

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY  
ALEX BRISCOE, Director



November 16, 2012

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

Donald Rogers  
Brandywine Realty Trust  
2101 Webster Street, Suite 1600  
Oakland, CA 94612

Subject: Fuel Leak Case No. RO0002984 and GeoTracker Global ID T10000000422, Center Twenty-one Franklin Tower, 2100-2150 Franklin Street, Oakland, CA 94612

Dear Mr. Rogers:

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.

**SITE INVESTIGATION AND CLEANUP SUMMARY**

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

- Residual hydrocarbons in soil at concentrations of 7,300 mg/kg TPH-d and 5,700 mg/kg TPH-mo may remain at the site. Confirmation soil samples were not collected following excavation activities. Actual residual concentrations are unknown.
- Residual hydrocarbons in groundwater at concentrations of 230 µg/L TPH-g, 64,000 µg/L TPH-d, 57,000 µg/L TPH-mo, and 96,000 µg/L TPH-bo, may remain on-site. Confirmation groundwater samples were not collected following excavation activities. Actual residual concentrations are unknown.
- Dissolved phase Bunker C plume is present at 25 to 60 feet bgs and extends approximately 1,000 feet south, southeast direction from the site.

If you have any questions, please call Paresh Khatri at (510) 777-2478. 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 Certificate  
2. Case Closure Summary

cc:

Ms. Cherie McCaulou (w/enc)  
SF- Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
(Sent via E-mail to:  
[CMccaulou@waterboards.ca.gov](mailto:CMccaulou@waterboards.ca.gov))

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

Paresh Khatri (w/orig enc), D. Drogos (w/enc), T. Le-Khan (w/enc)





**REMEDIAL ACTION COMPLETION CERTIFICATION**

November 16, 2012

Donald Rogers  
Brandywine Realty Trust  
2101 Webster Street, Suite 1600  
Oakland, CA 94612

Subject: Fuel Leak Case No. RO0002984 and GeoTracker Global ID T10000000422, Center Twenty-one Franklin Tower, 2100-2150 Franklin Street, Oakland, CA 94612

Dear Mr. Rogers:

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.

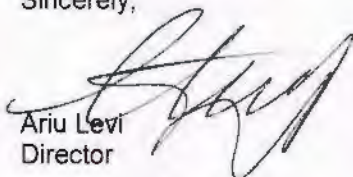
Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance 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: March 5, 2012

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 777-2478
Responsible Staff Person: Paresh Khatri	Title: Sr. Hazardous Materials Specialist

**II. CASE INFORMATION**

Site Facility Name: Center Twenty-One Franklin Tower		
Site Facility Address: 2100-2150 Franklin Street, Oakland, California 94612		
RB Case No.: ---	StID No.: ---	LOP Case No.: RO0002984
URF Filing Date: 5/25/2006	Global ID No.: T10000000422	APN: 8-717-1
Responsible Parties	Addresses	Phone Numbers
CIM Group, LP Brandywine Realty Trust c/o Donald Rogers	2101 Webster Street, Suite 1600 Oakland, CA 94612	(510) 465-2101
---	---	---

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	1 x 1,300-gallon	Fuel Oil (Bunker C)	Removed	5/23/2006
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
Piping			Removed	5/23/2006

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

Cause and Type of Release: Holes were observed on both ends of the UST measuring approximately ¼-inch in diameter		
Site characterization complete? Yes	Date Approved By Oversight Agency: ---	
Monitoring wells installed? Yes	Number: 2	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 3.89 ft bgs	Lowest Depth: 9.33 ft bgs	Flow Direction: south to southeast
Most Sensitive Current Use: Potential drinking water source.		



Summary of Production Wells in Vicinity: A ¼ mile well survey was performed for the site. A total of eight water supply wells were identified within a quarter mile of the site. One well in the study area located at the southeast corner of 20<sup>th</sup> Street and Broadway is located at the southwestern edge of the shallow groundwater heating oil plume (see Figure 7). Although the 153 ft well denoted as "other" is reported as inactive and does not appear to be a receptor at this time, determination of whether the well still exists must be made including notification to the property owner.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain Groundwater Basin
Is surface water affected? No	Nearest SW Name: Lake Merritt, located approx 1,000 east of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health & Oakland Fire Prevention Bureau

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	One 1,300-gallon	Disposal, Erickson Facility, Richmond, CA	5/23/2006
Piping	---	---	---
Free Product	---	---	---
Soil	14.67 tons	Contra Costa Sanitary Landfill, Inc., Richmond, CA	7/27/2006
Groundwater	Not Reported	Dewatering from 5 well during building construction. Disposal Destination not reported. (Work performed under Oakland Fire Dept. oversight).	---



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

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After <sup>7</sup>	Before	After
TPH (Gas)	300 (T1-0.0, 5/23/2006)	300 (T1-0.0, 5/23/2006)	230 (B33W, 7/23/2008)	230 (B33W, 7/23/2008)
TPH (Diesel)	7,300 (T1-0.0, 5/23/2006)	7,300 (T1-0.0, 5/23/2006)	64,000 <sup>6</sup> (B1Water, 5/23/2006)	64,000 <sup>6</sup> (B1Water, 5/23/2006)
TPH (Motor Oil)	5,700 (T1-0.0, 5/23/2006)	5,700 (T1-0.0, 5/23/2006)	57,000 <sup>6</sup> (B1Water, 5/23/2006)	57,000 <sup>6</sup> (B1Water, 5/23/2006)
TPH (Bunker Oil)	NA	NA	96,000 <sup>6</sup> (B1Water, 5/23/2006)	96,000 <sup>6</sup> (B1Water, 5/23/2006)
Benzene	<0.5 (T1-0.0, 5/23/2006)	<0.5 (T1-0.0, 5/23/2006)	3 (B33W, 7/23/2008)	3 (B33W, 7/23/2008)
Toluene	<0.5 (T1-0.0, 5/23/2006)	<0.5 (T1-0.0, 5/23/2006)	21 (B33W, 7/23/2008)	21 (B33W, 7/23/2008)
Ethylbenzene	<0.5 (T1-0.0, 5/23/2006)	<0.5 (T1-0.0, 5/23/2006)	9 (B33W, 7/23/2008)	9 (B33W, 7/23/2008)
Xylenes	<0.5 (T1-0.0, 5/23/2006)	<0.5 (T1-0.0, 5/23/2006)	51 (B33W, 7/23/2008)	51 (B33W, 7/23/2008)
MTBE	<5.0 <sup>4</sup> (GP1, 11/26/2003)	<5.0 <sup>3</sup> (GP1, 11/26/2003)	<5.0 <sup>2</sup>	<0.5 <sup>1</sup>
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	NA <sup>5</sup>	NA <sup>5</sup>	NA <sup>5</sup>	NA <sup>5</sup>
Other 8240/8260	NA	NA	NA	<2.0

<sup>1</sup> <0.5 µg/L MTBE, <2.0 µg/L TBA, <0.5 µg/L DIPE, <0.5 µg/L ETBE, <0.5 µg/L TAME, <0.5 µg/L EDB, and <0.5 µg/L 1,2-DCA.

<sup>2</sup> <5.0 µg/L MTBE; TBA, DIPE, ETBE, TAME, EDB, and 1,2-DCA not analyzed.

<sup>3</sup> <5.0 mg/kg MTBE; TBA, DIPE, ETBE, TAME, EDB, 1,2-DCA not analyzed.

<sup>4</sup> <5.0 mg/kg MTBE; TBA, DIPE, ETBE, TAME, EDB, 1,2-DCA not analyzed.

<sup>5</sup> Metals analyses not conducted. Tank removal and subsequent subsurface investigation were conducted under Oakland Fire oversight.

<sup>6</sup> Grab groundwater samples were collected prior to soil excavation from underneath the former UST. No post excavation groundwater sampling was conducted in the vicinity. Tank removal and subsequent subsurface investigation activities were conducted under Oakland Fire oversight.

<sup>7</sup> Soil was excavated from underneath the former UST. However, confirmation soil samples were not collected. Tank removal and subsequent subsurface investigation activities were conducted under Oakland Fire oversight.

NA - Not Analyzed

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

The Site is located at 2100-2150 Franklin Street in Oakland, California (see **Figure 1**). The Site is located in a mostly commercial area approximately 1,000 feet west of Lake Merritt in Oakland. All site investigation activities were conducted under the oversight of Oakland Fire Prevention Bureau during the construction of the high rise building. ACEH accepted oversight of the case on July 21, 2008 by which time the construction of the high rise office building was complete.

In the first half of 2006, the subject site was excavated to a depth of approximately 12 feet below the Franklin Street sidewalk for construction of a high-rise office building. During excavation at the site, the top of a heating oil UST was discovered on May 12, 2006 at a depth of approximately 8 feet below the Franklin Street sidewalk (see **Figure 2**). Based on an inspection of the UST at the time of discovery, it appears that the UST had been previously filled with concrete. The UST was measured as approximately four feet, four inches in diameter and approximately 12 feet in length. The UST was removed from the UST pit and demolished and stored on site on May 23, 2006. All UST removal and demolition activities were performed following notification to, permitting with, and inspection of the UST by the City of Oakland Fire Prevention Bureau.

At the time of UST removal, two soil samples (T1-0.0 and T2-0.0) were collected from directly beneath the UST following excavation of approximately a one foot thick layer of loose, oily soil. The depth of collection for these two samples was equivalent to a depth of approximately 13 feet below the adjacent Franklin Street sidewalk. Sample T1 was collected at the north end of the UST, and sample T2 was collected at the south end of the UST. Two additional



soil samples (T1-2.0 and T2-2.0), were collected at a depth of two feet below the first two samples, which was equivalent to a depth of approximately 15 feet below the adjacent Franklin Street sidewalk. In addition, one groundwater grab sample was collected from borehole B1 at a depth of five feet beneath the bottom of the UST (approximately 17 feet below the adjacent Franklin Street sidewalk). Petroleum sheen was observed on the water collected from the borehole. Borehole B1 was hand-augered directly beneath the UST. The groundwater grab sample from borehole B1 (designated as B1-Water) did not detect MTBE or BTEX, however, TPH-d, TPH-mo, and TPH-bo were detected at concentrations of 64,000, 57,000, and 96,000 micrograms per liter (ug/L), respectively. Sampling locations are illustrated on **Figure 3** and analytical results are summarized on **Table 1**. It is noteworthy that the laboratory identified the TPH-d results as fuel oil-range compounds. The UST and concrete that was inside the UST were removed from the site on May 31, 2006.

Borehole B2 was hand-augered near the UST pit to first encountered groundwater, which was encountered at a depth similar to the depth at which groundwater was encountered in borehole B1 (see **Figure 3**). No petroleum sheen was observed on the water in borehole B2. According to RGA, the subsurface materials encountered in boreholes B1 and B2 consisted of interlayered silty clay, fine-grained sand, silt, and clay.

At the time of UST removal, the entire site had been excavated to a depth of approximately 10 feet below the Franklin Street sidewalk. After the UST was demolished, soil at the site was removed to a depth of approximately 12 feet below the Franklin Street sidewalk. This depth was approximately the same depth as the depth of the bottom of the UST.

As part of the site construction, in July 2006 a grade beam was partially installed at the base of the west wall of the mass excavation, adjacent to Franklin Street. The grade beam trench measured approximately four feet wide and three feet deep. Soil removed from below the former UST and for a distance of approximately 10 feet from each end of the former UST in the grade beam trench was stockpiled on plastic and subsequently disposed of at the Richmond landfill. However, confirmation soil samples do not appear to have been collected.

As part of the construction activities at the site, a total of five dewatering wells were installed at the south end of the site in June, 2006. According to RGA, the pump intakes for the dewatering wells were set at a depth of approximately 15 feet below the bottom of the mass excavation (approximately 27 feet below the Franklin Street sidewalk). Groundwater at the site was encountered during UST removal at a depth of approximately five feet below the bottom of the UST prior to site dewatering.

At the time of initial subsurface investigation the groundwater flow direction at the site was unknown. Although Lake Merritt is located to the east and southeast of the site, review of the topographic contours illustrated in **Figure 4** suggested that the groundwater flow direction at the site could be to the west or southwest. Based on the site vicinity topography, offsite boreholes were proposed in the presumed down-gradient direction to the west and southwest of the subject site.

Borings B7 through B12 and offsite borings B13 through B22 were installed between June 5, 2006 and March 20, 2007. Excavation of petroleum-impacted soil was performed on August 11, 2006. Excavation of petroleum-impacted soil from the immediate vicinity of the former UST and hand augering borings C1 through C3 was performed in accordance with RGA's Soil Excavation Work Plan dated August 8, 2006 addressed to and conducted under the oversight of the City of Oakland Fire Department. Groundwater monitoring well installation for onsite wells MW1 and MW2 to a depth of 13.0 feet below the bottom of the mass excavation was conducted on August 15, 2006. Well installation was performed in accordance with RGA's Well Installation Work Plan dated August 14, 2006, also conducted under the oversight of the City of Oakland Fire Department. Based on contaminant concentrations detected in offsite drilling locations B13, B16 and B17 and telephone conversations between RGA personnel and Inspector Jesse Kupers of the City of Oakland Fire Department, offsite drilling locations B14 and B15 were moved from the originally proposed locations identified in the work plan and drilling location B18 was added to the scope of work. Additional offsite boreholes B19 through B22 were drilled to delineate the extent of groundwater contamination down-gradient of the site following discussions with Inspector Kupers. Off-site boring installation included logging of soil conductivity logs to a depth of approximately 60 feet and collection of depth-discrete groundwater samples below first encountered water using a Hydropunch for vertical delineation of the extent of petroleum in groundwater. The groundwater sample results associated with the investigation are summarized in **Table 2** and sampling locations are illustrated on **Figures 5 and 6**.

Additional borings were installed under the oversight of Oakland Fire to delineate the extent of the groundwater contaminant plume. On July 23, 2008 RGA personnel oversaw the drilling of boreholes B23, B25, and B26; on July 29, 2008 RGA personnel oversaw the drilling of borehole B24; on August 28, 2008 RGA personnel oversaw the drilling of boreholes B27 and B30; and on November 15, 2008 RGA personnel oversaw the drilling of boreholes B31 through B33 at locations shown on **Figures 6**. Each of the borings was hand-augered to depths ranging from 2.5 to 8.0 feet below the ground surface (bgs) using a 3.5-inch O.D. hand auger for underground utility clearance, and then drilled to depths ranging from 8.0 to 30 feet bgs. Boreholes B31 through B33 were drilled in a parking garage using a



limited access drill rig. Drilling refusal was encountered in borehole B23 at a depth of 8.0 feet bgs, and in boreholes B31, B32 and B33 at depths of 13.5, 16.0, and 14.0 feet bgs, respectively. All the borings were continuously cored using Geoprobe Macrocore barrel samplers lined with transparent PVC sleeves. The soil from the boreholes was evaluated with a Photoionization Detector (PID) equipped with a 10.6 eV bulb and calibrated with a 100 ppm isobutylene standard. The soil was also evaluated for other evidence of petroleum hydrocarbon contamination such as odors, staining, and discoloration. Elevated PID values, odors, staining, or discoloration were detected only in borehole B32, and a slight oily odor was encountered in borehole B24 between the depths of 14.0 and 20.0 feet bgs. One groundwater grab sample was collected from each borehole except for B23 where drilling refusal was encountered at a depth of 8.0 feet and no groundwater was encountered in the borehole. The groundwater grab samples were collected from boreholes B25, B27 and B30 through B33 using a temporary 1-inch diameter slotted PVC pipe and a polyethylene tube with a stainless steel check valve. In boreholes B24 and B26 the boreholes collapsed when the drilling rods were removed from the boreholes after the boreholes had been drilled to 30.0 and 25.0 feet bgs, respectively. In borehole B24 the Hydropunch was pushed to 30.0 feet bgs and the outer rod retracted to 26.0 feet bgs for groundwater sample collection. In borehole B26 the Hydropunch was pushed to 27.0 feet bgs and the outer rod retracted to 22.0 feet bgs for groundwater sample collection. Following removal of the Hydropunch rod from borehole B24 the borehole collapsed again, preventing measurement of the depth to groundwater in the borehole. Following removal of the Hydropunch rod from borehole B26, the borehole did not collapse and the measured depth to groundwater in the borehole was 17.4 feet bgs. Significantly elevated concentrations of TPH-g, TPH-d, TPH-mo, TPH-bo, and benzene were detected in a grab groundwater sample collected from B32. Boring B32 is located at 300 Lakeside Drive, a closed LOP case #RO0000911. Based on a review of the RO0000911 case file, the concentrations of contaminants detected in B32W are not consistent with residual concentrations that were left in place at the time the case closure was issued in October 1993. ACEH records indicate that residual concentrations of TPH-g and TPH-d were detected at 28mg/kg and 2.4 mg/kg, respectively, while benzene was not detected above the laboratory detection limit. All groundwater results at the time of closure did not detect TPH-g, TPH-d and BTEX above the laboratory detection limit. Therefore, detectable concentrations of TPH-g, TPH-d, and benzene do not appear to be consistent with the contaminants of concern detected at the subject site and are most likely related to past activities at 300 Lakeside Drive. Although elevated concentrations of Bunker Oil were detected at this location (boring B32) and Bunker Oil is a chemical of concern at the subject site, the results appear anomalous or skewed due to the presence of gasoline and diesel range contaminants present at 300 Lakeside Drive. Borings locations are illustrated on **Figure 6** and analytical results are summarized on **Table 2**.

Soil generated during drilling was stored in drums at the subject site pending characterization and disposal. A total of two drums of soil were removed from the subject site on November 18, 2009 as non-hazardous waste. The soil was removed by Clearwater Environmental, Inc. of Union City, California, and was transported to the Alviso Independent Oil facility in Alviso, California using non-hazardous waste manifest number 6195.

#### Post Remediation Groundwater Monitoring

Groundwater monitoring was conducted at the site following the completion of the remedial excavation in July 2006. Monitoring well sample analytical results are summarized on **Table 3** and monitoring well locations are illustrated on **Figure 5**.

#### Residual Contamination Summary

The construction of the 21-story office building involved installation and operation of dewatering well during the construction. This activity likely removed contaminated groundwater in the vicinity of the building. The investigation performed under the oversight of the Oakland Fire Department revealed that an extensive Bunker C plume exists at depths of 25 to 60 feet bgs that spans nearly 1,000 feet to the south southwest of the site. Due to the age and lack of BTEX constituents, the contaminant plume in its current state does not appear to pose an appreciable risk to human health or the environment. However, an inactive water supply well has been identified near the down-gradient to cross-gradient edge of the contaminant plume. Prior to the case closure of this site, notification to the water supply well owner will be made identifying the nearby contaminant plume and the inherent risk of drawing in contaminated water by the use of this well.



#### 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 significant risk to human health based upon current land use and conditions.		
<p>Site Management Requirements: Case closure for this fuel leak site is granted for the current commercial land use and existing building configuration use only. If a modification to the existing subsurface structure(s) or a change in land use to any residential or other conservative land use scenario is proposed 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.</p> <p>Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party (or current property owner/developer) prior to and during excavation and construction activities. This site is to be entered into the Oakland Permit Tracking System.</p>		
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: 2
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: ---		

#### V. ADDITIONAL COMMENTS, DATA, ETC.

<p>Considerations and/or Variances:</p> <ul style="list-style-type: none"> <li>Residual hydrocarbons in soil at concentrations of 7,300 mg/kg TPH-d and 5,700 mg/kg TPH-mo may remain at the site. Excavation activities were overseen by Oakland Fire Department. Confirmation soil samples were not collected following excavation activities and construction of the 21 story office towers. Actual residual concentrations are unknown.</li> <li>Residual hydrocarbons in groundwater at concentrations of 230 µg/L TPH-g, 64,000 µg/L TPH-d, 57,000 µg/L TPH-mo, and 96,000 µg/L TPH-bo, may remain on-site. Confirmation groundwater samples were not collected following excavation activities. Actual residual concentrations are unknown.</li> <li>Disposal destination, amount, and analytical results for groundwater from site dewatering was not reported.</li> <li>Dissolved phase Bunker C plume is present at 25 to 60 feet bgs and extends approximately 1,000 feet south, southeast direction from the site.</li> </ul> <p>Conclusion:</p> <p>Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significantly threat to water resources, public health and safety, and the environment under the current commercial land use as a 21-story office building based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a modification to the existing subsurface structure, or a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend closure for the site.</p>
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**VI. LOCAL AGENCY REPRESENTATIVE DATA**

Prepared by: Paresh Khatri	Title: Sr. Hazardous Materials Specialist
Signature: <i>Paresh Khatri</i>	Date: March 5, 2012
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: <i>Donna L. Drogos</i>	Date: 5/18/12

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: 5/18/2012	

**VIII. MONITORING WELL DECOMMISSIONING**

Date Requested by ACEH: 7/27/2012	Date of Well Decommissioning Report: 10/30/2012	
All Monitoring Wells Decommissioned: YES	Number Decommissioned: 2	Number Retained: 0
Reason Wells Retained: N/A		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Paresh Khatri</i>		Date: 11/15/2012

**Attachments:**

1. Site Figures 1 through 8
2. Analytical Tables 1 through 4
3. Boring Logs (48 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.



**Khatri, Paresh, Env. Health**

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**From:** Cherie MCcaulou [CMccaoulou@waterboards.ca.gov]  
**Sent:** Friday, July 20, 2012 9:51 AM  
**To:** Khatri, Paresh, Env. Health  
**Subject:** Re: FW: RO0002894; Closure Summary for Center 21 Franklin Tower (T10000000422)

Dear Paresh - Thank you for the notification of case closure for Center 21 Franklin Tower located at 2100-2150 Franklin Street in Oakland. We understand ACEH will proceed with case closure.

>>> "Khatri, Paresh, Env. Health" <[paresh.khatri@acgov.org](mailto:paresh.khatri@acgov.org)> 7/12/2012 8:46 AM >>>  
Hello Cherie,

I was wondering whether you got this closure that I sent to you a couple of months ago, as I don't think that I have received your response. I look forward to hearing from you soon.

Sincerely,

Paresh C. Khatri  
Sr. Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Phone: (510) 777-2478  
Fax: (510) 337-9335

E-mail: [Paresh.Khatri@acgov.org](mailto:Paresh.Khatri@acgov.org)

<http://www.acgov.org/aceh/index.htm>

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**From:** Khatri, Paresh, Env. Health  
**Sent:** Friday, May 18, 2012 5:54 PM  
**To:** 'Cherie MCcaulou'  
**Cc:** Drogos, Donna, Env. Health  
**Subject:** RO0002894; Closure Summary for Center 21 Franklin Tower (T10000000422)

Hello Cherie,

Attached is a closure summary for RO0002984; Center 21 Franklin Tower located at 2100-2150 Franklin Street in Oakland to comply with the RWQCB's 30-day review period. If no comments from the RWQCB are received within the 30-day review period, ACEH's will proceed with case closure.

Please contact me should you have any comments or questions regarding the subject site.

Sincerely,

Paresh C. Khatri



Sr. Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Phone: (510) 777-2478

Fax: (510) 337-9335

E-mail: [Paresh.Khatri@acgov.org](mailto:Paresh.Khatri@acgov.org)

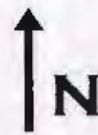
<http://www.acgov.org/aceh/index.htm>

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**FIGURE 1**  
 Site Vicinity Map  
 2100 Franklin Street  
 Oakland, California



Base Map From:  
 United States Geological Survey  
 Oakland West, Calif. Quadrangle Map  
 Photorevised 1980

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0 1000 2000  
  
 Scale In Feet



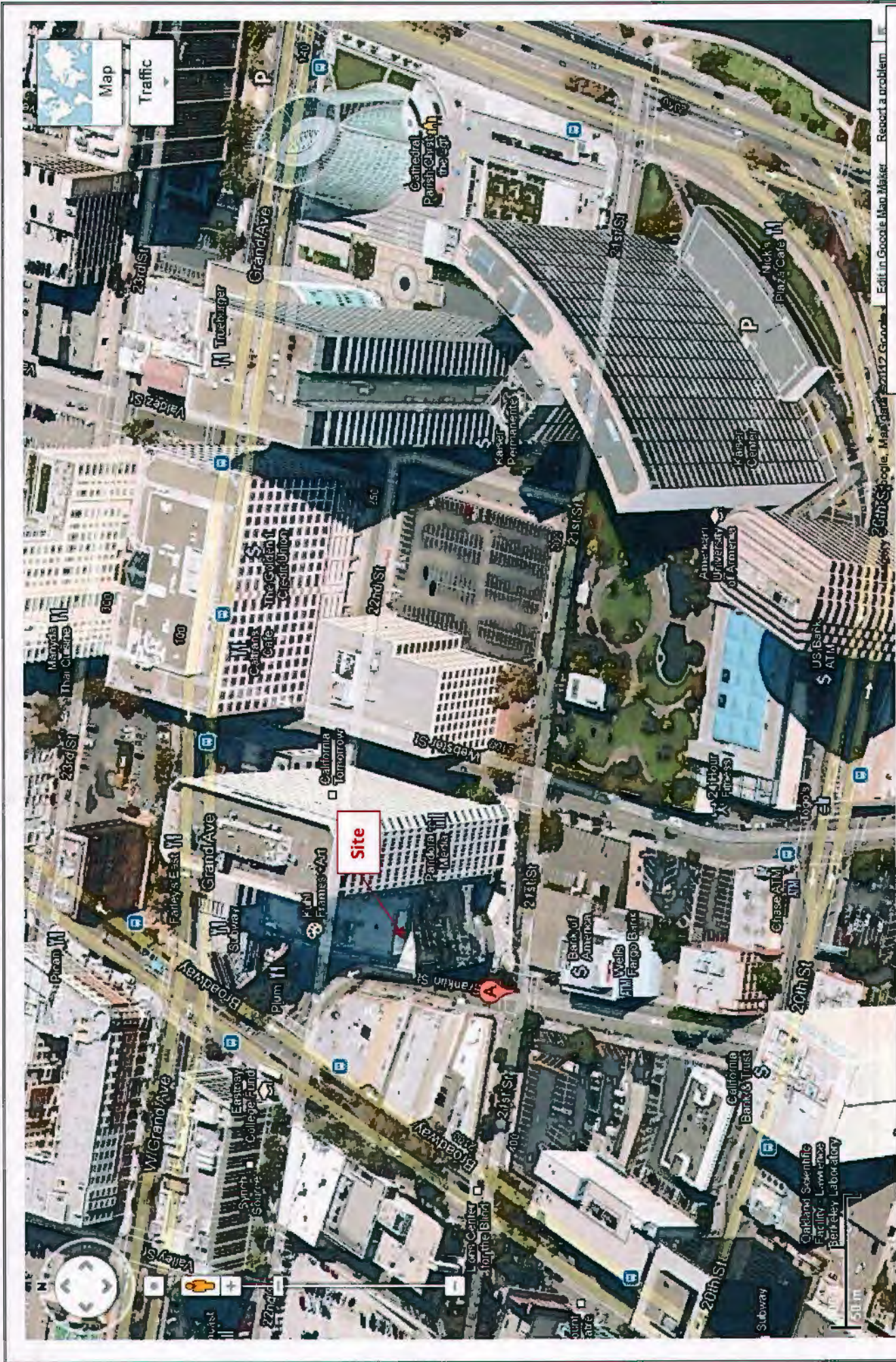
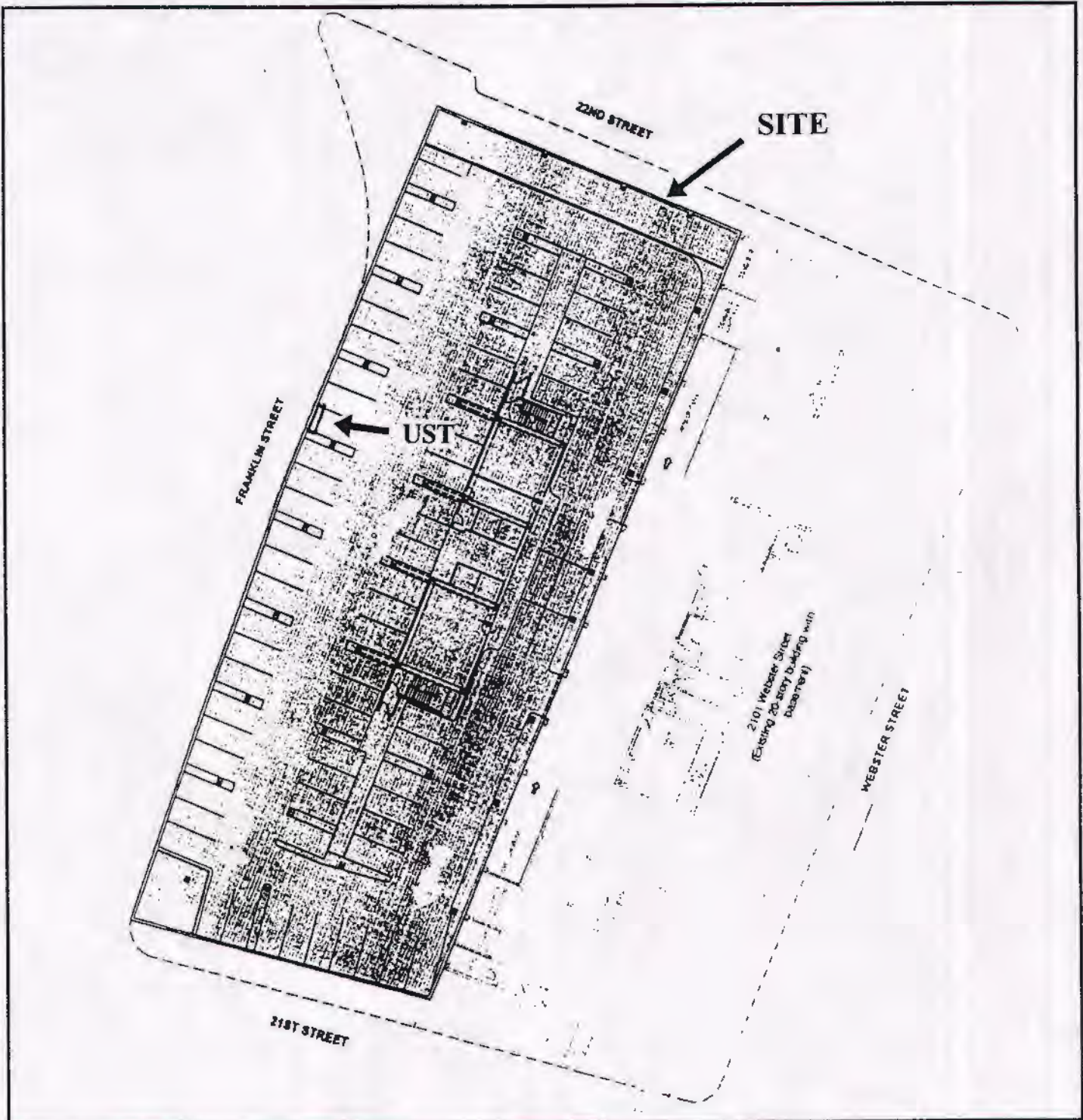


Figure 8: Site Vicinity Map

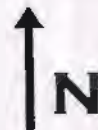
RO0002984

Center Twenty-One Franklin Tower  
2100-2150 Franklin Street, Oakland, CA





**FIGURE 2**  
**Site Plan**  
 2100 Franklin Street  
 Oakland, California



Base Map From:

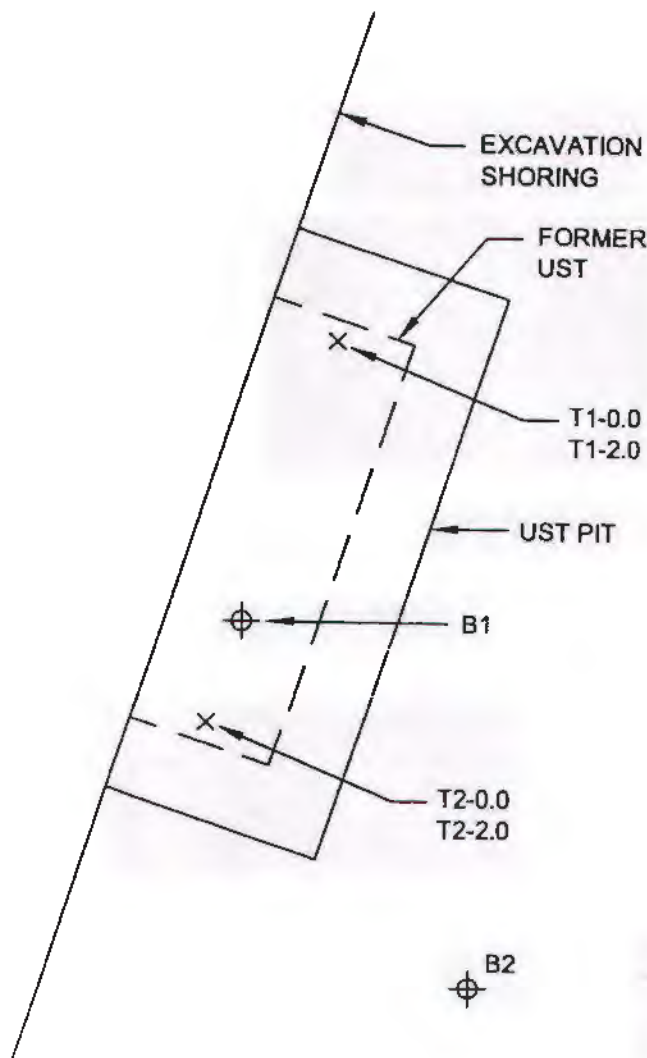
Date 06/06/05	Project No. 4149 01	Figure 2
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**Treadwell & Rollo**

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 Emeryville, CA 94608

0 30 feet  
 Approximate scale





**LEGEND**


- × SOIL SAMPLE COLLECTION LOCATION
- ⊕ BOREHOLE LOCATION

**FIGURE 3**  
**Site Plan Detail**  
 2100 Franklin Street  
 Oakland, California

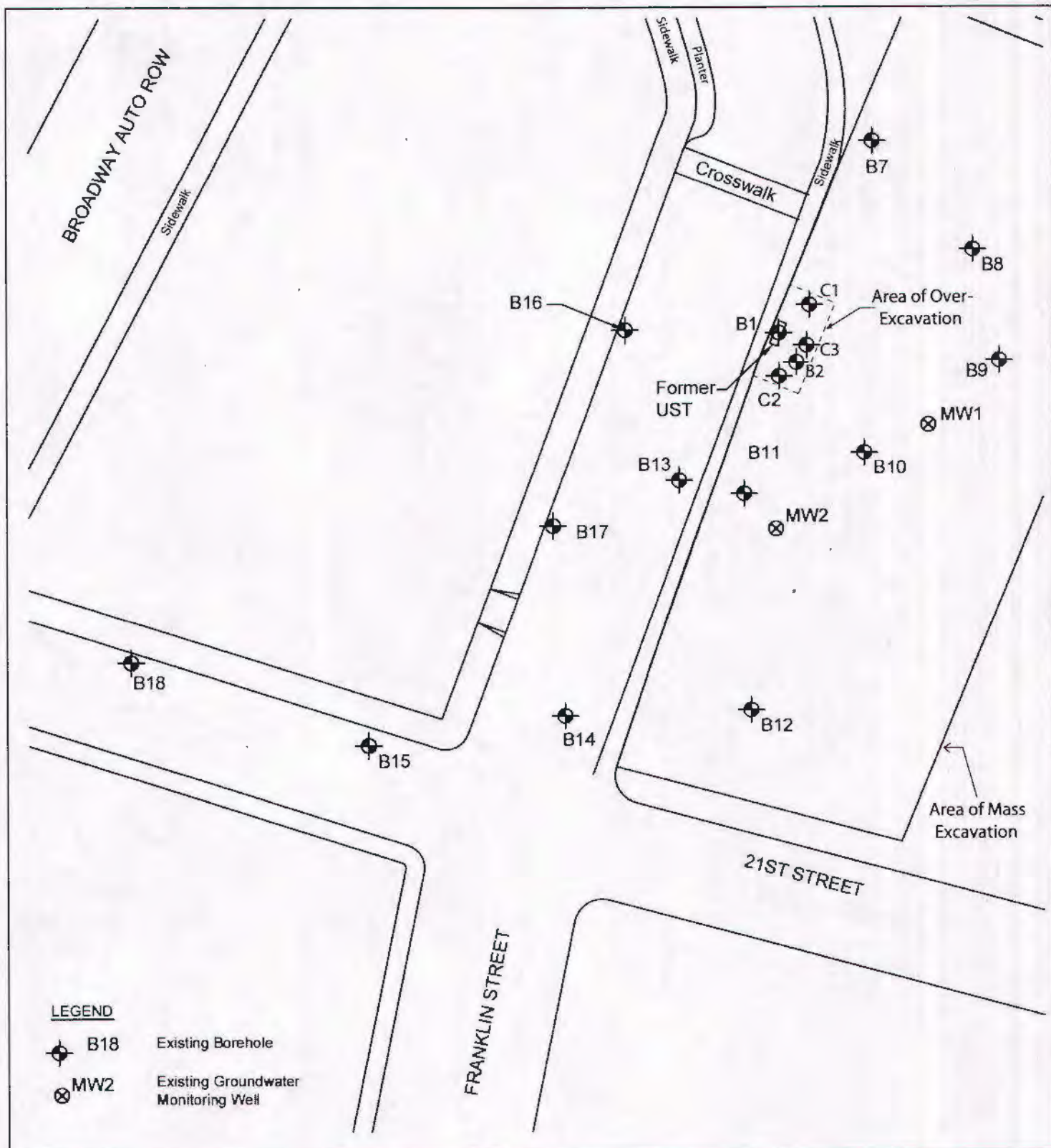


Base Map From:  
 RGA Environmental, Inc.  
 5/23/06

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 Emeryville, CA 94608

0 2.5 5  
  
 Scale In Feet

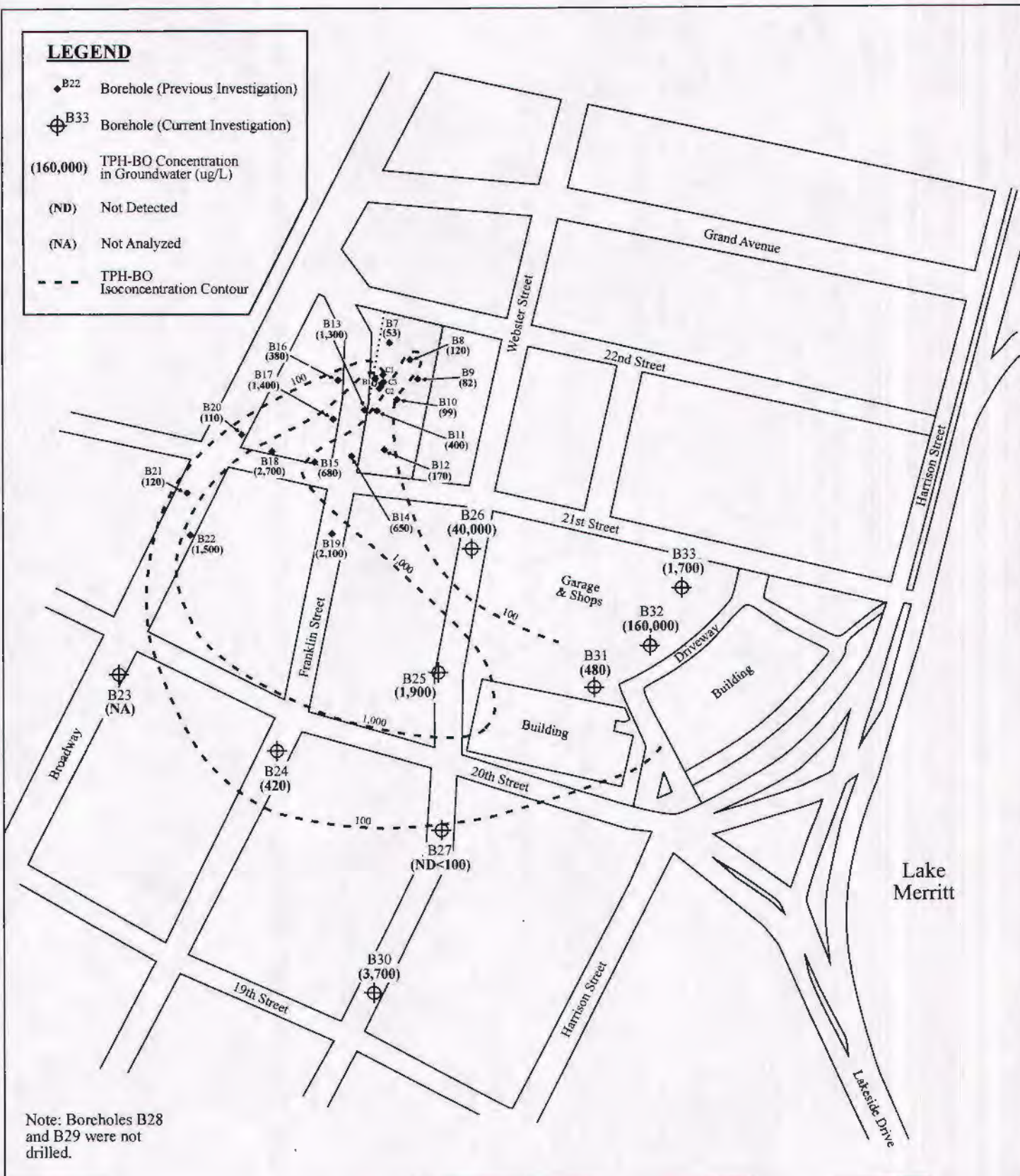






**LEGEND**

- ◆ B22 Borehole (Previous Investigation)
- ⊕ B33 Borehole (Current Investigation)
- (160,000) TPH-BO Concentration in Groundwater (ug/L)
- (ND) Not Detected
- (NA) Not Analyzed
- - - TPH-BO Isoconcentration Contour



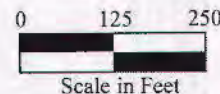
Note: Boreholes B28 and B29 were not drilled.

**Figure 6**  
 Site Vicinity Map Showing TPH-Bunker Oil in Shallow Groundwater  
 2100 Franklin Street  
 Oakland, California



Base Map from:  
 City of Oakland GIS, Parcel Info and  
 Welton Becket & Associates  
 Kaiser Center Site Plan,  
 January 1958

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 Emeryville, CA 94608





**LEGEND**



- B22  Borehole (Previous Investigation)
- B30  Borehole (Current Investigation)
- (1,500)@20' Bunker Oil Concentration in Groundwater (ug/L)
- - - Bunker Oil in Groundwater Isoconcentration Contour (ug/L)
- · - · - Ground Surface Elevation Contour (Feet)

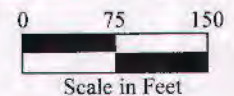


Figure 4  
 Site Vicinity Map Detail Showing TPH-Bunker Oil in Shallow Groundwater  
 2100 Franklin Street  
 Oakland, California



Base Map From:  
 OaklandMaps.net, Parcel Info and US  
 Geological Survey, Oakland West,  
 California, 7.5-minute Quadrangle,  
 Revised 1993

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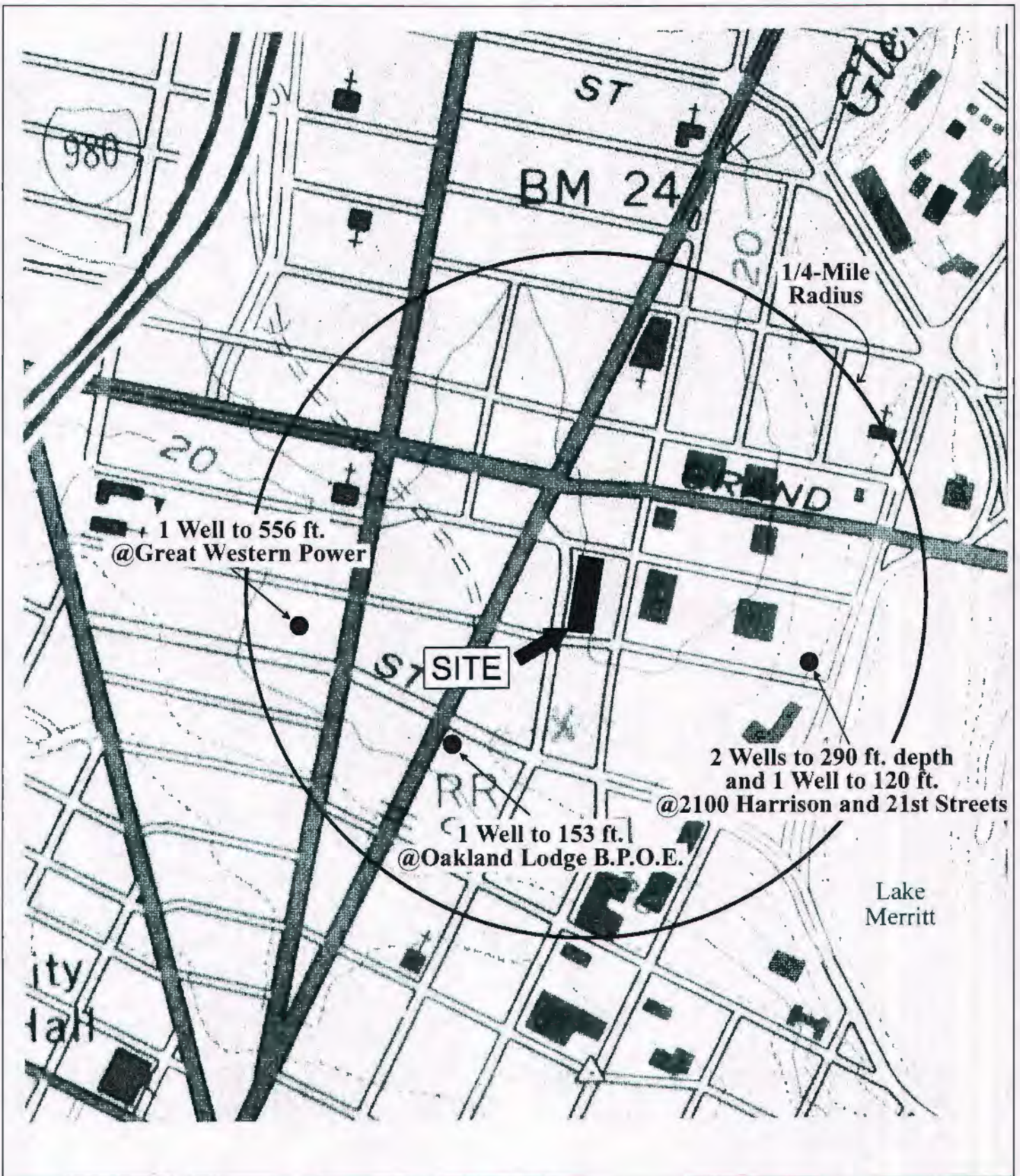


Figure 7  
 Site Vicinity Map Showing Wells Other Than Monitoring Wells in Survey Area  
 2100 Franklin Street  
 Oakland, California



Base Map From:  
 U.S. Geological Survey, Oakland West, California 7.5-minute  
 Quadrangle, Revised 1993, and Google Earth dated June 2007

Wells identified from California Department of Water  
 Resources and Alameda County Public Works Agency Files.

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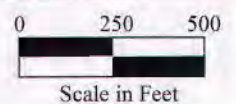




TABLE 1  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
UST PIT SOIL SAMPLES  
(Samples Collected on May 23, 2006)

Sample No.	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
T1-0.0	300,a	7300,b	5700	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50
T1-2.0	10,a	990,b	880	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
T2-0.0	9.7,a	170,b	150	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
T2-2.0	6.9,a	780,b	690	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
ESL <sub>1</sub>	100	100	1000	0.023	0.044	2.9	3.3	2.3

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

ND = Not detected.

a = Laboratory report note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory report note: fuel oil.

ESL<sub>1</sub> = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated February 2005, from Table A – Shallow Soils, Groundwater is a current or potential source of drinking water (commercial land use).

Results are in milligrams per kilogram (mg/kg), unless otherwise noted.



TABLE 2  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
HISTORIC ONSITE GROUNDWATER SAMPLES  
(Samples Collected on May 23, June 5-6, and August 11, 2006)

Sample No.	Depth (feet)**	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes
B1-Water	5.0	54,a,c	<b>64,000,d,c</b>	<b>96,000</b>	<b>57,000</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B7-Water	5.2	ND<50	ND<50	53,f	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B8-Water	5.9	54,b	78,e	<b>120</b>	ND<250	ND<5.0	ND<0.5	ND<0.5	2.4	14
B9-Water	6.3	ND<50	ND<50	82,f	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	0.70
B10-Water	7.3	ND<50	ND<50	99	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B11-Water	6.6	ND<50	<b>200,d</b>	<b>400</b>	<b>320</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B12-Water	6.2	ND<50	60	<b>170</b>	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
C1-Water	13.5	ND<50	ND<50	63,f	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
C2-Water	11.0	ND<50	<b>5,700,d</b>	<b>9,000</b>	<b>6,400</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
C3-Water	14.0	ND<50	<b>200,d</b>	<b>350</b>	<b>300</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ESL <sub>1</sub>		100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

MTBE = Methyl Tertiary-Butyl Ether

ND = Not Detected.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory Reporting Note: heavier gasoline range compounds are significant (aged gasoline).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

\*\* Depth is measured from bottom of mass excavation, which is approximately 12 feet below ground surface.

ESL<sub>1</sub> = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A - Groundwater is a current or potential source of drinking water.**Results in bold exceed their respective ESL value.**

No groundwater samples were collected from boreholes B2 through B6.

Results are in micrograms per Liter (ug/L), unless otherwise noted.



TABLE 2 (Continued)  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
HISTORIC OFFSITE GROUNDWATER SAMPLES

(Samples Collected on November 8, 14, 16, 2006, January 30, February 1, and March 19 and 20, 2007)

Sample No.	Depth (feet)	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
B13a-28W	28.0	ND<50	<b>150</b> , d	<b>1,300</b>	<b>890</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B13-41W	41.0	ND<50	ND<50	<b>150</b>	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B14-27W	27.0	ND<50	86, d,e	<b>650</b>	<b>560</b>	ND<5.0	ND<0.5	0.61	ND<0.5	ND<0.5
B14a-56W	56.0	ND<50	ND<50	<b>230</b>	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B15-30W	30.0	ND<50	68, d	<b>680</b>	<b>630</b>	ND<5.0	ND<0.5	0.90	ND<0.5	1.9
B15a-60W	60.0	ND<50	63	<b>290</b>	ND<250	ND<5.0	ND<0.5	0.65	ND<0.5	1.0
B16-25W	25.0	ND<50	ND<50	<b>380</b>	<b>250</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B17a-34W	34.0	ND<50	<b>530</b> , d	<b>1,400</b>	<b>1,000</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B17b-41W	41.0	ND<50	ND<50	<b>340</b>	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B18-25W	25.0	ND<50	<b>340</b> , d	<b>2,700</b>	<b>2,400</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B18a-59W	59.0	ND<50	69	<b>240</b>	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B19-20W	20.0	ND<50	<b>560</b> , d	<b>2,100</b>	<b>1,700</b>	ND<5.0	ND<0.5	0.80	ND<0.5	ND<0.5
B19a-52W	52.0	ND<50	<b>140</b> , d	<b>530</b>	<b>560</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B20-20W	20.0	ND<50	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B21-20W	20.0	ND<50	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	1.2
B22-20W	20.0	ND<50	<b>220</b> , d	<b>1,500</b>	<b>1,200</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ESL <sub>1</sub>		100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

MTBE = Methyl Tertiary-Butyl Ether

ND = Not detected above laboratory reporting limit.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory Reporting Note: heavier gasoline range compounds are significant (aged gasoline).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

ESL<sub>1</sub> = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A - Groundwater is a current or potential source of drinking water.

**Results in bold exceed their respective ESL value.**

No groundwater samples were collected from boreholes B2 through B6.

Results are in micrograms per Liter (ug/L), unless otherwise noted.



TABLE 2  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
CURRENT INVESTIGATION GROUNDWATER GRAB SAMPLES  
(Samples collected July 23 through November 15, 2008)

Sample No.	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
B24W	ND<50	<b>130, d,h</b>	<b>420</b>	<b>350</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B25W	ND<50	<b>1,900, g</b>	<b>1,900</b>	<b>620</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B26W	<b>190, b, c</b>	<b>37,000, c, g</b>	<b>40,000</b>	<b>15,000</b>	ND<5.0	ND<0.5	14	0.98	3.6
B27W	ND<50	ND<50	ND<100	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B30W	ND<50	<b>780, d, h</b>	<b>3,700</b>	<b>2,900</b>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ESL <sub>1</sub>	100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

MTBE = Methyl Tertiary-Butyl Ether

ND = Not Detected.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory analytical report note: heavier gasoline compounds are significant (aged gasoline?).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

g = Laboratory analytical report note: fuel oil.

h = Laboratory analytical report note: diesel range compounds are significant; no recognizable pattern.

i = Laboratory analytical report note: gasoline range compounds are significant.

ESL=Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A – Shallow Soil Screening Levels, Groundwater is a current or potential source of drinking water

**BOLD = Concentration in excess of applicable ESL.**

Results in µg/L, unless otherwise indicated.



TABLE 2 (Continued)  
 SUMMARY OF LABORATORY ANALYTICAL RESULTS  
 CURRENT INVESTIGATION GROUNDWATER GRAB SAMPLES  
 (Samples collected July 23 through November 15, 2008)

Sample No.	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
B31W	ND<50	<b>110, d,h</b>	<b>480</b>	<b>270</b>	ND<5.0	ND<0.5	4.0	0.93	7.6
B32W	<b>130,000</b>	<b>170,000, i</b>	<b>160,000</b>	ND<12,000	ND<5.0	<b>2,700</b>	<b>15,000</b>	<b>4,300</b>	<b>23,000</b>
B33W	<b>230</b>	<b>440, d,i</b>	<b>1,700</b>	<b>1,300</b>	ND<5.0	<b>3.0</b>	21	9.0	<b>51</b>
ESL <sub>1</sub>	100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

MTBE = Methyl Tertiary-Butyl Ether

ND = Not Detected.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory analytical report note: heavier gasoline compounds are significant (aged gasoline?).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

g = Laboratory analytical report note: fuel oil.

h = Laboratory analytical report note: diesel range compounds are significant; no recognizable pattern.

i = Laboratory analytical report note: gasoline range compounds are significant.

ESL=Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A - Shallow Soil Screening Levels, Groundwater is a current or potential source of drinking water

**BOLD = Concentration in excess of applicable ESL.**

Results in µg/L, unless otherwise indicated.



## Summary of Monitoring Well Groundwater Sample Analytical Results

Well ID	SampleDate	TPH-G	TPH-D	TPH-BO	MTBE	BTEX*	Other VOCs **	PAHs
MW1	5/7/2009	ND<50	ND<50	ND<100	ND<5.0	ND<0.5	All ND<0.5, except TBA ND<2.0	ND<0.5
MW2	5/7/2009	ND<50	ND<50	ND<100	ND<5.0	ND<0.5	All ND<0.5, except TBA ND<2.0	ND<0.5

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 TPH-D = Total Petroleum Hydrocarbons as Diesel.  
 TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.  
 MTBE = Methyl Tertiary Butyl Ether.  
 BTEX\* = benzene, toluene, ethylbenzene, & xylenes by EPA Method 8021B.  
 Other VOCs\*\* = Volatile Organic Compounds; including BTEX using EPA Method 8260B.  
 PAHs = Polyaromatic Hydrocarbons.



Table 4  
 Summary of Measured Depth to Groundwater in Wells

Well No	Date	Top of Casing Elevation (ft)*	Depth To Water (ft)	Water Table Elevation (ft)
MW1	5/7/2009	Not Surveyed	3.89	Not Surveyed
	2/20/2007		6.42	Not Surveyed
	8/15/2006		8.50 **	Not Surveyed
MW2	5/7/2009	Not Surveyed	4.11	Not Surveyed
	1/30/2007		9.33***	Not Surveyed
	8/15/2006		8.50 **	Not Surveyed

NOTES:

\* = Not surveyed.

\*\* = Initial water level measurement in monitoring well borehole.

\*\*\* = Prior to well development.

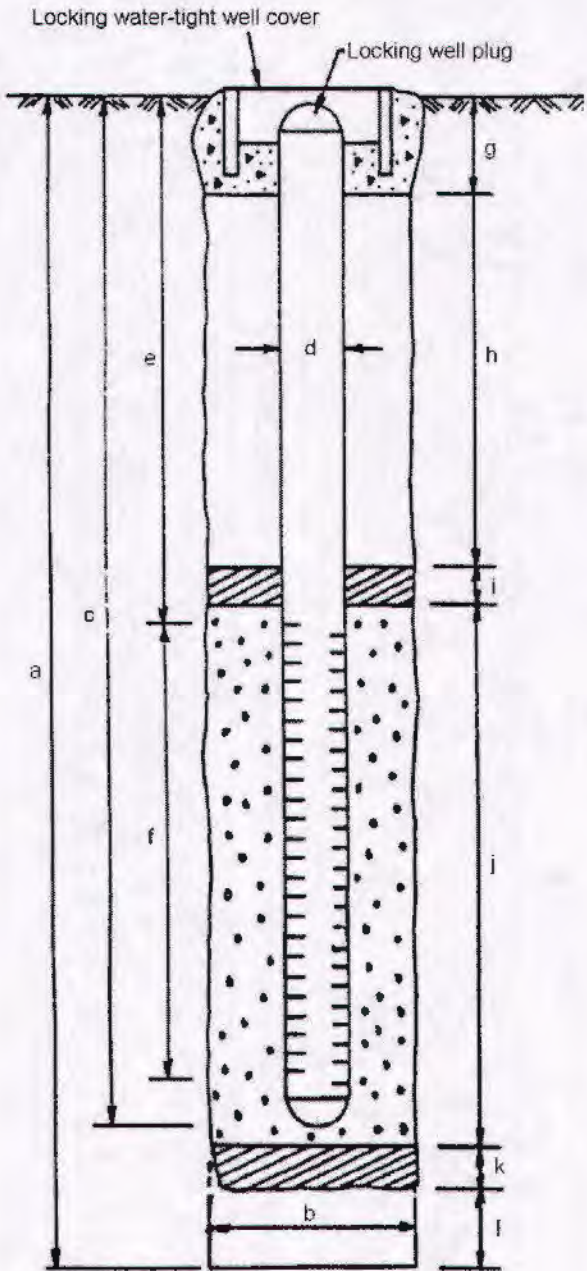




1466 - 66<sup>th</sup> Street, Emeryville, CA 94608  
 Fax: 510-834-0152 Tel: 510-658-4363  
 Email: RGAEnv@aol.com

WELL CONSTRUCTION DIAGRAM

PROJECT NUMBER 0387 BORING/WELL NO. MW1  
 PROJECT NAME 2100 Franklin Ave TOP OF CASING ELEV. N/A  
 COUNTY Alameda GROUND SURFACE ELEVATION N/A  
 WELL PERMIT NO. W2006-0718 DATUM None  
 DATE(S) CONSTRUCTED 8/15/2006



EXPLORATORY BORING

a. Total depth 13 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 13 ft.  
 d. Material Schedule 40 PVC  
 d. Diameter 2 in.  
 e. Depth to top of perforations 5 ft.  
 f. Perforated length 8 ft.  
 Perforated interval from 5 to 13 ft.  
 Perforation type Factory Slot  
 Perforation size 0.01 in.  
 g. Surface sanitary seal 1 ft.  
 Seal material Neat Cement Grout  
 h. Sanitary seal 2 ft.  
 Seal material Neat Cement Grout  
 i. Filter pack seal 1 ft.  
 Seal material Bentonite Pellet  
 j. Filter pack length 9 ft.  
 Filter pack interval from 4 to 13 ft.  
 Pack material #2/16 RMC Pacific  
Materials Sack Sand  
 k. Bottom seal 0 ft.  
 Seal material None  
 l. Sluff in bottom of borehole 0 ft.

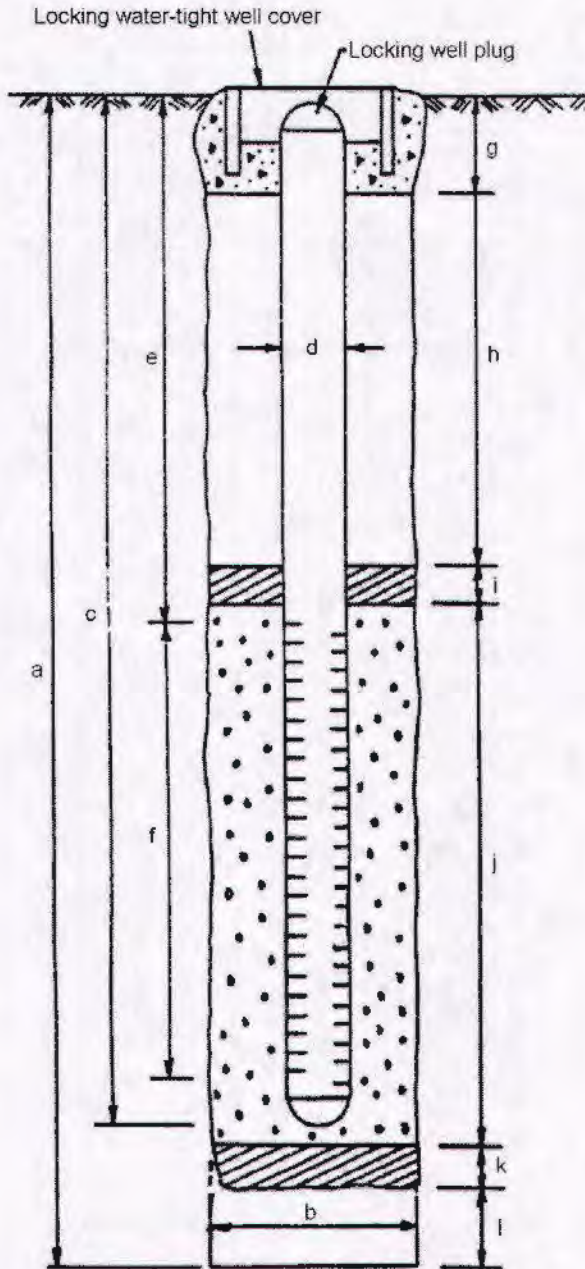




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 Email: RGAEnv@aol.com

WELL CONSTRUCTION DIAGRAM

PROJECT NUMBER 0387 BORING/WELL NO. MW2  
 PROJECT NAME 2100 Franklin Ave TOP OF CASING ELEV. N/A  
 COUNTY Alameda GROUND SURFACE ELEVATION N/A  
 WELL PERMIT NO. W2006-0719 DATUM None  
 DATE(S) CONSTRUCTED 8/15/2006



EXPLORATORY BORING

a. Total depth 13 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 13 ft.  
 d. Material Schedule 40 PVC  
 e. Diameter 2 in.  
 f. Depth to top of perforations 5 ft.  
 g. Perforated length 8 ft.  
 Perforated interval from 5 to 13 ft.  
 Perforation type Factory Slot  
 Perforation size 0.01 in.  
 h. Surface sanitary seal 1 ft.  
 Seal material Neat Cement Grout  
 i. Sanitary seal 2 ft.  
 Seal material Neat Cement Grout  
 j. Filter pack seal 1 ft.  
 Seal material Bentonite Pellet  
 k. Filter pack length 9 ft.  
 Filter pack interval from 4 to 13 ft.  
 Pack material #2/16 RMC Pacific  
Materials Sack Sand  
 l. Bottom seal 0 ft.  
 Seal material None  
 m. Sluff in bottom of borehole 0 ft.



# RG Environmental, Inc.

BORING NO.: MW1		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA		
BORING LOCATION: In mass excavation Southeast of former UST				ELEVATION AND DATUM: None		
DRILLING AGENCY: Vironex, Inc.			DRILLER: Tim		DATE & TIME STARTED: 8/15/06	
DRILLING EQUIPMENT: Hollow Stem Auger					DATE & TIME FINISHED: 8/15/06	
COMPLETION DEPTH: 13.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: DMG		
FIRST WATER DEPTH: 8.5 FEET		NO. OF SAMPLES: 0		CHECKED BY: DM GIBBS P.G. 7804		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
0 to 3.0 ft.	Brown clay (CL); moist, trace fine sand, low to medium plasticity. No Petroleum Hydrocarbon (PHC) odor.	CL	See attached Well Construction Diagram			<p>Boring drilled using an 8-inch diameter hollow stem auger.</p> <p>Log constructed from soil collected from auger flights.</p> <p>Groundwater initially encountered at 8.5 feet, 12:10, 8/15/06.</p> <p>Static groundwater measured at 6.4 feet, 14:30, 2/20/07.</p> <p><b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log in order to obtain depth below ground surface.</p> <p>Borehole terminated at 13.0 feet (25.0 feet bgs) on 8/15/06.</p> <p>Well constructed 8/15/06.</p>
3.0 to 6.0 ft.	Brown clay (CL); moist, fine sand, medium plasticity. No (PHC) odor.	CL				
6.0 to 7.5 ft.	Brown clay (CL); dry, with fine sand, low plasticity. No (PHC) odor.	CL				
7.5 to 8.5 ft.	Brown clay (CL); dry, with fine to coarse sand, low plasticity. No (PHC) odor.	CL				
8.5 to 13.0 ft.	Brown clayey sand (SC); wet, with fine to coarse sand. No (PHC) odor.	SC				



# RG Environmental, Inc.

BORING NO.: MW2		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA	
BORING LOCATION: In mass excavation Southeast of former UST				ELEVATION AND DATUM: None	
DRILLING AGENCY: Vironex, Inc.			DRILLER: Tim		DATE & TIME STARTED: 8/15/06
DRILLING EQUIPMENT: Hollow Stem Auger					DATE & TIME FINISHED: 8/15/06
COMPLETION DEPTH: 13.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: DMG	
FIRST WATER DEPTH: 8.5 FEET		NO. OF SAMPLES: 0		CHECKED BY: DM GIBBS P.G. 7804	

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 5'	PID	REMARKS
0	0 ft to 3.0 ft Brown to deep-brown clay (CL); trace fine sand, low plasticity, dry. No Petroleum Hydrocarbon (PHC) odor.	CL	See attached Well Construction Diagram			Boring drilled using an 8-inch diameter hollow stem auger.  Log constructed from soil collected from auger flights.  Groundwater initially encountered at 8.5 feet, 14:30, 8/15/06.  Static groundwater measured at 6.56 feet, 14:30, 2/20/07.  <b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log in order to obtain depth below ground surface.  Borehole terminated at 13.0 feet (25.0 feet bgs) on 8/15/06. Well constructed 8/15/06.
5	3.0 ft to 7.5 ft Brown to deep-brown clay (CL); some coarse sand, well graded, low plasticity, moist. No PHC odor.	CL				
7.5	7.5 ft to 8.5 ft Brown clayey sand (SC); well graded fine to coarse grained sand, moist. No PHC odor.	SC				
8.5	8.5 ft to 13.0 ft Brown clayey sand (SC); well graded fine to coarse grained sand, wet.	SC				
10						
15						
20						
25						
30						



# RG Environmental, Inc.

BORING NO.: C1		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA		
BORING LOCATION: At Northeast end of former UST				ELEVATION AND DATUM: None		
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: PHK		DATE & TIME STARTED:	DATE & TIME FINISHED:
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger					8/11/06	8/11/06
COMPLETION DEPTH: 13.5 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:
FIRST WATER DEPTH: 12.0 FEET		NO. OF SAMPLES: 1 Soil, 1 Water		PHK		DM GIBBS P.G. 7804
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
1	Excavated Area		No Well Constructed			Borehole hand augered using a 3.5-inch O.D. stainless steel hand auger.
2						First water encountered at 12.0 ft during drilling, 13:40, 8/11/06.
3						Water measured at 10.3 ft in borehole, 13:48, 8/11/06. One groundwater grab sample collected using a Teflon bailer and rope. No sheen or PHC odor on water sample.
4						One soil sample collected in 2-inch O.D. stainless steel sampling tube.
5	3.0 ft to 6.0 ft Brown silt (ML); minor clay, minor fine sand, orange mottling. No Petroleum Hydrocarbon (PHC) odor.		ML			Borehole terminated at 13.5 ft., 8/11/06. Borehole backfilled with neat cement grout, 8/11/06.
6	(continued on page 2)					<b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log to obtain depth below ground surface.



# RG Environmental, Inc.

BORING NO.: C1		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: At Northeast end of former UST				ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: PHK		DATE & TIME STARTED:		DATE & TIME FINISHED:
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger					8/11/06		8/11/06
COMPLETION DEPTH: 13.5 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 12.0 FEET		NO. OF SAMPLES: 1 Soil, 1 Water		PHK		DM GIBBS P.G. 7804	
DEPTH(FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	(continued from page 1)	X					
7	6.0 to 6.75 ft Brown medium sand (SP); dense, wet. No PHC odor.	SP					
8	6.75 to 8.0 ft Brown silty clay (CL); fine to coarse sand, orange and faint gray mottling, medium stiff, moist. No PHC odor.	CL					
9	8.0 ft to 10.0 ft Brown silty sand (SM); fine sand, minor clay, dense, orange mottling. No PHC odor.	SM					
10			▼    				
11	10.0 ft to 12.0 ft Brown silty sand (SM); fine sand, minor clay, gray mottling, dense. No PHC odor.	SM					
12	(continued on page 3)		▼    				



# RGA Environmental, Inc.

BORING NO.: C1		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: At Northeast end of former UST				ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: PHK		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger					8/11/06	8/11/06	
COMPLETION DEPTH: 13.5 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 12.0 FEET		NO. OF SAMPLES: 1 Soil, 1 Water		PHK		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	(continued from page 2)						
13	12.0 ft to 13.0 ft Brown sand (SP). No PHC odor.	SP					
	13.0 ft to 13.5 ft Brown sand (SP); fine to coarse sand, gravel up to 1/2" in diameter. No PHC odor.	SP					
14							
15							
16							
17							
18							



# RG Environmental, Inc.

BORING NO.: G2		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA		
BORING LOCATION: At East end of former UST			ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: PHK		DATE & TIME STARTED: 8/11/06	
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger					DATE & TIME FINISHED: 8/11/06	
COMPLETION DEPTH: 11.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: PHK		
FIRST WATER DEPTH: 10.2 FEET		NO. OF SAMPLES: 1 Soil, 1 Water		CHECKED BY: DM GIBBS P.G. 7804		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
1	Excavated Area		No Well Constructed			<p>Borehole hand augered using a 3.5-inch O.D. stainless steel hand auger.</p> <p>First water encountered at 10.2 ft during drilling, 14:28, 8/11/06.</p> <p>Water measured at 9.1 ft in borehole, 14:39, 8/11/06.</p> <p>One groundwater grab sample collected using a Teflon bailer and rope. No sheen but mild PHC odor on water sample.</p> <p>One soil sample collected in 2-inch O.D. stainless steel sampling tubes.</p> <p>Borehole terminated at 11.0 ft., 8/11/06. Borehole backfilled with neat cement grout, 8/11/06.</p> <p><b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log to obtain depth below ground surface.</p>
2						
3	3.0 ft to 4.0 ft Dark gray sandy silt (ML); minor clay, stiff, moist. Strong Petroleum Hydrocarbon (PHC) odor.	ML				
4	4.0 ft to 5.5 ft Gray fine to coarse sand (SW); dense, moist. Strong PHC odor.	SW				
5						
6	5.5 ft to 7.5 ft Brown sandy silt (ML); minor orange mottling, stiff, moist. No PHC odor.	ML				
(continued on page 2)						



# RGA Environmental, Inc.

BORING NO.: G2		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA	
BORING LOCATION: At East end of former UST			ELEVATION AND DATUM: None		
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: PHK		DATE & TIME STARTED:	DATE & TIME FINISHED:
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger				8/11/06	8/11/06
COMPLETION DEPTH: 11.0	FEET	BEDROCK DEPTH: None Encountered	LOGGED BY:		CHECKED BY:
FIRST WATER DEPTH: 10.2	FEET	NO. OF SAMPLES: 1 Soil, 1 Water	PHK		DM GIBBS P.G. 7804

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	(continued from page 1)	X				
7	5.5 ft to 7.5 ft Brown sandy silt (ML); minor orange mottling, stiff, moist. No PHC odor.	ML				
8						
9	7.5 ft to 10.0 ft Brown sandy silt (ML); trace coarse sand, minor orange mottling, stiff, moist. No PHC odor.	ML	▼			
10						
11	10.0 ft to 11.0 ft Brown sand (SM). No PHC odor.	SM	▽			
12						



BORING NO.: C3		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave. Oakland, CA			
BORING LOCATION: At Southwest End of former UST				ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: PHK		DATE & TIME STARTED: 8/11/06		DATE & TIME FINISHED: 8/11/06
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger							
COMPLETION DEPTH: 14.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: PHK		CHECKED BY: DMG	
FIRST WATER DEPTH: 12.3 FEET		NO. OF SAMPLES: 1 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
1	Excavated Area	FILL				Borehole hand augered using a 3.5-inch O.D. stainless steel hand auger.	
2						First water encountered at 12.3 ft during drilling, 12:05, 8/11/06.	
3	3.0 ft to 3.5 ft Brown silt (ML); minor clay, minor fine sand, orange mottling with black macropores 1 to 5 mm in diameter, medium stiff, moist. No Petroleum Hydrocarbon (PHC) odor.	ML				Water measured at 10.8 ft in borehole, 12:10, 8/11/06. One groundwater grab sample collected using a Teflon bailer and rope. No sheen or PHC odor on water sample.	
4	3.5 ft to 4.5 ft Gray silt (ML); minor clay, minor fine sand, orange mottling with black macropores 1 to 5 mm in diameter, medium stiff, moist. Mild PHC odor.	ML				Borehole terminated at 14.0 ft., 8/11/06. Borehole grouted with neat cement and a 4 in. surface seal of concrete 8/11/06.	
5	4.5 ft to 5.0 ft Brown silt (ML); minor clay, minor fine sand, orange mottling with black macropores 1 to 5 mm in diameter, medium stiff, moist. No PHC odor.	ML				<b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log to obtain depth below ground surface.	
	5.0 ft to 5.9 ft Brown silty fine sand (SM). No PHC odor.	SM					
6	5.9 ft to 6.0 ft Gravel 1/4" diameter (GW). No PHC odor.	GW					




# RGA Environmental, Inc.

BORING NO.: C3		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: At Southwest End of former UST				ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: PHK		DATE & TIME STARTED:		DATE & TIME FINISHED:
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger					8/11/06		8/11/06
COMPLETION DEPTH: 14.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 12.3 FEET		NO. OF SAMPLES: 0		PHK		DMG	
DEPTH(FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
7	6.0 ft to 8.0 ft Brown silty clay(CL); fine to coarse sand, gravel up to one-inch in diameter, orange and faint gray mottling, gray mottling ends at 7'8", medium stiff, moist. No PHC odor.	CL					
8							
9	8.0 ft to 11.0 ft Brown silty sand (SM); fine sand, minor clay, orange mottling, dense. No PHC odor.	SM					
10							
11	11.0 ft to 12.0 ft Brown silty sand (SM); fine sand, minor clay, light gray mottling, dense. No PHC odor.	SM	▼ 				
12							



# RGA Environmental, Inc.

BORING NO.: C3		PROJECT NO.: 0397		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: At Southwest End of former UST				ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: PHK		DATE & TIME STARTED:		DATE & TIME FINISHED:
DRILLING EQUIPMENT: 3.5-inch O.D. Stainless Steel Hand Auger					8/11/06		3/11/06
COMPLETION DEPTH: 14.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 12.3 FEET		NO. OF SAMPLES: 0		PHK		DMG	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
13	12.0 ft to 14.0 ft Brown fine sand (SP); minor silt, one-inch thick layer of fine to coarse sand at 12.0 ft, orange and light gray mottling, dense, wet. No PHC odor.	SP					
14							
15							
16							
17							
18							



# RG Environmental, Inc.

BORING NO.: B3		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA		
BORING LOCATION: Approx. 5 feet East of former UST			ELEVATION AND DATUM: None			
DRILLING AGENCY: RG Environmental, Inc.		DRILLER: Dave Gibbs/Paul King		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				7/20/06	7/20/06	
COMPLETION DEPTH: 3.5 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: None Encountered		NO. OF SAMPLES: 1 Soil		DMG	DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
1	0 ft to 1.5 ft Brown silty clay (CL); orange mottling. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered using a 3.5-inch O.D. stainless steel hand auger.  One soil sample collected in a 2-inch diameter 6-inch long stainless steel sampling tube from the bottom of the borehole.  Borehole terminated at 3.0 ft. Sample collected at 3.0 to 3.5 ft. Borehole backfilled with neat cement grout on 7/20/06.
2	1.5 ft to 2.0 ft Shiny black sand (SP). Mild PHC odor.	SP				
3	2.0 ft to 3.0 ft Gray sand (SP). Strong PHC odor.	SP				
4						<b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.
5						
6						



# RGA Environmental, Inc.

BORING NO.: B4		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA		
BORING LOCATION: Approx. 5 feet East of former UST			ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Dave Gibbs/Paul King		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				7/20/06	7/20/06	
COMPLETION DEPTH: 3.5 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: None Encountered		NO. OF SAMPLES: 1 Soil		DMG	DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
1	0 ft to 1.5 ft Brown silty clay (CL); orange mottling. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered using a 3.5-inch O.D. stainless steel hand auger.  One soil sample collected in a 2-inch diameter 6-inch long stainless steel sampling tube from the bottom of the borehole.  Borehole terminated at 3.0 ft. Sample collected at 3.0 to 3.5 ft. Borehole backfilled with neat cement grout on 7/20/06.
2	1.5 ft to 2.0 ft Shiny black sand (SP). Mild PHC odor.	SP				
3	2.0 to 3.0 ft Shiny black sand (SP). Strong PHC odor.	SP				
4						<b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.
5						
6						



# RG Environmental, Inc.

BORING NO.: B5		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA	
BORING LOCATION: Approx. 10 feet East of former UST			ELEVATION AND DATUM: None		
DRILLING AGENCY: RG Environmental, Inc.		DRILLER: Dave Gibbs/Paul King		DATE & TIME STARTED:	DATE & TIME FINISHED:
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				7/20/06	7/20/06
COMPLETION DEPTH: 3.5 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:
FIRST WATER DEPTH: None Encountered		NO. OF SAMPLES: 1 Soil		DMG	DM GIBBS P.G. 7804

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
1	0 to 3.0 ft Brown silty clay (CL) w/ fine sand; moist. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered using a 3.5-inch O.D. stainless steel hand auger.  One soil sample collected in a 2-inch diameter 6-inch long stainless steel sampling tube from the bottom of the borehole.  Borehole terminated at 3.0 ft. Sample collected at 3.0 to 3.5 ft. Borehole backfilled with neat cement grout on 7/20/06.
2						
3						
4						NOTE: Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.
5						
6						



# RGA Environmental, Inc.

BORING NO.: B6		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: Adjacent to former UST				ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Dave Gibbs/Paul King		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				8/11/06		8/11/06	
COMPLETION DEPTH: 4.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: None Encountered				NO. OF SAMPLES: 1 Soil		DMG	
				DMG		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
1	0 ft to 1.5 ft Brown silty clay (CL); orange mottling, moist. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered using a 3.5-inch O.D. stainless steel hand auger.  One soil sample collected in a 2-inch diameter 6-inch long stainless steel sampling tube from the bottom of the borehole.	
2	1.5 ft to 3.5 ft Brown sand (SP); fine grained sand, orange mottling, moist. No PHC odor.	SP				Borehole terminated at 4.0 ft. Sample collected at 4.0 to 4.5 ft. Borehole backfilled with neat cement grout on 7/20/06.	
3							
4	3.5 ft to 4.0 ft Brown and Gray silty sand (SM); fine grained sand, orange mottling with black grains in mottling. No PHC odor.	SM					
4	4.0 ft to 4.5 ft Gray silty sand (SM); no mottling. Strong PHC odor.	<del>SM</del>					
5						NOTE: Borehole initiated 1 ft. above bottom of mass excavation. Add 13.0 feet to depth as reported on log, to obtain depth below ground surface.	
6							



# RG Environmental, Inc.

BORING NO.: B7		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: Onsite, North of former UST		ELEVATION AND DATUM: None					
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Paul		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				6/5/06 8:40		6/5/06	
COMPLETION DEPTH: 5.2 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: PHK		CHECKED BY: DM GIBBS P.G. 7804	
FIRST WATER DEPTH: 5.2 FEET		NO. OF SAMPLES: 1 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
1	0.0 to 1.2 ft Brown clay (CL); fine grained sand, orange and minor black mottling, very stiff, moist. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered using 3.5-inch O.D. stainless steel hand auger.	
2	1.2 to 1.9 ft Brown silt (ML); fine grained sand, abundant orange mottling, medium stiff, moist. No PHC odor.	ML		First water encountered at 5.2 ft during drilling, 9:15 AM, 6/5/06.			
3	1.9 to 2.7 ft Brown fine grained silty sand (SM); abundant orange mottling, medium dense, moist. No PHC odor.	SM		Water measured at 4.2 ft in borehole, 9:58 AM, 6/5/06, approx. 5 min. after groundwater first encountered.			
4	2.7 to 4.0 ft Brown sandy silt (ML); abundant orange mottling, stiff, moist. No PHC odor.	ML		One groundwater grab sample collected using a Teflon bailer and rope. No sheen or PHC odor on water sample.			
5	4.0 to 5.2 ft Brown silt (ML); minor fine sand, minor orange mottling, stiff, moist. No PHC odor.	ML		Borehole terminated at 5.2 ft., 8:53, 6/5/06. Borehole backfilled with neat cement grout, 6/5/06.			
6						NOTE: Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.	



# RG Environmental, Inc.

BORING NO.: B8		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA		
BORING LOCATION: Onsite, Northeast of former UST			ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Nick		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel hand auger.				6/5/06 8:55	6/5/06	
COMPLETION DEPTH: 5.9 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 5.9 FEET		NO. OF SAMPLES: 1 Water		NRM	DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
1	0.0 to 2.0 ft Brown silty clay (CL); fine grained sand, abundant orange mottling, stiff, moist. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			<p>Borehole hand augered using 3.5-inch O.D. stainless steel hand auger.</p> <p>First water encountered at 5.9 ft during drilling, 9:15 AM, 6/5/06.</p> <p>Water measured at 5.0 ft in borehole, 9:56 AM, 6/5/06, approx. 5 min. after groundwater first encountered. One groundwater grab sample collected using a Teflon bailer and rope. No sheen or PHC odor on water sample.</p> <p>Borehole terminated at 5.9 ft., 6/5/06. Borehole backfilled with neat cement grout, 6/5/06.</p> <p><b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.</p>
2	2.0 to 2.3 ft Brown sand (SP); abundant orange mottling, medium dense, moist. No PHC odor.	SP				
3	2.3 to 3.6 ft Brown silt (ML); fine grained sand, abundant orange mottling, medium stiff, moist. No PHC odor.	ML				
4	3.6 to 4.1 ft Brown sandy silt (ML); abundant black mottling, medium stiff, moist. No PHC odor.	ML				
5	4.1 to 5.9 ft Brown silty sand (SM); medium dense, moist. No PHC odor.	SM				
6						



# RG Environmental, Inc.

BORING NO.: B9		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: Onsite, East of former UST			ELEVATION AND DATUM: None				
DRILLING AGENCY: RGA Environmental, Inc.			DRILLER: Nick		DATE & TIME STARTED:		DATE & TIME FINISHED:
DRILLING EQUIPMENT: 3.5-Inch O.D. Stainless Steel Hand Auger					6/5/06 10:45		6/5/06
COMPLETION DEPTH: 6.3 FEET			BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:
FIRST WATER DEPTH: 6.3 FEET			NO. OF SAMPLES: 1 Water		NRM		DM GIBBS P.G. 7804
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
1	0.0 to 1.5 ft Brown silty clay (CL); fine grained sand, abundant orange mottling, minor black mottling, stiff, moist. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			<p>Borehole hand augered using 3.5-inch O.D. stainless steel hand auger.</p> <p>First water encountered at 6.3 ft during drilling, 11:55 AM, 6/5/06.</p> <p>One groundwater grab sample collected using a Teflon bailer and rope. No sheen or PHC odor on water sample</p> <p>Borehole terminated at 6.3 ft., 6/5/06. Borehole backfilled with neat cement grout, 6/5/06.</p> <p><b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.</p>	
2	1.5 to 1.8 ft Brown sand (SP); Abundant orange mottling, medium dense. No PHC odor.	SP					
3	1.8 to 6.2 ft Brown sandy silt (ML); moderate abundant orange mottling, minor black mottling, reduced mottling at 5.9 ft, medium stiff, moist. No PHC odor.	ML					
4							
5							
6							

(continued on page 2)



# RGA Environmental, Inc.

BORING NO.: B9		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: Onsite, East of former UST			ELEVATION AND DATUM: None				
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Nick		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5-Inch O.D. Stainless Steel Hand Auger				6/5/06 10:45		6/5/06	
COMPLETION DEPTH: 6.3 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 6.3 FEET		NO. OF SAMPLES: 1 Water		NRM		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	(continued from page 1)						
	6.2 to 6.3 ft Brown sand with gravel (SP); medium dense, wet. No PHC odor.	SP	▽				
7							
8							
3							
4							
5							
6							



# RG Environmental, Inc.

BORING NO.: B10		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: Onsite, Southeast of former UST			ELEVATION AND DATUM: None				
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Nick		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				6/5/06 12:33		6/5/06	
COMPLETION DEPTH: 7.3 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 7.3 FEET		NO. OF SAMPLES: 1 Water		NRM		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
1	0.0 to 1.1 ft Gray/Brown sandy silt (FILL); abundant coarse sand, orange mottling, stiff, moist. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed			<p>Borehole hand augered using 3.5 inch O.D. stainless steel hand auger.</p> <p>First water encountered at 7.3 ft during drilling, 14:36, 6/5/06.</p> <p>One groundwater grab sample collected at 7.3 ft using a Teflon bailer and rope, 6/5/06. No sheen or PHC odor on water sample.</p> <p>Borehole terminated at 7.3 ft., 12/16/06. Borehole backfilled with neat cement grout, 6/5/06.</p> <p><b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.</p>	
	1.1 to 1.6 ft Brown sand with gravel (FILL) with abundant coarse sand; loose, moist. No PHC odor.	FILL					
2	1.6 to 2.7 ft Brown sand (FILL); with clay, coarse sand and gravel, orange mottling, loose, moist. No PHC odor.	FILL					
3	2.7 to 2.8 ft Brown/Gray silty sand (FILL); abundant coarse sand, orange mottling, medium dense, moist. No PHC odor.	FILL					
	2.8 ft to 4.0 ft No Recovery (FILL)	FILL					
4							
5	4.0 to 5.6 ft Sandy silt (ML); orange mottling, medium stiff, moist. No PHC odor.	ML					
6	5.6 to 6.5 ft Sandy silt (ML); black mottling, medium stiff, moist. No PHC odor.	ML					

(continued on page 2)



# RGA Environmental, Inc.

BORING NO.: B10		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA		
BORING LOCATION: Onsite, Southeast of former UST			ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Nick		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				6/5/06 12:33	6/5/06	
COMPLETION DEPTH: 7.3 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 7.3 FEET		NO. OF SAMPLES: 1 Water		NRM	DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
7	(continued from page 1) 5.6 to 6.5 ft Sandy silt (ML); black mottling, medium stiff, moist. No PHC odor.	ML				
7	6.5 to 7.3 ft Clay (CL); abundant orange and black mottling, stiff, moist. No PHC odor.	CL	▽			
8						
9						
10						
11						
12						



# RG Environmental, Inc.

BORING NO.: B11		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA		
BORING LOCATION: Onsite, South of former UST			ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Nick		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				6/5/06 14:43	6/5/06	
COMPLETION DEPTH: 6.6 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 6.6 FEET		NO. OF SAMPLES: 1 Water		NRM	DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
1	0.0 to 1.5 ft Brown gravel (FILL); loose, dry. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed			Borehole hand augered using 3.5 inch O.D. stainless steel hand auger.
2						First water encountered at 6.6 ft during drilling, 15:15, 6/5/06.
3						One groundwater grab sample collected at 6.6 ft using a Teflon bailer and rope, 6/5/06. No sheen or PHC odor on water sample.
4	2.5 to 5.1 ft Light brown silty sand (SM); orange mottling, stiff, moist. No PHC odor.	SM				Borehole terminated at 6.6 ft., 12/16/06. Borehole backfilled with neat cement grout, 6/5/06.
5						
6	5.1 to 6.0 ft Light brown silty sand (SM); black mottling, stiff, moist. No PHC odor.	SM				<b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.
(continued on page 2)						



# RGA Environmental, Inc.

BORING NO.: B11		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: Onsite, South of former UST			ELEVATION AND DATUM: None				
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Nick		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				6/5/06 14:43		6/5/06	
COMPLETION DEPTH: 6.6 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 6.6 FEET				NO. OF SAMPLES: 1 Water		NRM	DM GIBBS P.G. 7804
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	(continued from page 1) 6.0 to 6.5 ft Fine gravel (GP) 1/4-inch in diameter. No PHC odor.	GP	▽				
7							
8							
9							
10							
11							
12							



# RG Environmental, Inc.

BORING NO.: B12		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: Onsite, South of former UST			ELEVATION AND DATUM: None				
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Paul/Nick		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 inch O.D. Stainless Steel Hand Auger				6/5/06 13:11		6/5/06	
COMPLETION DEPTH: 6.2 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 6.2 FEET		NO. OF SAMPLES: 1 Water		NRM		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
1	0.0 to 1.1 ft Brown silty sand (SM); abundant coarse gravel, orange and black mottling, medium dense. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed			Borehole hand augered using 3.5 inch O.D. stainless steel hand auger.	
2						First water encountered at 6.2 ft during drilling, 13:54, 6/5/06.	
3	1.1 to 4.2 ft Brown sandy silt (ML); coarse sand, gravel, orange mottling, stiff, moist. No PHC odor.	ML				One groundwater grab sample collected at 6.2 ft using a Teflon bailer and rope, 6/5/06. No sheen or PHC odor on water sample.	
4	3.9 to 4.2 ft Brown sandy silt (ML); coarse sand, gravel, orange mottling, very stiff, moist. No PHC odor.	ML				Borehole terminated at 6.2 ft., 12/16/06.	
	4.2 to 4.8 ft Brown silt (ML); coarse sand, orange and black mottling, very stiff, moist. No PHC odor.	ML				Borehole backfilled with neat cement grout, 6/5/06.	
5	4.8 to 6.2 ft Tan silt (ML); coarse sand, orange and black mottling, very stiff, moist. No PHC odor.	ML				<b>NOTE:</b> Borehole initiated at bottom of mass excavation. Add 12.0 feet to depth as reported on log, to obtain depth below ground surface.	
6	(continued on page 2)						



# RGA Environmental, Inc.

BORING NO.: B12		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA		
BORING LOCATION: Onsite, South of former UST			ELEVATION AND DATUM: None			
DRILLING AGENCY: RGA Environmental, Inc.		DRILLER: Nick		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 3.5 Inch O.D. Stainless Steel Hand Auger				6/5/06 14:43	6/5/06	
COMPLETION DEPTH: 6.2 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 6.2 FEET		NO. OF SAMPLES: 1 Water		NRM	DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	(continued from page 2)		▽			
7						
8						
9						
10						
11						
12						



# RG Environmental, Inc.

BORING NO.: B13		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: On Franklin Street, Southwest of UST		ELEVATION AND DATUM: None					
DRILLING AGENCY: Vironex, Inc.		DRILLER: Bryan/Jeff		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				11/8/06 1:00 PM		11/8/06	
COMPLETION DEPTH: 41.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: EFO		CHECKED BY: DM GIBBS P.G. 7804	
FIRST WATER DEPTH: 27.0 FEET		NO. OF SAMPLES: 2 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 5'	PID	REMARKS	
0.0 to 0.2 ft	Asphalt		No Well Constructed				
0.2 to 8.5 ft	Light brown sandy clay (CL); stiff, slightly moist. No Petroleum Hydrocarbon (PHC) odor.	CL		0	Borehole continuously cored using a 5-foot long 2-inch O.D. Geoprobe Macroprobe Barrel Sampler. Samples collected in 5-foot intervals. The sampler was lined with 4.8-foot long 1 3/4 in. O.D. cellulose acetate tubes.		
5				0	First water encountered at 27.0 ft during drilling, 11/8/2006.		
				0	Borehole terminated at 41.0 ft. Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B13-41W collected. Borehole grouted with neat cement and a 4-in. surface seal of concrete, 11/8/2006.		
8.5 to 11.5 ft	Brown sand (SW); loose, moist. No PHC odor.	SW		0	Borehole B13a drilled at a horiz. distance of 1.5 feet from borehole 13 by pushing a Hydropunch to 28 ft. and pulling back the rod to expose the Hydropunch screen from 24-28 foot depth for collection of water sample B13a-28W.		
11.5 to 18.0 ft	Gray sandy clay (CL); orange mottling, medium stiff, moist. No PHC odor.	CL		0	Water Sample B13a-28W was collected from the Hydropunch using new polyethylene tubing with a stainless steel foot valve.		
15				0	No PHC odor or sheen were detected in water samples B13-41W or B13a-28W.		
18.0 to 22.5 ft	Gray sandy clay (CL); green mottling, medium stiff, moist. No PHC odor.	CL		0			
20			0				
22.5 to 27.0 ft	Gray sandy clay (CL); orange mottling, medium stiff, moist. No PHC odor.	CL	0				
25			0				
27.0 to 31.0 ft	Brown sand (SW); loose, wet. No PHC odor.	SW	0				
30			0				



# RG Environmental, Inc.

BORING NO.: B13		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: On Franklin Street, Southwest of UST		ELEVATION AND DATUM: None					
DRILLING AGENCY: Vironex, Inc.		DRILLER: Bryan/Jeff		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				11/8/06 1:00 PM		11/8/06	
COMPLETION DEPTH: 41.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 27.0 FEET		NO. OF SAMPLES: 2 Water		EFO		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
35	31.0 to 32.0 ft Brown clayey sand (SC); medium dense, wet. No PHC odor.	SC	No Well Constructed		0		
	32.0 to 35.0 ft Brown sandy clay (CL); stiff, moist. No PHC odor.	CL			0		
	35.0 to 38.0 ft Brown clayey sand (SC); saturated. No PHC odor.	SC			0		
	38.0 to 40.0 ft Brown well graded sand with clay and gravel (SW-SC); orange mottling, dense, stiff. No PHC odor.	SW-SC			0		
40	40.0 to 41.0 ft No core collected.					0	
45							
50							
55							
60							



# RG Environmental, Inc.

BORING NO.: B14		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: Franklin Street		ELEVATION AND DATUM: None					
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin/Bryan		DATE & TIME STARTED: 1/30/07		DATE & TIME FINISHED: 1/31/07	
DRILLING EQUIPMENT: Geoprobe 6600				LOGGED BY: FJO		CHECKED BY: DM GIBBS P.G. 7804	
COMPLETION DEPTH: 27.0 FEET		BEDROCK DEPTH: None Encountered					
FIRST WATER DEPTH: 24.1 FEET		NO. OF SAMPLES: 2 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 3.1 ft Concrete mix (FILL). No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed			<p>Borehole continuously cored using dual tube system consisting of a 5-foot long 3.5-inch O.D. outer casing and a 2.5-inch I.D. inner sample sleeve. Samples logged in 5-foot intervals. Sampling sleeve was lined with a 5-foot long 2-inch O.D. cellulose acetate tubes.</p> <p>Borehole terminated at 27.0 feet, 01/30/07.</p> <p>Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B14-27 collected. Borehole grouted with neat cement and a 6-inch surface seal of concrete, 1/31/07.</p> <p>Borehole B14a drilled at a horiz. distance of 1.5 feet from borehole B14 by pushing a Hydropunch to 56 ft. and pulling back the rod to expose the Hydropunch screen from 52-56 foot depth for collection of water sample B14a-56W.</p> <p>Water Sample B14a-56W was collected from the Hydropunch using new polyethylene tubing with a stainless steel foot valve.</p>	
5	3.1 to 5.1 ft Brown silty clay (CL) with black mottling; medium soft. No PHC odor.	CL		0			
	5.1 to 7.0 ft Gray-brown silty clay (CL) with black mottling; medium soft. No PHC odor.	CL					
10	7.0 to 10.5 ft Brown silt (ML) with yellow and green mottling; soft, loose. No PHC odor.	ML		0			
	10.5 to 13.2 ft Brown sand (SW) with red mottling; medium stiff, moist. No PHC odor.	SW					
15	13.2 to 15.8 ft Gray brown clay (CL); medium soft, medium moist. No PHC odor.	CL		0			
	15.8 to 20.9 ft Light brown clay (CL); medium stiff, dry. No PHC odor.	CL					
20	20.9 to 21.5 ft Gray gravel (GP); loose, dry. No PHC odor.	GP					
	21.5 to 24.1 ft Light brown silt (ML); stiff, moist. No PHC odor.	ML					
25	24.1 to 26.3 ft Sandy silty gravel (GM); very loose, very moist. No PHC odor.	GM		0			
	26.3 to 27.0 ft Brown clay (CL); very stiff, slightly moist. No PHC odor.	CL					
30						No PHC odor or sheen were detected in water samples B14-27W or B14a-56W.	




# RG Environmental, Inc.

BORING NO.: B15		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: Franklin Street		ELEVATION AND DATUM: None					
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim		DATE & TIME STARTED: 1/31/07		DATE & TIME FINISHED: 2/1/07	
DRILLING EQUIPMENT: Geoprobe 6600				LOGGED BY: FJO		CHECKED BY: DM GIBBS P.G. 7804	
COMPLETION DEPTH: 30.0 FEET		BEDROCK DEPTH: None Encountered		FIRST WATER DEPTH: 23.0 FEET		NO. OF SAMPLES: 2 Water	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 4.3 ft Fill. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed			Borehole continuously cored using dual tube system consisting of a 5-foot long 3.5-inch O.D. outer casing and a 2.5-inch I.D. inner sample sleeve. Samples logged in 5-foot intervals. Sampling sleeve was lined with a 5-foot long 2-inch O.D. cellulose acetate tubes.	
5	4.3 ft to 10.8 ft Beige-brown sandy silt (SM); loose, slightly moist. No PHC odor.	SM			0	Borehole terminated at 30.0 ft, 01/31/07.	
10	10.8 to 12.5 ft Brown-gray clay (CL); very stiff, dry. No PHC odor.	CL			0	Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B15-30W collected. Borehole grouted with neat cement and a 6-inch surface seal of concrete, 2/1/07.	
	12.5 ft to 13.3 ft Brown gray silty clay (CL); stiff, dry. No PHC odor.	CL					
15	13.3 ft to 17.1 ft Brown gray clay (CL) with black mottling; very stiff, dry. No PHC odor.	CL			0	Borehole 15a drilled at a horiz. distance of 1.5 feet from borehole 15 by pushing a Hydropunch to 60 ft. and pulling back the rod to expose the Hydropunch screen from 56-60 foot depth for collection of water sample B15a-60W.	
	17.1 ft to 18.4 ft Dark brown clay (CL) with yellow mottling; medium stiff, dry. No PHC odor.	CL					
20	18.4 ft to 21.2 ft Dark brown clay (CL) with yellow mottling; medium stiff, dry. No PHC odor.	CL			0	Water Sample B15a-60W was collected from the Hydropunch using new polyethylene tubing with a stainless steel foot valve.	
	21.2 ft to 21.6 ft Beige-brown clay (CL); very stiff, dry. No PHC odor.	CL					
	21.6 ft to 22.5 ft Yellow-brown clayey silt (ML); medium soft, moist. No PHC odor.	ML					
	22.5 ft to 23.1 ft Gray brown silty clay (ML); medium stiff, moist. No PHC odor.	ML					
25	23.1 ft to 25.1 ft Brown gravel (GW) with yellow mottling; moist. No PHC odor.	GW			0	No PHC odor or sheen were detected in water samples B15-30W or B15a-60W.	
	25.1 ft to 25.11 ft Gray white sandy clay (CL); moist. No PHC odor.	CL					
	25.11 ft to 26.3 ft Gray white sandy clay (CL); moist. No PHC odor.	CL					
	26.3 ft to 27.3 ft Beige-gray clay (CL); very stiff, dry. No PHC odor.	CL					
	27.3 ft to 28.4 ft Brown silty clay (CL); loose, dry. No PHC odor.	CL					
	28.4 ft to 29.0 ft Brown clay (CL); stiff, dry. No PHC odor.	CL					
30	29.0 ft to 30.0 ft Brown silty sand (SM); loose, slightly moist. No PHC odor.	SM			0		



# RG Environmental, Inc.

BORING NO.: B16		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA			
BORING LOCATION: West side of Franklin Street, East-Northeast of UST		ELEVATION AND DATUM: None					
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim/Emerson		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				11/14/06 12:20 PM		11/14/06	
COMPLETION DEPTH: 25.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 13.5 FEET		NO. OF SAMPLES: 1 Water		EFO		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
0.0 to 0.2 ft	Asphalt		No Well Constructed  			<p>Borehole continuously cored using a 5-foot long 2-inch O.D. Geoprobe Macroprobe Barrel Sampler. Samples collected in 5-foot intervals. The sampler was lined with 4.8-foot long 1 3/4 in. O.D. cellulose acetate tubes.</p> <p>First water encountered at 13.5 ft during drilling, 11/8/2006.</p> <p>Borehole terminated at 25.0 ft. Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B16-25W collected. Borehole grouted with neat cement and a 4-in. surface seal of concrete, 11/8/2006.</p> <p>No PHC odor or sheen were detected on water sample B16-25W.</p>	
0.2 to 5.0 ft	Brown sandy clay (CL); black mottling, medium stiff, slightly moist. No Petroleum Hydrocarbon (PHC) odor.	CL		0			
5.0 to 8.0 ft	Brown clay (CL); black mottling, stiff, slightly moist. No PHC odor.	CL		0			
8.0 to 11.0 ft	Brown sand (SW); moist. No PHC odor.	SW		0			
11.0 to 11.5 ft	Gray clay (CL); black mottling, moist. No PHC odor.	CL		0			
11.5 to 12.0 ft	Brown sand (SW); loose, wet. No PHC odor.	CL		0			
12.0 to 13.5 ft	Gray sandy clay (CL); green mottling, medium stiff, moist. No PHC odor.	CL		0			
13.5 to 14.0 ft	Brown sand (SW); loose, wet. No PHC odor.	SW		0			
14.0 to 16.0 ft	Brown sandy clay (CL); orange mottling, moist. No PHC odor.	CL		0			
16.0 to 21.5 ft	Brown sandy clay (CL); orange mottling, moist. No PHC odor.	CL	0				
21.5 to 23.0 ft	Brown silty sand (SM); soft, saturated. No PHC odor.	SM	0				
23.0 to 25.0 ft	Gray sandy clay (CL); moist, stiff. No PHC odor.	CL	0				
25.0 ft							
30.0 ft							



# RG Environmental, Inc.

BORING NO.: B17		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA					
BORING LOCATION: West side of Franklin Street, Southwest of UST		ELEVATION AND DATUM: None							
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim/Emerson		DATE & TIME STARTED:		DATE & TIME FINISHED:			
DRILLING EQUIPMENT: Geoprobe 6600				11/14/06 9:30 AM		11/14/06 11:30 AM			
COMPLETION DEPTH: 34.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY: EFO		CHECKED BY: DM GIBBS P.G. 7804			
FIRST WATER DEPTH: 28.0 FEET		NO. OF SAMPLES: 2 Water							
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 5'	PID	REMARKS			
0.0 to 0.2 ft	Asphalt								
0.2 to 8.0 ft	Brown sandy clay (CL); medium stiff, moist. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2-inch O.D. Geoprobe Macroprobe Barrel Sampler. Samples collected in 5-foot intervals. The sampler was lined with 4.8-foot long 1 3/4 in. O.D. cellulose acetate tubes.  First water encountered at 28.0 ft during drilling, 11/14/2006.  Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B17-34W collected. Borehole terminated at 34.0 ft, 11:30 AM, 11/14/2006. Borehole grouted with neat cement and a 4-in. surface seal of concrete, 11/14/2006.  Borehole B17a drilled at a horiz. distance of 1.5 feet from borehole B17 by pushing a Hydropunch to 41 ft. and pulling back the rod to expose the Hydropunch screen from 37-41 foot depths for collection of water sample B17a-41W.  Water Sample B17a-41W was collected from the Hydropunch using new polyethylene tubing with a stainless steel foot valve.  No PHC odor or sheen were detected in water samples B17-34W or B17a-41W.			
8.0 to 11.0 ft	Brown sand (SW); loose, moist. No PHC odor.	SW							
11.0 to 17.0 ft	Gray sandy clay (CL); orange mottling, moist. No PHC odor.	CL							
17.0 to 21.5 ft	Green-gray sandy clay (CL); orange mottling, stiff, moist. No PHC odor.	CL							
21.5 to 28.0 ft	Brown silty sand (SM); soft, saturated. No PHC odor.	SM							
28.0 to 28.5 ft	Green-gray well-graded sand with clay and gravel (SW-SC); wet. No PHC odor.	SW-SC							
28.5 to 30.0 ft	Brown clay (CL); orange mottling, stiff, moist. No PHC odor.	CL							
30.0 ft								0	




# RG Environmental, Inc.

BORING NO.: B17		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street, Oakland, CA		
BORING LOCATION: West side of Franklin Street, Southwest of UST		ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim/Emerson		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				11/14/06 9:30 AM	11/14/06 11:30 AM	
COMPLETION DEPTH: 34.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 28.0 FEET		NO. OF SAMPLES: 2 Water		EFO	DM GIBBS P.G. 7804	
DEPTH(FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
35	30.0 to 34.0 ft No Core Collected.		No Well Constructed			



# RG Environmental, Inc.

BORING NO.: B18		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: 21st Street		ELEVATION AND DATUM: None					
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin Bryan		DATE & TIME STARTED: 1/31/07		DATE & TIME FINISHED: 2/1/07	
DRILLING EQUIPMENT: Geoprobe 6600				LOGGED BY: FJO		CHECKED BY: DM GIBBS P.G. 7804	
COMPLETION DEPTH: 25.0 FEET		BEDROCK DEPTH: None Encountered					
FIRST WATER DEPTH: 25.0 FEET		NO. OF SAMPLES: 2 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 7.0 ft Concrete fill (FILL). No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using dual tube system consisting of a 5-foot long 3.5-inch O.D. outer casing and a 2.5-inch I.D. inner sample sleeve. Samples logged in 5-foot intervals. Sampling sleeve was lined with a 5-foot long 2-inch O.D. cellulose acetate tubes.	
	7.0 to 8.1 ft Brown-beige silty sand (ML); medium stiff, dry. No PHC odor.	ML					
	8.1 to 9.4 ft Brown clayey sand (SC); medium stiff, dry. No PHC odor.	SC				Borehole terminated at 25.0 ft, 01/31/07.	
10	9.4 to 11.3 ft Dark brown silt (SC); medium stiff. Grades into unit below. No PHC odor.	SC			0	First water encountered at 25.0 ft, 2/1/2007.	
	11.3 to 14.4 ft Gray clay (CL) with black mottling; very stiff. No PHC odor.	CL				Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B18-25W collected.	
15	14.4 to 16.1 ft Gray clay (CL) with black mottling; very stiff. No PHC odor.	CL			0	Borehole grouted with neat cement and a 6-inch surface seal of concrete, 2/1/07.	
	16.1 to 18.1 ft Brown gravel with clay (GC); medium loose, moist. No PHC odor.	GC					
20	18.1 to 22.1 ft Brown clay (CL) slowly grading into beige silt in the lower part of unit; medium stiff, moist. No PHC odor.	CL			0	Borehole 18a drilled at a horiz. distance of 1.5 feet from borehole 15 by pushing a Hydropunch to 59 ft. and pulling back the rod to expose the Hydropunch screen from 55-59 foot depth for collection of water sample B18a-59W.	
25	22.1 to 25.0 ft Brown silty gravel (GM); loose, very moist. No PHC odor.	GM			0	Water Sample B18a-59W was collected from the Hydropunch using new polyethylene tubing with a stainless steel foot valve.	
30						No PHC odor or sheen were detected in water samples B18-25W or B18a-59W.	




# RGA Environmental, Inc.

BORING NO.: B19		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA		
BORING LOCATION: Franklin Street		ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				3/20/07 8:00 AM	3/20/07 10:00 AM	
COMPLETION DEPTH: 20.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 15.0 FEET		NO. OF SAMPLES: 2 Water		FJO	DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
5	0.0 to 1.0 ft Gravel, cement and sand (FILL). No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-ft long 3.5-inch O.D. Geoprobe Macrocore Sampler. Samples collected in 5-ft intervals. The sampler was lined with a 4.8-ft long 1 3/4-inch O.D. cellulose acetate tubes.
	1.0 to 2.0 ft Brown silty sand (FILL); loose. No PHC odor.	FILL				
	2.0 to 5.1 ft Brown sand (FILL); loose, dry. No PHC odor.	FILL				
5.1 to 9.8 ft Brown sandy silt (ML); medium loose, medium moist. No PHC odor.	ML					
10	9.8 to 11.2 ft Brown sand (SP); fragments of brick, stiff, dry. No PHC odor.	SP				
	11.2 to 14.1 ft Black clay (CL); medium stiff, medium moist. No PHC odor.	CL				
15	14.1 to 18.0 ft Green-gray silt (ML); medium stiff, saturated. No PHC odor.	ML	▽			
20	18.0 to 20.0 ft Green-gray silty sand (SM); medium stiff, moist. No PHC odor.	SM				
25					0	Borehole B19a drilled at a horiz. distance of 1.5 feet from borehole 15 by pushing a Hydropunch to 59 ft. and pulling back the rod to expose the Hydropunch screen from 48-52 foot depth for collection of water sample B19a-52W.
30					0	Water Sample B19a-52W was collected from the Hydropunch using new polyethylene tubing with a stainless steel foot valve.  No PHC odor or sheen were detected in water samples B19-20W or B19a-52W.



# RG Environmental, Inc.


BORING NO.: B20		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: Broadway - Northeast			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				3/19/07 2:20 PM		3/19/07 3:30 PM	
COMPLETION DEPTH: 20.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 18.0 FEET		NO. OF SAMPLES: 1 Water		FJO		DM GIBBS P.G. 7804	
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 3.0 ft Concrete Slab.		No Well Constructed  			Borehole continuously cored a 5-ft long 3.5-inch O.D. Geoprobe Macrocore Sampler. Samples collected in 5-ft intervals. The sampler was lined with a 4.8-ft long 1 1/4-inch O.D. cellulose acetate tubes.  First water encountered at 18.0 ft, 3/19/07, 3:00 PM.  Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B20-20W collected. Borehole terminated at 20.0 ft, 03/19/07. Borehole backfilled with neat cement grout and a 4-inch surface seal of concrete, 3/19/07.  No PHC odor or sheen were detected in water sample B20-20W	
5	3.0 to 4.8 ft Brown sand (FILL); brick fragments. No Petroleum Hydrocarbon (PHC) odor.	FILL		0			
	4.8 to 6.3 ft Brown yellow sand (ML); loose, medium soft. No PHC odor.	ML		0			
	6.3 to 9.1 ft Dark gray clay (CL) with gravel; medium stiff to very stiff. No PHC odor.	CL					
10	9.1 to 14.1 ft Dark gray clay with gravel (CL); medium stiff, medium moist. No PHC odor.	CL		0			
15	14.1 to 16.0 ft Brown sand (SP); very loose, moist. No PHC odor.	SP					
	16.0 to 20.0 ft Brown gravel (GM); very loose, saturated. No PHC odor.	GM		0			
20							
25							
30							



# RG Environmental, Inc.


BORING NO.: B21		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA	
BORING LOCATION: Broadway - Southwest			ELEVATION AND DATUM: None		
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim		DATE & TIME STARTED:	DATE & TIME FINISHED:
DRILLING EQUIPMENT: Geoprobe 6600				3/19/07 4:06 PM	3/19/07 5:00 PM
COMPLETION DEPTH: 20.0 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:	CHECKED BY:
FIRST WATER DEPTH: 16.0 FEET		NO. OF SAMPLES: 1 Water		FJO	DM GIBBS P.G. 7804

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
0	0 to 4.0 ft Brown gray gravel, sand and cement (FILL); loose. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed  		0	<p>Borehole continuously cored a 5-ft long 3.5-inch O.D. Geoprobe Macrocore Sampler. Samples collected in 5-ft intervals. The sampler was lined with a 4.8-ft long 1 3/4-inch O.D. cellulose acetate tubes.</p> <p>First water encountered at 16.0 ft, 3/19/07, 4:30 PM.</p> <p>Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B21-20W collected. Borehole terminated at 20.0 ft, 03/19/07. Borehole backfilled with neat cement grout and a 4-inch surface seal of concrete, 3/19/07.</p> <p>No PHC odor or sheen were detected in water sample B21-20W</p>
5	4.0 to 5.0 ft Gray gravel (FILL); loose. No PHC odor.	FILL			0	
10	5.0 to 16.0 ft Brown sand (FILL); loose, medium moist. No PHC odor.	FILL			0	
15	16.0 to 20.0 ft Brown gravel (FILL); loose, saturated. No PHC odor.	FILL			0	
20					0	
25						
30						



# RG Environmental, Inc.

BORING NO.: B22		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Ave, Oakland, CA			
BORING LOCATION: Southeast of Broadway			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Tim		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				3/20/07 2:00 PM		3/20/07 2:45 PM	
COMPLETION DEPTH: 20.2 FEET		BEDROCK DEPTH: None Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 17.4 FEET				NO. OF SAMPLES: 1 Water		FJO	
DM GIBBS P.G. 7804							
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0 to 4.0 ft Concrete and gravel (FILL); loose. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed  		0	Borehole continuously cored a 5-ft long 3.5-inch O.D. Geoprobe Macrocore Sampler. Samples collected in 5-ft intervals. The sampler was lined with a 4.8-ft long 1 3/4-inch O.D. cellulose acetate tubes.  First water encountered at 17.4 ft, 3/20/07, 2:20 PM.  Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B22-20W collected. Borehole terminated at 20.2 ft, 03/20/07. Borehole backfilled with neat cement grout and a 4-inch surface seal of concrete, 3/20/07.  No PHC odor or sheen were detected in water sample B22-20W	
5	4.0 to 8.0 ft Brown sand (SP); loose, medium moist. No PHC odor.	SP		0			
10	8.0 to 13.0 ft Dark gray clay (CL); some organic material, medium stiff, medium moist. No PHC odor.	CL		0			
15	13.0 to 17.4 ft Dark green-gray clay (CL); medium soft, medium moist. No PHC odor.	CL		0			
20	17.4 to 20.2 ft Dark green silty clay (CL); very moist. No PHC odor.	CL		0			
25							
30							



# RG ENVIRONMENTAL, INC.

BORING NO.: B23		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: East side of Broadway, 45 feet south of 20th Street				ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Sayphone		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600/Hand Auger				7/23/08 1320		7/23/08 1405	
COMPLETION DEPTH: 8.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: None		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	Concrete (2.0 ft.) underlain by 1.0 ft. of hard road base of silty fine sand.		No Well Constructed		0	Borehole hand augered from 2.0 to 3.0 ft. depth using a 3.5-inch O.D. hand auger. Road base too compacted to continue with hand auger beyond 3.0 feet.	
5	3.0 to 8.0 ft. Brown fine sand (FILL); loose, dry. No Petroleum Hydrocarbon (PHC) odor.	FILL			0	Borehole continuously cored from 3.0 to 8.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
	7.0 ft. Color change to gray.				0		
10						Water not encountered during drilling.	
15						Drilling refusal encountered at 8.0 feet. Borehole backfilled with bentonite.	
20						Drilling refusal encountered at 8.0 feet on BART station protective membrane. Borehole temporarily sealed with dry bentonite and asphalt patch pending BART inspection of proposed 4x4x8-ft. trench to expose protective membrane.	
25							
30							



# RG ENVIRONMENTAL, INC.

BORING NO.: B24		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland		
BORING LOCATION: West side of Franklin Street, 45 feet south of 20th Street			ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: John		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				7/29/08 0830	7/29/08 1025	
COMPLETION DEPTH: 30.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water		MLD		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 1.5 ft. Asphalt and road base.		No Well Constructed		0	Borehole hand augered from 0.0 to 3.0 ft. depth using a 3.5-inch O.D. hand auger. Hand auger refusal encountered on construction debris at 3.0 feet.
	1.5 to 3.0 ft. Grayish brown silty sand (FILL); very loose, dry, with concrete and rock rubble and tree roots. No Petroleum Hydrocarbon (PHC) odor.				0	
	3.0 to 4.0 ft. Light brown clayey silt (FILL); stiff, dry, with orange mottling. No PHC odor.				0	Borehole continuously cored from 3.0 to 30.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.
5	4.0 to 14.0 ft. Dark brown silty sand (FILL); loose, dry. No (PHC) odor.		FILL		0	
	8.0 ft. With brick fragments.				0	
10	10.0 ft. Moist, color change to gray.				0	3 to 5 ft. 30% recovery
					0	5 to 10 ft. 90% recovery
					0	10 to 15 ft. 80% recovery
15	14.0 to 15.0 ft. Dark gray to black clay (FILL); soft, moist, with some wood construction debris. Slight oil odor.				12	15 to 20 ft. 90% recovery
	15.0 to 18.0 ft. Dark gray to black clayey sand (SC); loose, wet. Slight oil odor.		SC		15	20 to 25 ft. 90% recovery
	18.0 to 20.0 ft. Gray silty clay (CL); medium stiff, moist, with tree root fragments. Slight oil odor.		CL		17	25 to 30 ft. 70% recovery
20	20.0 to 23.0 ft. Dark gray clayey sand (SC); medium dense, moist, with minor gravel to 0.25 in. diameter. No PHC odor.		SC		0	Water not encountered during drilling.
	23.0 to 25.0 ft. Blue-gray clay (CL); stiff, moist, with minor coarse sand. No PHC odor.		CL		0	Borehole terminated at 30.0 ft. on 7/29/08. Borehole collapsed upon removal of drill rods. Hydro-punch inserted into borehole to 30.0 ft. and retracted to 26.0 ft. to collect water sample B24-W; sample collected at 1105, no odor or sheen on sample. Borehole again collapsed upon withdrawal of Hydro-punch, unable to take water level measurement. Borehole grouted on 7/29/08 using neat cement grout.
25	25.0 to 27.0 ft. Brown silty sand (SM); loose, moist. No PHC odor.		SM		0	
	27.0 to 30.0 ft. Light brown silt (ML); stiff, moist, with orange mottling. No PHC odor.		ML		0	
30						



# RG ENVIRONMENTAL, INC.

BORING NO.: B25		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: West side of Franklin Street, 150 feet from B20			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Sayphone		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				7/23/08 1015	7/23/08 1050		
COMPLETION DEPTH: 20.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt and road base.	FILL	No Well Constructed		0	Borehole hand augered from 0.0 to 2.5 ft. depth using a 3.5-inch O.D. hand auger. Hand auger refusal encountered on construction debris at 2.5 feet.	
	0.5 to 2.5 ft. Brown fine sand (FILL); very loose, dry. No Petroleum Hydrocarbon (PHC) odor.						
10	2.5 to 7.0 ft. Construction debris (FILL). No (PHC) odor.	CL	▼		0	Borehole continuously cored from 2.5 to 20.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
	7.0 to 14.0 ft. Olive-green silty clay (CL); stiff, moist, with black mottling. No PHC odor. 8.5 ft. Color change to blue-gray, with orange mottling, and minor coarse sand.						
15	14.0 to 15.0 ft. Brown silty sand (SM); medium dense, moist. No PHC odor.	SM			0	2.5 to 5 ft. 10% recovery	
	15.0 to 19.0 ft. Brown gravelly sand (SW); loose, wet, with gravel to 0.25 in. diameter. No PHC odor.						
20	19.0 to 20.0 ft. Olive-green silty sand (SM); medium dense, moist, with black and orange mottling. No PHC odor.	SM			0	5 to 10 ft. 100% recovery	
25						10 to 15 ft. 100% recovery	
						15 to 20 ft. 100% recovery	
30						Water not encountered during drilling.	
						Borehole terminated at 20.0 ft. on 7/23/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. Water level measured at 12.5 ft. depth at 1050. Sample B25-W collected at 1055; no odor or sheen on sample.	
						Borehole grouted on 7/23/08 using neat cement grout.	



# RG ENVIRONMENTAL, INC.

BORING NO.: B26		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland		
BORING LOCATION: 50 feet south of 21st Street on Webster Street			ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Sayphone		DATE & TIME STARTED: 7/23/08 0730	DATE & TIME FINISHED: 7/23/08 0840	
DRILLING EQUIPMENT: Geoprobe 6600				LOGGED BY: MLD	CHECKED BY:	
COMPLETION DEPTH: 25.0 Feet		BEDROCK DEPTH: Not Encountered				
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water				
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 0.5 ft. Asphalt and road base.		No Well Constructed		0	Borehole hand augered from 0.0 to 3.0 ft. depth using a 3.5-inch O.D. hand auger. Hand auger refusal encountered on construction debris at 3.0 feet.
	0.5 to 3.0 ft. Brown fine sand (FILL); very loose, dry. No Petroleum Hydrocarbon (PHC) odor.	FILL			0	
5	3.0 to 6.0 ft. Brown sandy clay (FILL); stiff, moist, with brick, rubber, and glass rubble. No (PHC) odor.				0	3 to 5 ft. 10% recovery
	6.0 to 12.0 ft. Brown fine sand (SP); loose, moist. No (PHC) odor.	SP			0	
10	11.0 ft. Dark brown discoloration, slight PHC odor				15	10 to 15 ft. 100% recovery
	12.0 to 15.0 ft. Light gray silty clay (CL); stiff, moist, with orange mottling No PHC odor.	CL			0	
15	15.0 to 19.5 ft. Brown fine sand (SP); loose, moist. No PHC odor.	SP ▼			0	20 to 25 ft. 100% recovery
	19.5 to 23.0 ft. Light gray-brown clay (CL); stiff, moist, with orange mottling. No PHC odor.	CL			0	
20	23.0 to 25.0 ft. Brown silty sand (SM); loose, wet, with fine to coarse sand, and gravel to 0.25 in. diameter No PHC odor.	SM			0	Borehole terminated at 25.0 ft. on 7/23/08. Borehole collapsed upon removal of drill rods. Hydro-punch inserted into borehole to 27.0 ft. and retracted to 22.0 ft. to collect water sample B26-W; sample collected at 0855, no odor or sheen on sample. Water at 17.4 ft. depth following Hydropunch rod removal, at 0955. Borehole grouted on 7/23/08 using neat cement grout.
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# RG ENVIRONMENTAL, INC.

BORING NO.: B27		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland		
BORING LOCATION: East side of Webster Street, 175 feet north of B30			ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Jeremy		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				8/28/08 0830	8/28/08 0935	
COMPLETION DEPTH: 20.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water		MLD		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER FT.	PID	REMARKS
	0.0 to 1.5 ft. Asphalt and road base.		No Well Constructed		0	Borehole hand augered from 0.0 to 8.0 ft. depth using a 3.5-inch O.D. hand auger.
	1.5 to 12.0 ft. Brown fine sand (SP); very loose, moist. No Petroleum Hydrocarbon (PHC) odor.					
5	5.0 ft. With some gravel to 0.25-inch diameter.	SP			0	Borehole continuously cored from 8.0 to 20.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.
10					0	8 to 10 ft. 100% recovery
	12.0 to 13.0 ft. Grayish brown clayey silty sand (SM); stiff, wet. No PHC odor.	SM				10 to 15 ft. 100% recovery
	13.0 to 14.0 ft. Brown fine sand (SP); loose, wet, with minor silt. No PHC odor.	SP			0	
15	14.0 to 15.0 ft. Grayish brown silty sand (SM); loose, wet, with orange mottling. No PHC odor.	SM				15 to 20 ft. 100% recovery
	15.0 to 18.5 ft. Brown fine sand (SP); loose, wet. No PHC odor.	SP			0	
20	18.5 to 20.5 ft. Grayish brown silty sand (SM); loose, wet. No PHC odor.	SM				Water not encountered during drilling.
25						Borehole terminated at 20.0 ft. on 8/28/08. Temporary 1-in. diameter slotted PVC casing placed in borehole, and water level measured at 12.4 ft. at 0955, and at 12.3 ft. at 1010. Water sample B27-W collected at 1010; no odor or sheen on sample.
30						Borehole grouted on 8/28/08 using neat cement grout.



# RG ENVIRONMENTAL, INC.

BORING NO.: B30		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland		
BORING LOCATION: East side of Webster Street, 78 feet north of 19th Street			ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Jeremy		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				8/28/08 1100	8/28/08 1145	
COMPLETION DEPTH: 20.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 14.0 Feet		NO. OF SAMPLES: 1 Water		MLD		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 1.5 ft. Asphalt and road base.		No Well Constructed		0	Borehole hand augered from 0.0 to 5.0 ft. depth using a 3.5-inch O.D. hand auger.
5	1.5 to 8.0 ft. Grayish brown silty sand (SM); loose, moist, with orange mottling. No Petroleum Hydrocarbon (PHC) odor.	SM			0	Borehole continuously cored from 5.0 to 20.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.
10	8.0 to 12.0 ft. Grayish brown clayey sand (SC); medium dense, moist. No PHC odor.	SC			0	5 to 10 ft. 70% recovery
15	12.0 to 17.5 ft. Brown fine sand (SP); loose, wet. Water discolored by sewage. No PHC odor. 13.5 ft. Piece of old clay pipe present. Saturated at 14.0 ft.	SP			0	10 to 15 ft. 60% recovery
20	17.5 to 20.0 ft. Grayish brown silty sand (SM); medium dense, moist. No PHC odor.	SM			0	15 to 20 ft. 90% recovery
						Water encountered during drilling at 14.0 feet depth.
25						Borehole terminated at 20.0 ft. on 8/28/08. Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B30-W collected at 1150; no odor or sheen on sample. Water subsequently measured at 14.4 ft. depth at 1155.
30						Borehole grouted on 8/28/08 using neat cement grout.



# RG ENVIRONMENTAL, INC.

BORING NO.: B31		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland		
BORING LOCATION: Base of walkway up ramp left of garage entrance				ELEVATION AND DATUM: None		
DRILLING AGENCY: Virodex, Inc.		DRILLER: Brian/Manuel		DATE & TIME STARTED: 11/15/08 0845	DATE & TIME FINISHED: 11/15/08 0930	
DRILLING EQUIPMENT: Geoprobe Badger 540MT						
COMPLETION DEPTH: 13.5 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY: MLD	CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water				
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 0.5 ft. Concrete slab.		No Well Constructed			Borehole continuously cored from 0.5 to 13.5 ft. using a 3-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler lined with 2.8-foot long 1.5-inch O.D. transparent PVC tubes.  0.5 to 3 ft. 2.0 ft. recovery 3 to 6 ft. 2.6 ft. recovery 6 to 9 ft. 2.4 ft. recovery 9 to 12 ft. 2.8 ft. recovery 12 to 13.5 ft. 1.1 ft. recovery  Drilling refusal at 13.5 ft.  Water not encountered during drilling.
	0.5 to 2.5 ft. Dark brown clayey silt (ML); medium stiff, dry. No Petroleum Hydrocarbon (PHC) odor.	ML			0	
	2.5 to 4.0 ft. Dark grayish-brown clay (CL); stiff, moist. No PHC odor.	CL				
	3.0 ft. Color change to brown, with black mottling.					
5	4.0 to 6.0 ft. Orange-brown gravelly sand (SW); loose, moist, with gravel to 0.25 in. diameter. No PHC odor.	SW			0	
	6.0 to 9.0 ft. Grayish-brown silty clay (CL); medium stiff, moist, with orange mottling. No PHC odor.	CL				
	9.0 to 10.0 ft. Dark brown clayey sand (SC); medium dense, moist. No PHC odor.	SC			0	
10	10.0 to 13.0 ft. Grayish-brown silty clay (CL); medium stiff, moist. No PHC odor.	CL				
	13.0 to 13.5 ft. Orange-brown silty gravelly sand (SW); very dense, dry, with gravel to 1-in. diameter. No PHC odor.	SW		0		
15						Borehole terminated at 13.5 ft. on 11/15/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. No water in borehole.  PVC casing removed from borehole, and borehole enlarged from 0 to 6 ft. depth using a 3.5-inch O.D. hand auger  Temporary 1-in. diameter slotted PVC casing again placed in borehole. Water measured in borehole at 12.1 ft depth at 1345, and at 8.1 ft. at 1400.  Water sample B31-W collected at 1455; no odor or sheen on sample.
20						Borehole grouted on 11/15/08 using tremie pipe and neat cement grout.
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# RG ENVIRONMENTAL, INC.

BORING NO.: B32		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: Across garage parking office				ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Brian/Manuel		DATE & TIME STARTED: 11/15/08 1030		DATE & TIME FINISHED: 11/15/08 1115	
DRILLING EQUIPMENT: Geoprobe Badger 540MT				LOGGED BY: MLD		CHECKED BY:	
COMPLETION DEPTH: 16.0 Feet		BEDROCK DEPTH: Not Encountered					
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water, 5 Soil					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.5 ft. Concrete slab.						
	0.5 to 3.0 ft. Brown silty clay (CL); stiff, moist. Bluish green discoloration and strong Petroleum Hydrocarbon (PHC) odor from 2.0 to 2.5 ft.	CL	No Well Constructed		2065	Borehole continuously cored from 0.5 to 16.0 ft. using a 3-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler lined with 2.8-foot long 1.5-inch O.D. transparent PVC tubes.	
5	3.0 to 8.0 ft. Orange-brown silty sand (SM); medium dense, moist. Very strong PHC odor. 3.0 to 3.5 ft. Bluish green staining and trace gravel to 0.5-in. diameter.	SM	B32-2.5		12	0.5 to 3 ft. 2.7 ft. recovery	
						3 to 6 ft. 2.8 ft. recovery	
						6 to 9 ft. 2.4 ft. recovery	
10	8.0 to 12.0 ft. Bluish gray clayey silt (ML); medium stiff, moist, with orange mottling. Strong PHC odor.	ML	B32-8.5		19	9 to 12 ft. 2.5 ft. recovery	
						12 to 15 ft. 2.8 ft. recovery	
						15 to 16 ft. 1.0 ft. recovery	
	11.5 to 12.0 ft. With gravel to 0.75-in. diameter.		B32-11.5		8		
15	12.0 to 16.0 ft. Orange-brown clayey gravelly sand (SW); medium dense, moist, with bluish green staining, and gravel to 0.5-in. diameter. Strong PHC odor.	SW	B32-14.5		90	Drilling refusal at 16.0 ft.	
						Water not encountered during drilling.	
20						Borehole terminated at 16.0 ft. on 11/15/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. No water in borehole.	
						PVC casing removed from borehole, and borehole enlarged from 0 to 14.5 ft. depth using a 3.5-inch O.D. hand auger	
25						Temporary 1-in. diameter slotted PVC casing again placed in borehole. Water measured in borehole at 12.3 ft depth at 1620, and at 11.9 ft. at 1630.	
						Water sample B32-W collected at 1640; strong PHC odor and sheen on sample.	
30						Borehole grouted on 11/15/08 using tremie pipe and neat cement grout.	



# RG ENVIRONMENTAL, INC.

BORING NO.: B33		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: East side of parking garage			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Brian/Manuel		DATE & TIME STARTED: 11/15/08 1220		DATE & TIME FINISHED: 11/15/08 1350	
DRILLING EQUIPMENT: Geoprobe Badger 540MT				LOGGED BY: MLD		CHECKED BY:	
COMPLETION DEPTH: 14.0 Feet		BEDROCK DEPTH: Not Encountered					
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Concrete slab.	SC	No Well Constructed		0	Borehole continuously cored from 0.5 to 14.0 ft. using a 3-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler lined with 2.8-foot long 1.5-inch O.D. transparent PVC tubes.	
	0.5 to 1.5 ft. Dark brown gravelly clayey sand (SC); medium dense, moist, with gravel to 0.5-in. diameter. No Petroleum Hydrocarbon (PHC) odor.						
	1.5 to 14.0 ft. Grayish brown silty clay (CL); stiff, moist, with orange mottling. No PHC odor.						
	3.0 to 3.5 ft. With sand and gravel to 0.25-in. diameter.						
10		CL			0	0.5 to 3 ft. 2.4 ft. recovery	
						3 to 6 ft. 2.7 ft. recovery	
						6 to 9 ft. 2.5 ft. recovery	
						9 to 12 ft. 2.7 ft. recovery	
15					0	12 to 14 ft. 2.0 ft. recovery	
						Drilling refusal at 14.0 ft.	
20						Water not encountered during drilling	
						Borehole terminated at 14.0 ft. on 11/15/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. No water in borehole.	
						PVC casing removed from borehole, and borehole enlarged from 0 to 12.0 ft. depth using a 3.5-inch O.D. hand auger	
25						Temporary 1-in. diameter slotted PVC casing again placed in borehole to 14.0 ft. (original macrocore borehole to 14.0 ft. stayed open). Water measured in borehole at 12.8 ft depth at 1520, and at 12.5 ft. at 1540.	
						Water sample B33-W collected at 1550; no PHC odor or sheen on sample.	
30						Borehole grouted on 11/15/08 using tremie pipe and neat cement grout.	