | <0.023      | <0.023      | <0.023      | 12                | --                  |

**TABLE 3**  
**HISTORICAL SOIL ANALYTICAL DATA**  
**SHELL-BRANDED SERVICE STATION**  
**230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| <i>Sample ID</i> | <i>Date</i> | <i>Depth (fbg)</i> | <i>TPHg</i>        | <i>Benzene</i>    | <i>Toluene</i>    | <i>Ethyl-benzene</i> | <i>Total Xylenes</i> | <i>MTBE</i> | <i>TBA</i> | <i>DIPE</i> | <i>ETBE</i> | <i>TAME</i> | <i>Total Lead</i> | <i>Organic Lead</i> |
|------------------|-------------|--------------------|--------------------|-------------------|-------------------|----------------------|----------------------|-------------|------------|-------------|-------------|-------------|-------------------|---------------------|
| EX-B-6.5         | 4/28/2005   | 6.5                | <1.0               | <0.0050           | <0.0050           | <0.0050              | <0.0050              | <0.0050     | 0.017      | <0.010      | <0.0050     | <0.0050     | 3.6               | --                  |
| EX-5-6           | 4/28/2005   | 6.0                | 7.6                | <0.019            | <0.019            | <0.019               | 0.10                 | <0.019      | <0.038     | <0.038      | <0.019      | <0.019      | 4.1               | --                  |
| EX-6-6           | 4/28/2005   | 6.0                | <1.0               | <0.0050           | <0.0050           | <0.0050              | <0.0050              | <0.0050     | 0.013      | <0.010      | <0.0050     | <0.0050     | 7.3               | --                  |
| EX-B2-6.5        | 4/28/2005   | 6.5                | 260                | <0.50             | <0.50             | 1.6                  | 1.5                  | <0.50       | <2.5       | 3.3         | <0.50       | <0.50       | 4.0               | --                  |
| SB-4-5           | 4/4/2006    | 5.0                | <0.100             | <0.00200          | <0.00200          | <0.00200             | <0.00500             | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-4-11.5        | 4/5/2006    | 11.5               | <0.100             | <0.00200          | <0.00200          | <0.00200             | <0.00500             | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-4-15.5        | 4/5/2006    | 15.5               | 0.544              | <0.00200          | 0.119             | 0.00995              | 0.0388               | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-5-3           | 4/4/2006    | 3.0                | 1,510 <sup>f</sup> | 2.90 <sup>f</sup> | 9.47 <sup>f</sup> | 9.46 <sup>f</sup>    | 70.6 <sup>f</sup>    | 0.00403     | <0.0500    | 0.0142      | <0.00500    | <0.00200    | --                | --                  |
| SB-6-3           | 4/4/2006    | 3.0                | 0.638              | <0.00200          | <0.00200          | <0.00200             | <0.00500             | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-6-6.5         | 4/5/2006    | 6.5                | <0.100             | <0.00200          | <0.00200          | <0.00200             | <0.00500             | 0.00418     | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-6-9.5         | 4/5/2006    | 9.5                | 2.43               | 0.0168            | <0.00200          | 0.00746              | <0.00500             | 0.00970     | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-6-12          | 4/6/2006    | 12.0               | 6.16               | 0.0160            | <0.00200          | 0.0319               | 0.0222               | 0.00541     | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-7-5           | 4/4/2006    | 5.0                | 0.452              | <0.00200          | <0.00200          | 0.00325              | 0.0199               | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-7-10          | 4/6/2006    | 10.0               | <0.100             | <0.00200          | <0.00200          | <0.00200             | <0.00500             | 0.00221     | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-7-15          | 4/6/2006    | 15.0               | <0.100             | <0.00200          | <0.00200          | <0.00200             | <0.00500             | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-8-5           | 4/4/2006    | 5.0                | <0.100             | <0.00200          | <0.00200          | <0.00200             | <0.00500             | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-8-10          | 4/6/2006    | 10.0               | <0.100             | 0.00340           | <0.00200          | <0.00200             | <0.00500             | <0.00200    | <0.0500    | <0.00200    | <0.00500    | <0.00200    | --                | --                  |
| SB-8-14          | 4/6/2006    | 14.0               | 0.942              | 0.0588            | 0.00204           | 0.00416              | <0.00500             | 0.00855     | <0.0500    | 0.0132      | <0.00500    | <0.00200    | --                | --                  |
| SB-9-7           | 2/1/2008    | 7                  | <0.50 <sup>g</sup> | <0.0050           | <0.0050           | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |



TABLE 3

**HISTORICAL SOIL ANALYTICAL DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| <i>Sample ID</i>                               | <i>Date</i> | <i>Depth (fbg)</i> | <i>TPHg</i>        | <i>Benzene</i> | <i>Toluene</i> | <i>Ethyl-benzene</i> | <i>Total Xylenes</i> | <i>MTBE</i> | <i>TBA</i> | <i>DIPE</i> | <i>ETBE</i> | <i>TAME</i> | <i>Total Lead</i> | <i>Organic Lead</i> |
|--|-------------|--------------------|--------------------|----------------|----------------|----------------------|----------------------|-------------|------------|-------------|-------------|-------------|-------------------|---------------------|
| SB-9-11.5                                      | 2/1/2008    | 11.5               | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-9-15.5                                      | 2/1/2008    | 15.5               | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-10-7  | 2/1/2008    | 7                  | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-10-11.5                                     | 2/1/2008    | 11.5               | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-10-15.5                                     | 2/1/2008    | 15.5               | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-11-7.5                                      | 2/1/2008    | 7.5                | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-11-11.5                                     | 2/1/2008    | 11.5               | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-11-15.5                                     | 2/1/2008    | 15.5               | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-12-7.5                                      | 2/1/2008    | 7.5                | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-12-11                                       | 2/1/2008    | 11                 | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | <0.0050     | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| SB-12-15.5                                     | 2/1/2008    | 15.5               | <0.50 <sup>g</sup> | <0.0050        | <0.0050        | <0.0050              | <0.010               | 0.0053      | <0.050     | <0.010      | <0.010      | <0.010      | --                | --                  |
| <i>Shallow Soil (≤10 fbg) ESL<sup>h</sup>:</i> |             |                    | 180                | 0.27           | 9.3            | 4.7                  | 11                   | 8.4         | 110        | NA          | NA          | NA          | 750               | NA                  |
| <i>Deep Soil (&gt;10 fbg) ESL<sup>h</sup>:</i> |             |                    | 180                | 2.0            | 9.3            | 4.7                  | 11                   | 8.4         | 110        | NA          | NA          | NA          | 750               | NA                  |

Notes:

All results in milligrams per kilogram (mg/kg) unless otherwise indicated.

fbg = Feet below grade

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before 2004, analyzed by EPA Method 8015 unless otherwise noted

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; before 2004, analyzed by EPA Method 8020

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

TABLE 3

**HISTORICAL SOIL ANALYTICAL DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| <i>Sample ID</i> | <i>Date</i> | <i>Depth<br/>(fbg)</i> | <i>TPHg</i> | <i>Benzene</i> | <i>Toluene</i> | <i>Ethyl-<br/>benzene</i> | <i>Total<br/>Xylenes</i> | <i>MTBE</i> | <i>TBA</i> | <i>DIPE</i> | <i>ETBE</i> | <i>TAME</i> | <i>Total<br/>Lead</i> | <i>Organic<br/>Lead</i> |
|------------------|-------------|------------------------|-------------|----------------|----------------|---------------------------|--------------------------|-------------|------------|-------------|-------------|-------------|-----------------------|-------------------------|
|------------------|-------------|------------------------|-------------|----------------|----------------|---------------------------|--------------------------|-------------|------------|-------------|-------------|-------------|-----------------------|-------------------------|

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

Total Lead analyzed by EPA Method 6010 unless otherwise noted

Organic lead analyzed by Cal LUFT Manual, 12/87 unless otherwise noted

ND = Not detected; detection limit unknown

<x = Not detected at reporting limit x

-- = Not analyzed

ESL = Environmental screening level

NA= No available ESL

Results in **bold** equal or exceed applicable ESL

Shading indicates that soil sample location was subsequently excavated; results are not representative of residual soil.

a = Analytical method is unknown

b = Total lead analyzed by unknown method

c = Composite of four samples taken from depths of 4 - 5 fbg, 7 - 8.5 fbg, 11 - 12.5 fbg, and 13.5 - 15 fbg

d = Lead analyzed by EPA Method 7421

e = Total lead analyzed by EPA Method 7240

f = Initial analysis within holding time. Reanalysis for the required dilution or confirmation was past holding time.

g = Analyzed by EPA Method 8015M

h = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is not a source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Well ID | Date        | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           | MTBE           | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|---------|-------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|         |             |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-1    | 7/14/1988   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.30                      | 60.59                    |
| MW-1    | 10/4/1988   | ND             | 8           | 4.3         | ND          | 9           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.65                      | 60.24                    |
| MW-1    | 11/10/1988  | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.55                      | 60.34                    |
| MW-1    | 12/9/1988   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.22                      | 60.67                    |
| MW-1    | 1/10/1989   | ND             | ND          | ND          | ND          | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.86                      | 61.03                    |
| MW-1    | 1/20/1989   | ND             | ND          | —           | —           | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.91                      | 60.98                    |
| MW-1    | 2/6/1989    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.94                      | 60.95                    |
| MW-1    | 3/10/1989   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.59                      | 61.30                    |
| MW-1    | 6/6/1989    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.05                      | 59.84                    |
| MW-1    | 9/7/1989    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.92                      | 58.97                    |
| MW-1    | 12/18/1989  | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.88                      | 59.01                    |
| MW-1    | 3/8/1990    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.08                      | 59.81                    |
| MW-1    | 6/7/1990    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.89                      | 60.00                    |
| MW-1    | 9/5/1990    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.83                      | 59.06                    |
| MW-1    | 12/3/1990   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 15.05                      | 58.84                    |
| MW-1    | 3/1/1991    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.34                      | 59.55                    |
| MW-1    | 6/3/1991    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.16                      | 59.73                    |
| MW-1    | 9/4/1991    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.60                      | 59.29                    |
| MW-1    | 3/13/1992   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.40                      | 60.49                    |
| MW-1    | 6/3/1992    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.76                      | 60.13                    |
| MW-1    | 8/19/1992   | 87             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.57                      | 59.32                    |
| MW-1    | 11/16/1992  | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.78                      | 59.11                    |
| MW-1    | 2/18/1993   | 59 a           | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.14                      | 61.75                    |
| MW-1    | 6/1/1993    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.30                      | 60.59                    |
| MW-1    | 8/30/1993   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.32                      | 59.57                    |
| MW-1    | 12/13/1993  | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.06                      | 59.83                    |
| MW-1    | 3/3/1994    | 100            | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.12                      | 60.77                    |
| MW-1    | 6/6/1994    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.20                      | 59.69                    |
| MW-1    | 9/12/1994   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 15.72                      | 58.17                    |
| MW-1    | 12/15/1994  | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.98                      | 60.91                    |
| MW-1    | 3/13/1995 b | 60             | 4.7         | 9.8         | ND          | 2.9         | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 11.74                      | 62.15                    |
| MW-1    | 4/21/1995   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | —                          | —                        |
| MW-1    | 6/26/1995   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.00                      | 60.89                    |
| MW-1    | 9/12/1995   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.14                      | 59.75                    |
| MW-1    | 3/21/1996   | <50            | <0.5        | <0.5        | <0.5        | <0.5        | ND             | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 11.03                      | 62.86                    |
| MW-1    | 6/28/1996   | <50            | <0.5        | <0.5        | <0.5        | <0.5        | <2.5           | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.53                      | 60.36                    |
| MW-1    | 9/19/1996   | <50            | <0.5        | <0.5        | <0.5        | <0.5        | <2.5           | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 14.33                      | 59.56                    |
| MW-1    | 12/19/1996  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.20                      | 60.69                    |
| MW-1    | 12/5/1997   | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.39                      | 61.50                    |

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Well ID | Date       | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           | MTBE           | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|---------|------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|         |            |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-1    | 12/24/1998 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.59                      | 60.30                    |
| MW-1    | 12/23/1999 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 15.63                      | 58.26                    |
| MW-1    | 12/11/2000 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 15.36                      | 58.53                    |
| MW-1    | 12/27/2001 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.09                      | 61.80                    |
| MW-1    | 3/12/2002  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 12.33                      | 61.56                    |
| MW-1    | 3/14/2002  | <50            | <0.50       | <0.50       | <0.50       | <0.50       | —              | <5.0           | —              | —              | —              | —             | —                 | —             | 73.89        | 12.08                      | 61.81                    |
| MW-1    | 6/13/2002  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.89        | 13.47                      | 60.42                    |
| MW-1    | 9/9/2002   | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 14.30                      | 62.62                    |
| MW-1    | 12/12/2002 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 14.48                      | 62.44                    |
| MW-1    | 3/10/2003  | <50            | <0.50       | <0.50       | <0.50       | <0.50       | —              | <5.0           | —              | —              | —              | —             | —                 | —             | 76.92        | 12.76                      | 64.16                    |
| MW-1    | 6/10/2003  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 13.17                      | 63.75                    |
| MW-1    | 9/16/2003  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 14.10                      | 62.82                    |
| MW-1    | 12/3/2003  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 13.93                      | 62.99                    |
| MW-1    | 3/11/2004  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | <0.50          | —              | —              | —              | —             | —                 | —             | 76.92        | 12.04                      | 64.88                    |
| MW-1    | 6/17/2004  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 13.75                      | 63.17                    |
| MW-1    | 9/13/2004  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 14.47                      | 62.45                    |
| MW-1    | 12/7/2004  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 13.04                      | 63.88                    |
| MW-1    | 3/3/2005   | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | <0.50          | <2.0           | <2.0           | <2.0           | <5.0          | —                 | —             | 76.92        | 11.31                      | 65.61                    |
| MW-1    | 6/14/2005  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 11.87                      | 65.05                    |
| MW-1    | 9/19/2005  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 13.91                      | 63.01                    |
| MW-1    | 3/30/2006  | <50.0          | <0.500      | <0.500      | <0.500      | <0.500      | —              | <0.500         | —              | —              | —              | —             | <0.500            | <0.500        | 76.92        | 10.60                      | 66.32                    |
| MW-1    | 9/27/2006  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 14.06                      | 62.86                    |
| MW-1    | 9/28/2006  | <50.0          | <0.500      | <0.500      | <0.500      | <0.500      | —              | <0.500         | <0.500         | <0.500         | <0.500         | <10.0         | —                 | —             | 76.92        | —                          | —                        |
| MW-1    | 12/26/2006 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 13.05                      | 63.87                    |
| MW-1    | 3/29/2007  | <50            | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | —              | —              | —              | —             | —                 | —             | 76.92        | 12.87                      | 64.05                    |
| MW-1    | 6/7/2007   | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 15.53                      | 61.39                    |
| MW-1    | 9/18/2007  | <50 g          | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 76.92        | 15.64                      | 61.28                    |
| MW-1    | 12/17/2007 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 15.15                      | 61.77                    |
| MW-1    | 2/27/2008  | <50 g          | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | —              | —              | —              | —             | —                 | —             | 76.92        | 14.41                      | 62.51                    |
| MW-1    | 5/28/2008  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 14.40                      | 62.52                    |
| MW-1    | 9/19/2008  | 59             | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 76.92        | 14.74                      | 62.18                    |
| MW-1    | 12/4/2008  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 14.80                      | 62.12                    |
| MW-1    | 2/25/2009  | <50            | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | —              | —              | —              | —             | —                 | —             | 76.92        | 11.91                      | 65.01                    |
| MW-1    | 5/26/2009  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.92        | 12.73                      | 64.19                    |
| MW-1    | 9/18/2009  | <50            | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 76.92        | 13.82                      | 63.10                    |
| MW-1    | 3/16/2010  | <50            | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | —              | —              | —              | —             | —                 | —             | 76.92        | 14.60                      | 62.32                    |
| MW-1    | 9/27/2010  | <50            | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 76.92        | 15.46                      | 61.46                    |
| MW-1    | 3/25/2011  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | <1.0           | —              | —              | —              | —             | —                 | —             | 76.92        | 13.35                      | 63.57                    |

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Well ID  | Date       | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           | MTBE           | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|----------|------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|          |            |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-2     | 7/14/1988  | ND             | 7.9         | 2.6         | 1.1         | 4           | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.18                      | 60.06                    |
| MW-2     | 10/4/1988  | 90             | ND          | 1.3         | 2.3         | 12          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.30                      | 59.94                    |
| MW-2     | 11/10/1988 | ND             | ND          | ND          | ND          | 2           | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.17                      | 60.07                    |
| MW-2     | 12/9/1988  | ND             | ND          | 0.6         | ND          | 3           | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.82                      | 60.42                    |
| MW-2     | 1/20/1989  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.54                      | 60.70                    |
| MW-2     | 2/6/1989   | --             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.59                      | 60.65                    |
| MW-2     | 3/10/1989  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.88                      | 60.36                    |
| MW-2     | 6/6/1989   | ND             | ND          | 0.5         | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.30                      | 59.94                    |
| MW-2     | 9/7/1989   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.76                      | 58.48                    |
| MW-2     | 12/18/1989 | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.65                      | 58.59                    |
| MW-2     | 3/8/1990   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.92                      | 59.32                    |
| MW-2     | 6/7/1990   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.10                      | 59.14                    |
| MW-2     | 9/5/1990   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.61                      | 58.63                    |
| MW-2     | 12/3/1990  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 17.06                      | 58.18                    |
| MW-2     | 3/1/1991   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.62                      | 58.62                    |
| MW-2     | 6/3/1991   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.65                      | 58.59                    |
| MW-2     | 9/4/1991   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.57                      | 58.67                    |
| MW-2     | 3/13/1992  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.66                      | 60.58                    |
| MW-2     | 6/3/1992   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.90                      | 59.34                    |
| MW-2     | 8/19/1992  | 67             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.72                      | 58.52                    |
| MW-2     | 11/16/1992 | 50             | ND          | ND          | ND          | 1.2         | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.66                      | 58.58                    |
| MW-2     | 2/18/1993  | 52 a           | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 13.88                      | 61.36                    |
| MW-2 (D) | 2/18/1993  | 52 a           | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 13.88                      | 61.36                    |
| MW-2     | 6/1/1993   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.74                      | 60.50                    |
| MW-2     | 8/30/1993  | 70 a           | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.85                      | 59.39                    |
| MW-2     | 12/13/1993 | 68 a           | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.83                      | 59.41                    |
| MW-2     | 3/3/1994   | 280 a          | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.80                      | 60.44                    |
| MW-2     | 6/6/1994   | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.65                      | 58.59                    |
| MW-2     | 9/12/1994  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 16.72                      | 58.52                    |
| MW-2     | 12/15/1994 | 230 a          | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.25                      | 59.99                    |
| MW-2     | 3/13/1995  | ND             | 2.9         | 6.3         | ND          | 2.7         | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.32                      | 59.92                    |
| MW-2     | 4/21/1995  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | --                         | --                       |
| MW-2     | 6/26/1995  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.65                      | 60.59                    |
| MW-2     | 9/12/1995  | ND             | ND          | ND          | ND          | ND          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.78                      | 59.46                    |
| MW-2     | 3/21/1996  | <50            | <0.5        | <0.5        | <0.5        | <0.5        | ND             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 12.72                      | 62.52                    |
| MW-2     | 6/28/1996  | <50            | <0.5        | <0.5        | <0.5        | <0.5        | 160            | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.95                      | 60.29                    |
| MW-2     | 9/19/1996  | <50            | <0.5        | <0.5        | <0.5        | <0.5        | 27             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 15.64                      | 59.60                    |
| MW-2     | 12/19/1996 | --             | --          | --          | --          | --          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.47                      | 60.77                    |
| MW-2     | 12/5/1997  | --             | --          | --          | --          | --          | --             | --             | --             | --             | --             | --            | --                | --            | 75.24        | 14.22                      | 61.02                    |

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

| Well ID | Date       | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           |                | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|---------|------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|         |            |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-2    | 12/24/1998 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 75.24        | 14.97                      | 60.27                    |
| MW-2    | 12/23/1999 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 75.24        | 16.07                      | 59.17                    |
| MW-2    | 12/11/2000 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 75.24        | 15.78                      | 59.46                    |
| MW-2    | 12/27/2001 | —              | —           | —           | —           | —           | —              | 95             | —              | —              | —              | —             | —                 | —             | 75.24        | 14.25                      | 60.99                    |
| MW-2    | 3/14/2002  | 120            | <0.50       | <0.50       | <0.50       | <0.50       | —              | 31             | —              | —              | —              | —             | —                 | —             | 75.24        | 14.59                      | 60.65                    |
| MW-2    | 6/13/2002  | 100            | <0.50       | <0.50       | <0.50       | <0.50       | —              | 32             | —              | —              | —              | —             | —                 | —             | 75.24        | 14.58                      | 60.66                    |
| MW-2    | 9/9/2002   | 90             | <0.50       | <0.50       | <0.50       | <0.50       | —              | 54             | —              | —              | —              | —             | —                 | —             | 78.25        | 15.49                      | 62.76                    |
| MW-2    | 12/12/2002 | 92             | <0.50       | <0.50       | <0.50       | <0.50       | —              | 21             | —              | —              | —              | —             | —                 | —             | 78.25        | 16.21                      | 62.04                    |
| MW-2    | 3/10/2003  | 110            | <0.50       | <0.50       | <0.50       | <0.50       | —              | 33             | —              | —              | —              | —             | —                 | —             | 78.25        | 14.33                      | 63.92                    |
| MW-2    | 6/10/2003  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | 49             | —              | —              | —              | —             | —                 | —             | 78.25        | 14.48                      | 63.77                    |
| MW-2    | 9/16/2003  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | 39             | —              | —              | —              | —             | —                 | —             | 78.25        | 15.45                      | 62.80                    |
| MW-2    | 12/3/2003  | 56 a           | <0.50       | <0.50       | <0.50       | <1.0        | —              | 3.6            | —              | —              | —              | —             | —                 | —             | 78.25        | 15.60                      | 62.65                    |
| MW-2    | 3/11/2004  | 58 a           | <0.50       | <0.50       | <0.50       | <1.0        | —              | 67             | —              | —              | —              | —             | —                 | —             | 78.25        | 13.78                      | 64.47                    |
| MW-2    | 6/17/2004  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | 40             | —              | —              | —              | —             | —                 | —             | 78.25        | 14.87                      | 63.38                    |
| MW-2    | 9/13/2004  | 68 d           | <0.50       | <0.50       | <0.50       | <1.0        | —              | 44             | <2.0           | <2.0           | <2.0           | <5.0          | —                 | —             | 78.25        | 15.85                      | 62.40                    |
| MW-2    | 12/7/2004  | <50 e          | <0.50       | <0.50       | <0.50       | <1.0        | —              | 54             | —              | —              | —              | —             | —                 | —             | 78.25        | 15.17                      | 63.08                    |
| MW-2    | 3/3/2005   | 110 e          | <0.50       | <0.50       | <0.50       | <1.0        | —              | 82             | —              | —              | —              | —             | —                 | —             | 78.25        | 13.38                      | 64.87                    |
| MW-2    | 6/14/2005  | <50 e          | <0.50       | <0.50       | <0.50       | <1.0        | —              | 29             | —              | —              | —              | —             | —                 | —             | 78.25        | 13.95                      | 64.30                    |
| MW-2    | 9/19/2005  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | 31             | <2.0           | <2.0           | <2.0           | 5.6           | —                 | —             | 78.25        | 14.78                      | 63.47                    |
| MW-2    | 3/30/2006  | <50.0          | <0.500      | <0.500      | <0.500      | <0.500      | —              | 39.1           | —              | —              | —              | —             | <0.500            | <0.500        | 78.25        | 11.60                      | 66.65                    |
| MW-2    | 9/27/2006  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 78.25        | 15.42                      | 62.83                    |
| MW-2    | 9/28/2006  | <50.0          | <0.500      | <0.500      | <0.500      | <0.500      | —              | 16.7           | <0.500         | <0.500         | <0.500         | <10.0         | —                 | —             | 78.25        | —                          | —                        |
| MW-2    | 12/26/2006 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 78.25        | 14.60                      | 63.65                    |
| MW-2    | 3/29/2007  | <50            | <0.50       | <1.0        | <1.0        | <1.0        | —              | 13             | —              | —              | —              | —             | —                 | —             | 78.25        | 14.28                      | 63.97                    |
| MW-2    | 6/7/2007   | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 78.25        | 18.20                      | 60.05                    |
| MW-2    | 9/18/2007  | 72 g           | <0.50       | <1.0        | <1.0        | <1.0        | —              | 1.3            | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 78.25        | 19.70                      | 58.55                    |
| MW-2    | 12/17/2007 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 78.25        | 15.50                      | 62.75                    |
| MW-2    | 2/27/2008  | 60 g           | <0.50       | <1.0        | <1.0        | <1.0        | —              | 18             | —              | —              | —              | —             | —                 | —             | 78.25        | 18.12                      | 60.13                    |
| MW-2    | 5/28/2008  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 78.25        | 18.75                      | 59.50                    |
| MW-2    | 9/19/2008  | 210            | <0.50       | <1.0        | <1.0        | <1.0        | —              | 15             | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 78.25        | 17.35                      | 60.90                    |
| MW-2    | 12/4/2008  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 78.25        | 16.78                      | 61.47                    |
| MW-2    | 2/25/2009  | 120            | <0.50       | <1.0        | <1.0        | <1.0        | —              | 11             | —              | —              | —              | —             | —                 | —             | 78.25        | 13.92                      | 64.33                    |
| MW-2    | 5/26/2009  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 78.25        | 14.50                      | 63.75                    |
| MW-2    | 9/18/2009  | 130            | <0.50       | <1.0        | <1.0        | <1.0        | —              | 5.6            | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 78.25        | 14.92                      | 63.33                    |
| MW-2    | 3/16/2010  | 110            | <0.50       | <1.0        | <1.0        | <1.0        | —              | 7.6            | —              | —              | —              | —             | —                 | —             | 78.25        | 18.16                      | 60.09                    |
| MW-2    | 9/27/2010  | 270            | <0.50       | <1.0        | <1.0        | <1.0        | —              | <1.0           | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 78.25        | 20.81                      | 57.44                    |
| MW-2    | 3/25/2011  | 120 h          | <0.50       | <0.50       | <0.50       | <1.0        | —              | 1.8            | —              | —              | —              | —             | —                 | —             | 78.25        | 17.98                      | 60.27                    |
| MW-3    | 7/14/1988  | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.05                      | 60.63                    |

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Well ID  | Date         | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           | MTBE           | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|----------|--------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|          |              |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-3     | 10/4/1988    | ND             | ND          | ND          | ND          | 5           | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.60                      | 60.08                    |
| MW-3     | 11/10/1988   | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.35                      | 60.33                    |
| MW-3     | 12/9/1988    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.04                      | 60.64                    |
| MW-3     | 1/10/1989    | ND             | ND          | ND          | ND          | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.70                      | 60.98                    |
| MW-3     | 1/20/1989    | —              | —           | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.72                      | 60.96                    |
| MW-3     | 2/6/1989     | 70             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.75                      | 60.93                    |
| MW-3     | 3/10/1989    | 150            | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.42                      | 61.26                    |
| MW-3     | 6/6/1989     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.52                      | 60.16                    |
| MW-3     | 9/7/1989     | ND             | 0.65        | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.52                      | 59.16                    |
| MW-3     | 12/18/1989   | 46             | 1.3         | ND          | 0.44        | 0.66        | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 19.59                      | 55.09                    |
| MW-3     | 3/8/1990     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.72                      | 59.96                    |
| MW-3     | 6/7/1990     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.65                      | 60.03                    |
| MW-3     | 9/5/1990     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.51                      | 59.17                    |
| MW-3     | 12/3/1990    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.85                      | 59.83                    |
| MW-3     | 3/1/1991     | 1.9            | 59          | ND          | 22          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.92                      | 59.76                    |
| MW-3     | 6/3/1991     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.75                      | 59.93                    |
| MW-3     | 9/4/1991     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.14                      | 59.54                    |
| MW-3     | 3/13/1992    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.50                      | 61.18                    |
| MW-3     | 6/3/1992     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.39                      | 60.29                    |
| MW-3     | 8/19/1992    | 92             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.08                      | 59.60                    |
| MW-3 (D) | 8/19/1992    | 76             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.08                      | 59.60                    |
| MW-3     | 11/16/1992   | 200 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.43                      | 59.25                    |
| MW-3 (D) | 11/16/1992   | 140 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.43                      | 59.25                    |
| MW-3     | 2/18/1993    | 680 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 12.96                      | 61.72                    |
| MW-3     | 6/1/1993     | 160 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.98                      | 60.70                    |
| MW-3 (D) | 6/1/1993     | 150 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.98                      | 60.70                    |
| MW-3     | 8/30/1993    | 110 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.82                      | 59.86                    |
| MW-3     | 12/13/1993   | 140 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.70                      | 59.98                    |
| MW-3 (D) | 12/13/1993   | 110 a          | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.70                      | 59.98                    |
| MW-3     | 3/3/1994     | 61 a           | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.92                      | 60.76                    |
| MW-3     | 6/6/1994     | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.73                      | 59.95                    |
| MW-3     | 9/12/1994    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 15.42                      | 59.26                    |
| MW-3     | 12/15/1994   | ND             | ND          | 0.9         | ND          | 0.6         | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.80                      | 60.88                    |
| MW-3     | 3/13/1995    | 100 a          | 7.9         | 17          | 0.7         | 6.1         | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 12.41                      | 62.27                    |
| MW-3     | 4/21/1995    | 60             | 0.9         | 1.1         | ND          | 1           | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | —                          | —                        |
| MW-3     | 6/26/1995    | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 13.79                      | 60.89                    |
| MW-3     | 09/12/1995 b | ND             | ND          | ND          | ND          | ND          | —              | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.77                      | 59.91                    |
| MW-3     | 3/21/1996    | <50            | <0.5        | <0.5        | <0.5        | <0.5        | 17             | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 11.80                      | 62.88                    |
| MW-3     | 6/28/1996    | <50            | <0.5        | <0.5        | <0.5        | <0.5        | <0.5           | —              | —              | —              | —              | —             | —                 | —             | 74.68        | 14.19                      | 60.49                    |

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Well ID | Date       | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           | MTBE           | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to | GW        |
|---------|------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------|-----------|
|         |            |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              | Water    | Elevation |
|         |            |                |             |             |             |             |                |                |                |                |                |               |                   |               |              | (ft.)    | (MSL)     |
| MW-3    | 9/19/1996  | <50            | <0.5        | <0.5        | <0.5        | <0.5        | <2.5           | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 14.85    | 59.83     |
| MW-3    | 12/19/1996 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 13.61    | 61.07     |
| MW-3    | 12/5/1997  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 13.16    | 61.52     |
| MW-3    | 12/24/1998 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 14.08    | 60.60     |
| MW-3    | 12/23/1999 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 15.92    | 58.76     |
| MW-3    | 12/11/2000 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 15.31    | 59.37     |
| MW-3    | 12/27/2001 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 12.84    | 61.84     |
| MW-3    | 3/12/2002  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 12.54    | 62.14     |
| MW-3    | 3/14/2002  | <50            | <0.50       | <0.50       | <0.50       | <0.50       | ---            | 40             | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 12.78    | 61.90     |
| MW-3    | 6/13/2002  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 74.68        | 14.06    | 60.62     |
| MW-3    | 9/9/2002   | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.77    | 62.92     |
| MW-3    | 12/12/2002 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 15.11    | 62.58     |
| MW-3    | 3/10/2003  | <50            | <0.50       | <0.50       | <0.50       | <0.50       | ---            | 5.4            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 13.52    | 64.17     |
| MW-3    | 6/10/2003  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 13.82    | 63.87     |
| MW-3    | 9/16/2003  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.60    | 63.09     |
| MW-3    | 12/3/2003  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.53    | 63.16     |
| MW-3    | 3/11/2004  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | ---            | 3.5            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 12.38    | 65.31     |
| MW-3    | 6/17/2004  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.28    | 63.41     |
| MW-3    | 9/13/2004  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.78    | 62.91     |
| MW-3    | 12/7/2004  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 13.77    | 63.92     |
| MW-3    | 3/3/2005   | 120            | 1.3         | <0.50       | <0.50       | 2.7         | ---            | 2.3            | <2.0           | <2.0           | <2.0           | 37            | ---               | ---           | 77.69        | 11.84    | 65.85     |
| MW-3    | 6/14/2005  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 12.29    | 65.40     |
| MW-3    | 9/19/2005  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.33    | 63.36     |
| MW-3    | 3/30/2006  | <50.0          | <0.500      | <0.500      | <0.500      | <0.500      | ---            | 1.72           | ---            | ---            | ---            | ---           | <0.500            | <0.500        | 77.69        | 10.30    | 67.39     |
| MW-3    | 9/27/2006  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.62    | 63.07     |
| MW-3    | 9/28/2006  | 610            | <0.500      | <0.500      | <0.500      | <0.500      | ---            | 2.83           | <0.500         | <0.500         | <0.500         | <10.0         | ---               | ---           | 77.69        | ---      | ---       |
| MW-3    | 12/26/2006 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 13.82    | 63.87     |
| MW-3    | 3/29/2007  | <50            | <0.50       | <1.0        | <1.0        | <1.0        | ---            | 0.78 f         | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 13.55    | 64.14     |
| MW-3    | 6/7/2007   | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 16.38    | 61.31     |
| MW-3    | 9/18/2007  | <50 g          | <0.50       | <1.0        | <1.0        | <1.0        | ---            | 1.1            | <2.0           | <2.0           | <2.0           | <10           | ---               | ---           | 77.69        | 16.24    | 61.45     |
| MW-3    | 12/17/2007 | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 19.24    | 58.45     |
| MW-3    | 2/27/2008  | <50 g          | <0.50       | <1.0        | <1.0        | <1.0        | ---            | 1.4            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.65    | 63.04     |
| MW-3    | 5/28/2008  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 15.33    | 62.36     |
| MW-3    | 9/19/2008  | 100            | <0.50       | <1.0        | <1.0        | <1.0        | ---            | <1.0           | <2.0           | <2.0           | <2.0           | <10           | ---               | ---           | 77.69        | 15.53    | 62.16     |
| MW-3    | 12/4/2008  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 15.38    | 62.31     |
| MW-3    | 2/25/2009  | 88             | <0.50       | <1.0        | <1.0        | <1.0        | ---            | <1.0           | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 12.60    | 65.09     |
| MW-3    | 5/26/2009  | ---            | ---         | ---         | ---         | ---         | ---            | ---            | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 13.40    | 64.29     |
| MW-3    | 9/18/2009  | 330            | <0.50       | <1.0        | <1.0        | <1.0        | ---            | <1.0           | <2.0           | <2.0           | <2.0           | <10           | ---               | ---           | 77.69        | 14.66    | 63.03     |
| MW-3    | 3/16/2010  | 170            | <0.50       | <1.0        | <1.0        | <1.0        | ---            | <1.0           | ---            | ---            | ---            | ---           | ---               | ---           | 77.69        | 14.73    | 62.96     |



TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

| Well ID     | Date             | TPPH<br>(ug/L) | B<br>(ug/L)     | T<br>(ug/L)     | E<br>(ug/L)     | X<br>(ug/L)    | MTBE           | MTBE           | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|-------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|             |                  |                |                 |                 |                 |                | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-3        | 9/27/2010        | <50            | <0.50           | <1.0            | <1.0            | <1.0           | —              | <1.0           | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 77.69        | 16.09                      | 61.60                    |
| <b>MW-3</b> | <b>3/25/2011</b> | <b>&lt;50</b>  | <b>&lt;0.50</b> | <b>&lt;0.50</b> | <b>&lt;0.50</b> | <b>&lt;1.0</b> | <b>—</b>       | <b>&lt;1.0</b> | <b>—</b>       | <b>—</b>       | <b>—</b>       | <b>—</b>      | <b>—</b>          | <b>—</b>      | <b>77.69</b> | <b>14.16</b>               | <b>63.53</b>             |
| MW-4        | 1/23/1990        | 1,600          | 100             | 10              | 30              | 20             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.68                      | 59.15                    |
| MW-4        | 3/8/1990         | 4,200          | 260             | 18              | 88              | 39             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.38                      | 59.45                    |
| MW-4        | 6/7/1990         | 2,000          | 150             | 6.9             | 14              | 17             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.27                      | 59.56                    |
| MW-4        | 9/5/1990         | 1,700          | 130             | 10              | 7.2             | 19             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 15.40                      | 58.43                    |
| MW-4        | 12/3/1990        | 2,600          | 108             | 41              | 17              | 59             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 15.90                      | 57.93                    |
| MW-4        | 6/3/1991         | 2,800          | 160             | 15              | 8.8             | 32             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.60                      | 59.23                    |
| MW-4        | 9/4/1991         | Sheen          | —               | —               | —               | —              | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 15.25                      | 58.58                    |
| MW-4        | 3/13/1992        | 2,700          | 180             | 70              | 5.9             | 29             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 12.72                      | 61.11                    |
| MW-4        | 6/3/1992         | 1,700          | 190             | ND              | 30              | 23             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.33                      | 59.50                    |
| MW-4        | 8/19/1992        | 170            | 4.2             | ND              | 0.6             | 1              | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 15.18                      | 58.65                    |
| MW-4        | 11/16/1992       | 2,600          | 92              | 49              | 50              | 81             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 15.39                      | 58.44                    |
| MW-4        | 2/18/1993        | 7,400          | 120             | 38              | 51              | 87             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 12.62                      | 61.21                    |
| MW-4        | 6/1/1993         | 7,000          | 1,800           | 1,700           | 1,600           | 1,700          | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.68                      | 60.15                    |
| MW-4        | 8/30/1993        | 2,100          | 80              | 11              | ND              | 11             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.83                      | 59.00                    |
| MW-4 (D)    | 8/30/1993        | 2,100          | 77              | 5.6             | ND              | 5.5            | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.83                      | 59.00                    |
| MW-4        | 12/13/1993       | 2,000 a        | 20              | ND              | 21              | 52             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.50                      | 59.33                    |
| MW-4        | 3/3/1994         | 3,500          | 150             | 86              | 85              | 90             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.48                      | 60.35                    |
| MW-4 (D)    | 3/3/1994         | 3,200          | 130             | 73              | 74              | 76             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.48                      | 60.35                    |
| MW-4        | 6/6/1994         | 590            | 25              | ND              | ND              | ND             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.26                      | 59.57                    |
| MW-4 (D)    | 6/6/1994         | 400            | 16              | ND              | ND              | ND             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.26                      | 59.57                    |
| MW-4        | 9/12/1994        | 1,800          | 42              | ND              | 3.7             | 4.7            | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 15.42                      | 58.41                    |
| MW-4 (D)    | 9/12/1994        | 2,000          | 40              | ND              | 5.7             | 8              | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 15.42                      | 58.41                    |
| MW-4        | 12/15/1994       | 2,900          | 78              | 14              | 94              | 17             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.43                      | 60.40                    |
| MW-4 (D)    | 12/15/1994       | 2,900          | 90              | 7               | 96              | 18             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.43                      | 60.40                    |
| MW-4        | 3/13/1995        | 2,700          | 240             | 24              | 99              | 34             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 12.13                      | 61.70                    |
| MW-4 (D)    | 3/13/1995        | 2,500          | 300             | 24              | 140             | 28             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 12.13                      | 61.70                    |
| MW-4        | 6/25/1995        | 2,100          | 87              | 10              | 67              | 25             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.26                      | 60.57                    |
| MW-4 (D)    | 6/25/1995        | 2,300          | 92              | 12              | 74              | 26             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.26                      | 60.57                    |
| MW-4        | 09/12/1995 b     | 1,300          | 33              | 13              | 9.3             | 15             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.64                      | 59.19                    |
| MW-4 (D)    | 09/12/1995 b     | 1,500          | 2.1             | 16              | 11              | 17             | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.64                      | 59.19                    |
| MW-4        | 3/21/1996        | 2,100          | 50              | 3.2             | 40              | 5.4            | ND             | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 11.55                      | 62.28                    |
| MW-4 (D)    | 3/21/1996        | 1,700          | 24              | <0.5            | 39              | 7.2            | 740            | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 11.55                      | 62.28                    |
| MW-4        | 6/28/1996        | 1,300          | 61              | 6.2             | 53              | 11             | 1,000          | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.86                      | 59.97                    |
| MW-4 (D)    | 6/28/1996        | 1,200          | 29              | 6.2             | 50              | 8.3            | 1,000          | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.86                      | 59.97                    |
| MW-4        | 9/19/1996        | 820            | 12              | <2.5            | 2.8             | 4.3            | 720            | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 14.72                      | 59.11                    |
| MW-4 (D)    | 9/19/1996        | 580            | 9.6             | <2.5            | <2.5            | <2.5           | 760            | 1,200          | —              | —              | —              | —             | —                 | —             | 73.83        | 14.72                      | 59.11                    |

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Well ID | Date       | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           |                | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|---------|------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|         |            |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-4    | 12/19/1996 | 1,200          | 28          | <5.0        | <5.0        | <5.0        | <25            | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.06                      | 60.77                    |
| MW-4    | 12/5/1997  | 1,900          | 36          | 9           | 16          | 18          | 630            | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 12.89                      | 60.94                    |
| MW-4    | 12/24/1998 | 1,100          | 23          | 5.3         | 38          | 7.9         | 1,100          | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 13.92                      | 59.91                    |
| MW-4    | 12/17/1999 | 1,100          | 22          | 21          | 13          | 11          | 3,800          | 3,200          | —              | —              | —              | —             | —                 | —             | 73.83        | 14.28                      | 59.55                    |
| MW-4    | 12/23/1999 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 73.83        | 16.24                      | 57.59                    |
| MW-4    | 12/11/2000 | 975            | 25.0        | 11.3        | <5.00       | <5.00       | 1,960          | 1,730 c        | —              | —              | —              | —             | —                 | —             | 73.83        | 14.15                      | 59.68                    |
| MW-4    | 12/27/2001 | 2,000          | 9.9         | <5.0        | 18          | <5.0        | —              | 1,400          | —              | —              | —              | —             | —                 | —             | 73.83        | 12.61                      | 61.22                    |
| MW-4    | 3/14/2002  | 1,700          | 6.6         | <2.0        | 2.1         | 2.1         | —              | 1,100          | —              | —              | —              | —             | —                 | —             | 73.83        | 12.35                      | 61.48                    |
| MW-4    | 6/13/2002  | 1,200          | 4.7         | <2.0        | <2.0        | <2.0        | —              | 1,100          | —              | —              | —              | —             | —                 | —             | 73.83        | 13.72                      | 60.11                    |
| MW-4    | 9/9/2002   | 620            | 3.7         | <2.0        | <2.0        | <2.0        | —              | 760            | —              | —              | —              | —             | —                 | —             | 76.82        | 14.56                      | 62.26                    |
| MW-4    | 12/12/2002 | 1,500          | 3.9         | <2.0        | <2.0        | <2.0        | —              | 880            | —              | —              | —              | —             | —                 | —             | 76.82        | 14.82                      | 62.00                    |
| MW-4    | 3/10/2003  | 2,300          | 5.7         | 0.95        | 3.8         | 0.63        | —              | 1,200          | —              | —              | —              | —             | —                 | —             | 76.82        | 13.63                      | 63.19                    |
| MW-4    | 6/10/2003  | 2,200          | 5.3         | <5.0        | <5.0        | <10         | —              | 880            | —              | —              | —              | —             | —                 | —             | 76.82        | 13.68                      | 63.14                    |
| MW-4    | 9/16/2003  | 1,400          | <5.0        | <5.0        | <5.0        | <10         | —              | 420            | —              | —              | —              | —             | —                 | —             | 76.82        | 14.35                      | 62.47                    |
| MW-4    | 12/3/2003  | 2,600          | 5.0         | <5.0        | <5.0        | <10         | —              | 840            | —              | —              | —              | —             | —                 | —             | 76.82        | 14.27                      | 62.55                    |
| MW-4    | 3/11/2004  | 1,900 a        | 6.3         | <5.0        | <5.0        | <10         | —              | 800            | —              | —              | —              | —             | —                 | —             | 76.82        | 12.62                      | 64.20                    |
| MW-4    | 6/17/2004  | 1,000          | 7.4         | <2.5        | <2.5        | <5.0        | —              | 460            | —              | —              | —              | —             | —                 | —             | 76.82        | 13.90                      | 62.92                    |
| MW-4    | 9/13/2004  | 1,100          | 4.6         | <2.5        | <2.5        | <5.0        | —              | 300            | <10            | <10            | <10            | 160           | —                 | —             | 76.82        | 14.67                      | 62.15                    |
| MW-4    | 12/7/2004  | 2,200          | 4.6         | <2.5        | <2.5        | <5.0        | —              | 430            | —              | —              | —              | —             | —                 | —             | 76.82        | 13.92                      | 62.90                    |
| MW-4    | 3/3/2005   | 2,500          | 5.3         | <2.5        | <2.5        | <5.0        | —              | 620            | —              | —              | —              | —             | —                 | —             | 76.82        | 11.75                      | 65.07                    |
| MW-4    | 6/14/2005  | <50            | <0.50       | <0.50       | <0.50       | <1.0        | —              | 51             | —              | —              | —              | —             | —                 | —             | 76.82        | 12.20                      | 64.62                    |
| MW-4    | 9/19/2005  | 1,200          | 2.7         | <0.50       | <0.50       | <1.0        | —              | 140            | 8.4            | <2.0           | <2.0           | 280           | —                 | —             | 76.82        | 14.08                      | 62.74                    |
| MW-4    | 3/30/2006  | 2,740          | 2.01        | <0.500      | <0.500      | <0.500      | —              | 222            | —              | —              | —              | —             | <0.500            | <0.500        | 76.82        | 10.25                      | 66.57                    |
| MW-4    | 9/27/2006  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.82        | 14.18                      | 62.64                    |
| MW-4    | 9/28/2006  | 1,660          | 0.950       | <0.500      | <0.500      | <0.500      | —              | 73.3           | 6.92           | <0.500         | <0.500         | 77.0          | —                 | —             | 76.82        | —                          | —                        |
| MW-4    | 12/26/2006 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.82        | 13.25                      | 63.57                    |
| MW-4    | 3/29/2007  | 2,100          | 12          | 0.49 f      | <1.0        | 0.21 f      | —              | 150            | —              | —              | —              | —             | —                 | —             | 76.82        | 13.18                      | 63.64                    |
| MW-4    | 6/7/2007   | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.82        | 18.01                      | 58.81                    |
| MW-4    | 9/18/2007  | 330 g          | 1.7         | <1.0        | <1.0        | <1.0        | —              | 9.2            | 0.86 f         | <2.0           | <2.0           | <10           | —                 | —             | 76.82        | 18.80                      | 58.02                    |
| MW-4    | 12/17/2007 | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.82        | 18.50                      | 58.32                    |
| MW-4    | 2/27/2008  | 210 g          | 0.61        | <1.0        | <1.0        | <1.0        | —              | <1.0           | —              | —              | —              | —             | —                 | —             | 76.82        | 17.85                      | 58.97                    |
| MW-4    | 5/28/2008  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.82        | 18.26                      | 58.56                    |
| MW-4    | 9/19/2008  | 200            | 4.5         | <1.0        | <1.0        | 1.3         | —              | 8.9            | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 76.82        | 16.16                      | 60.66                    |
| MW-4    | 12/4/2008  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.82        | 15.67                      | 61.15                    |
| MW-4    | 2/25/2009  | 1,700          | 12          | <2.0        | 4.2         | <2.0        | —              | 160            | —              | —              | —              | —             | —                 | —             | 76.82        | 12.44                      | 64.38                    |
| MW-4    | 5/26/2009  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.82        | 13.30                      | 63.52                    |
| MW-4    | 9/18/2009  | 1,300          | 0.72        | <1.0        | <1.0        | <1.0        | —              | 150            | 56             | <2.0           | <2.0           | 160           | —                 | —             | 76.82        | 14.30                      | 62.52                    |
| MW-4    | 3/16/2010  | 300            | 1.2         | <1.0        | <1.0        | <1.0        | —              | 2.4            | —              | —              | —              | —             | —                 | —             | 76.82        | 18.14                      | 58.68                    |
| MW-4    | 9/27/2010  | 150            | 1.3         | <1.0        | <1.0        | <1.0        | —              | 6.6            | <2.0           | <2.0           | <2.0           | <10           | —                 | —             | 76.82        | 18.99                      | 57.83                    |

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| Well ID | Date       | TPPH<br>(ug/L) | B<br>(ug/L) | T<br>(ug/L) | E<br>(ug/L) | X<br>(ug/L) | MTBE           | MTBE           | DIPE<br>(ug/L) | ETBE<br>(ug/L) | TAME<br>(ug/L) | TBA<br>(ug/L) | 1,2-DCA<br>(ug/L) | EDB<br>(ug/L) | TOC<br>(MSL) | Depth to<br>Water<br>(ft.) | GW<br>Elevation<br>(MSL) |
|---------|------------|----------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------------|---------------|--------------|----------------------------|--------------------------|
|         |            |                |             |             |             |             | 8020<br>(ug/L) | 8260<br>(ug/L) |                |                |                |               |                   |               |              |                            |                          |
| MW-4    | 3/25/2011  | 770            | 9.5         | 0.59        | 11          | 1.3         | —              | 2.3            | —              | —              | —              | —             | —                 | —             | 76.82        | 17.65                      | 59.17                    |
| MW-5    | 9/22/2006  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.97        | 14.21                      | 62.76                    |
| MW-5    | 9/27/2006  | —              | —           | —           | —           | —           | —              | —              | —              | —              | —              | —             | —                 | —             | 76.97        | 14.35                      | 62.62                    |
| MW-5    | 9/28/2006  | 10,800         | 36.6        | 2.08        | 119         | 9.04        | —              | 15.1           | 3.61           | <0.500         | <0.500         | <10.0         | —                 | —             | 76.97        | —                          | —                        |
| MW-5    | 12/26/2006 | 5,000          | 150         | 5.2         | 70          | 16          | —              | 35             | —              | —              | —              | —             | —                 | —             | 76.97        | 13.32                      | 63.65                    |
| MW-5    | 3/29/2007  | 7,700          | 320         | 10          | 77          | 19.0 f      | —              | 32             | —              | —              | —              | —             | —                 | —             | 76.97        | 13.22                      | 63.75                    |
| MW-5    | 6/7/2007   | 7,600          | 47          | 4.6         | 71          | 13.7        | —              | 40             | —              | —              | —              | —             | —                 | —             | 76.97        | 17.88                      | 59.09                    |
| MW-5    | 9/18/2007  | 4,300 g        | 7.0         | 1.1         | 20          | 1.93 f      | —              | 21             | 0.82 f         | <2.0           | <2.0           | 15            | —                 | —             | 76.97        | 19.00                      | 57.97                    |
| MW-5    | 12/17/2007 | 6,900 g        | 58.0        | 9.9         | 410         | 15.8        | —              | <5.0           | —              | —              | —              | —             | —                 | —             | 76.97        | 18.25                      | 58.72                    |
| MW-5    | 2/27/2008  | 6,500 g        | 100         | 13          | 510         | 32.1        | —              | 26             | —              | —              | —              | —             | —                 | —             | 76.97        | 17.32                      | 59.65                    |
| MW-5    | 5/28/2008  | 3,200          | 66          | 5.7         | 140         | 6.7         | —              | 46             | —              | —              | —              | —             | —                 | —             | 76.97        | 17.94                      | 59.03                    |
| MW-5    | 9/19/2008  | 3,200          | 110         | 6.3         | 110         | 12.0        | —              | <1.0           | 7.0            | <2.0           | <2.0           | 10            | —                 | —             | 76.97        | 16.32                      | 60.65                    |
| MW-5    | 12/4/2008  | 5,900          | 250         | 14          | 220         | 28.3        | —              | <2.0           | —              | —              | —              | —             | —                 | —             | 76.97        | 15.80                      | 61.17                    |
| MW-5    | 2/25/2009  | 7,400          | 430         | 28          | 240         | 73          | —              | 17             | —              | —              | —              | —             | —                 | —             | 76.97        | 12.41                      | 64.56                    |
| MW-5    | 5/26/2009  | 6,800          | 190         | 18          | 210         | 83          | —              | 5.5            | —              | —              | —              | —             | —                 | —             | 76.97        | 13.28                      | 63.69                    |
| MW-5    | 9/18/2009  | 4,200          | 44          | <5.0        | 140         | 20          | —              | 6.0            | <10            | <10            | <10            | <50           | —                 | —             | 76.97        | 14.35                      | 62.62                    |
| MW-5    | 3/16/2010  | 15,000         | 64          | 5.7         | 280         | 21          | —              | 6.4            | —              | —              | —              | —             | —                 | —             | 76.97        | 17.46                      | 59.51                    |
| MW-5    | 9/27/2010  | 6,100          | 82          | <10         | 65          | 13          | —              | <10            | <20            | <20            | <20            | <100          | —                 | —             | 76.97        | 18.90                      | 58.07                    |
| MW-5    | 3/25/2011  | 7,600          | 150         | 10          | 270         | 43          | —              | <5.0           | —              | —              | —              | —             | —                 | —             | 76.97        | 16.82                      | 60.15                    |

## Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to December 27, 2001, by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to December 27, 2001, by EPA Method 8020.

MTBE = Methyl tertiary-butyl ether

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B

ETBE = Ethyl tertiary-butyl ether, analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether, analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol, analyzed by EPA Method 8260B

1,2-DCA = 1,2-Dichloroethane, analyzed by EPA Method 8260B

EDB = 1,2-Dibromoethane or Ethylene Dibromide, analyzed by EPA Method 8260B

TOC = Top of casing elevation

GW = Groundwater

ug/L = Micrograms per liter

MSL = Mean sea level

ft. = Feet

&lt;n = Below detection limit

(D) = Duplicate sample

ND = Not detected at or above the quantitative limit.

TABLE 1

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| <i>Well ID</i> | <i>Date</i> | <i>TPPH</i><br>(ug/L) | <i>B</i><br>(ug/L) | <i>T</i><br>(ug/L) | <i>E</i><br>(ug/L) | <i>X</i><br>(ug/L) | <i>MTBE</i><br><i>8020</i><br>(ug/L) | <i>MTBE</i><br><i>8260</i><br>(ug/L) | <i>DIPE</i><br>(ug/L) | <i>ETBE</i><br>(ug/L) | <i>TAME</i><br>(ug/L) | <i>TBA</i><br>(ug/L) | <i>1,2-DCA</i><br>(ug/L) | <i>EDB</i><br>(ug/L) | <i>TOC</i><br>(MSL) | <i>Depth to</i><br><i>Water</i><br>(ft.) | <i>GW</i><br><i>Elevation</i><br>(MSL) |
|----------------|-------------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------------------------|--------------------------------------|-----------------------|-----------------------|-----------------------|----------------------|--------------------------|----------------------|---------------------|--|--|
|----------------|-------------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------------------------|--------------------------------------|-----------------------|-----------------------|-----------------------|----------------------|--------------------------|----------------------|---------------------|--|--|

--- = Not applicable

## Notes:

a = Chromatogram pattern indicates the presence of an unidentified hydrocarbon/Hydrocarbon does not match pattern of laboratory's standard.

b = The laboratory noted the sample was analyzed after the method specified holding time.

c = This sample was analyzed outside of EPA recommended hold time.

d = Sample contains discrete peak in gasoline range.

e = The concentration reported reflects individual or discrete unidentified peaks not matching a typical fuel pattern.

f = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

g = Analyzed by EPA Method 8015B (M).

h = Hydrocarbon result partly due to individual peak(s) in quantitation range

Site surveyed January 30, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

Well MW-5 surveyed on May 10, 2006 by Virgil Chavez Land Surveying of Vallejo, CA.

TABLE 2

**HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA**

| <i>Sample ID</i>                              | <i>Date</i> | <i>TPHg</i>        | <i>Benzene</i>    | <i>Toluene</i>    | <i>Ethyl-<br/>benzene</i> | <i>Total<br/>Xylenes</i> | <i>MTBE</i> | <i>TBA</i> | <i>DIPE</i> | <i>ETBE</i> | <i>TAME</i> |
|---|-------------|--------------------|-------------------|-------------------|---------------------------|--------------------------|-------------|------------|-------------|-------------|-------------|
| GS-1 <sup>a</sup>                             | 10/17/1989  | <50 <sup>b</sup>   | <0.5 <sup>b</sup> | <0.5 <sup>b</sup> | <0.6 <sup>b</sup>         | <1.5 <sup>b</sup>        | ---         | ---        | ---         | ---         | ---         |
| GS-2 <sup>a</sup>                             | 10/17/1989  | 5,600 <sup>b</sup> | 340 <sup>b</sup>  | 27 <sup>b</sup>   | 1,200 <sup>b</sup>        | 62 <sup>b</sup>          | ---         | ---        | ---         | ---         | ---         |
| GS-3 <sup>a</sup>                             | 10/17/1989  | 8,800 <sup>b</sup> | 380 <sup>b</sup>  | 6 <sup>b</sup>    | 580 <sup>b</sup>          | 42 <sup>b</sup>          | ---         | ---        | ---         | ---         | ---         |
| Probe 1                                       | 5/19/1990   | <50                | <0.5              | <0.5              | <0.5                      | <0.5                     | ---         | ---        | ---         | ---         | ---         |
| Probe 2                                       | 5/19/1990   | 25,000             | 280               | 290               | 160                       | 470                      | ---         | ---        | ---         | ---         | ---         |
| Probe 3                                       | 5/19/1990   | <50                | <0.5              | <0.5              | <0.5                      | <0.5                     | ---         | ---        | ---         | ---         | ---         |
| Probe 4                                       | 5/19/1990   | <50                | 5                 | <0.5              | 2                         | <0.5                     | ---         | ---        | ---         | ---         | ---         |
| Probe 5                                       | 5/19/1990   | <50                | 1                 | 2                 | 1                         | 4                        | ---         | ---        | ---         | ---         | ---         |
| Probe 6                                       | 5/19/1990   | 31,000             | 430               | 600               | 240                       | 1,400                    | ---         | ---        | ---         | ---         | ---         |
| SB-1-W  | 3/24/2004   | 10,000             | 430               | 75                | 98                        | 44                       | 110         | ---        | ---         | ---         | ---         |
| SB-2-W  | 3/24/2004   | 520                | 4.9               | <1.0              | <1.0                      | <2.0                     | 320         | ---        | ---         | ---         | ---         |
| SB-4-W1                                       | 4/5/2006    | <50.0              | <1.00             | 50.4              | 3.92                      | 13.3                     | 29.2        | 15.1       | <1.00       | <1.00       | <1.00       |
| SB-7-W1                                       | 4/6/2006    | <50.0              | <1.00             | <1.00             | <1.00                     | <3.00                    | <1.00       | <10.0      | <1.00       | <1.00       | <1.00       |
| SB-8-W1                                       | 4/6/2006    | 34,000             | 404               | 22.5              | 110                       | 56.8                     | 15.0        | 40.2       | 26.6        | <1.00       | <1.00       |
| SB-9  | 2/1/2008    | 1,700 <sup>c</sup> | <0.50             | <1.0              | <1.0                      | <1.0                     | 120         | <10        | <2.0        | <2.0        | <2.0        |
| SB-10   | 2/1/2008    | <50 <sup>c</sup>   | <0.50             | <1.0              | <1.0                      | <1.0                     | 94          | <10        | <2.0        | <2.0        | <2.0        |
| SB-11   | 2/1/2008    | <50 <sup>c</sup>   | <0.50             | 14                | <1.0                      | <1.0                     | 2.6         | <10        | <2.0        | <2.0        | <2.0        |
| SB-12   | 2/1/2008    | 4,900 <sup>c</sup> | 120               | 11                | 170                       | 42.2                     | 33          | 100        | 11          | <2.0        | <2.0        |
| <b>Groundwater (≤10 fbg) ESL<sup>d</sup>:</b> |             | 210                | 46                | 130               | 43                        | 100                      | 1,800       | 18,000     | NA          | NA          | NA          |

Notes:

All results in micrograms per liter (µg/l) unless otherwise indicated.

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before 2004, analyzed by EPA Method 8015 unless otherwise noted

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; before 2004, analyzed by EPA Method 8015 unless otherwise noted

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

<x = Not detected at reporting limit x

--- = Not analyzed

TABLE 2

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA  
SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

ESL = Environmental screening level

NA= No available ESL

Results in **bold** equal or exceed applicable ESL

a = Sample collected from temporary well

b = Analyzed by unknown method

c = Analyzed by EPA Method 8015M

d = San Francisco Bay Regional Water Quality Control Board ESL for groundwater where groundwater is not a source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).



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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-1  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

| DEPTH (ft.) | SAMPLE No | BLOWS/FOOT<br>140 ft./lbs. | UNIFIED SOIL<br>CLASSIFICATION | SOIL DESCRIPTION   | WATER LEVEL | OVA READING<br>ppm |
|-------------|-----------|----------------------------|--------------------------------|--|-------------|--------------------|
| 1           | 1-1       | 72                         |                                | 8" concrete over 6" pea gravel   |             |                    |
| 2           |           |                            | SP                             | CLAYEY SAND, greenish gray, predominantly fine sand 20% fine gravel, damp  |             |                    |
| 3           |           |                            |                                | SAND, greenish gray, predominantly fine to medium sand, 5-10% coarse sand, 10-15% fine gravel, <5% fines, very dense, damp                       |             |                    |
| 4           | 1-2       | 30                         | SP                             | SAND, olive brown, fine to medium grained trace silt, very dense, damp   | 0           |                    |
| 5           |           |                            |                                | CLAYEY SAND, orangish brown, fine to medium grained organic staining, 4" lens of fine to medium sand (poorly sorted, greenish gray), dense, damp |             |                    |
| 6           | 1-3       | 37                         | SC                             |  | 1           |                    |
| 7           |           |                            | SW                             | SAND, bluish gray, fine to coarse grained <5% fines, color to brown at 15.5 feet, wet, dense   |             |                    |
| 8           |           |                            | CL                             | SANDY CLAY, yellowish brown, 30% fine sand, very moist   |             |                    |
| 9           |           |                            | SC                             | CLAYEY SAND, tannish brown, predominantly fine sand, trace medium sand, 15-20% fines, rare rootholes, moist, dense                               |             |                    |
| 10          |           |                            | SP                             | SAND, brown, predominantly fine sand, becomes silty at 20.5', dense, very moist to wet   |             |                    |

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Page 1 of 2

**ATTACHMENT 6**



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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-1  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

| DEPTH (ft.) | SAMPLE No | BLOWS/FOOT<br>140 ft/lbs. | UNIFIED SOIL<br>CLASSIFICATION | SOIL DESCRIPTION   | WATER LEVEL | OVA READING<br>ppm |
|-------------|-----------|---------------------------|--------------------------------|--|-------------|--------------------|
| 20          | 1-4       | 30                        | SP                             | SAND cont.   | 0           |                    |
| 21          |           |                           | CL                             | SILTY CLAY, brown, 5-10% fine sand locally to 20% disseminated, hard, very moist                               |             |                    |
| 22          |           |                           |                                |  |             |                    |
| 23          |           |                           |                                |  |             |                    |
| 24          |           |                           | SP-SC                          | SAND, light olive, fine to medium grained <10% clay fines, rare oxidation stains, dense, very moist to wet     |             |                    |
| 25          |           |                           |                                |  |             |                    |
| 26          | 1-5       | 48                        | SC                             | CLAYEY SAND, light olive, predominantly fine to medium sand, 40% clay, rare organics, dense, very moist to wet | 1           |                    |
| 27          |           |                           |                                |  |             |                    |
| 28          |           |                           |                                |  |             |                    |
| 29          |           |                           |                                |  |             |                    |
| 30          |           |                           |                                |  |             |                    |
| 31          | 1-6       | 36                        | SP-SC                          | SAND, light olive, predominantly fine to medium grained, 15% coarse sand, <10% clay fines, dense, saturated    |             |                    |
| 32          |           |                           |                                |  |             |                    |
| 33          |           |                           |                                |  |             |                    |
| 34          |           |                           |                                |  |             |                    |
| 35          |           |                           |                                |  |             |                    |
| 36          |           |                           |                                |  |             |                    |
| 37          |           |                           |                                |  |             |                    |
| 38          |           |                           |                                |  |             |                    |
| 39          |           |                           |                                |  |             |                    |
| 40          |           |                           |                                |  |             |                    |
|             |           |                           |                                | BOTTOM OF BORING 31.5'   |             |                    |

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Page 2 of 2



# Monitoring Well Detail

PROJECT NUMBER 1847 G Shell Oil Co.  
 PROJECT NAME 230 MacArthur Blvd.  
 COUNTY Oakland, Alameda Co.  
 WELL PERMIT NO. 88305

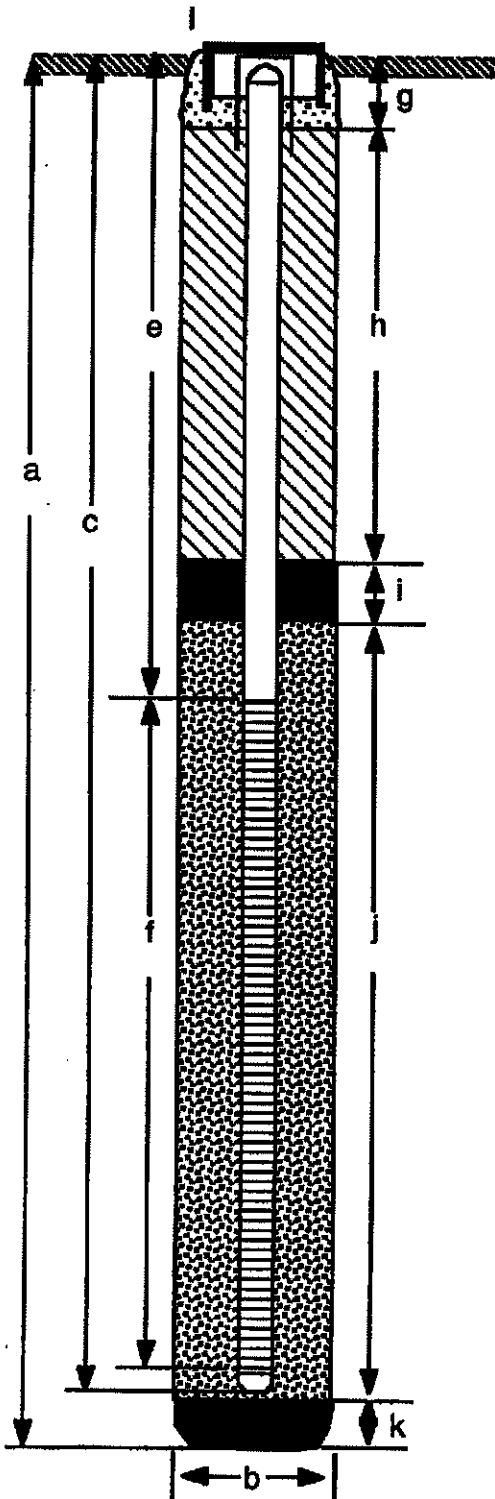
BORING / WELL NO. MW-1  
 TOP OF CASING ELEV. 73.89'  
 GROUND SURFACE ELEV. 74.34'  
 DATUM 72.96' City of Oakland

## EXPLORATORY BORING

a. Total Depth 31.5 ft.  
 b. Diameter 10 in.  
 Drilling method Hollowstem Auger

## WELL CONSTRUCTION

c. Casing length 30 ft.  
 Material Schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 10 ft.  
 f. Perforated length 20 ft.  
 Perforated interval from 30 to 10 ft.  
 Perforation type machine slot  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal Material Concrete  
 h. Backfill 5 ft.  
 Backfill material Cement Grout  
 i. Seal 2 ft.  
 Seal Material Bentonite Pellets  
 j. Gravel pack 22 ft.  
 Pack material #2/12 Aqua Sand  
 k. Bottom seal -- ft.  
 Seal material NA  
 l. F-8 vault box, locking cover and lock



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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-2  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

### EXPLORATORY BORING LOG

| DEPTH (ft.) | SAMPLE No | BLOWS/FOOT<br>140 ft/lbs. | UNIFIED SOIL<br>CLASSIFICATION | SOIL DESCRIPTION  | WATER LEVEL | OVA READING<br>ppm |
|-------------|-----------|---------------------------|--------------------------------|---|-------------|--------------------|
| 1           |           |                           |                                | 4" Asphalt pavement over 9" baserock  |             |                    |
| 2           |           |                           | SC                             | CLAYEY SAND, orangish brown, fine to medium sand, 20% fines, damp   |             |                    |
| 3           |           |                           |                                |   |             |                    |
| 4           |           |                           |                                | -as above; color to dark olive gray, locally 40% fine to coarse gravel composed of angular chert fragments, rare coarse sand, dense, damp |             |                    |
| 5           |           |                           |                                |   |             |                    |
| 6           | 2-1       | 44                        | SC                             |   | 2           |                    |
| 7           |           |                           |                                |   |             |                    |
| 8           |           |                           |                                |   |             |                    |
| 9           |           |                           |                                |   |             |                    |
| 10          |           |                           | SC                             | -as above, color to yellowish brown with minor olive gray staining, ~40% fines, trace organic black staining, rare rootholes, dense, damp |             |                    |
| 11          | 2-2       | 34                        |                                |   | 1           |                    |
| 12          |           |                           | CL                             | SANDY TO SILTY CLAY, olive beige with slight orange staining, 10 to 20% fine sand, orange staining low plasticity, hard, damp             |             |                    |
| 13          |           |                           |                                |   |             |                    |
| 14          |           |                           |                                |   |             |                    |
| 15          |           |                           |                                |   | ▽           |                    |
| 16          | 2-3       | 34                        | SP-SM                          | SAND, brown, predominantly fine sand, 5 to 10% silt, trace organic staining, dense, wet, fine to medium sand                              |             | 0.5                |
| 17          |           |                           |                                |   |             |                    |
| 18          |           |                           |                                |   |             |                    |
| 19          |           |                           |                                |   |             |                    |
| 20          |           |                           |                                |   |             |                    |

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Page 1 of 2



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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-2  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

| DEPTH (ft.) | SAMPLE No | BLOWS/FOOT<br>140 ft/lbs. | UNIFIED SOIL<br>CLASSIFICATION | SOIL DESCRIPTION  | WATER LEVEL | OVA READING<br>ppm |
|-------------|-----------|---------------------------|--------------------------------|---|-------------|--------------------|
| -20         |           |                           |                                |   |             |                    |
| -21         | 2-4       | 28                        | CL                             | SILTY CLAY, tannish brown, trace of organic staining, 10% very fine sand, low plasticity, very stiff, wet, color changes to tan in shoe                             |             | 0                  |
| -22         |           |                           |                                |   |             |                    |
| -23         |           |                           |                                |   |             |                    |
| -24         |           |                           |                                |   |             |                    |
| -25         |           |                           |                                |   |             |                    |
| -26         | 2-5       | 64                        |                                | SILTY CLAY, light olive gray and orangish brown, organic staining common, low to moderate plasticity, hard, moist, (4" lens of sandy silt with clay, damp to moist) |             | 0                  |
| -27         |           |                           |                                |   |             |                    |
| -28         |           |                           |                                |   |             |                    |
| -29         |           |                           |                                |   |             |                    |
| -30         | 2-6       | 26                        |                                | -- as above: becomes sandy and orangish brown, 30% fine sand, abundant silt, very stiff   |             | 0                  |
| -31         |           |                           |                                | BOTTOM OF BORING 30.0'  |             |                    |
| -32         |           |                           |                                |   |             |                    |
| -33         |           |                           |                                |   |             |                    |
| -34         |           |                           |                                |   |             |                    |
| -35         |           |                           |                                |   |             |                    |
| -36         |           |                           |                                |   |             |                    |
| -37         |           |                           |                                |   |             |                    |
| -38         |           |                           |                                |   |             |                    |
| -39         |           |                           |                                |   |             |                    |
| -40         |           |                           |                                |   |             |                    |

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# Monitoring Well Detail

PROJECT NUMBER 1847 G Shell Oil Co.  
 PROJECT NAME 230 MacArthur Blvd.  
 COUNTY Oakland, Alameda Co.  
 WELL PERMIT NO. 88305

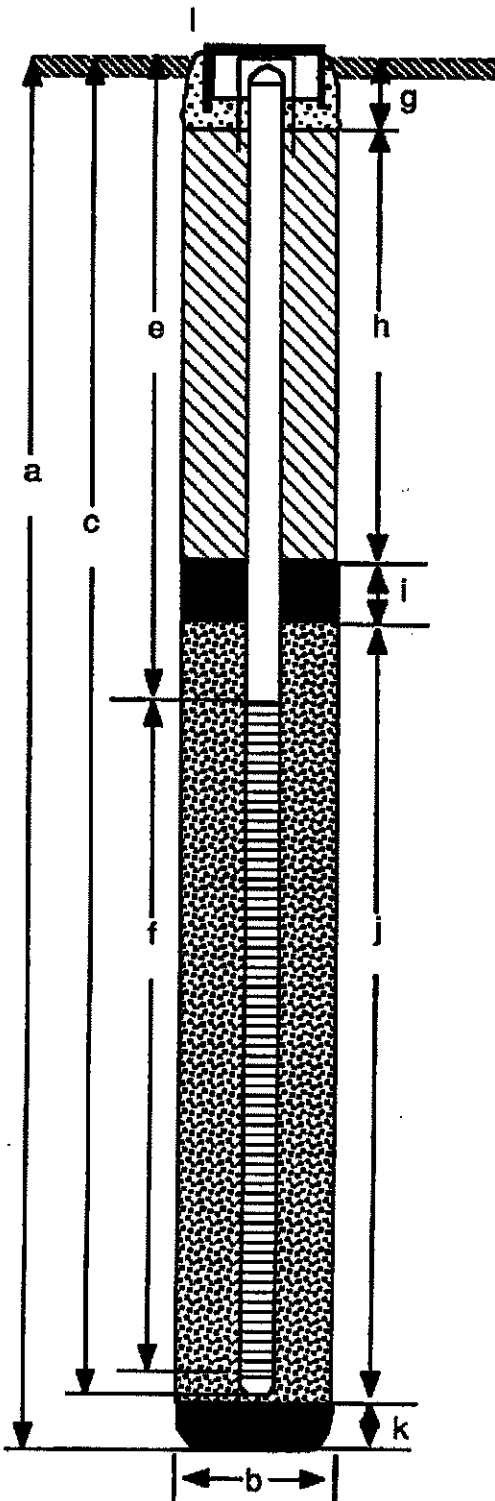
BORING / WELL NO. MW-2  
 TOP OF CASING ELEV. 75.24'  
 GROUND SURFACE ELEV. 75.96'  
 DATUM 72.96' City of Oakland

## EXPLORATORY BORING

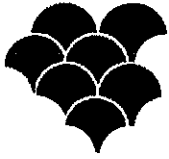
a. Total Depth 30 ft.  
 b. Diameter 10 in.  
 Drilling method Hollowstem Auger

## WELL CONSTRUCTION

c. Casing length 28 ft.  
 Material Schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 10 ft.  
 f. Perforated length 18 ft.  
 Perforated interval from 28 to 10 ft.  
 Perforation type machine slot  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal Material Concrete  
 h. Backfill 5 ft.  
 Backfill material Cement Grout  
 i. Seal 2 ft.  
 Seal Material Bentonite Pellets  
 j. Gravel pack 20 ft.  
 Pack material #2/12 Aqua Sand  
 k. Bottom seal -- ft.  
 Seal material NA  
 l. F-8 vault box, locking cover and lock



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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-3  
DATE DRILLED: 7-12-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

| DEPTH (ft.) | SAMPLE No | BLOWS/FOOT<br>140 ft/lbs. | UNIFIED SOIL<br>CLASSIFICATION | SOIL DESCRIPTION   | WATER LEVEL | OVA READING<br>ppm |
|-------------|-----------|---------------------------|--------------------------------|--|-------------|--------------------|
| 1           |           |                           |                                | 8" concrete  |             |                    |
| 2           |           |                           |                                | FILL, pea gravel   |             |                    |
| 3           |           |                           |                                |  |             |                    |
| 4           |           |                           |                                |  |             |                    |
| 5           |           |                           |                                |  |             |                    |
| 6           |           |                           |                                |  |             |                    |
| 7           |           |                           |                                |  |             |                    |
| 8           |           |                           |                                |  |             |                    |
| 9           |           |                           |                                |  |             |                    |
| 10          |           |                           |                                |  |             | 0                  |
| 11          | 3-1       | 12                        | SC                             | CLAYEY SAND, olive grey mottled with orangish brown, 50 to 60% fine sand, trace medium to coarse sand, slight petroleum odor, medium dense, damp   |             | 120                |
| 12          |           |                           | SW                             | SAND, orangish brown, fine to coarse grained with fine angular chert gravels, medium dense, damp   |             |                    |
| 13          |           |                           |                                | SAND, greenish gray, well graded, fine to coarse grained 10 to 15% fine gravels (angular to subangular white, yellow, and red cherts, graywacke), very faint petroleum odor, medium dense, saturated | Σ           | 2                  |
| 14          |           |                           |                                |  |             |                    |
| 15          |           |                           |                                |  |             |                    |
| 16          | 3-2       | 13                        |                                |  |             |                    |
| 17          |           |                           | CL                             | SILTY CLAY, tannish brown, trace organic staining, 10% fine sand, rare root holes, low plasticity, stiff, moist  |             |                    |
| 18          |           |                           |                                |  |             |                    |
| 19          |           |                           | SC                             |  |             |                    |
| 20          |           |                           |                                |  |             |                    |

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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, CA

BORING No.: MW-3  
DATE DRILLED: 7-12-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

| DEPTH (ft.) | SAMPLE No | BLOWS/FOOT<br>140 ft./lbs. | UNIFIED SOIL<br>CLASSIFICATION | SOIL DESCRIPTION   | WATER LEVEL | OVA READING<br>ppm |
|-------------|-----------|----------------------------|--------------------------------|--|-------------|--------------------|
| 20          | 3-3       | 31                         | SC                             | CLAYEY SAND, brown, 70% fine sand, medium dense, moist to wet  | 0           |                    |
| 21          |           |                            | CL                             | SILTY CLAY, tannish brown, 10% fine sand, trace organic staining, no rootholes, low plasticity, very stiff, wet  |             |                    |
| 22          | 3-4       | 72                         |                                |  | 0           |                    |
| 23          |           |                            |                                |  |             |                    |
| 24          |           |                            | SC                             | CLAYEY SAND, olive with minor orange staining, 60% fine sand, 10% medium to coarse sand, shell fragment, very dense, moist to wet                              |             |                    |
| 25          | 3-4       | 72                         |                                |  | 0           |                    |
| 26          |           |                            | CL                             | SANDY CLAY to SILTY CLAY, olive, 25% fine sand (locally sand <10%), low plasticity, hard, moist  |             |                    |
| 27          | 3-5       | 44                         |                                |  | 0           |                    |
| 28          |           |                            | SP                             | CLAYEY SAND, olive with minor orange oxide staining, 60 to 70% fine sand, locally clay to 50%, (becomes very sandy at 30', olive to bluish gray), dense, moist |             |                    |
| 29          |           |                            |                                |  |             |                    |
| 30          |           |                            |                                | BOTTOM OF BORING 30'   |             |                    |
| 31          |           |                            |                                |  | 0           |                    |
| 32          |           |                            |                                |  |             |                    |
| 33          |           |                            |                                |  |             |                    |
| 34          |           |                            |                                |  |             |                    |
| 35          |           |                            |                                |  |             |                    |
| 36          |           |                            |                                |  |             |                    |
| 37          |           |                            |                                |  |             |                    |
| 38          |           |                            |                                |  |             |                    |
| 39          |           |                            |                                |  |             |                    |
| 40          |           |                            |                                |  |             |                    |

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Page 2 of 2

# Monitoring Well Detail

PROJECT NUMBER 1847 G Shell Oil Co.  
 PROJECT NAME 230 MacArthur Blvd  
 COUNTY Oakland, Alameda Co.  
 WELL PERMIT NO. 88305

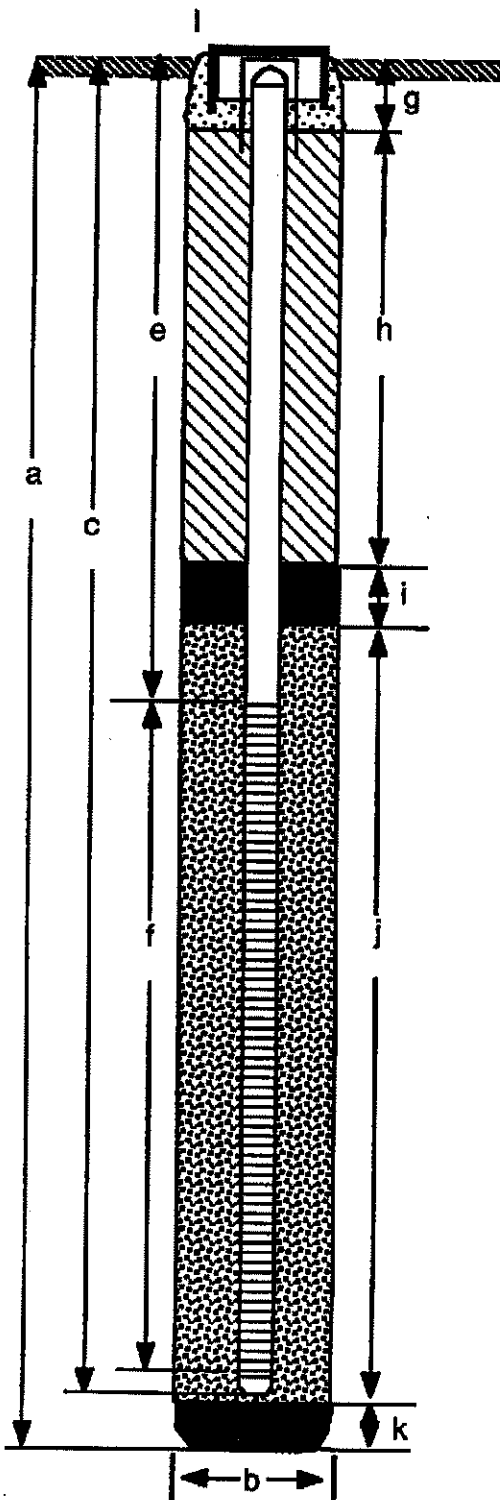
BORING / WELL NO. MW-3  
 TOP OF CASING ELEV. 74.68'  
 GROUND SURFACE ELEV. 75.05'  
 DATUM 72.96' City of Oakland

## EXPLORATORY BORING

a. Total Depth 30 ft.  
 b. Diameter 10 in.  
 Drilling method Hollowstem Auger

## WELL CONSTRUCTION

c. Casing length 28.5 ft.  
 Material Schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 11.5 ft.  
 f. Perforated length 17 ft.  
 Perforated interval from 28.5 to 11.5 ft.  
 Perforation type machine slot  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal Material Concrete  
 h. Backfill 7.5 ft.  
 Backfill material Cement Grout  
 i. Seal 1.5 ft.  
 Seal Material Bentonite Pellets  
 j. Gravel pack 18.5 ft.  
 Pack material #2/12 Aqua Sand  
 k. Bottom seal -- ft.  
 Seal material NA  
 l. F-8 vault box, locking cover and lock



**ensco**  
**environmental**  
**services, inc.**

# EXPLORATORY BORING LOG



**ensco**  
**environmental**  
**services, inc.**

PROJECT NAME: Shell Oil Company  
230 MacArthur Blvd.  
Oakland, CA

BORING NO. MW-4

DATE DRILLED: 1/9/90

PROJECT NUMBER: 1847-2G

LOGGED BY: J.M.

| DEPTH (ft.) | SAMPLE No | BLOWS/FOOT | UNIFIED SOIL CLASSIFICATION | SOIL DESCRIPTION  | WATER LEVEL | OYA READING ppm |
|-------------|-----------|------------|-----------------------------|---|-------------|-----------------|
| 1           | MW-4-1    | 64         | CL                          | SANDY CLAY, light olive brown (2.5Y 5/6), 30-40% rounded to subangular fine to medium grained sand, - 10% coarse gravel to 2", iron stain, black mottling, hard, very low plasticity, dry to damp |             | 0               |
| 2           |           |            |                             |   |             |                 |
| 3           |           |            |                             |   |             |                 |
| 4           |           |            |                             |   |             |                 |
| 5           |           |            |                             |   |             |                 |
| 6           |           |            |                             |   |             |                 |
| 7           | MW-4-2    | 40         | SW                          | SAND, light olive brown (2.5Y 5/6), fine to medium grained sand, 30% clay, rounded to subangular, poorly sorted, medium dense   |             | 0               |
| 8           |           |            |                             |   |             |                 |
| 9           |           |            |                             |   |             |                 |
| 10          |           |            |                             |   |             |                 |
| 11          | MW-4-3    | 27         | CL                          | SANDY CLAY, light olive brown (2.5Y 5/6), 35-45% sand, rounded to subangular, fine to medium grained, iron stain, very stiff, low plasticity, damp<br><br>Silty lenses                            | ▼<br>▽<br>⊖ | 0               |
| 12          |           |            |                             |   |             |                 |
| 13          |           |            |                             |   |             |                 |
| 14          |           |            |                             |   |             |                 |
| 15          | MW-4-4    | 33         | SP                          | SAND, olive gray (5Y 4/2), fine to medium grained sand, well sorted, rounded to subrounded, some iron stain, clay 10-20%, silt 10-20%, loose, moist   |             | 0               |
| 16          |           |            |                             |   |             |                 |
| 17          |           |            |                             |   |             |                 |
| 18          |           |            |                             |   |             |                 |
| 19          |           |            |                             |   |             |                 |
| 20          |           |            |                             |   |             |                 |
| 21          |           |            | CL                          | SILTY CLAY, brown (10YR 5/3), silt ~ 40%, black and gray mottling, iron stain, root holes and organic matter, very stiff, low plasticity, moist to damp   |             | 0               |

REVIEWED BY R.G./C.E.G.



# EXPLORATORY BORING LOG



**ensco**  
**environmental**  
**services, inc.**

PROJECT NAME: Shell Oil Company  
 230 MacArthur Blvd.  
 Oakland, CA

BORING NO. MW-4

DATE DRILLED: 1/9/90

PROJECT NUMBER: 1847-2G

LOGGED BY: J.M.

| DEPTH (ft.)  | SAMPLE No | BLOWS/FOOT | UNIFIED SOIL CLASSIFICATION | SOIL DESCRIPTION             | WATER LEVEL | OVM READING<br>ppm |
|--|-----------|------------|-----------------------------|------------------------------|-------------|--------------------|
| 22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42 | MW-4-5    | 33         | CL                          | same as above                |             | 0                  |
|  |           |            |                             | Bottom of Boring = 25.5 feet |             |                    |

REVIEWED BY R.G./C.E.G.

# Monitoring Well Detail

PROJECT NUMBER 1847-2G  
 PROJECT NAME Shell -Oakland  
 COUNTY Alameda  
 WELL PERMIT NO. 90116

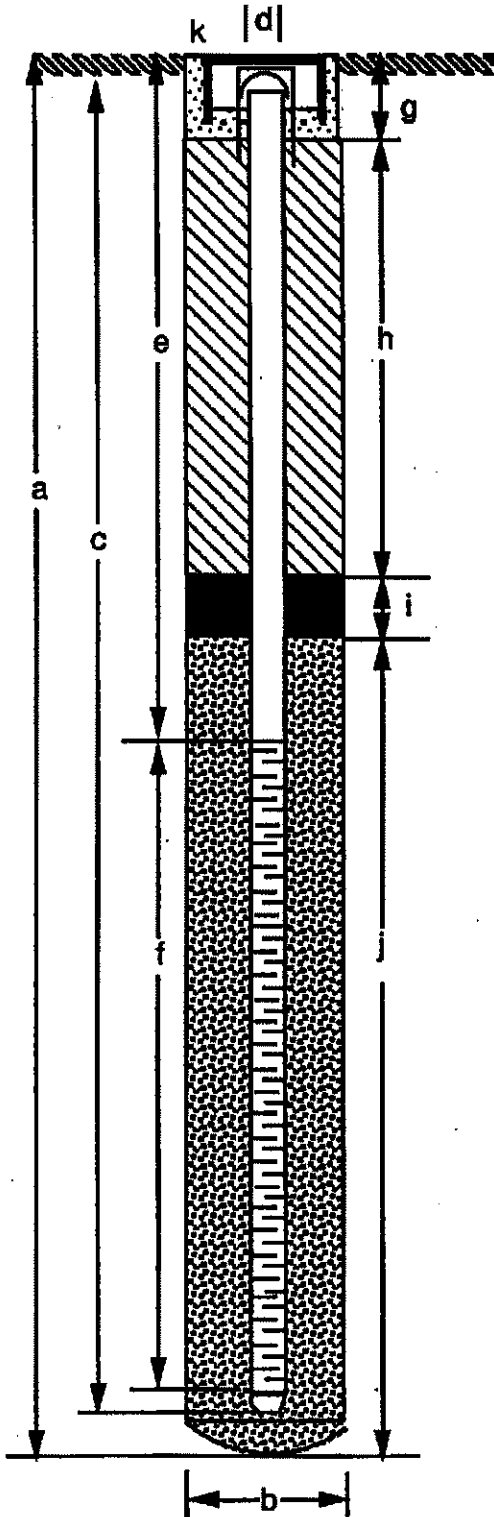
BORING / WELL NO. MW-4  
 TOP OF CASING ELEV. 73.83  
 GROUND SURFACE ELEV. 74.46  
 DATUM 72.96

## EXPLORATORY BORING

- a. Total depth 25.5 ft.  
 b. Diameter 12 in.  
 Drilling method Hollow stem auger

## WELL CONSTRUCTION

- c. Casing length 25 ft.  
 Material schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 15 ft.  
 f. Perforated length 10 ft.  
 Perforated interval from 15 to 25 ft.  
 Perforation type slotted screen  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal material concrete  
 h. Backfill 12 ft.  
 Backfill material neat cement grout  
 i. Seal 1 ft.  
 Seal material bentonite  
 j. Gravel pack 11 ft.  
 Pack material clean sand  
 k. \_\_\_\_\_

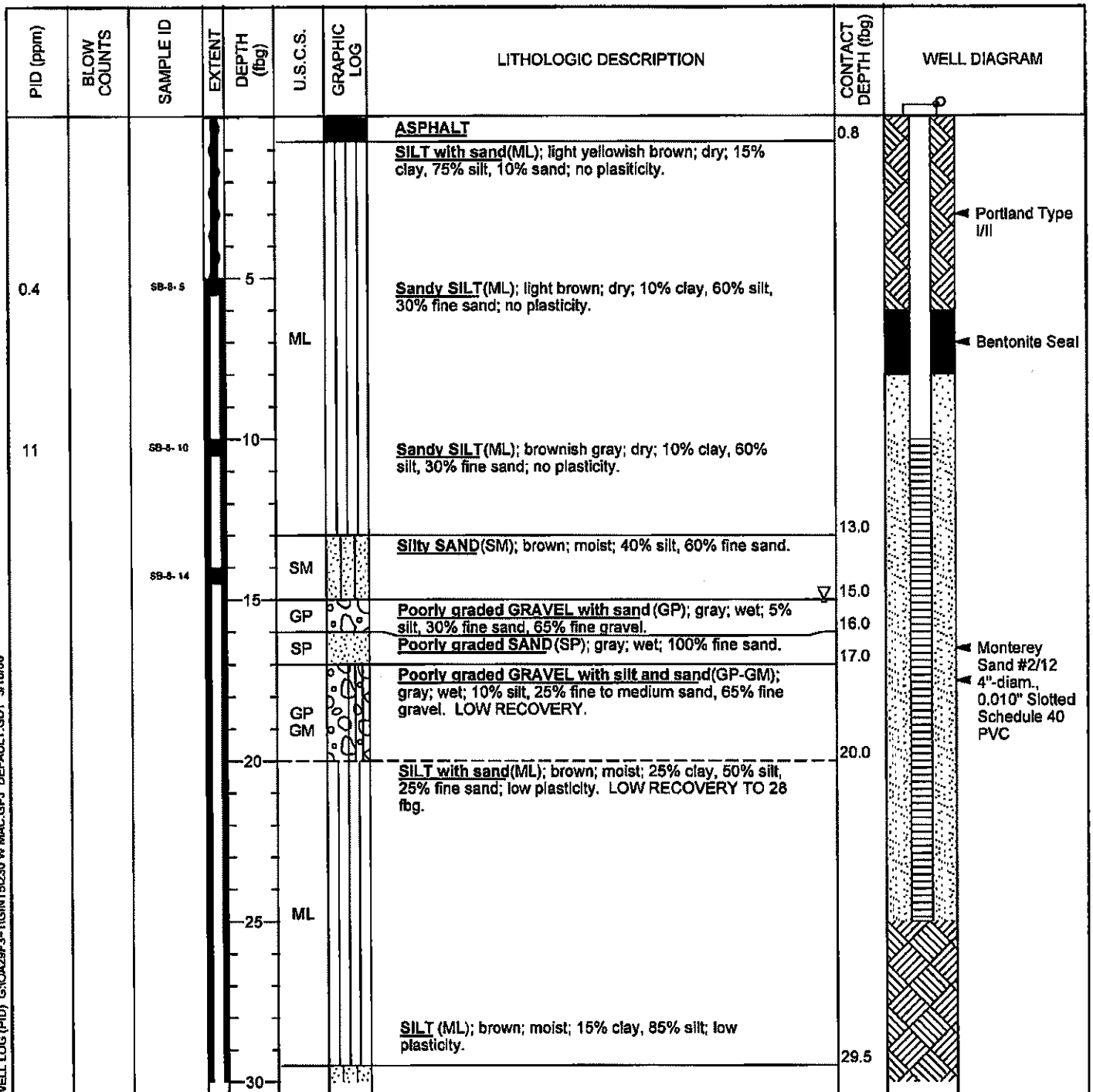




Cambria Environmental Technology, Inc.  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING/WELL LOG

|                 |                                      |                                    |                        |
|-----------------|--------------------------------------|------------------------------------|------------------------|
| CLIENT NAME     | Shell Oil Products US                | BORING/WELL NAME                   | SB-8/MW-5              |
| JOB/SITE NAME   | Shell-branded Service Station        | DRILLING STARTED                   | 04-Apr-06              |
| LOCATION        | 230 W. MacArthur Blvd, Oakland, CA   | DRILLING COMPLETED                 | 06-Apr-06              |
| PROJECT NUMBER  | 248-0902-006                         | WELL DEVELOPMENT DATE (YIELD)      | NA                     |
| DRILLER         | Gregg Drilling                       | GROUND SURFACE ELEVATION           | 77.34 ft above msl     |
| DRILLING METHOD | Hydraulic push and Hollow Stem Auger | TOP OF CASING ELEVATION            | 76.97 ft above msl     |
| BORING DIAMETER | 10"                                  | SCREENED INTERVALS                 | 10 to 25 fbg           |
| LOGGED BY       | Ron Barone                           | DEPTH TO WATER (First Encountered) | 15.0 fbg (06-Apr-06) ▽ |
| REVIEWED BY     | David Gibbs PG 7804                  | DEPTH TO WATER (Static)            | NA ▽                   |
| REMARKS         | Airknife to 5 fbg                    |                                    |                        |



WELL LOG (PID) G:\CA29F3-1\GINTS230 W MAC.GPJ DEFAULT.GDT 5/18/06

Continued Next Page



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 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING/WELL LOG

|               |                                    |                    |           |
|---------------|------------------------------------|--------------------|-----------|
| CLIENT NAME   | Shell Oil Products US              | BORING/WELL NAME   | SB-8/MW-5 |
| JOB/SITE NAME | Shell-branded Service Station      | DRILLING STARTED   | 04-Apr-06 |
| LOCATION      | 230 W. MacArthur Blvd, Oakland, CA | DRILLING COMPLETED | 06-Apr-06 |

Continued from Previous Page

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION  | CONTACT DEPTH (fbg) | WELL DIAGRAM              |
|-----------|-------------|-----------|--------------------|----------|-------------|---|---------------------|---------------------------|
|           |             |           |                    | SM       |             | <u>Silty SAND(SM)</u> ; light yellowish brown; moist; 10% clay, 20% silt, 70% fine sand; no plasticity. | 32.0                | <br>Native Backfill       |
|           |             |           |                    |          |             | <u>NO RECOVERY</u>  |                     |                           |
|           |             |           | 35                 |          |             |   |                     |                           |
|           |             |           |                    | SP<br>SM |             | <u>Poorly graded SAND with silt (SP-SM)</u> ; greenish gray; moist; 5% clay, 25% silt, 70% fine sand.   | 36.0                |                           |
|           |             |           | 40                 |          |             | <u>Poorly graded SAND with silt (SP-SM)</u> ; greenish gray; moist; 5% clay, 40% silt, 55% fine sand.   | 41.0                |                           |
|           |             |           |                    |          |             | <u>SILT with sand(ML)</u> ; greenish gray; moist; 5% clay, 80% silt, 15% fine sand; no plasticity.      |                     |                           |
|           |             |           | 45                 | ML       |             | <u>SILT (ML)</u> ; brown; dry; 40% clay, 60% silt; low plasticity.                                      |                     |                           |
|           |             |           |                    |          |             | <u>SILT (ML)</u> ; dark brown; dry; 25% clay, 75% silt; no to low plasticity.                           | 48.0                | Bottom of Boring @ 48 fbg |

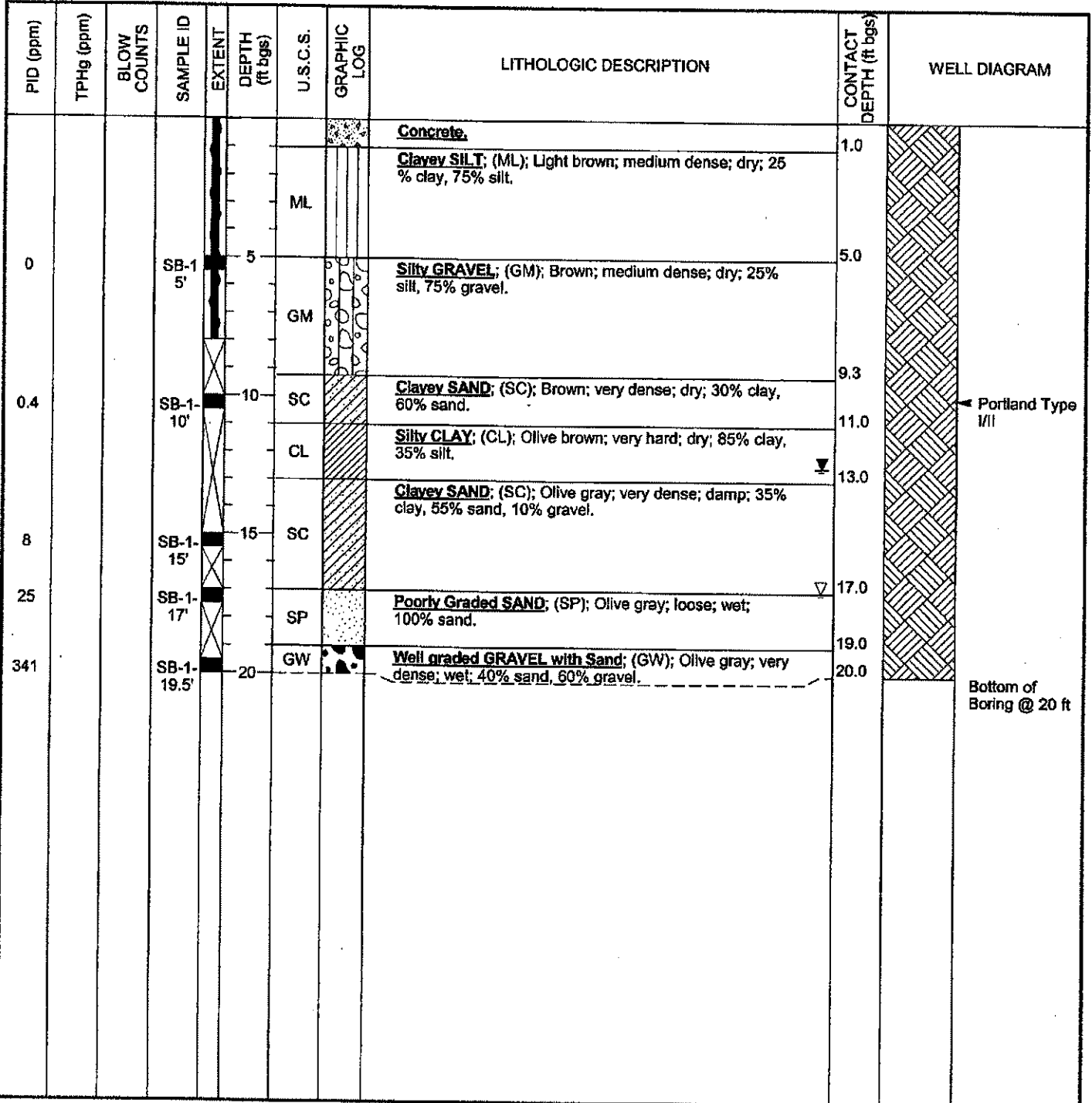
WELL LOG (PID) G:\0A29F3-1\GINT\5230 W MAC.GPJ DEFAULT.GDT 5/18/06



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 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: (510) 420-0700  
 Fax: (510) 420-9170

# BORING/WELL LOG

|                        |   |   |                     |
|------------------------|---|---|---------------------|
| <b>CLIENT NAME</b>     | Shell Oil Products Company (US)                     | <b>BORING/WELL NAME</b>                   | SB-1                |
| <b>JOB/SITE NAME</b>   | Shell-Branded Service Station                       | <b>DRILLING STARTED</b>                   | 24-Mar-04           |
| <b>LOCATION</b>        | 230 West MacArthur Boulevard, California            | <b>DRILLING COMPLETED</b>                 | 24-Mar-04           |
| <b>PROJECT NUMBER</b>  | 246-0902-007  | <b>WELL DEVELOPMENT DATE (YIELD)</b>      | NA                  |
| <b>DRILLER</b>         | Gregg Drilling                                      | <b>GROUND SURFACE ELEVATION</b>           |                     |
| <b>DRILLING METHOD</b> | Hydraulic push                                      | <b>TOP OF CASING ELEVATION</b>            | NA                  |
| <b>BORING DIAMETER</b> | 3"  | <b>SCREENED INTERVAL</b>                  | NA                  |
| <b>LOGGED BY</b>       | Stewart A. Dalie IV                                 | <b>DEPTH TO WATER (First Encountered)</b> | 17.0 ft (24-Mar-04) |
| <b>REVIEWED BY</b>     | Matthew W. Derby P.E. # 55475                       | <b>DEPTH TO WATER (Static)</b>            | 12.5 ft (24-Mar-04) |
| <b>REMARKS</b>         | Hand augered and air knifed to approximately 8 fbg. |   |                     |



WELL LOG (PID/TPHG) C:\0A28F3-1\GINT5OAK.230.GPJ DEFAULT.GDT 4/19/04



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 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: (510) 420-0700  
 Fax: (510) 420-9170

# BORING/WELL LOG

|                        |   |   |                     |
|------------------------|---|---|---------------------|
| <b>CLIENT NAME</b>     | Shell Oil Products Company (US)                     | <b>BORING/WELL NAME</b>                   | SB-2                |
| <b>JOB/SITE NAME</b>   | Shell-Branded Service Station                       | <b>DRILLING STARTED</b>                   | 24-Mar-04           |
| <b>LOCATION</b>        | 230 West MacArthur Boulevard, California            | <b>DRILLING COMPLETED</b>                 | 24-Mar-04           |
| <b>PROJECT NUMBER</b>  | 246-0902-007  | <b>WELL DEVELOPMENT DATE (YIELD)</b>      | NA                  |
| <b>DRILLER</b>         | Gregg Drilling                                      | <b>GROUND SURFACE ELEVATION</b>           |                     |
| <b>DRILLING METHOD</b> | Hydraulic push                                      | <b>TOP OF CASING ELEVATION</b>            | NA                  |
| <b>BORING DIAMETER</b> | 3"  | <b>SCREENED INTERVAL</b>                  | NA                  |
| <b>LOGGED BY</b>       | Stewart A. Dalie IV                                 | <b>DEPTH TO WATER (First Encountered)</b> | 17.0 ft (24-Mar-04) |
| <b>REVIEWED BY</b>     | Matthew W. Derby P.E. # 55475                       | <b>DEPTH TO WATER (Static)</b>            | 10.7 ft (24-Mar-04) |
| <b>REMARKS</b>         | Hand augered and air knifed to approximately 8 fbg. |   |                     |

| PID (ppm) | TPHg (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION   | CONTACT DEPTH (ft bgs) | WELL DIAGRAM             |
|-----------|------------|-------------|-----------|--------|----------------|----------|-------------|--|------------------------|--------------------------|
|           |            |             |           |        |                |          |             | Concrete.  | 1.0                    |                          |
|           |            |             |           |        |                | ML       |             | Clayey SILT: (ML); Light olive brown; medium dense; dry; 30% clay, 70% silt.                     |                        |                          |
| 0         |            |             | SB-2      | 5'     | 5              | GM       |             | Silty GRAVEL: (GM); Brown; medium dense; dry; 20% silt, 80% large gravel.                        | 4.5                    |                          |
|           |            |             |           |        |                | CL       |             | Silty CLAY: (CL); Light yellowish brown with rust mottling; very stiff; dry; 55% clay, 45% silt. | 7.5                    |                          |
| 1.2       |            |             | SB-2      | 10'    | 10             | SC       |             | Clayey SAND: (SC); Light yellowish brown; medium dense; dry; 45% clay, 55% sand.                 | 10.8                   |                          |
|           |            |             |           |        |                | CL       |             | Silty CLAY: (CL); Olive gray to brown; very stiff; dry; 75% clay, 25% silt.                      | 14.0                   |                          |
| 8         |            |             | SB-2      | 15'    | 15             | SP       |             | Poorly Graded SAND: (SP); Olive gray; loose; wet; 100% sand.                                     | 16.5                   |                          |
| 148       |            |             | SB-2      | 17'    | 17             | GW       |             | Well graded SAND with Gravel: (GW); Olive gray; medium dense; wet; 55% sand, 45% gravel.         | 19.0                   |                          |
| 155       |            |             | SB-2      | 19.5'  | 20             |          |             |  | 20.0                   | Bottom of Boring @ 20 ft |

WELL LOG (PID/TPHG) G:\0229F3-INGINTSOAK 230.GPJ DEFAULT.GDT 4/19/04



Cambria Environmental Technology, Inc.  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING/WELL LOG

|                 |                                      |                                    |                      |
|-----------------|--------------------------------------|------------------------------------|----------------------|
| CLIENT NAME     | Shell Oil Products US                | BORING/WELL NAME                   | SB-4                 |
| JOB/SITE NAME   | Shell-branded Service Station        | DRILLING STARTED                   | 04-Apr-06            |
| LOCATION        | 230 W. MacArthur Blvd, Oakland, CA   | DRILLING COMPLETED                 | 05-Apr-06            |
| PROJECT NUMBER  | 248-0902-006                         | WELL DEVELOPMENT DATE (YIELD)      | NA                   |
| DRILLER         | Gregg Drilling                       | GROUND SURFACE ELEVATION           | Not Surveyed         |
| DRILLING METHOD | Hydraulic push and Hollow Stem Auger | TOP OF CASING ELEVATION            | Not Surveyed         |
| BORING DIAMETER | 5"                                   | SCREENED INTERVALS                 | NA                   |
| LOGGED BY       | Ron Barone                           | DEPTH TO WATER (First Encountered) | 15.5 fbg (05-Apr-06) |
| REVIEWED BY     | David Gibbs PG 7804                  | DEPTH TO WATER (Static)            | NA                   |
| REMARKS         | Airknife to 5 fbg                    |                                    |                      |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM |
|-----------|-------------|-----------|--------|-------------|----------|-------------|--|---------------------|--------------|
|           |             |           |        | 0           | GP GM    |             | Poorly graded GRAVEL with silt (GP-GM); light yellowish brown; wet; 10% silt, 10% fine sand, 80% fine to coarse gravels. | 1.4                 |              |
|           |             | SB-4-4.4  |        | 5           | ML       |             | SILT with sand(ML); light greenish gray; moist; 20% clay, 65% silt, 15% sand; low plasticity.                            |                     |              |
|           |             |           |        |             |          |             | Gravelly SILT(ML); brown; wet; 10% clay, 55% silt, 35% fine to coarse gravel; no plasticity.                             |                     |              |
|           |             |           |        |             |          |             | SILT with sand(ML); brown; dry to moist; 5% clay, 70% silt, 25% medium sand; no plasticity.                              |                     |              |
|           |             | SB-4-11.5 |        |             |          |             | SILT with sand(ML); light greenish gray; moist; 5% clay, 70% silt, 25% medium sand; no plasticity.                       |                     |              |
|           |             |           |        |             |          |             |  |                     |              |
|           |             |           |        |             |          |             |  |                     |              |
| 1         |             | SB-4-15.5 |        | 15.5        | SC       |             | Clayey SAND(SC); light gray; moist to wet; 15% clay, 85% fine to medium sand.  | 15.5                |              |
|           |             |           |        | 16.5        | SP SC    |             | Poorly graded SAND with clay (SP-SC); light gray; wet; 10% clay, 80% fine to medium sand, 10% fine gravel.               | 16.5                |              |
|           |             |           |        | 19.0        |          |             |  | 19.0                |              |
|           |             |           |        | 20          |          |             | CLAY (CL); light brown; moist; 60% clay, 40% silt; medium plasticity.  |                     |              |
|           |             |           |        | 25          | CL       |             | CLAY with sand (CL); brown; moist; 40% clay, 40% silt, 20% fine sand; low plasticity.                                    |                     |              |
|           |             |           |        |             |          |             | CLAY (CL); brown; dry to moist; 50% clay, 50% silt; medium plasticity.   |                     |              |
|           |             |           |        | 30          |          |             | CLAY with sand(CL); brown; moist; 50% clay, 25% silt, 25% fine sand; low plasticity.                                     | 30.0                |              |

← Portland Type I/II

WELL LOG (PID) G:\CA29F3-1\GINTS230 W MAC.GPJ DEFAULT.GDT 5/18/06

Continued Next Page



Cambria Environmental Technology, Inc.  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING/WELL LOG

CLIENT NAME Shell Oil Products US BORING/WELL NAME SB-4  
 JOB/SITE NAME Shell-branded Service Station DRILLING STARTED 04-Apr-06  
 LOCATION 230 W. MacArthur Blvd, Oakland, CA DRILLING COMPLETED 05-Apr-06

Continued from Previous Page

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION  | CONTACT DEPTH (fbg) | WELL DIAGRAM              |
|-----------|-------------|-----------|--------|-------------|----------|-------------|---|---------------------|---------------------------|
|           |             |           |        | 35          | SC       |             | Clayey SAND (SC); light gray; moist; 30% clay, 20% silt, 50% fine sand.   |                     |                           |
|           |             |           |        | 37.0        |          |             | Clayey SAND(SC); light gray; moist; 20% clay, 20% silt, 60% fine sand.<br>Clayey SAND with gravel (SC); light brown; moist; 20% clay, 15% silt, 50% fine sand, 15% fine gravel. | 37.0                |                           |
|           |             |           |        | 39.0        | SP SM    |             | Poorly graded SAND with silt (SP-SM); grayish green; moist; 10% silt, 90% fine to medium sand.  | 39.0                |                           |
|           |             |           |        | 40.5        | SM       |             | Silty SAND (SM); grayish green; moist; 15% silt, 85% fine to medium sand.   | 40.5                |                           |
|           |             |           |        | 45          | ML       |             | SILT with sand (ML); grayish green; moist; 25% clay, 60% silt, 15% sand; low plasticity.<br>SILT (ML); dark gray; dry to moist; 25% clay, 75% silt; low plasticity.             |                     |                           |
|           |             |           |        | 50          |          |             | SILT (ML); dark gray; dry; 25% clay, 75% silt; low plasticity.  | 50.0                | Bottom of Boring @ 50 fbg |

WELL LOG (PID) C:\0A29F3-1\GINTS230 W MAC.GPJ DEFAULT.GDT 5/18/06





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5900 Hollis Street, Suite A  
Emeryville, CA 94608  
Telephone: 510-420-0700  
Fax: 510-420-9170

# BORING/WELL LOG

CLIENT NAME Shell Oil Products US BORING/WELL NAME SB-5  
JOB/SITE NAME Shell-branded Service Station DRILLING STARTED 04-Apr-06  
LOCATION 230 W. MacArthur Blvd, Oakland, CA DRILLING COMPLETED 04-Apr-06  
PROJECT NUMBER 248-0902-006 WELL DEVELOPMENT DATE (YIELD) NA  
DRILLER Gregg Drilling GROUND SURFACE ELEVATION Not Surveyed  
DRILLING METHOD Hand Auger TOP OF CASING ELEVATION Not Surveyed  
BORING DIAMETER 4" SCREENED INTERVALS NA  
LOGGED BY Ron Barone DEPTH TO WATER (First Encountered) NA  
REVIEWED BY David Gibbs PG 7804 DEPTH TO WATER (Static) NA  
REMARKS Airknife to 4 fbg

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT<br>DEPTH (fbg) | U.S.C.S.<br>GRAPHIC LOG | LITHOLOGIC DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM  |
|-----------|-------------|-----------|-----------------------|-------------------------|--|---------------------|---|
| 706       |             | SB-5-1    |                       | ML                      | <u>CONCRETE</u><br><u>Gravelly SILT(ML)</u> ; dark gray; moist; 10% clay, 50% silt, 40% fine to coarse gravel.<br><u>SILT with gravel(ML)</u> ; dark gray; moist to wet; 10% clay, 65% silt, 25% coarse gravel.<br><u>Gravelly SILT(ML)</u> ; dark gray; wet; 50% silt, 45% coarse gravels, 5% concrete cobbles.<br><br>Due to concrete rubble and rebar, the boring could not be advanced beyond 4 fbg. | 0.8<br><br>4.0      | <p>Portland Type I/II<br/><br/>Bottom of Boring @ 4 fbg</p> |

WELL LOG (PID) C:\0A28F3-1\GINTS230 W MAC.GPJ DEFAULT.GDT 5/23/06



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 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING/WELL LOG

|                 |                                      |                                    |                        |
|-----------------|--------------------------------------|------------------------------------|------------------------|
| CLIENT NAME     | Shell Oil Products US                | BORING/WELL NAME                   | SB-6                   |
| JOB/SITE NAME   | Shell-branded Service Station        | DRILLING STARTED                   | 04-Apr-06              |
| LOCATION        | 230 W. MacArthur Blvd, Oakland, CA   | DRILLING COMPLETED                 | 05-Apr-06              |
| PROJECT NUMBER  | 248-0902-006                         | WELL DEVELOPMENT DATE (YIELD)      | NA                     |
| DRILLER         | Gregg Drilling                       | GROUND SURFACE ELEVATION           | Not Surveyed           |
| DRILLING METHOD | Hydraulic push and Hollow Stem Auger | TOP OF CASING ELEVATION            | Not Surveyed           |
| BORING DIAMETER | 5"                                   | SCREENED INTERVALS                 | NA                     |
| LOGGED BY       | Ron Barone                           | DEPTH TO WATER (First Encountered) | 13.5 fbg (05-Apr-06) ▽ |
| REVIEWED BY     | David Gibbs PG 7804                  | DEPTH TO WATER (Static)            | NA ▽                   |
| REMARKS         | Airknife to 5 fbg                    |                                    |                        |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM              |
|-----------|-------------|-----------|--------|-------------|----------|-------------|--|---------------------|---------------------------|
|           |             |           |        |             |          |             | <b>CONCRETE</b>  | 0.8                 |                           |
| 0         |             | SB-6-3    |        |             | ML       |             | <b>Gravelly SILT (ML)</b> ; light brown; dry; 5% clay, 50% silt, 45% fine to coarse gravel.                  | 3.0                 |                           |
|           |             |           |        | 5           | GM       |             | <b>Silty GRAVEL (GM)</b> ; grayish brown; moist; 5% clay, 35% silt, 60% fine to coarse gravel.               | 5.5                 |                           |
| 6         |             | SB-6-6.5  |        |             | ML       |             | <b>Sandy SILT (ML)</b> ; dark brown; dry to moist; 20% clay, 50% silt, 30% fine sand; low plasticity.        | 7.0                 |                           |
|           |             |           |        |             | SM       |             | <b>Silty SAND (SM)</b> ; brown; dry; 40% silt, 60% fine sand; no plasticity.                                 | 9.0                 |                           |
| 10        |             | SB-6-9.5  |        |             | ML       |             | <b>Sandy SILT (ML)</b> ; brown; dry; 10% clay, 60% silt, 30% sand; no plasticity.                            | 12.0                |                           |
| 88        |             | SB-6-12   |        |             | SM       |             | <b>Silty SAND (SM)</b> ; gray; moist; 10% clay, 40% silt, 50% fine sand.                                     | 15.0                |                           |
|           |             |           |        |             |          |             | <b>Silty SAND with gravel (SM)</b> ; gray; wet; 5% clay, 20% silt, 50% fine sand, 25% fine to coarse gravel. | ▽                   | Bottom of Boring @ 15 fbg |

WELL LOG (PID) G:\0A28F3-1\GINT\5230 W MAC.GPJ DEFAULT.GDT 5/18/06



Cambria Environmental Technology, Inc.  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING/WELL LOG

|                 |                                    |                                    |                        |
|-----------------|------------------------------------|------------------------------------|------------------------|
| CLIENT NAME     | Shell Oil Products US              | BORING/WELL NAME                   | SB-7                   |
| JOB/SITE NAME   | Shell-branded Service Station      | DRILLING STARTED                   | 04-Apr-06              |
| LOCATION        | 230 W. MacArthur Blvd, Oakland, CA | DRILLING COMPLETED                 | 06-Apr-06              |
| PROJECT NUMBER  | 248-0902-006                       | WELL DEVELOPMENT DATE (YIELD)      | NA                     |
| DRILLER         | Gregg Drilling                     | GROUND SURFACE ELEVATION           | Not Surveyed           |
| DRILLING METHOD | Hydraulic push                     | TOP OF CASING ELEVATION            | Not Surveyed           |
| BORING DIAMETER | 2"                                 | SCREENED INTERVALS                 | NA                     |
| LOGGED BY       | Ron Barone                         | DEPTH TO WATER (First Encountered) | 16.0 fbg (06-Apr-06) ▽ |
| REVIEWED BY     | David Gibbs PG 7804                | DEPTH TO WATER (Static)            | NA ▽                   |
| REMARKS         | Airknife to 5 fbg                  |                                    |                        |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM |
|-----------|-------------|-----------|--------------------|----------|-------------|--|---------------------|--------------|
|           |             |           |                    |          |             | <b>CONCRETE</b>  | 0.7                 |              |
| 0         |             | SB-7-6    | 5                  | ML       |             | <b>SILT with sand (ML)</b> ; light yellowish brown; dry; 15% clay, 60% silt, 25% fine sand; low plasticity.        |                     |              |
| 1         |             | SB-7-10   | 10                 |          |             | <b>Sandy SILT (ML)</b> ; light brown; moist; 5% clay, 60% silt, 35% fine to medium sand; no plasticity.            |                     |              |
|           |             |           |                    |          |             | <b>SILT (ML)</b> ; brown; moist; 20% clay, 75% silt, 5% fine sand; low plasticity.                                 |                     |              |
| 0         |             | SB-7-16   | 15                 | SP SM    |             | <b>Poorly graded SAND with silt (SP-SM)</b> ; grayish brown; wet; 5% clay, 10% silt, 85% fine sand.                | 13.0                |              |
|           |             |           |                    |          |             | <b>Poorly graded SAND with silt and gravel (SP-SM)</b> ; brown; wet; 5% clay, 10% silt, 60% sand, 25% fine gravel. | ▽                   |              |
|           |             |           |                    |          |             | <b>SILT (ML)</b> ; brown; dry to moist; 40% clay, 60% silt; low to medium plasticity.                              | 18.5                |              |
|           |             |           |                    |          |             | <b>SILT with sand (ML)</b> ; light greenish gray; moist; 20% clay, 60% silt, 20% fine sand; low plasticity.        |                     |              |
|           |             |           |                    |          |             |  |                     |              |

WELL LOG (PID) G:\0A28F3-1GINTS\20 W MAC.GPJ DEFAULT.GDT 5/18/06

Continued Next Page



Cambria Environmental Technology, Inc.  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING/WELL LOG

CLIENT NAME Shell Oil Products US BORING/WELL NAME SB-7  
 JOB/SITE NAME Shell-branded Service Station DRILLING STARTED 04-Apr-06  
 LOCATION 230 W. MacArthur Blvd, Oakland, CA DRILLING COMPLETED 06-Apr-06

Continued from Previous Page

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM              |
|-----------|-------------|-----------|--------|-------------|----------|-------------|--|---------------------|---------------------------|
|           |             |           |        |             |          |             | <u>SILT (ML)</u> ; light yellowish brown; moist; 35% clay, 65% silt; medium plasticity.                                  | 32.0                |                           |
|           |             |           |        |             | SM       |             | <u>Silty SAND with gravel (SM)</u> ; brown; moist; 15% silt, 60% fine to medium sand, 25% coarse gravel.                 | 34.0                |                           |
|           |             |           |        | 35          | ML       |             | <u>SILT with sand (ML)</u> ; brown; moist; 5% clay, 70% silt, 25% fine to medium sand. <b>LOW RECOVERY.</b>              | 37.0                |                           |
|           |             |           |        |             |          |             |  |                     |                           |
|           |             |           |        | 40          | SM       |             | <u>Silty SAND (SM)</u> ; greenish gray; moist; 5% clay, 10% silt, 85% fine to medium sand.                               | 42.5                |                           |
|           |             |           |        |             | ML       |             | <u>Silty SAND (SM)</u> ; greenish gray; moist; 5% clay, 20% silt, 75% fine sand.   | 42.5                |                           |
|           |             |           |        |             |          |             | <u>SILT (ML)</u> ; greenish gray; moist; 25% clay, 75% silt; low plasticity. <b>LOW RECOVERY</b>                         | 45.0                |                           |
|           |             |           |        | 45          |          |             |  |                     |                           |
|           |             |           |        |             | SM       |             | <u>Silty SAND with gravel (SM)</u> ; greenish gray; moist; 20% silt, 50% fine sand, 30% fine gravel. <b>LOW RECOVERY</b> | 45.0                |                           |
|           |             |           |        |             |          |             |  | 48.0                |                           |
|           |             |           |        |             |          |             |  |                     | Bottom of Boring @ 48 fbg |

WELL LOG (PID) G:\0A29F3-1\GINTS20 W MAC.GPJ DEFAULT.GDT 5/18/06



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, California 95476  
 Telephone: 707-935-4850  
 Fax: 707-935-6649

# BORING/WELL LOG

|                 |                                    |                                    |                       |
|-----------------|------------------------------------|------------------------------------|-----------------------|
| CLIENT NAME     | Shell Oil Products US              | BORING/WELL NAME                   | SB-9                  |
| JOB/SITE NAME   | Shell-branded Service Station      | DRILLING STARTED                   | 01-Feb-08             |
| LOCATION        | 230 W. MacArthur Blvd. Oakland, CA | DRILLING COMPLETED                 | 01-Feb-08             |
| PROJECT NUMBER  | 240902-007                         | WELL DEVELOPMENT DATE (YIELD)      | NA                    |
| DRILLER         | Gregg Drilling                     | GROUND SURFACE ELEVATION           | NA                    |
| DRILLING METHOD | Hydraulic push                     | TOP OF CASING ELEVATION            | NA                    |
| BORING DIAMETER | 2.5"                               | SCREENED INTERVAL                  | NA                    |
| LOGGED BY       | P. Schaefer CEG 1940               | DEPTH TO WATER (First Encountered) | 20.0 ft (01-Feb-08) ▼ |
| REVIEWED BY     | P. Schaefer CEG 1940               | DEPTH TO WATER (Static)            | NA ▼                  |
| REMARKS         | Airknife to 5 fbg                  |                                    |                       |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | SOIL DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM |
|-----------|-------------|-----------|--------|-------------|----------|-------------|--|---------------------|--------------|
|           |             |           |        |             | CONCRETE |             | CONCRETE   | 0.8                 |              |
|           |             |           |        |             | CL       |             | Silty CLAY (CL)  | 2.0                 |              |
|           |             |           |        |             |          |             | No recovery  | 4.0                 |              |
|           |             |           |        |             | CL       |             | Silty CLAY with Gravel (CL)  | 5.0                 |              |
|           |             |           |        |             |          |             | No recovery  | 7.0                 |              |
| 0         |             | SB-9-7.0  |        |             | ML       |             | Sandy SILT with Clay (ML); reddish yellow (7.5YR 6/6); 5% clay, 65% silt, 35% sand. No recovery    | 8.0                 |              |
|           |             |           |        |             |          |             | No recovery  | 10.0                |              |
| 0         |             | SB-9-11.5 |        |             | ML       |             | Sandy SILT with Gravel & Clay (ML); 5% clay, 65% silt, 20% sand, 10% gravel.                       | 12.0                |              |
|           |             |           |        |             |          |             | No recovery  | 13.5                |              |
|           |             |           |        |             | ML       |             | Clayey SILT (ML); 30% clay, 70% silt.  | 15.0                |              |
| 0         |             | SB-9-15.5 |        |             | ML       |             | No recovery<br>Sandy SILT with Clay (ML); yellowish brown (10YR 5/4); 5% clay, 40% silt, 55% sand. | 16.5                |              |
|           |             |           |        |             | SP       |             | SAND (SP); yellowish brown (10YR 5/4).   | 18.0                |              |
|           |             |           |        |             | GP       |             | GRAVEL (GP); brownish yellow (10YR 6/8).   | 18.8                |              |
|           |             |           |        |             | SP       |             | Gravelly SAND (SP); light olive brown (2.5Y 5/3); 80% sand, 20% gravel.                            | 19.5                |              |
|           |             |           |        |             | ML       |             | Clayey SILT with Sand (ML); yellowish brown (10YR 5/6); 40% clay, 60% silt.                        | 23.0                |              |
|           |             |           |        |             |          |             |  | 24.0                |              |
|           |             |           |        |             |          |             |  | 25                  |              |
|           |             |           |        |             |          |             |  | 30                  |              |
|           |             |           |        |             |          |             |  | 35                  |              |

WELL LOG (PID) L:\SONOMA--1.SHELOA28F3-1\GINTS230 W.MAC.GPJ DEFAULT.GDT 4/25/08

Bottom of Boring @ 24 ft



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, California 95476  
 Telephone: 707-935-4850  
 Fax: 707-935-6649

# BORING/WELL LOG

|                        |                                    |   |                       |
|------------------------|------------------------------------|---|-----------------------|
| <b>CLIENT NAME</b>     | Shell Oil Products US              | <b>BORING/WELL NAME</b>                   | SB-10                 |
| <b>JOB/SITE NAME</b>   | Shell-branded Service Station      | <b>DRILLING STARTED</b>                   | 01-Feb-08             |
| <b>LOCATION</b>        | 230 W. MacArthur Blvd, Oakland, CA | <b>DRILLING COMPLETED</b>                 | 01-Feb-08             |
| <b>PROJECT NUMBER</b>  | 240902-007                         | <b>WELL DEVELOPMENT DATE (YIELD)</b>      | NA                    |
| <b>DRILLER</b>         | Gregg Drilling                     | <b>GROUND SURFACE ELEVATION</b>           | NA                    |
| <b>DRILLING METHOD</b> | Hydraulic push                     | <b>TOP OF CASING ELEVATION</b>            | NA                    |
| <b>BORING DIAMETER</b> | 2.5"                               | <b>SCREENED INTERVAL</b>                  | NA                    |
| <b>LOGGED BY</b>       | P. Schaefer CEG 1940               | <b>DEPTH TO WATER (First Encountered)</b> | 18.5 ft (01-Feb-08) ▼ |
| <b>REVIEWED BY</b>     | P. Schaefer CEG 1940               | <b>DEPTH TO WATER (Static)</b>            | NA ▼                  |
| <b>REMARKS</b>         | Airknife to 5 fbg                  |   |                       |

| PID (ppm) | BLOW COUNTS | SAMPLE ID  | EXTENT | DEPTH (ft) | U.S.C.S. | GRAPHIC LOG | SOIL DESCRIPTION   | CONTACT DEPTH (ft) | WELL DIAGRAM             |
|-----------|-------------|------------|--------|------------|----------|-------------|--|--------------------|--------------------------|
|           |             |            |        | 0.8        | CONCRETE |             | CONCRETE   | 0.8                |                          |
|           |             |            |        | 2.0        | GP       |             | GRAVEL (GP)  | 2.0                |                          |
|           |             |            |        | 3.0        | CL       |             | Silty clay (CL)  | 3.0                |                          |
|           |             |            |        | 4.0        | GP       |             | GRAVEL (GP)  | 4.0                |                          |
|           |             |            |        | 5.0        | CL       |             | Silty Clay (CL)  | 5.0                |                          |
|           |             |            |        | 6.0        |          |             | No recovery  | 6.0                |                          |
| 0         |             | SB-10-7    |        | 7.0        | ML       |             | Clayey SILT (ML); yellowish brown (10YR 5/6); 30% clay, 70% silt.                          | 7.0                |                          |
|           |             |            |        | 8.0        |          |             | No recovery  | 8.0                |                          |
| 0         |             | SB-10-11.5 |        | 10.0       | ML       |             | Clayey SILT with Sand (ML); dark yellowish brown (10YR 4/6); 30% clay, 60% silt, 10% sand. | 10.0               |                          |
|           |             |            |        | 12.0       |          |             | No recovery  | 12.0               |                          |
| 0         |             | SB-10-15.5 |        | 14.5       | ML       |             | Clayey SILT with Sand (ML); mottled gray/brown; 35% clay, 65% silt, 5% sand.               | 14.5               |                          |
|           |             |            |        | 16.0       |          |             | No recovery  | 16.0               |                          |
|           |             |            |        | 17.0       | ML       |             | Clayey SILT with Sand (ML); mottled gray/brown.  | 17.0               |                          |
|           |             |            |        | 18.5       |          |             |  | 18.5               |                          |
|           |             |            |        | 20.0       | SM       |             | Silty SAND with Gravel (SM); gray/greenish gray; 20% silt, 75% sand, 5% gravel.            | 20.0               |                          |
|           |             |            |        | 22.0       |          |             | No recovery  | 22.0               |                          |
|           |             |            |        | 25         |          |             |  |                    | Bottom of Boring @ 22 ft |
|           |             |            |        | 30         |          |             |  |                    |                          |
|           |             |            |        | 35         |          |             |  |                    |                          |

WELL LOG (PID) L:\SONOMA-1\SHE0A29F3-1\GINTS\230 W MAC.GPJ DEFAULT.GDT 4/25/08



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, California 95476  
 Telephone: 707-935-4850  
 Fax: 707-935-6649

# BORING/WELL LOG

|                 |                                    |                                    |                     |
|-----------------|------------------------------------|------------------------------------|---------------------|
| CLIENT NAME     | Shell Oil Products US              | BORING/WELL NAME                   | SB-11               |
| JOB/SITE NAME   | Shell-branded Service Station      | DRILLING STARTED                   | 01-Feb-08           |
| LOCATION        | 230 W. MacArthur Blvd, Oakland, CA | DRILLING COMPLETED                 | 01-Feb-08           |
| PROJECT NUMBER  | 240902-007                         | WELL DEVELOPMENT DATE (YIELD)      | NA                  |
| DRILLER         | Gregg Drilling                     | GROUND SURFACE ELEVATION           | NA                  |
| DRILLING METHOD | Hydraulic push                     | TOP OF CASING ELEVATION            | NA                  |
| BORING DIAMETER | 2.5"                               | SCREENED INTERVAL                  | NA                  |
| LOGGED BY       | P. Schaefer CEG 1940               | DEPTH TO WATER (First Encountered) | 20.0 ft (01-Feb-08) |
| REVIEWED BY     | P. Schaefer CEG 1940               | DEPTH TO WATER (Static)            | NA                  |
| REMARKS         | Airknife to 5 fbg                  |                                    |                     |

| PID (ppm) | BLOW COUNTS | SAMPLE ID  | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | SOIL DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM |
|-----------|-------------|------------|--------|-------------|----------|-------------|--|---------------------|--------------|
|           |             |            |        | 0.8         | CONCRETE |             | CONCRETE   | 0.8                 |              |
|           |             |            |        | 1.0         | GP       |             | GRAVEL (GP)  | 1.0                 |              |
|           |             |            |        | 2.0         | CL       |             | Silty CLAY (CL)  | 2.0                 |              |
|           |             |            |        | 3.0         | GP       |             | GRAVEL (GP)  | 3.0                 |              |
|           |             |            |        | 4.0         | CL       |             | Silty CLAY (CL)  | 4.0                 |              |
|           |             |            |        | 5.0         | GP       |             | GRAVEL with Sand (GP)  | 5.0                 |              |
|           |             |            |        | 5.0 - 7.0   |          |             | No recovery  |                     |              |
| 0         |             | SB-11-7.5  |        | 7.0         | SP       |             | Gravelly SAND (SP); brown/reddish brown/greenish gray; 60% sand, 40% gravel.                               | 7.0                 |              |
| 0         |             | SB-11-11.5 |        | 10.0        | ML       |             | Clayey SILT with Sand (ML); light yellowish brown (2.5Y 6/4); 25% clay, 65% silt, 10% sand.                | 10.0                |              |
|           |             |            |        | 13.0 - 14.0 |          |             | No recovery  |                     |              |
| 0         |             | SB-15.5    |        | 14.0        | ML       |             | Clayey SILT with Sand (ML); light yellowish brown (2.5Y 6/4); 25% clay, 85% silt, 10% sand; carbon specks. | 14.0                |              |
|           |             |            |        | 15.5        | SM       |             | Silty SAND (SM); dark yellowish brown (10YR 4/6); 40% silt, 60% sand.                                      | 15.5                |              |
|           |             |            |        | 16.0        | ML       |             | Clayey SILT with Sand (ML); light yellowish brown (2.5Y 6/4)   | 16.0                |              |
|           |             |            |        | 18.0        | SP       |             | SAND (SP); dark yellowish brown (10YR 4/6); 100% sand.   | 18.0                |              |
|           |             |            |        | 19.0        | CL       |             | Silty Clay (CL); dark yellowish brown (10YR 4/4); 60% clay, 40% silt.                                      | 19.0                |              |
|           |             |            |        | 20.0        | SM       |             | Silty SAND (SM); dark yellowish brown (10YR 4/6); 20% silt, 80% sand.                                      | 20.0                |              |
|           |             |            |        | 22.5        | CL       |             | Silty Clay (CL); dark yellowish brown; 60% clay, 40% silt.   | 22.5                |              |
|           |             |            |        | 24.0        |          |             |  | 24.0                |              |
|           |             |            |        | 25          |          |             |  |                     |              |
|           |             |            |        | 30          |          |             |  |                     |              |
|           |             |            |        | 35          |          |             |  |                     |              |

WELL LOG (PID) E:\SONOMA-1\SHEIOA28F3-1\GINT5230 W.MAC.GPJ DEFAULT.GDT 4/25/08

Bottom of Boring @ 24 ft



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, California 95476  
 Telephone: 707-935-4850  
 Fax: 707-935-6649

# BORING/WELL LOG

|                 |   |                                    |                     |
|-----------------|---|------------------------------------|---------------------|
| CLIENT NAME     | Shell Oil Products US                         | BORING/WELL NAME                   | SB-12               |
| JOB/SITE NAME   | Shell-branded Service Station                 | DRILLING STARTED                   | 01-Feb-08           |
| LOCATION        | 230 W. MacArthur Blvd, Oakland, CA            | DRILLING COMPLETED                 | 01-Feb-08           |
| PROJECT NUMBER  | 240902-007                                    | WELL DEVELOPMENT DATE (YIELD)      | NA                  |
| DRILLER         | Gregg Drilling                                | GROUND SURFACE ELEVATION           | NA                  |
| DRILLING METHOD | Hydraulic push                                | TOP OF CASING ELEVATION            | NA                  |
| BORING DIAMETER | 2.5"  | SCREENED INTERVAL                  | NA                  |
| LOGGED BY       | P. Schaefer CEG 1940                          | DEPTH TO WATER (First Encountered) | 21.0 ft (01-Feb-08) |
| REVIEWED BY     | P. Schaefer CEG 1940                          | DEPTH TO WATER (Static)            | NA                  |
| REMARKS         | Airknife to 2 fbg, then waterknife to 6.0 fbg |                                    |                     |

| PID (ppm) | BLOW COUNTS | SAMPLE ID  | EXTENT | DEPTH (fbg) | U.S.C.S. | GRAPHIC LOG | SOIL DESCRIPTION   | CONTACT DEPTH (fbg) | WELL DIAGRAM |
|-----------|-------------|------------|--------|-------------|----------|-------------|--|---------------------|--------------|
|           |             |            |        | 0.8         | ASPHALT  |             | ASPHALT  | 0.8                 |              |
|           |             |            |        | 2.0         | CL       |             | Silty Clay (CL)  | 2.0                 |              |
|           |             |            |        | 2.0 - 6.0   |          |             | No recovery  |                     |              |
|           |             |            |        | 6.0         | CL       |             | Silty Clay (CL); 60% clay, 40% silt.                                   | 6.0                 |              |
| 0         |             | SB-12-7.5  |        | 7.0         | ML       |             | Clayey SILT with Sand (ML); dark brown (10YR 3/3); 15% clay, 85% silt. | 7.0                 |              |
|           |             |            |        | 8.5         | GP       |             | GRAVEL with Sand (GP)  | 8.5                 |              |
|           |             |            |        | 9.0         | ML       |             | Clayey SILT with Sand (ML); dark brown (10YR 3/3); 15% clay, 85% silt. | 9.0                 |              |
| 0         |             | SB-12-11   |        | 10.0        | ML       |             |  |                     |              |
|           |             |            |        | 13.0        | SP       |             | SAND with Gravel (SP); dark brown (10YR 3/3); 80% sand, 20% gravel.    | 13.0                |              |
|           |             |            |        | 13.5        | CL       |             | Silty Clay (CL); greenish gray (10Y 5/1); 55% clay, 45% silt.          | 13.5                |              |
| 0         |             | SB-12-16.5 |        | 16.0        |          |             | No recovery  |                     |              |
|           |             |            |        | 16.5        | SP       |             | Silty SAND with Gravel (SP); brown (10YR 4/3); 30% silt, 70% sand.     | 16.5                |              |
|           |             |            |        | 17.5        | ML       |             | SILT (ML); brown (10YR 5/3); 100% silt.                                | 17.5                |              |
|           |             |            |        | 19.0        | GP       |             | GRAVEL with Sand (GP); mottled gray/brown; 40% sand, 60% gravel.       | 19.0                |              |
|           |             |            |        | 19.5        | CL       |             | Silty Clay (CL); 40% clay, 60% silt.                                   | 19.5                |              |
|           |             |            |        | 20.5        | GP       |             | GRAVEL with Sand (GP); brown (10YR 5/3); 40% sand, 60% gravel.         | 20.5                |              |
|           |             |            |        | 21.0        | SP       |             | SAND with Silt (SP); reddish brown (5YR 5/3); 5% silt, 95% sand.       | 21.0                |              |
|           |             |            |        | 23.0        | ML       |             | SILT (ML); dark brown (10YR 3/3); 100% silt.                           | 23.0                |              |
|           |             |            |        | 24.0        |          |             |  | 24.0                |              |
|           |             |            |        | 25          |          |             |  |                     |              |
|           |             |            |        | 30          |          |             |  |                     |              |
|           |             |            |        | 35          |          |             |  |                     |              |

WELL LOG (PID) \ISONOMA-1.SHEIDA29F3-1GINT5230 W.MAC.GPJ DEFAULT.GDT 4/25/08

Bottom of Boring @ 24 ft