

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY  
ALEX BRISCOE, Director



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

June 22, 2011

Mr. Ted Dang (*Sent via E-mail to: [TWD113@aol.com](mailto:TWD113@aol.com)*)  
Tomorrow Development Co., Inc.  
1305 Franklin Street, #500  
Oakland, CA 94612

Mr. John Thorpe  
21790 Hesperian Blvd.  
Hayward, CA 94541-7003

Subject: Case Closure for Fuel Leak Case No. RO0000396 and GeoTracker Global ID T0600102124, Thorpe Property Gas Station, 2547 East 27<sup>th</sup> Street, Oakland, CA 94601

Dear Mr. Dang and Mr. Thorpe:

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

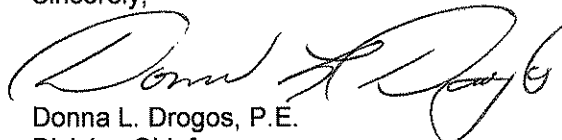
#### SITE INVESTIGATION AND CLEANUP SUMMARY

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

- Total Petroleum Hydrocarbons as gasoline remain in soil at concentrations up to 600 ppm.
- Total Petroleum Hydrocarbons as gasoline remain in groundwater at concentrations up to 2,200 ppb.
- Benzene remains in groundwater at concentrations up to 1 ppb

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

Sincerely,

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

Donna L. Drogos, P.E.  
Division Chief

Enclosures:

1. Remedial Action Completion Certification
2. Case Closure Summary

cc:

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

Nick Patz  
Ceres Associates  
920 First Street, Suite 202  
Benicia, CA 94510 (Sent via E-mail  
to: [nickpatz@ceresassociates.com](mailto:nickpatz@ceresassociates.com))

Carmen Harms  
State Water Resources Control Board  
Division of Financial Assistance  
P.O. Box 944212  
Sacramento, CA 94244-2120  
(Sent via E-mail to:  
[CHarms@waterboards.ca.gov](mailto:CHarms@waterboards.ca.gov))

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

GeoTracker (w/enc)  
File (w/orig enc)

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

Margot Lederer Prado  
City of Oakland Economic Development Division  
Brownfields Management  
250 Frank H. Ogawa Plaza, Suite 3315  
Oakland, CA 94612  
(Sent via E-mail to: [MPrado@oaklandnet.com](mailto:MPrado@oaklandnet.com))



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

**REMEDIAL ACTION COMPLETION CERTIFICATION**

June 22, 2011

Mr. Ted Dang (*Sent via E-mail to: [TWD113@aol.com](mailto:TWD113@aol.com)*)  
Tomorrow Development Co., Inc.  
1305 Franklin Street, #500  
Oakland, CA 94612

Mr. John Thorpe  
21790 Hesperian Blvd.  
Hayward, CA 94541-7003

Subject: Case Closure for Fuel Leak Case No. RO0000396 and Geotracker Global ID T0600102124,  
Former Service Station, 2547 East 27<sup>th</sup> Street, Oakland, CA 94601

Dear Mr. Dang and Mr. Thorpe:

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 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Anu Levi", written over a horizontal line.

Anu Levi  
Director  
Alameda County Environmental Health

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

**I. AGENCY INFORMATION**

Date: May 25, 2010

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

**II. CASE INFORMATION**

Site Facility Name: Thorpe Property Gas Station		
Site Facility Address: 2547 East 27 <sup>th</sup> Street, Oakland, CA 94601		
RB Case No.: 01-2309	STID No.: 4848	LOP Case No.: RO0000396
URF Filing Dates: 12/08/1994	Geotracker ID: T0600102124	APN: 26-785-8
Responsible Parties	Addresses	Phone Numbers
Mr. Ted Dang Tomorrow Development Co., Inc	1305 Franklin Street, #500 Oakland, CA 94612	No phone number
Mr. John Thorpe	21790 Hesperian Blvd. Hayward, CA 94541-7003	510-782-3082
---	---	---

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1 through 4	500	Gasoline	Removed	8/31/1994
5	100	Waste Oil	Removed	8/31/1994
---	---	---	---	---
---	---	---	---	---
Piping			Removed	08/31/1994

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

Cause and Type of Release: Unknown. One of the 500-gallon gasoline tanks had a ¼-inch diameter hole on its underside at the tank fill end. No holes, cracks, corrosion, or other signs of failure were observed in the other tanks during removal.		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? Yes	Number: 6	Proper screened interval? ---
Highest GW Depth Below Ground Surface: 3.2 feet bgs	Lowest Depth: 5.0 feet bgs	Flow Direction: East
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: A well survey conducted by Ceres Associates in 2006 did not find any water supply wells within 2,000 feet of the site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Sausal Creek is approximately 800 feet east of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department.

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	5 tanks	The USTs were transported to the H&H Ship Service Company in San Francisco, CA for disposal.	8/31/1994
Piping	Nor reported	Piping was transported to the H&H Ship Service Company in San Francisco, CA for disposal.	8/31/1994
Free Product	----	----	----
Soil	396 tons	Transported to B&J Landfill in Vacaville, CA for disposal.	1/22/2007
Groundwater	----	----	----

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**  
 (Please see Attachments 1-6 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	1,800	600	90,000(1)	2,200(1)
TPH (Diesel)	1,500	420	750,000(1)	800(1)
TPH (Motor Oil)	38	<5	28,000(2)	270(2)
Benzene	2.2	<0.005	140(1)	1(1)
Toluene	2.2	<0.1	1.5(3)	<0.5(3)
Ethylbenzene	3.1	<0.1	77(1)	3.9(1)
Xylenes	4.9	<0.1	20(4)	3.2(4)
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	9.6(5)	9.6(5)	29(6)	29(6)
MTBE	<0.05(7)	<0.05(7)	<0.005(8)	<0.005(8)
Other (8240/8270)	<0.005(9)	<0.005(9)	<0.5(10)	<0.5(10)

**Footnotes:**

- (1) The maximum concentration before cleanup is from a grab groundwater sample collected from boring SB-9 on 01/07/2005; the maximum concentration after cleanup is from a groundwater sample collected from extraction well EX-1 on 01/30/2007.
- (2) The maximum concentration before cleanup is from a grab groundwater sample collected from boring SB-22 on 01/17/2006; the maximum concentration after cleanup is from a groundwater sample collected from extraction well EX-1 on 01/30/2007.
- (3) The maximum concentration before cleanup is from a grab groundwater sample collected from boring SB-2 on 01/07/2005; the maximum concentration after cleanup is from a groundwater sample collected from extraction well EX-1 on 01/30/2007.
- (4) The maximum concentration before cleanup is from a grab groundwater sample collected from boring SB-6 on 01/07/2005; the maximum concentration after cleanup is from a groundwater sample collected from extraction well EX-1 on 01/30/2007.
- (5) Lead = 9.6 ppm; nickel = 72 ppm; chromium = 52 ppm; and zinc = 53 ppm.
- (6) Lead = 29 ppb; no other metals analyzed.
- (7) MTBE <0.05 ppm; TBA, TAME, ETBE, DIPE, EDB, and EDC not detected at various reporting limits.
- (8) MTBE <0.005 ppb; TBA, TAME, ETBE, DIPE, EDB, and EDC not detected at various reporting limits.
- (9) PCE <0.005 ppm; no other VOCs detected at various reporting limits.
- (10) PCE <0.5 ppb; TCE <0.5 ppb; chloroform = 23 ppb; bromochloromethane = 1.5 ppb; no other VOCs detected at various reporting limits.

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

The site is currently a vacant lot located on the southwest corner of East 27<sup>th</sup> Street and 26<sup>th</sup> Avenue in Oakland, California. Surrounding land use is residential. Planned development for the site consists of two residential housing units.

A gasoline service station and repair garage operated at the site from 1927 through 1994. On August 30 and 31, 1994, four 500-gallon gasoline USTs and one 100-gallon waste oil UST were removed. Soil sample results from the bottom of the tank pit excavations contained TPH as gasoline at concentrations up to 930 ppm. Petroleum hydrocarbons were not detected in soil samples collected beneath the former dispenser islands. Upon completion of the soil sampling, the excavations were lined with plastic and backfilled with the stockpiled soil removed from the excavation. According to the tank removal report, backfilling of the tank pit excavations with contaminated soil was meant as a temporary measure to protect the stability of excavation sidewalls and adjacent streets. Re-excavation and off-site disposal of the contaminated backfill was recommended but not implemented until excavation in 2006.

Despite requests for work by ACEH, no investigation or remediation was conducted at the site between the tank removal in 1994 and the preparation of a Phase I Environmental Site Assessment in 2001. Notices of Violation were issued on May 25, 1995 and May 13, 1996. A Pre-Enforcement Review Hearing was held on September 4, 1996. The case was referred to the Alameda County District Attorney's office for enforcement on September 22, 1999.

On June 19, 2002 three soil borings (EB-1, EB-2, and EB-3) were advanced in each of the three former tank pits for soil and groundwater sampling. The borings were converted into monitoring wells; however, the wells were destroyed after one sampling event. TPHg was detected in soil from the two soil borings in the former gasoline tank pits at concentrations up to 1,800 ppm. TPHg was detected in groundwater from one of the three wells (EB-2) at a concentration of 93 ppb. TPHd was detected in groundwater from each of the three wells at concentrations ranging from 56 to 360 ppb. Benzene was detected in one of three groundwater samples at a concentration of 0.97 ppb. MTBE was not detected in any soil or groundwater samples.

In January 2005, ten soil borings (SB-1 through SB-10) were advanced at the site for collection of soil and groundwater samples. The maximum concentrations of TPHg and TPHd detected in soil from the ten borings were 61 ppm and 52 ppm, respectively. Grab groundwater samples collected from the borings contained up to 90,000 ppb of TPHg and 750,000 ppb of TPHd. The maximum concentration of benzene detected in grab groundwater samples was 140 ppb.

In February 2006, an additional 14 soil borings (SB-11 through SB-24) were advanced both on-site and off-site. Soil samples were collected at 2-foot intervals and a grab groundwater sample was collected from each soil boring. The maximum concentrations of TPHg and TPHd detected in soil from the 14 borings were 250 ppm and 490 ppm, respectively. TPHg was detected in 3 of the 14 grab groundwater samples at concentrations ranging from 51 to 1,500 ppb. Benzene was not detected in any of the grab groundwater samples. TPHd was detected in 9 of the 14 grab groundwater samples at concentrations ranging from 89 to 3,600 ppb. TPH as motor oil was detected in 8 of the 14 grab groundwater samples at concentrations ranging from 310 to 28,000 ppb.

One soil boring (SB-25) was advanced to a depth of 27 feet bgs to collect depth-discrete grab groundwater samples to define the vertical extent of contamination on September 20, 2006. Based on the results from SB-25, no further assessment of the vertical extent of contamination was proposed.

Approximately 396 tons of contaminated soil was excavated on December 1 and 2, 2006. The excavations were backfilled with clean, imported fill. At two locations, the concentration of TPHg in sidewall confirmation soil samples exceeded the target cleanup level of 100 ppm. Excavation was reportedly not continued at these two locations due to the proximity of the excavation to the sidewalk along East 27<sup>th</sup> Street and instability of the excavation walls. In response to ACEH concerns regarding the extent and effectiveness of the excavation, eight soil borings (CS-1 through CS-8) were advanced outside the excavation walls to confirm the effectiveness of the soil removal. TPHg, TPHd, and BTEX were not detected at concentrations exceeding reporting limits in soil samples from confirmation borings CS-1 through CS-8.

To assess the potential for vapor intrusion to indoor air, soil vapor samples were collected from six locations (SV-1 through SV-6), three from the footprint of each planned residence in February 2008. Although petroleum hydrocarbons were not detected at concentrations exceeding screening levels, trichloroethene (TCE) was detected at a concentration of 5.7 micrograms per liter ( $\mu\text{g/L}$ ) in one soil vapor sample (SV-4). In March 2010, soil vapor samples were collected from six locations (SV-8 through SV-13) adjacent to or surrounding SV-4. TCE was not detected above a reporting limit of 0.1  $\mu\text{g/L}$  in any of the soil vapor samples collected in March 2010.

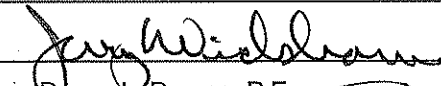
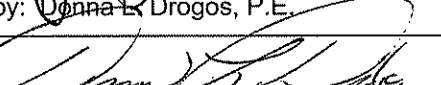
**IV. CLOSURE**

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: None.		
Should corrective action be reviewed if land use changes? No		
Was a deed restriction or deed notification filed? No		Date Recorded: --
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 6
List Enforcement Actions Taken: Notice of Violation dated May 23, 1995, Second Notice of Violation dated July 6, 1996, Final Notice of Violation dated May 13, 1996, Pre-Enforcement Review Panel on September 4, 1996, Letters from District Attorney dated November 17, 1999 and February 28, 2000, and Notice to Comply dated June 2, 2009.		
List Enforcement Actions Rescinded: All		

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

<p>Considerations and/or Variances:</p> <p>Residual soil contamination remains in place at the margins of the remedial excavation typically at depths of 5 to 9 feet bgs adjacent to East 27<sup>th</sup> Street. The concentration of TPHg exceeded the target cleanup level of 100 ppm at two locations in sidewall confirmation soil samples. The residual contamination likely extends north beneath East 27<sup>th</sup> Street. Based on the results of confirmation soil samples collected from direct push borings outside the limits of the excavations, the residual contamination appears to be limited in extent. TPHg, TPHd, and BTEX were not detected in soil samples collected from the confirmation soil borings. Therefore, the residual contamination does not appear to pose a risk to site residents or nearby residents.</p> <p>Conclusion:</p> <p>Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary. ACEH staff recommend case closure for this fuel leak site.</p>
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**VI. LOCAL AGENCY REPRESENTATIVE DATA**

Prepared by: Jerry Wickham	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 06/01/10
Approved by: Donna L. Drogos, P.E.	Title: Chief
Signature: 	Date: 06/01/10

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: 06/02/10	

**VIII. MONITORING WELL DECOMMISSIONING**

Date Requested by ACEH: 06/11/10	Date of Well Decommissioning Report: 06/10/11	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 6	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Jerry Wickham</i>		Date: 06/22/11

**Attachments:**

1. Vicinity Map (1 pp)
2. Site Plans and Boring Location Maps (6 pp)
3. Soil Analytical Data (6 pp)
4. Soil Vapor Analytical Data (3 pp)
5. Groundwater Analytical Data (4 pp)
6. Boring Logs (32 pp)

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

## **Wickham, Jerry, Env. Health**

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**From:** Cherie McCaulou [CMccaulou@waterboards.ca.gov]  
**Sent:** Wednesday, June 02, 2010 11:30 AM  
**To:** Wickham, Jerry, Env. Health  
**Subject:** Re: Closure summaries for 506-510 International and 2547 East 27th, Oakland

Jerry - Thanks for the notification. We have no objection to ACEH's recommendation for case closure of Case nos. RO00396 and RO02853.

Sincerely,

Cherie McCaulou  
Engineering Geologist  
San Francisco Bay Regional Water Quality Control Board  
[cmccaulou@waterboards.ca.gov](mailto:cmccaulou@waterboards.ca.gov)  
510-622-2342

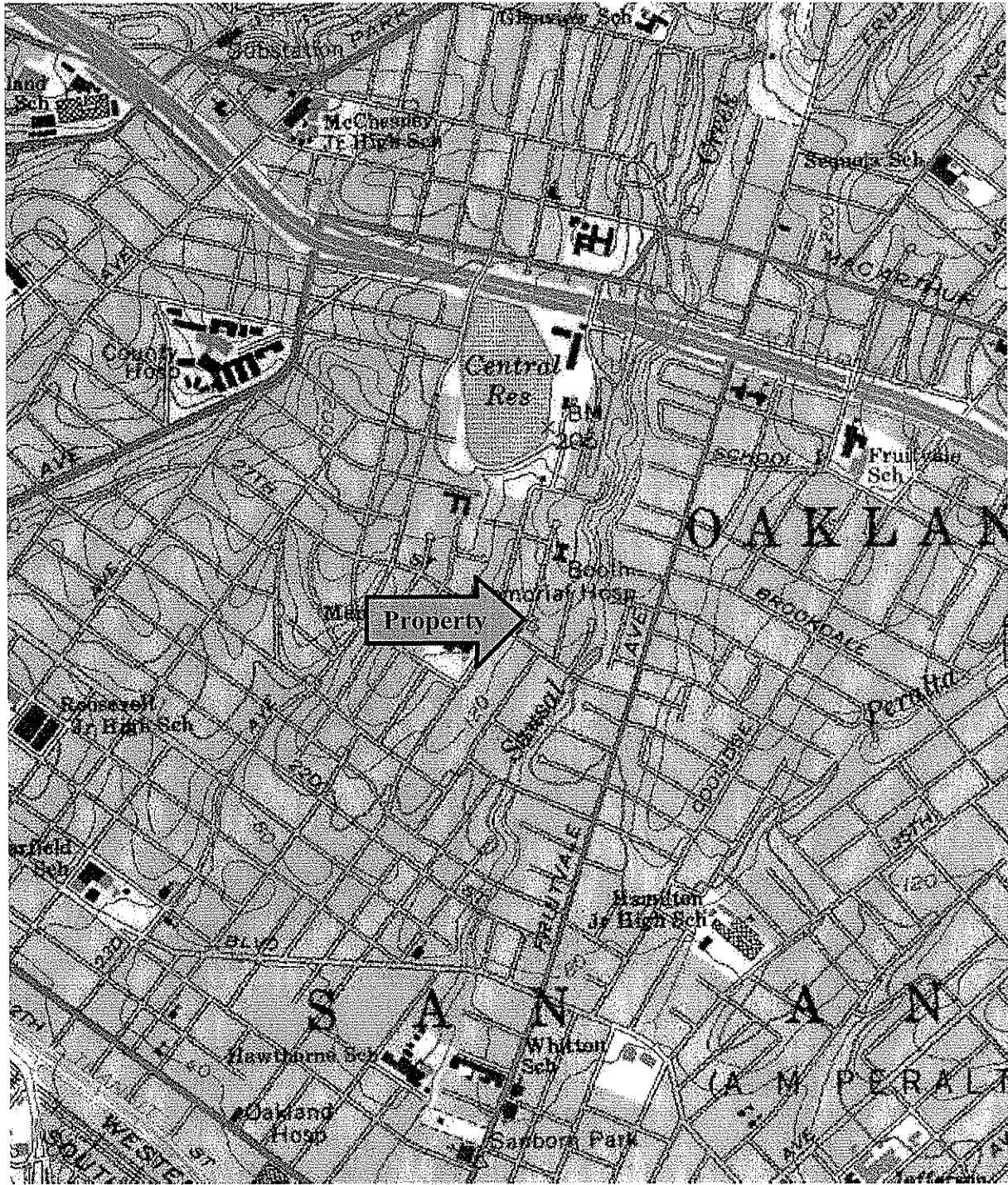
>>> "Wickham, Jerry, Env. Health" <[jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org)> 6/2/2010 10:05 AM >>>  
Hi Cherie,

The following sites are recommended for case closure. Attached are the closure summaries.

Shell, 506-510 International, Oakland  
Thorpe Property Gas Station, 2547 East 27<sup>th</sup> Street, Oakland

Regards,

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



1 inch equals 2000 feet

**Map Taken From:**

United States Geological Survey  
7.5 Minute Topographic Series  
Oakland East, California Quadrangle



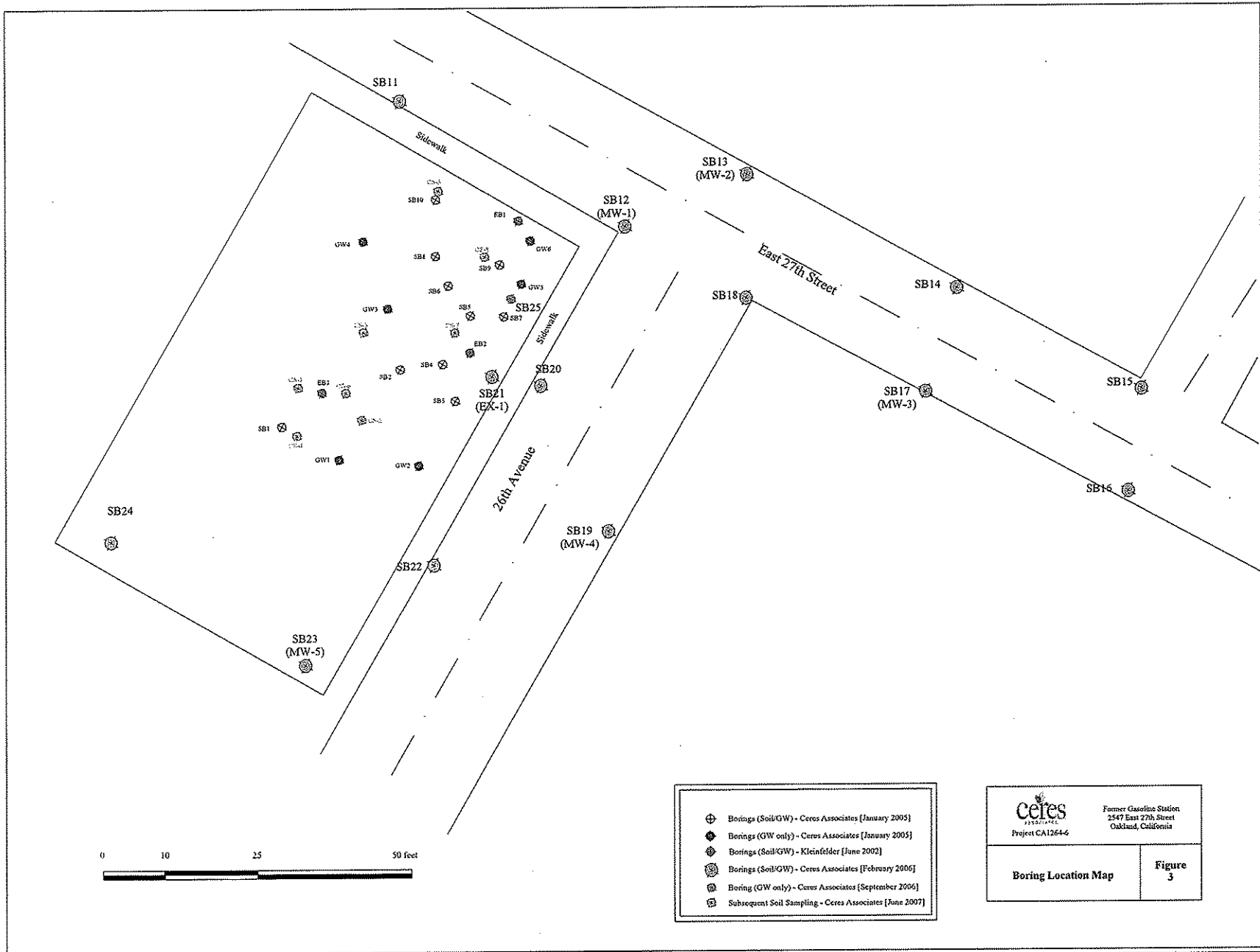
Ceres  
Associates

Project CA1264-3

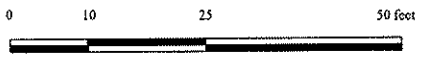
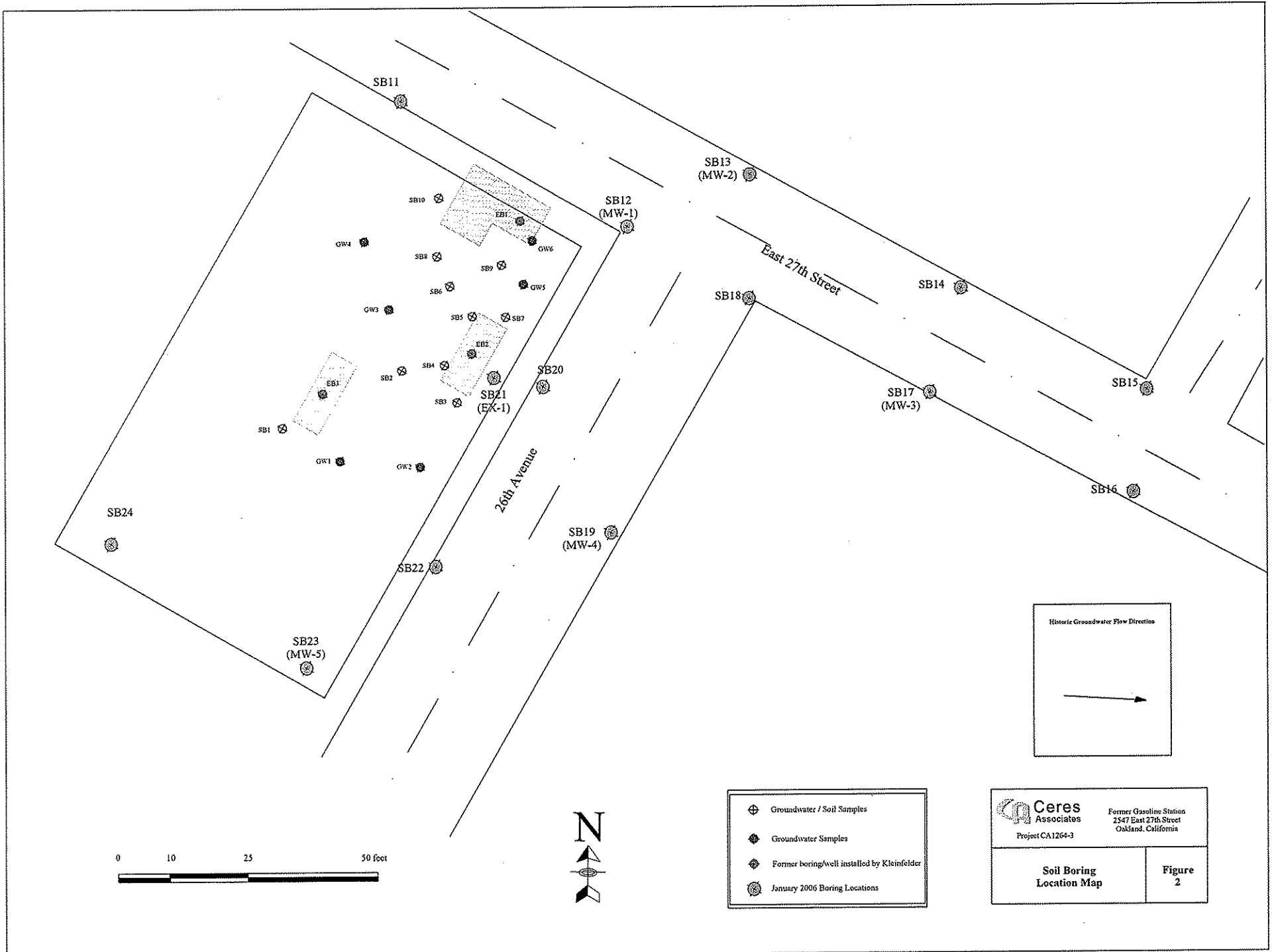
Former Gasoline Station  
2547 East 27th Street  
Oakland, California





**PROPERTY  
LOCATION MAP**

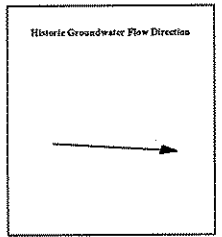
**FIGURE  
1**




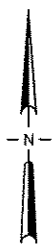
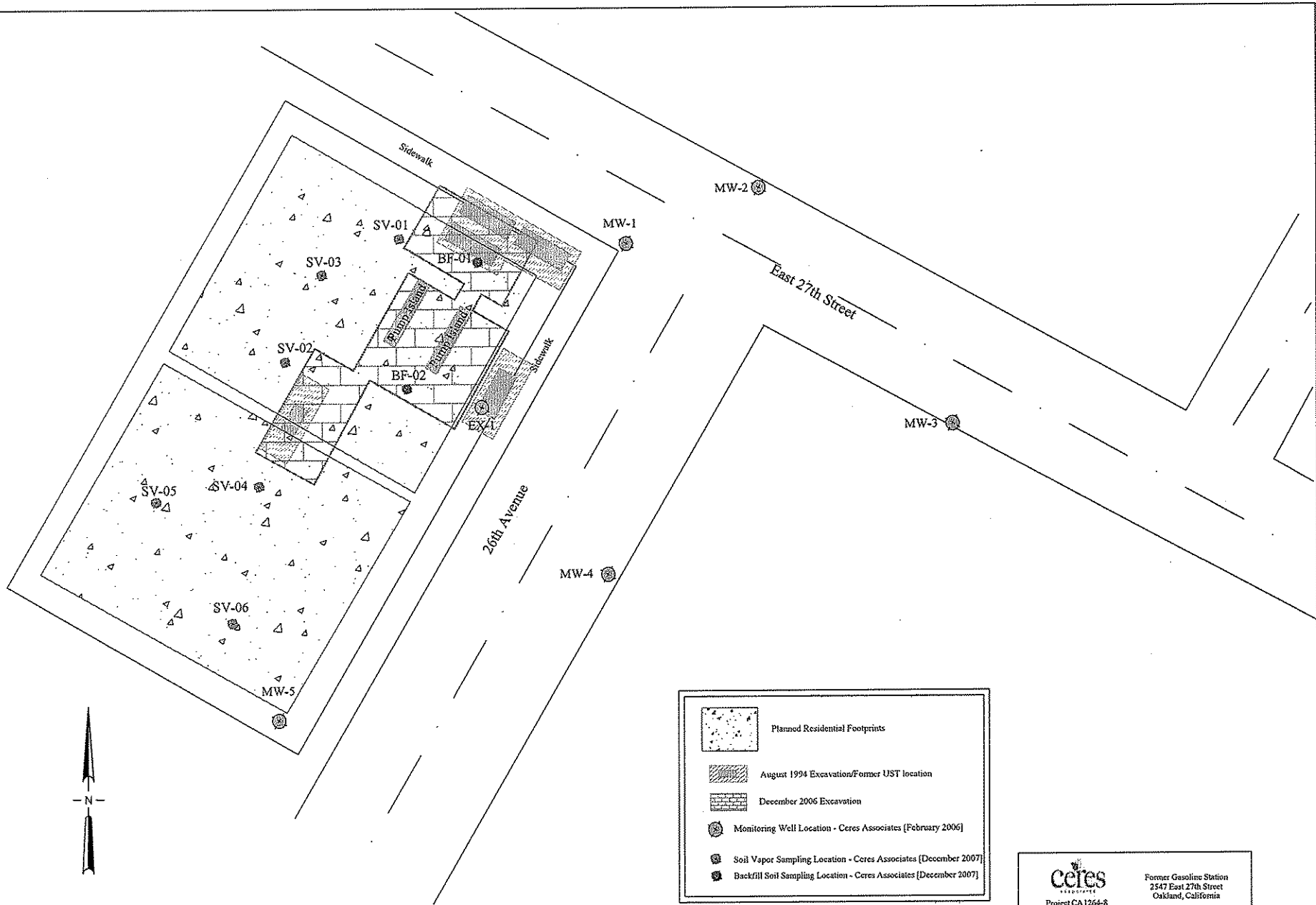
**ATTACHMENT 2**










-  Groundwater / Soil Samples
-  Groundwater Samples
-  Former boring/well installed by Kleinfelder
-  January 2006 Boring Locations

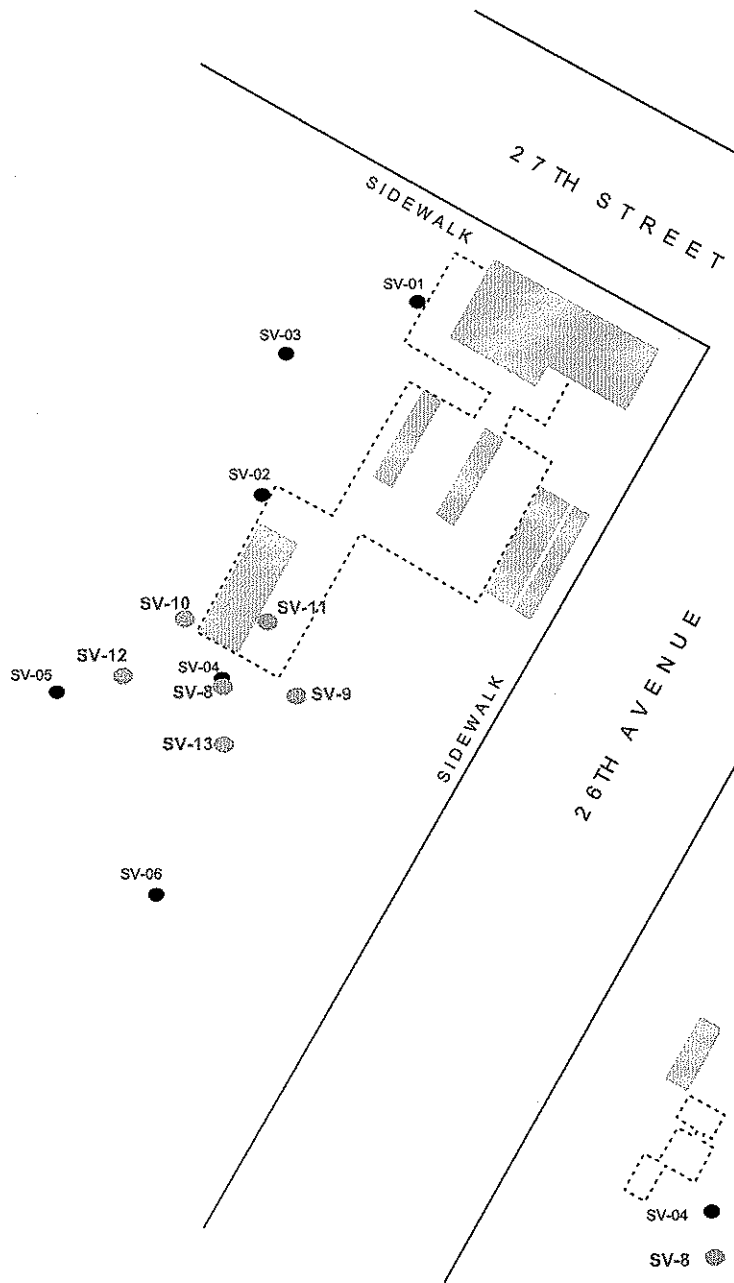


 <b>Ceres Associates</b> Former Gasoline Station 2547 East 27th Street Oakland, California Project CA1264-3	<b>Figure 2</b>
<b>Soil Boring Location Map</b>	







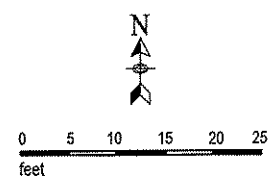
	Planned Residential Footprints
	August 1994 Excavation/Former UST location
	December 2006 Excavation
	Monitoring Well Location - Ceres Associates [February 2006]
	Soil Vapor Sampling Location - Ceres Associates [December 2007]
	Backfill Soil Sampling Location - Ceres Associates [December 2007]

 Former Gasoline Station 2547 East 27th Street Oakland, California Project CA1264-8	<b>Figure</b> <b>5</b>



**EXPLANATION**

-  Approximate Limits of Excavations  
By Kleinfelder (1994)
-  Approximate Limits of Excavation  
By Ceres Associates (2006)
-  Soil Vapor Sample Location  
February 2006
-  Soil Vapor Sample Location  
March 2010

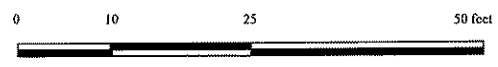
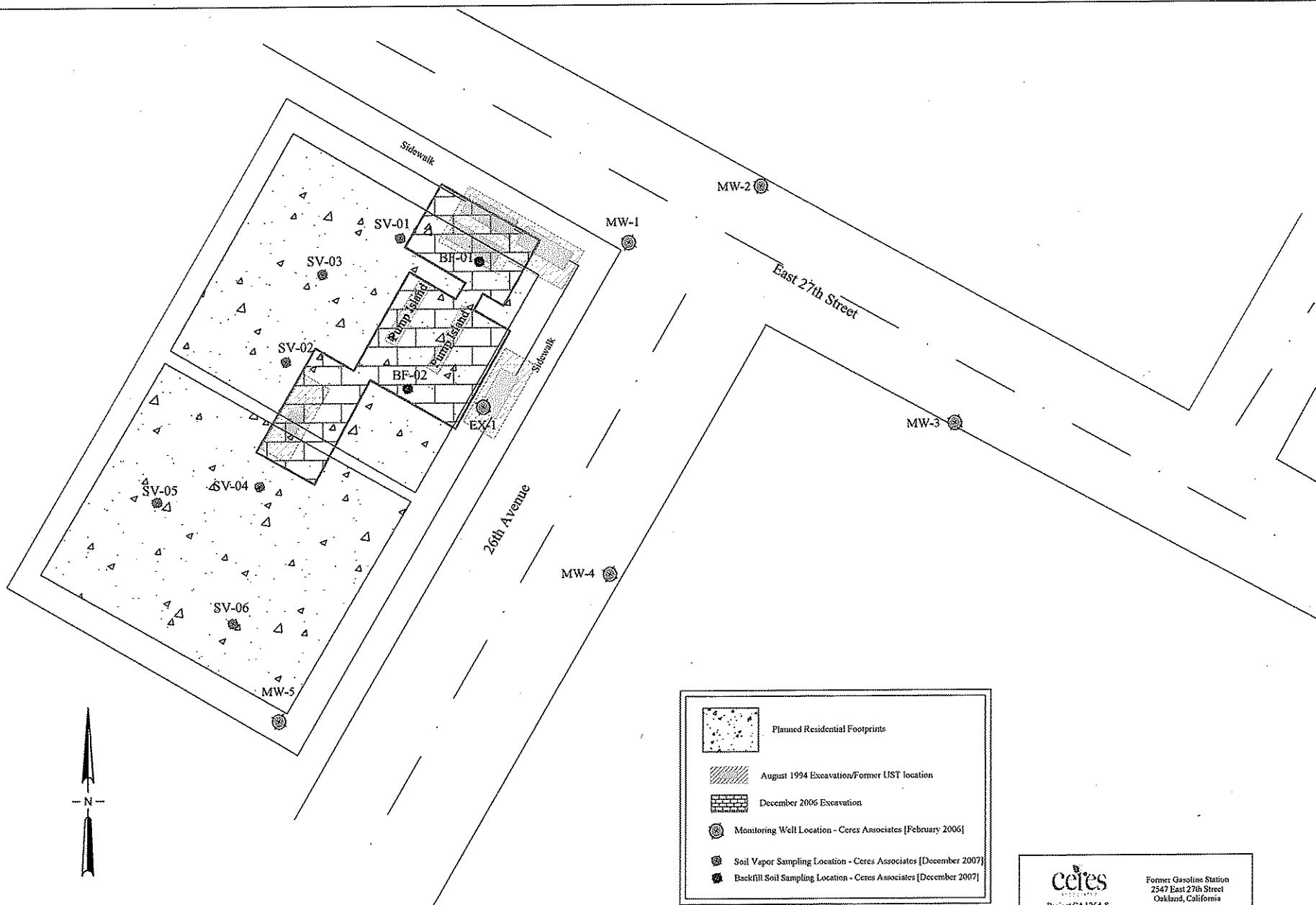








**ceres**  
ASSOCIATES  
2547 E 27th Street  
Oakland, California


Project CA1284-10  
April 2010

**SOIL VAPOR SAMPLE  
LOCATION MAP**

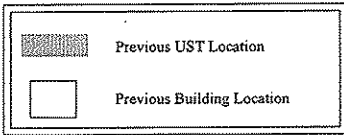
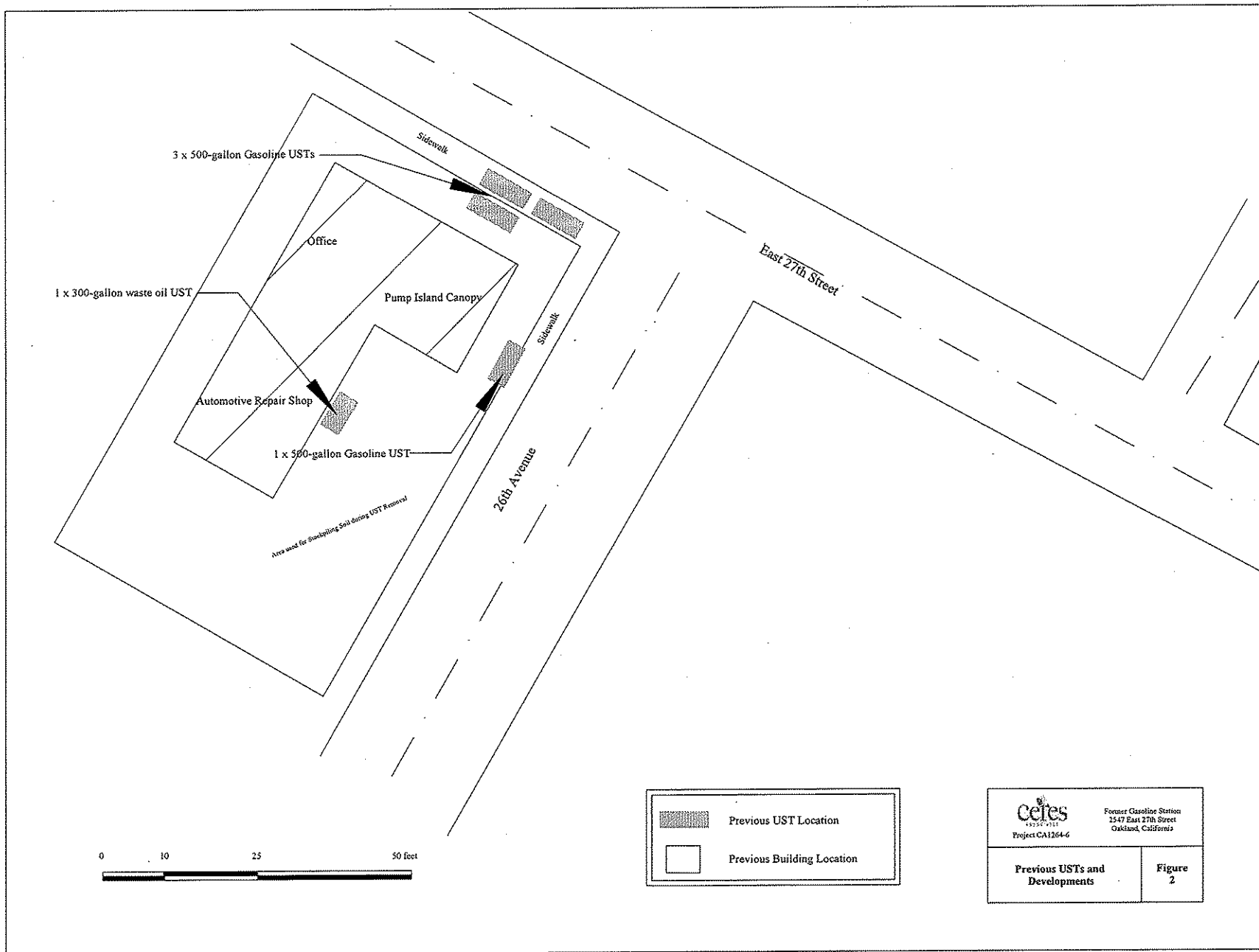
Figure  
**3**




	Planned Residential Footprints
	August 1994 Excavation/Former UST location
	December 2006 Excavation
	Monitoring Well Location - Ceres Associates [February 2006]
	Soil Vapor Sampling Location - Ceres Associates [December 2007]
	Backfill Soil Sampling Location - Ceres Associates [December 2007]

 Former Gasoline Station 2547 East 27th Street Oakland, California Project CA1264-S	<b>Figure</b> <b>5</b>





 Former Gasoline Station 2547 East 27th Street Oakland, California Project CA1264-G	
Previous USTs and Developments	Figure 2

**Table 1: Soil Sampling During UST Removal - August 1994**

**Site:** 2547 East 27th Street, Oakland, California  
**Sampling Dates:** August 30 and 31, 1994

**Soil Sample Results**

		TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	Oil & Grease
<i>ESL (Table A-1): Residential Site, shallow soils, where Groundwater IS a current or potential source of drinking water</i>		100	100	0.044	2.9	3.3	2.3	500
<i>concentrations are reported in milligrams per kilogram, mg/Kg</i>								
<b>Sample</b>	<b>Sample Location*</b>							
1	Fill end of UST-A	390		0.17	0.35	0.63	0.76	
2	Between UST-A and UST-B	5.4		0.03	0.01	0.03	0.02	
3	Fill end of UST-B	930		2.2	2.2	2.7	3.3	
4	Fill end of UST-C	0.2	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA
5	Fill end of UST-D	ND<0.2		ND<0.005	ND<0.005	ND<0.005	ND<0.005	
6	Beneath South Pump Island	1		ND<0.1	ND<0.1	ND<0.1	ND<0.1	
7	Beneath North Pump Island	110		ND<0.005	ND<0.005	ND<0.005	ND<0.005	
8	Fill end of UST-E	1.1	ND<10	ND<0.005	ND<0.005	ND<0.005	ND<0.005	170
STKP-East	Stockpiled soil	750		0.36	0.66	1.4	1.8	NA
STKP-West	Stockpiled soil	860	NA	ND<0.005	0.72	1.9	2.1	

**Abbreviations and Notes**

- TPHg total petroleum hydrocarbons as gasoline using US EPA method 8015C
- TPHd total petroleum hydrocarbons as diesel using US EPA method 8015C
- \* Sample locations provided by UST Removal report, dated September 1994, by Aqua Science Engineers
- ESL Environmental Screening Limit, published by San Francisco Bay Regional Water Quality Control Board (Feb. 2005)
- ND not detected below the method reporting limit
- ND < X not detected below an increased method reporting limit (see lab sheets for further details)
- NA not analyzed

Table 3: Ceres Associates Soil and Groundwater Sampling - January 2005

Site: 2547 East 27th Street, Oakland, California  
 Sampling Dates: January 7, 2005

**Soil Sample Results**

	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
<i>ESL (Table A-1): Residential Site, shallow soils, where Groundwater IS a current or potential source of drinking water</i>	100	100	0.044	2.9	3.3	2.3	0.023
<b>Sample</b>	<i>concentrations reported as milligrams per kilogram, mg/Kg</i>						
SB1-5	ND	ND	ND	ND	ND	ND	ND
SB1-10	ND	ND	ND	ND	ND	ND	ND
SB2-5	ND	ND	ND	ND	ND	ND	ND
SB2-10	ND	ND	ND	ND	ND	ND	ND
SB3-5	1.5	ND	ND	ND	ND	ND	ND
SB3-10	3.8	2.3	ND	ND	ND	ND	ND
SB4-5	ND	ND	ND	ND	ND	ND	ND
SB4-8	32	10	ND	ND	0.034	0.011	ND
SB5-5	ND	ND	ND	ND	ND	ND	ND
SB5-10	61	46	0.007	ND	0.045	0.027	ND
SB6-5	ND	ND	ND	ND	ND	ND	ND
SB6-10	41	35	0.024	ND	0.031	ND	ND<0.10
SB7-5	ND	ND	ND	ND	ND	ND	ND
SB7-10	2.3	1.5	ND	ND	ND	ND	ND
SB8-5	ND	ND	ND	ND	ND	ND	ND
SB8-10	ND	ND	ND	ND	ND	ND	ND
SB9-5	32	52	ND	ND	0.017	0.013	ND
SB9-10	1.5	6.6	ND	ND	ND	ND	ND
SB10-5	ND	ND	ND	ND	ND	ND	ND
SB10-10	ND	ND	ND	ND	ND	ND	ND

**Groundwater Sample Results**

	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
<i>ESL (Table F-1a): Groundwater IS a current or potential source of drinking water</i>	100	100	1	40	30	20	5
<i>ESL (Table E-1a): Potential Vapor Intrusion; High Permeability Soils, Residential Use</i>	use soil gas	use soil gas	540	380,000	170,000	160,000	24,000
<b>Sample</b>	<i>concentrations reported as micrograms per liter, µg/L</i>						
SB1 GW	ND	ND	1.3	1.5	ND	0.69	ND
SB2 GW	ND	ND	ND	ND	ND	ND	ND
SB3 GW	11,000	42,000	ND<5.0	ND<5.0	8.2	ND<5.0	ND<50
SB4 GW	4,600	24,000	ND<2.5	ND<2.5	4.1	3.8	ND<25
SB5 GW	6,000	12,000	6.8	ND<2.5	4.2	5.8	ND<25
SB6 GW	35,000	560,000	83	ND<10	34	20	ND<100
SB7 GW	21,000	250,000	21	ND<10	19	ND<10	ND<100
SB8 GW	1,000	3,900	ND	ND	ND	1.1	ND
SB9 GW	90,000	750,000	140	ND<50	77	ND<50	ND<500
SB10 GW	600	1,300	ND	ND	ND	0.7	ND
GW1	1,600	2,500	ND	ND	0.95	0.81	ND
GW2	830	620	ND	ND	0.72	ND	ND
GW3	ND	NA	1	0.51	ND	ND	ND
GW4	ND	ND	0.66	ND	ND	ND	ND
GW5	1,900	2,300	4.3	ND	1.7	1.3	ND
GW6	3,900	7,600	1.2	ND	2.3	2.6	ND

**Abbreviations and Notes**

- TPHg total petroleum hydrocarbons as gasoline using US EPA method 8015C
- TPHd total petroleum hydrocarbons as diesel using US EPA method 8015C
- MTBE methyl tertiary butyl ether using US EPA method 8021B
- ESL Environmental Screening Limit, published by San Francisco Bay Regional Water Quality Control Board (Feb. 2005)
- NA not analyzed
- ND not detected below the method reporting limit
- ND < X not detected below an increased method reporting limit (see lab sheets for further details)



(cont.)											
Sample	TPHg	TPHd	TPHho	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	EDB	1,2-DCA	Lead
SB21-08	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	5.9
SB21-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.5
SB21-12	18	490	ND	ND	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	5.5
SB21-14	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	12
SB22-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.6
SB22-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2
SB22-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB23-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB23-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17
SB23-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.1
SB24-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.1
SB24-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.1
SB24-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.1
<b>Res PRG</b>	--	--	--	--	0.64	520	400	270	0.032	2.8	150
<b>Res ESL</b>	100	100	500	500	0.044	2.9	3.3	1.5	0.00033	0.0045	200

Exceeds ESL

**Confirmation Sampling Results**  
**Site:**

2547 East 27th Street, Oakland, California

Sample	TPHg	TPHd	TPHmo/ho	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
<i>ESL (Table A-1): Residential Site, shallow soils, where Groundwater IS a current or potential source of drinking water</i>	100	100	500	230	440	2.9	3.3	2.3
I-9-W	450	81	ND	ND	ND	ND	ND	ND
I-9-E	1.7	ND	ND	ND	ND	ND	ND	ND
I-9-N	600	420	ND	ND	ND	ND	ND	1.1
I-9-S	7	1.2	ND	ND	ND	ND	ND	0.016
II-9-W	400	180	ND	ND	ND	ND	ND	1
II-9-E	ND	ND	ND	ND	ND	ND	ND	ND
II-9-N	ND	ND	ND	ND	ND	ND	ND	ND
II-9-S	ND	ND	ND	ND	ND	ND	ND	ND
III-9-W	ND	ND	ND	ND	ND	ND	ND	ND
III-8-E	ND	ND	ND	ND	ND	ND	ND	ND
III-9-N	ND	ND	ND	ND	ND	ND	ND	ND
III-9-S	ND	ND	ND	ND	ND	ND	ND	ND

Notes

ESL

\*

Environmental Screening Limits, San Francisco Bay Regional Water Quality Control Board (Feb 2005)  
 This area was subsequently removed

Table 10: Ceres Associates Additional Soil Sampling - June 2007

Site: 2547 East 27th Street, Oakland, California  
 Sampling Dates: June 25, 2007

Sample	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	Chromium	Lead	Nickel	Zinc
<i>Concentrations reported in milligrams per kilogram, mg/Kg</i>											
ESL (Table A-1): Residential Site, shallow soils, where Groundwater IS a current or potential source of drinking water	100	100	500	0.044	2.9	3.3	2.3	58	150	150	600
CS1-5								52	ND	40	42
CS1-10								31	ND	22	18
CS2-5			ND					33	ND	25	18
CS2-10								46	6.9	55	38
CS3-5								30	ND	19	16
CS3-10								49	9.6	72	53
CS4-5	ND	ND	5.9	ND	ND	ND	ND	40	6.8	26	21
CS4-10								38	5.6	33	22
CS5-5								28	ND	19	13
CS5-10			ND					51	ND	35	30
CS6-10*								36	ND	32	26
CS7-10									NA		
CS8-10											

Analytes that were reported as ND, but not listed here: PCBs, PNAs, PAHs, 1,4 Dioxane, Cadmium, and Total Oil and Grease  
 \* Sample 6-10 was analyzed one day outside of the hold time for volatile organic compounds (BTEX was within time frame)

**Key**  
 ESL Environmental Screening Limit, published by San Francisco Bay Regional Water Quality Control Board (Feb. 2005)  
 ND Not detected above the method reporting limit  
 NA Not analyzed

TPHg Total petroleum hydrocarbons as gasoline  
 TPHd Total petroleum hydrocarbons as diesel  
 TPHmo Total petroleum hydrocarbons as motor oil



TEG Project #71228E

Ceres Associates Project# CA1264-8  
2547 East 27th Street, Oakland, California

EPA Method 8260B Analyses of SOIL VAPOR in ug/L of Vapor

SAMPLE NUMBER:	Probe	SV-01	SV-02	SV-03	SV-04	SV-04	SV-05	SV-05	SV-05	SV-06
PURGE VOLUME:	Blank	3	3	3	3	dup	1	3	7	3
SAMPLE DEPTH (feet):		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
COLLECTION DATE:	12/28/07	12/28/07	12/28/07	12/28/07	12/28/07	12/28/07	12/28/07	12/28/07	12/28/07	12/28/07
COLLECTION TIME:	09:25	13:13	12:22	12:46	11:58	13:38	10:10	10:43	11:05	11:34
DILUTION FACTOR:	1	1	1	1	1	1	1	1	1	1
	RL									
Dichlorodifluoromethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methylene Chloride	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	0.10	nd	nd	nd	5.7	3.4	nd	nd	nd	nd
1,2-Dichloropropane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	0.20	nd	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
m,p-Xylene	0.20	nd	nd	nd	nd	nd	nd	nd	nd	nd
o-Xylene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-propylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butanol (TBA)	1.0	nd	nd	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MIBE)	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethyl-t-butyl ether (ETBE)	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Tert-amyl methyl ether (TAME)	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPH (gasoline range)	5.0	nd	nd	8.4	nd	nd	nd	nd	nd	nd
TPH (diesel range)	50	nd	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Difluoroethane (leak check)	10	nd	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		110%	106%	106%	115%	113%	114%	108%	106%	112%
Surrogate Recovery (1,2-DCA-d4)		103%	90%	93%	98%	106%	91%	92%	95%	97%
Surrogate Recovery (1,4-BFB)		87%	76%	84%	82%	89%	83%	81%	82%	79%

"RL" Indicates reporting limit at a dilution factor of 1  
"nd" Indicates not detected at listed reporting limits

Analyses performed by: Mr. Jon Edmondson





Ceres Associates Project # CA1264-10  
2547 East 27th Street, Oakland, California

TEG Project #00323D

EPA Method 8260B VOC Analyses of SOIL VAPOR in µg/L of Vapor

SAMPLE NUMBER:		Probe	SV-8	SV-8	SV-8	SV-9
		Blank				
SAMPLE DEPTH (feet):			2.5	2.5	2.5	3.0
PURGE VOLUME:			1	3	7	3
COLLECTION DATE:		3/23/10	3/23/10	3/23/10	3/23/10	3/23/10
COLLECTION TIME:		09:25	10:35	10:54	11:13	11:45
DILUTION FACTOR (VOCs):		1	1	1	1	1
	RL					
Dichlorodifluoromethane	0.10	nd	nd	nd	nd	nd
Vinyl Chloride	0.10	nd	nd	nd	nd	nd
Chloroethane	0.10	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	0.10	nd	nd	nd	nd	nd
Methylene Chloride	0.10	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.10	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
Chloroform	0.10	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.10	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.10	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.10	nd	nd	nd	nd	nd
Benzene	0.10	nd	nd	nd	nd	nd
Trichloroethene	0.10	nd	nd	nd	nd	nd
Toluene	0.20	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.10	nd	nd	nd	nd	nd
Tetrachloroethene	0.10	nd	nd	nd	nd	nd
Ethylbenzene	0.10	nd	nd	nd	nd	0.17
1,1,1,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
m,p-Xylene	0.20	nd	nd	nd	nd	0.47
o-Xylene	0.10	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
1,1 Difluoroethane (leak check)	10	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		100%	99%	99%	98%	98%
Surrogate Recovery (Toluene-d8)		104%	104%	104%	102%	105%
Surrogate Recovery (4-BFB)		103%	98%	100%	99%	101%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Ms. Stephanie Seymour



Ceres Associates Project # CA1264-10  
2547 East 27th Street, Oakland, California

TEG Project #00323D

EPA Method 8260B VOC Analyses of SOIL VAPOR in µg/L of Vapor

SAMPLE NUMBER:		SV-10	SV-11	SV-11 dup	SV-12	SV-13
SAMPLE DEPTH (feet):		2.0	3.0	3.0	2.5	3.0
PURGE VOLUME:		3	3	3	3	3
COLLECTION DATE:		3/23/10	3/23/10	3/23/10	3/23/10	3/23/10
COLLECTION TIME:		12:10	12:27	12:47	13:14	13:30
DILUTION FACTOR (VOCs):		1	1	1	1	1
	RL					
Dichlorodifluoromethane	0.10	nd	nd	nd	nd	nd
Vinyl Chloride	0.10	nd	nd	nd	nd	nd
Chloroethane	0.10	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	0.10	nd	nd	nd	nd	nd
Methylene Chloride	0.10	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.10	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
Chloroform	0.10	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.10	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.10	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.10	nd	nd	nd	nd	nd
Benzene	0.10	nd	nd	nd	nd	nd
Trichloroethene	0.10	nd	nd	nd	nd	nd
Toluene	0.20	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.10	nd	nd	nd	nd	nd
Tetrachloroethene	0.10	nd	nd	nd	nd	nd
<b>Ethylbenzene</b>	0.10	0.25	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
<b>m,p-Xylene</b>	0.20	0.67	nd	nd	nd	nd
<b>o-Xylene</b>	0.10	0.13	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
1,1 Difluoroethane (leak check)	10	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		99%	99%	98%	99%	101%
Surrogate Recovery (Toluene-d8)		105%	104%	103%	104%	103%
Surrogate Recovery (4-BFB)		101%	101%	100%	102%	99%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Ms. Stephanie Seymour

page 2

Table 6: Ceres Associates Quarterly Groundwater Monitoring - August 2006 to April 2007

Site: 2547 East 27th Street, Oakland, California  
 Sampling Dates: Multiple (see below)

Well	(TOC)	Sample Date	Depth to Groundwater (ft)	Groundwater Elevation (ft amsl)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
<i>Concentrations reported as micrograms per Liter (µg/L)</i>												
<i>ESL (Table F-1a): Groundwater IS a current or potential source of drinking water</i>					100	100	100	1	40	30	20	5
<i>ESL (Table E-1a): Potential Vapor Intrusion; High Permeability Soils, Residential Use</i>					use soil gas	use soil gas	use soil gas	540	380,000	170,000	160,000	24,000
MW-1		8/24/2006	4.63	104.12	ND	ND	NA	ND	ND	ND	ND	ND
108.75		11/17/2006	4.50	104.25	ND	ND	ND	ND	ND	ND	ND	ND
		1/30/2007	4.14	104.61	ND	78	280	ND	ND	ND	ND	ND
		4/30/2007	4.04	104.71	ND	ND	ND	ND	ND	ND	ND	ND
MW-2		8/24/2006	4.26	105.29	ND	78	NA	ND	ND	0.65	1.5	ND
109.55		11/17/2006	4.16	105.39	ND	ND	ND	ND	ND	0.8	1.8	ND
		1/30/2007	4.29	105.26	ND	ND	ND	ND	ND	1	2	ND
		4/30/2007	4.53	105.02	ND	60	ND	ND	ND	ND	ND	ND
MW-3		8/24/2006	4.40	104.00	ND	ND	NA	ND	ND	ND	ND	ND
108.4		11/17/2006	3.92	104.48	ND	ND	ND	ND	ND	ND	ND	ND
		1/30/2007	4.30	104.10	ND	ND	ND	ND	ND	ND	ND	ND
		4/30/2007	4.22	104.18	ND	ND	ND	ND	ND	ND	ND	ND
MW-4		8/24/2006	4.87	103.02	ND	ND	NA	ND	ND	ND	ND	ND
107.89		11/17/2006	3.75	104.14	ND	ND	ND	ND	ND	ND	ND	ND
		1/30/2007	3.82	104.07	ND	ND	ND	ND	ND	ND	ND	ND
		4/30/2007	4.50	103.39	ND	ND	ND	ND	ND	ND	ND	ND
MW-5		8/24/2006	5.00	103.65	ND	ND	NA	ND	ND	ND	ND	ND
108.65		11/17/2006	3.30	105.35	ND	ND	ND	ND	ND	ND	ND	ND
		1/30/2007	3.22	105.43	ND	ND	ND	ND	ND	ND	ND	ND
		4/30/2007	3.20	105.45	ND	ND	ND	ND	ND	ND	ND	ND
EX-1		8/24/2006	4.84	104.62	460	220	NA	ND	ND	ND	ND	ND
109.46		11/17/2006	4.38	105.08	270	130	ND	ND	ND	ND	1.9	ND
		1/30/2007	4.00	105.46	2,200	800	270	1	ND	3.9	3.2	ND<10
		4/30/2007	4.20	105.26	1,000	740	ND	ND	ND	1.7	2.4	ND

**Abbreviations and Notes**

µg/L micrograms per Liter  
 TOC elevation of well at the top of the casing, in feet above mean sea level  
 TPHg total petroleum hydrocarbons as gasoline using US EPA method 8015C  
 TPHd total petroleum hydrocarbons as diesel using US EPA method 8015C  
 TPHmo total petroleum hydrocarbons as motor oil using US EPA method 8015C  
 MTBE methyl tertiary butyl ether using US EPA method 8260B and/or 8021B  
 \* benzene, toluene, ethylbenzene, and xylenes were analyzed by US EPA method 8021B and 8260B (only the highest concentration was reported here)  
 ESL Environmental Screening Limit, published by San Francisco Bay Regional Water Quality Control Board (Feb. 2005)  
 NA not analyzed  
 ND not detected below the method reporting limit  
 ND < X not detected below an increased method reporting limit (see lab sheets for further details)  
 NE not yet an established value

**Table 2: Kleinfelder Soil and Groundwater Sampling - June 2002**

**Site:** 2547 East 27th Street, Oakland, California  
**Sampling Dates:** June 19, 2002

**Soil Sample Results**

	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead
<i>ESL (Table A-1): Residential Site, shallow soils, where Groundwater IS a current or potential source of drinking water</i>	100	100	500	0.044	2.9	3.3	2.3	0.023	150
<b>Boring</b>	<i>concentrations reported as milligrams per kilogram, mg/Kg</i>								
EB-1 @ 4.5 ft bgs	1200	650	14	ND<0.5	0.62	1.6	3.3	ND<5.0	24
EB-2 @ 5.5 ft bgs	1800	1500	ND<500	ND<1	ND<1	3.1	4.9	ND<10	4.4
EB-3 @ 4 ft bgs	ND	ND	ND	ND	0.0054	ND	ND	ND	3.8

**Groundwater Sample Results**

	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead
<i>ESL (Table F-1a): Groundwater IS a current or potential source of drinking water</i>	100	100	100	1	40	30	20	5	2.5
<i>ESL (Table E-1a): Potential Vapor Intrusion; High Permeability Soils, Residential Use</i>	<i>use soil gas</i>	<i>use soil gas</i>	<i>use soil gas</i>	540	380,000	170,000	160,000	24,000	NE
<b>Boring</b>	<i>concentrations reported as micrograms per liter, µg/L</i>								
EB-1	ND	56	ND	ND	ND	ND	ND	ND	ND
EB-2	82	360	310	0.97	1.3	ND	1.3	ND	ND
EB-3	ND	270	540	ND	ND	ND	ND	ND	ND

**Abbreviations and Notes**

TPHg	total petroleum hydrocarbons as gasoline using US EPA method 8015C
TPHd	total petroleum hydrocarbons as diesel using US EPA method 8015C
TPHmo	total petroleum hydrocarbons as motor oil using US EPA method 8015C
MTBE	methyl tertiary butyl ether using US EPA method 8260B and/or 8021B
ESL	Environmental Screening Limit, published by San Francisco Bay Regional Water Quality Control Board (Feb. 2005)
NA	not analyzed
ND	not detected below the method reporting limit
ND < X	not detected below an increased method reporting limit (see lab sheets for further details)
NE	no established value

**Table 2: Groundwater Sample Results**

*Reported in PPB*

Sample	TPHg	TPHd	TPHho	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	EDB	1,2-DCA	Lead
SB11-GW	ND	150	730	730	ND	ND	ND	ND	ND	ND	29
SB12-GW	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB13-GW	ND	1300	7900	7900	ND	ND	ND	ND	ND	ND	ND
SB14-GW	74	190	400	400	ND	ND	ND	1.7	ND	ND	19
SB15-GW	ND	790	4900	4900	ND	ND	ND	ND	ND	ND	19
SB16-GW	ND	ND	310	310	ND	ND	ND	ND	ND	ND	ND
SB17-GW	ND	ND	ND	ND	ND	1.4	ND	0.51	ND	ND	2.4
SB18-GW	ND	470	2300	2300	ND	ND	ND	ND	ND	ND	17
SB19-GW	51	89	ND	ND	ND	ND	ND	ND	ND	ND	2.5
SB20-GW	ND	280	2200	2200	ND	ND	ND	ND	ND	ND	18
SB21-GW	1500	910	ND	ND	ND	ND	1.3	1.8	ND	ND	16
SB22-GW	ND	3600	28000	28000	ND	ND	ND	ND	ND	ND	19
SB23-GW	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13
SB24-GW	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
<b>Res ESL</b>	100	100	100	100	1	40	30	13	0.05	0.5	2.5
<b>MCL</b>	--	--	--	--	1	150	300	1,750	0.05	0.5	--

Exceeds ESL

**Table 5: Ceres Associates Deeper Groundwater Sampling - September 2006**

**Site:** 2547 East 27th Street, Oakland, California  
**Sampling Dates:** September 20, 2006

	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
<i>ESL (Table F-1a): Groundwater IS a current or potential source of drinking water</i>	100	100	100	1	40	30	20	5
<i>ESL (Table E-1a): Potential Vapor Intrusion; High Permeability Soils, Residential Use</i>	<i>use soil gas</i>	<i>use soil gas</i>	<i>use soil gas</i>	540	380,000	170,000	160,000	24,000
<b>Target Depth</b>	<i>Concentrations reported as micrograms per liter, <math>\mu\text{g/L}</math></i>							
13 ft bgs	ND	ND	ND	ND	ND	ND	ND	ND
21 ft bgs	ND	ND	ND	0.84	ND	ND	ND	ND

**Abbreviations and Notes**

- TPHg total petroleum hydrocarbons as gasoline using US EPA method 8015C
- TPHd total petroleum hydrocarbons as diesel using US EPA method 8015C
- TPHmo total petroleum hydrocarbons as motor oil using US EPA method 8015C
- MTBE methyl tertiary butyl ether using US EPA method 8260B and/or 8021B
  
- ESL Environmental Screening Limit, published by San Francisco Bay Regional Water Quality Control Board (Feb. 2005)
  
- ND not detected below the method reporting limit

Well Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
<p>Grout</p> <p>2" Dia. Casing</p> <p>Bentonite</p> <p>Sand</p> <p>TD 15'</p>	1			af	Artificial Fill - 2" Asphalt and base rock	
	2			SM	Silty sand with some 1/4 inch pebbles, grayish brown 1.4/5/2	
	3			CL	Clay, greenish black 6.1/2.5/1.06, medium plasticity, with some fine sands	
	4					
	5		1			
	6					
	7					
	8					
	9			1	CL	Same as above with petroleum odor
	10					
	11			14.5	SC	Clayey sand, fine grained sand with 30% clay, grayish brown 2.54/5/2, rounded pebbles, petrolim odor
	12					
	13					
	14					
	15			0	SP	Sand with silt and clay, black 2.54/1/1, wet, rounded pebbles up to 1/2 inch in size, strong odor
16						
17						
18						
19						
20						
21						
22						
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28						
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31						

**CA Ceres**  
Associates  
Project CA1264-3

Former Gas Station  
2547 East 27th Street  
Oakland, California

Logged By: Ken Durand  
Date: January 16, 2006  
Drilling Method: Hollow Stem Auger

**WELL LOG**  
MW-1

SHEET 1 of 1

**ATTACHMENT 6**

Well Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
Grout 2" Dia. Casing Bentonite Sand TD 8'	1			af	Artificial Fill - 2" Asphalt and base rock
	2		3	SP	Sand, medium fine sand with pebbles up to 1 inch in size, damp
	3		0	SP	Sand with 1/2 inch rounded pebbles, moist, dark grayish brown, 1.04/4/1/1, no odor
	4				
	5		0	SP	Coarse sand with pebbles up to 1/4 inch in size, wet, dark brown 1.4/3/3, no odor
	6				
	7				
	8				
	9		Well stopped at 8' bgs because subsurface concrete like material was encountered.		
	10				
	11				
	12				
	13				
	14				
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	29				
	30				
	31				



Well Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
<p>2" Dia. Casing</p> <p>Grout</p> <p>Bentonite</p> <p>Sand</p> <p>TD 15'</p>	1			af	Artificial Fill - 2" Asphalt and base rock
	2		0	SP	Medium fine sand with pebbles up to 1 inch in diameter, brown 1.04/4/3
	3		0	SP	Medium fine sand with some silt and clay, brown 1.04/4/3, damp, no odor
	4				
	5		0	SC	Clayey sand, fine sand with clay, dark gray 2.54/4/1, no odor
	6				
	7			SC	Clayey sand, fine sand with clay, dark olive brown 2.54/3/3, damp
	8		0		
	9				
	10				
	11				
	12				
	13		0	SC	Clayey sand, fine grained sand with clay, olive brown, 2.54/4/1, moist
	14				
	15				
16					
17					
18					
19					
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21					
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24					
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27					
28					
29					
30					
31					

Well Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
<p>2" Dia. Casing</p> <p>Grout</p> <p>Bentonite</p> <p>Sand</p> <p>TD 15'</p>	1			af	Artificial Fill - 2" Asphalt and base rock
	2				
	3				
	4		2.4	CL	Clay with small layers of fine gravel sand, very dark grayish brown, 2.54/3/2, damp
	5				
	6				
	7		1.7	CL	Clay with layers of fine gravel sand, dark grayish brown 2.54/3/2, damp
	8				
	9		2	SC	Clayey sand, fine to medium sand with clay, olive brown 2.54/4/4, moist
	10				
	11				
	12		2.4	SC	Same as above, wet
	13				
	14				
	15				
16					
17					
18					
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Well Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
<p>2" Dia. Casing</p> <p>Grout</p> <p>Bentonite</p> <p>Sand</p> <p>TD 15'</p>	1		4	SM	Silty sand, medium to fine grained sand and silt, very dark grayish brown 104R/3/5, damp	
	2					
	3		0	CL	Clay with sand pebbles, black 104R/2/1, wet	
	4					
	5		0	SC	Clayey sand, sand with clay and some pebbles up to 1 inch in diameter, olive brown 2.5/4/3, wet	
	6					
	7					
	8		0	CL	Clay wit 5% "rock" fragments, black 2.5/4/3, wet	
	9					
	10		0	SP	Sand with some silt and clays, dark yellowish brown 104R/3/6, damp	
	11					
	12					
	13					
	14					
	15					
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31						

Well Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description		
<p>4" Dia. Casing</p> <p>Grout</p> <p>Bentonite</p> <p>Sand</p> <p>TD 15'</p>	1				Clay with some silt and sand, black 5/2.5/1		
	2						
	3						
	4		44			CL	
	5						
	6						
		7		9	CL	Silty clay with some "rock" pebbles, black 5/2.5/1, moist	
		8					
		9					
		10		0			
		11					
		12		107	CL	Silty clay with some silt, moist/wet, olive 5/5/3	
		13					
		14		6			
		15					
	16						
	17						
	18						
	19						
	20						
	21						
	22						
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	24						
	25						
	26						
	27						
	28						
	29						
	30						
	31						

Date Completed: 8/19/02  
 Logged By: G. Knopp  
 Total Depth: 19.0 ft

Sampler: Macro-Core System EC-5  
 Method: 3" O.D. Sampler  
 Hammer Wt: Vibratory Push  
 Location: northeast corner of property  
 Elevation: approx. 110'

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	PID (ppm)	USCS	Description	Remarks
1							SANDY GRAVEL (GW), brown, slightly moist, fine to coarse grained gravel, fine grained sand	
2								
3								
4								
5					37		- hand dug to 4' until free hydrocarbon product observed in soil	
6					170		SILTY CLAY WITH SOME SAND (CL), dark gray-brown to black, moist, very fine grained sand, free hydrocarbon product in soil, highly plastic	
7					117			
8					75		- no sand, olive-gray to olive-brown	
9					31			
10					157		- olive-gray	
11					19			
12					11			
13					5			
14					6		- some fine grained sand present, very moist	
15					4		SANDY CLAY (SC), orange-brown, fine to coarse grained sand, wet at 14'	
16					4			
17					4		- some fine grained angular to subangular chert gravel present, fine to coarse grained sand	
18					2			
19					3		GRAVELLY SAND WITH CLAY (SW), wet, light brown, fine to coarse grained sand and gravel, gravel is angular to subangular chert	
20					1.2			
21					0.9		END OF BORING	
22					0.3		- 5' of 1" diameter screen inserted, 1' sand pack, 2' bentonite chips, remainder backfilled with grout.	
23					0.4			
24					3			
25					0			



**LOG OF BORING NO. EB-1**

Tomorrow Development Site  
 2547 E. 27th Street  
 Oakland, California

PLATE

**A2**

PROJECT NO. 17500

I:\PROJECTS\17500\17500.MXD (REVISED) 8/19/02

Date Completed: 6/19/02  
 Logged By: G. Knopp  
 Total Depth: 16.0 ft

Sampler: Macro-Core System EC-5  
 Method: 3" O.D. Sampler  
 Hammer Wt: Vibratory Push  
 Location: 5' from south perimeter, 27' west of 27th St.  
 Elevation: approx. 110'

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	PID (ppm)	USCS	Description	Remarks
1							SANDY GRAVEL (SW), dark brown, slightly moist	
2								
3								
4								
5							- hand dug to 5'	
6					66		SILTY CLAY (CL/CH), very dark gray, moist	
7					162			
8					100			
9					85			
10					55			
11					25		- gray to orange-brown, trace fine to medium grained sand present	
12					29			
13					20		SILTY CLAY (CL), orange-brown, moist, increasing sand	
14					2.1			
15					0		SANDY CLAY WITH TRACE GRAVEL (SC), light olive-gray with orange-brown mottling, moist to very moist, fine grained sand	
16					0		GRAVELLY SAND WITH SOME CLAY (SW), orange-brown, wet	
17					0		END OF BORING	
18					0		- 5' of 1" diameter screen inserted.	
19					0		- Boring backfilled with grout.	
20					0		- Ground water encountered at 7.5' bgs.	
21								
22								
23								
24								
25								

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**KLEINFELDER**

**LOG OF BORING NO. EB-2**

Tomorrow Development Site  
 2547 E. 27th Street  
 Oakland, California

PLATE

**A3**

PROJECT NO. 17500

Date Completed: 6/19/02  
 Logged By: G. Knopp  
 Total Depth: 11.0 ft

Sampler: Macro-Core System EC-5  
 Method: 3" O.D. Sampler  
 Hammer Wt: Vibratory Push  
 Location: near middle of site  
 Elevation: approx. 110'

Depth (feet)	Sample Number	Sample Type	Blows/Foot	Recovery (%)	PID (ppm)	USCS	Description	Remarks
1							GRAVELLY SAND (SW), brown, slightly moist	
2							SILTY CLAY (CLCH), red-brown to black, moist	
3							- black, very moist	
4							- wet 4.5' to 6.5'	
5					0.9		SANDY CLAY (SC), light orange-brown, moist	
6					0.0		SILTY CLAY (CL), orange-brown, moist	
7					0.0			
8					0.0			
9					0.0			
10					0.0		CLAYEY SAND WITH SOME GRAVEL (SC), orange to orange-brown, moist	
11					0.0		CLAYEY GRAVEL WITH SAND (GW), orange-brown, wet, fine to coarse grained sand, fine to medium grained angular to subangular chert, sandstone, and claystone gravel	
12							END OF BORING	
13							- 2' of screen inserted.	
14							- Boring backfilled with grout.	
15							- Ground water encountered at 9' bgs.	
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								



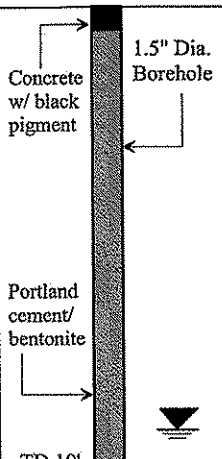
LOG OF BORING NO. EB-3

Tomorrow Development Site  
 2547 E. 27th Street  
 Oakland, California

PLATE

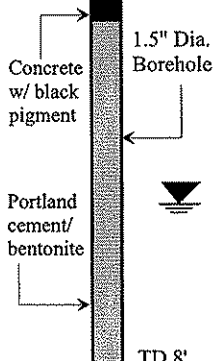
A4

PROJECT NO. 17500

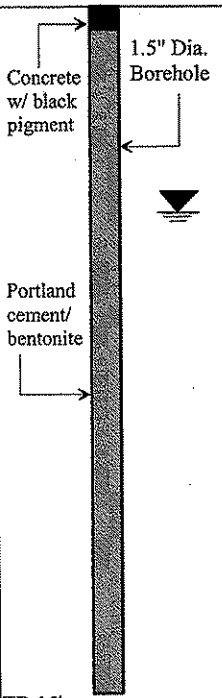
Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
 <p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10'</p>	1			af	Artificial Fill - 2" Asphalt and base rock
	2			ML	Inorganic silt with fine to medium grained sand, black 2.54/2.5/1, wet
	3		0		
	4			CL	Clay with some sand grains mixed in, black 2.54/2.5/1, moist
	5			0	Silty sand, fine grained sand and silt, olive brown 2.54/4/3, moist
	6				
	7			0	
	8				
	9				
	10				
11					
12					
13					
14					
15					
16					
17					
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22					
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26					
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28					
29					
30					
31					



Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
<p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 16'</p>	1			af	Artificial Fill - 2" Asphalt and base rock	
	2			SM	Silty sand with some 1/4 inch pebbles, grayish brown 1.4/5/2	
	3			1	CL	Clay, greenish black 6.1/2.5/1.06, medium plasticity, with some fine sands
	4					
	5					
	6					
	7					
	8					
	9			1	CL	Same as above with petroleum odor
	10					
	11			14.5	SC	Clayey sand, fine grained sand with 30% clay, grayish brown 2.54/5/2, rounded pebbles, petroleum odor
	12					
	13					
	14					
	15			0	SP	Sand with silt and clay, black 2.54/1/1, wet, rounded pebbles up to 1/2 inch in size, strong odor
	16					
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

Soil Boring Completion Details	Depth	Sample Interval	PD Reading	USCS Code	Soil Description
	1			af	Artificial Fill - 2" Asphalt and base rock
	2		3	SP	Sand, medium fine sand with pebbles up to 1 inch in size, damp
	3		0	SP	Sand with 1/2 inch rounded pebbles, moist, dark grayish brown, 1.04/4/1/1, no odor
	4		0	SP	Coarse sand with pebbles up to 1/4 inch in size, wet, dark brown 1.4/3/3, no odor
	5				
6	6				
7	7				
8	8				
9	9				
10	10				
11	11				
12	12				
13	13				
14	14				
15	15				
16	16				
17	17				
18	18				
19	19				
20	20				
21	21				
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30	30				
31	31				

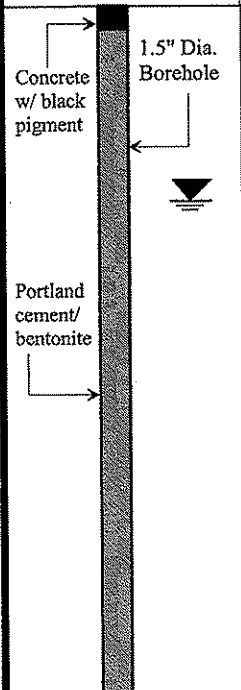
Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
<p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 20'</p>	1		1.6	af	Artificial Fill - 2" Asphalt and base rock
	2			SM	Silty sand with some 1/4 inch rounded pebbles, olive brown 2.54/4/4, damp
	3		12.3	SP	Sand, mixed sands with silts and gravel, olive brown 2.54/4/3
	4				
	5				
	6				
	7			SC	Clayey sand, fine grained sand with clay, light olive brown 2.54/5/4, damp
	8				
	9		0		
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17		1.4	SM	Silty clay, sand with pebbles up to 1/2 inch in size, olive brown 2.54/4/4, moist
	18				
	19		1.1	SM	Same as above, wet
	20				
21					
22					
23					
24					
25					
26					
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28					
29					
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31					

Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
 <p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 15'</p>	1			af	Artificial Fill - 2" Asphalt and base rock	
	2					
	3					
	4			1.4	CL	Clay, medium plasticity, dark grayish brown 2.54/4/2, damp
	5					
	6					
	7					
	8					
	9			1.1	SC	Sandy clayey sand, fine grain sand with slight clay, light olive brown 2.54/5/4, damp
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
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	27					
	28					
	29					
	30					
	31					

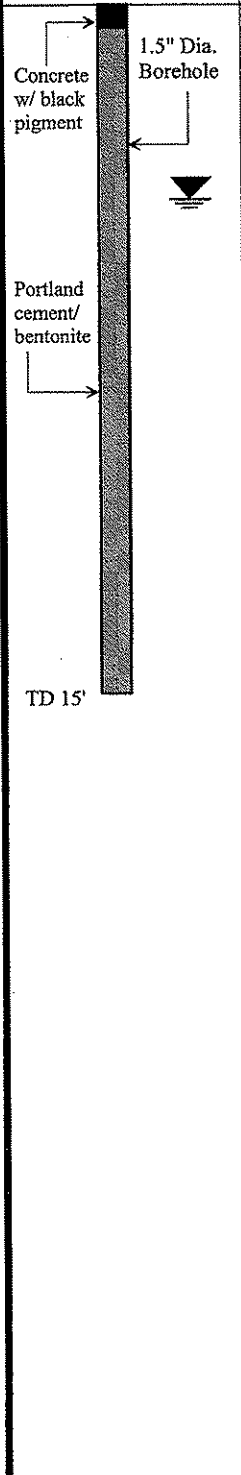
Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
<p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 20'</p>	1			af	Artificial Fill - 2" Asphalt and base rock	
	2					
	3		0	SP	Sand with some angular pebbles up to 1/4 inch in diameter, light olive brown 2.54/5/4, damp	
	4					
	5					
	6					
	7					
	8		0	SC	Clayey sand, fine sand with clay, dark olive brown 2.54/3/3, damp	
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16			1.1	SC	Same as above, wet
	17					
	18					
	19					
	20					
	21					
	22					
	23					
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	25					
	26					
	27					
	28					
	29					
	30					
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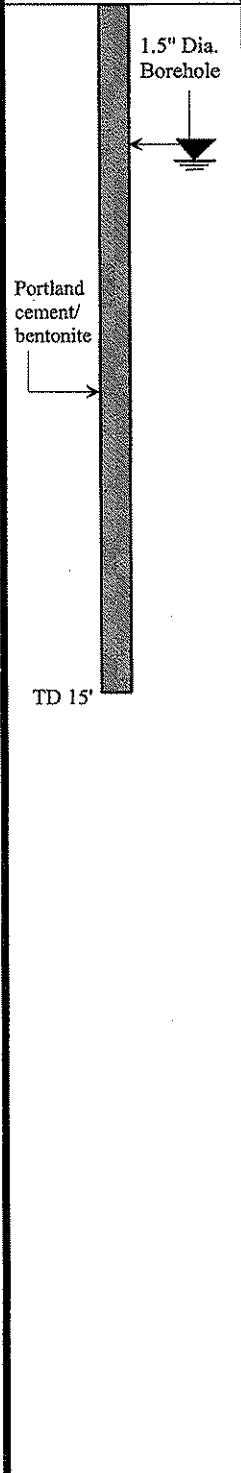
Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
<p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 16'</p>	1			af	Artificial Fill - 2" Asphalt and base rock
	2		0	SP	Medium fine sand with pebbles up to 1 inch in diameter, brown 1.04/4/3
	3		0	SP	Medium fine sand with some silt and clay, brown 1.04/4/3, damp, no odor
	4				
	5				
	6		0	SC	Clayey sand, fine sand with clay, dark gray 2.54/4/1, no odor
	7				
	8				
	9		0		
	10				
	11				
	12				
	13		0	SC	Clayey sand, fine grained sand with clay, olive brown, 2.54/4/1, moist
	14				
	15				
	16				
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
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Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
<p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 16'</p>	1		3	af	Artificial Fill - 2" Asphalt and base rock
	2			SC	Silty clay, silty with clay and 5% sand grains, black 2.54/2.5/1, slight odor
	3				
	4				
	5		0	SC	Silty clay sand with pebbles up to 1 inch in diameter, dark greenish gray S61/4/10, moist, sight odor
	6				
	7		0	SM	Silty sand, medium fine sand with little clay, brown 104R/5/3, moist, no odor
	8				
	9				
	10		0	SC	Sandy silty clay, brown 104R/5/4, moist, no odor
	11				
	12				
	13			SP	Medium fine sand, 104a/5/4, moist, no odor
	14		0		
	15				
	16				
17					
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20					
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23					
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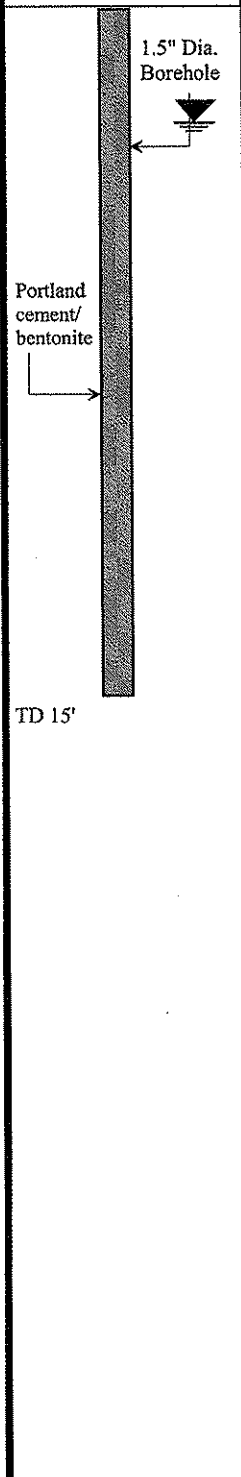
Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
 <p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 15'</p>	1			af	Artificial Fill - 2" Asphalt and base rock
	2				
	3				
	4		2.4	CL	Clay with small layers of fine gravel sand, very dark grayish brown, 2.54/3/2, damp
	5				
	6				
	7		1.7	CL	Clay with layers of fine gravel sand, dark grayish brown 2.54/3/2, damp
	8		2	SC	Clayey sand, fine to medium sand with clay, olive brown 2.54/4/4, moist
	9				
	10				
	11		2.4	SC	Same as above, wet
	12				
	13				
	14				
	15				
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17					
18					
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Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
 <p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 15'</p>	1			af	Artificial Fill - 2" Asphalt and base rock
	2		0	SM	Silty sand, medium grain sand and silt, wet, very dark gray 104R/3/1, no odor
	3		0	SC	Sandy clay, fine sand and clay, very dark brown, 104R/2/1, moist
	4		1	SC	Clayey sand, fine grained sand and clay, some rounded pebbles, dark olive brown 2.54/3/2, moist
	5		0	GC	Clayey gravel, approximately 50% gravel pebbles with silt and clay, light olive brown 2.54/5/3, moist
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
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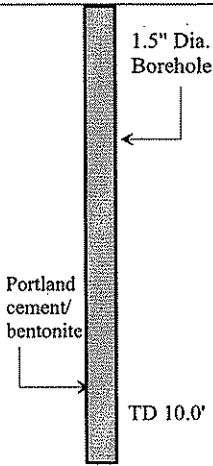
Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
 <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 15'</p>	1					
	2					
	3					
	4			44	CL	Clay with some silt and sand, black 5/2.5/1
	5					
	6					
	7			9	CL	Silty clay with some "rock" pebbles, black 5/2.5/1, moist
	8					
	9					
	10			0		
	11					
	12			107	CL	Silty clay with some silt, moist/wet, olive 5/5/3
	13					
	14			6		
	15					
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Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description
<p>Concrete w/ black pigment</p> <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 15'</p>	1		0	af	Artificial Fill - 2" Asphalt and base rock
	2			SW	Fine to coarse grain sand with pebbles up to 1 inch in diameter, dark brown 7.54R/3/2, damp
	3				
	4		0	CL	Silty clay, dark olive brown 2.54/3/3, moist
	5				
	6				
	7		0	CL	Silty clay with some silt and sand, olive 5.4/4/3, moist
	8				
	9				
	10				
	11				
	12		0	CL	Clay, black 2.54/2.5/1, wet
	13				
	14				
	15				
16					
17					
18					
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Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
	1		4		Silty sand, medium to fine grained sand and silt, very dark grayish brown 104R/3/5, damp	
	2			SM		
	3					Clay with sand pebbles, black 104R/2/1, wet
	4		0	CL		
	5					
	6					Clayey sand, sand with clay and some pebbles up to 1 inch in diameter, olive brown 2.5/4/3, wet
	7		0	SC		
	8					
	9					Clay wit 5% "rock" fragments, black 2.54/2.5/1, wet
	10		0	CL		
	11					Sand with some silt and clays, dark yellowish brown 104R/3/6, damp
	12		0	SP		
	13					
	14					
	15					
16						
17						
18						
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22						
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31						

Soil Boring Completion Details	Depth	Sample Interval	PID Reading	USCS Code	Soil Description	
1.5" Dia. Borehole  Portland cement/bentonite TD 15'	1		0	CL	Clay with some silt and sand, black 2.54/2.5/1, moist	
	2					
	3					
	4			2	CL	Clay with some pebbles up to 1/2 inch in diameter, dark olive brown 2.54/3/3, wet
	5					
	6					
	7					
	8					
	9			1	GM	Silty gravel, approximately 50% gravel with sand and silt, olive brown 2.54/4/3, damp
	10					
	11					
	12					
	13			1	SM	Medium to fine grained sand with some gravel, olive brown 2.54/4/3, damp
	14					
	15					
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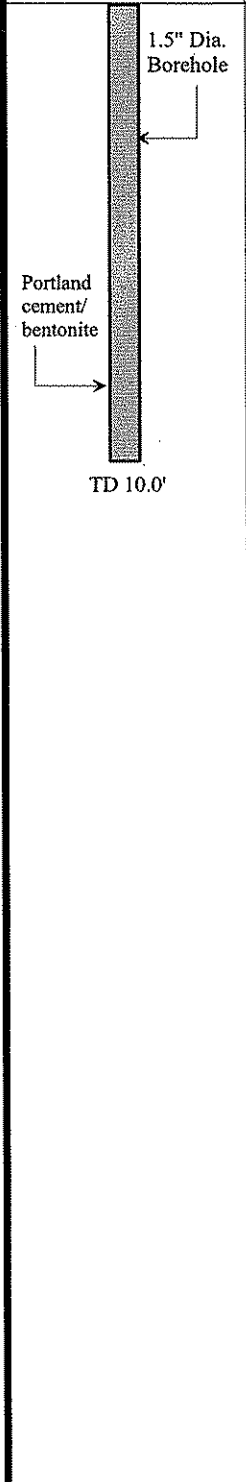
Soil Boring Completion Details	Depth	Sample Interval	USCS Code	Soil Description
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">1.5" Dia. Borehole</div> <div style="margin-bottom: 20px;">←</div> <div style="margin-bottom: 20px;">Portland cement/bentonite</div> <div style="margin-bottom: 20px;">▼</div> <div style="margin-bottom: 20px;">▼</div> <div style="margin-bottom: 20px;">TD 27.5'</div> </div>	1		GM	Mixed gravel and loam, olive brown 2.5Y4/4
	2			
	3		CL	Clay with some silt and sand, very dark greyish brown 10YR2/2, medium plasticity.
	4			
	5			
	6			
	7			
	8		CL	Clay, dark olive, 5Y3/2, high plasticity, with some fine sands
	9			
	10			
	11			
	12			
	13		SC	Clayey sand, fine grained sand with 30% clay, moist, wet, olive brown 2.5Y5/4, medium plasticity.
	14			
	15			
	16			
	17		CL	Sandy clay, with 20% gravel, reddish brown 5YR 4/4, high plasticity
	18			
	19			
	20		CL	Sandy clay, with 30% gravel, very moist, reddish brown 5YR4/4, high plasticity
	21			
	22			
	23			
	24			
	25		CL	Clay, with some silt, very dense, black, 2.5Y5/4, high plasticity
	26			
	27			
	28			
	29			Refusal at 27.5'
	30			
	31			

Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description
 <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10.0'</p>	1	GC		Mixed gravel and sandy clay, dark olive grey 5Y3/2
	2	SC	4	Sandy clay, black 2.5Y2.5/1 with grey/white fines
	3	CL		Sandy clay, brown (and other colors) 10YR4/3, with grey/white fines
	4	CL	1	Clay, black 2.5Y2.5/1
	5			
	6	CL	1	Silty clay, very dark greyish brown 2.5Y3/2, somewhat moist
	7			
	8	GC		Mixed gravel with some clayey fines, moist
	9			
	10	CL		Sandy clay, olive brown 2.5Y4/4, moist
11				
12				
13				
14				
15				
16				
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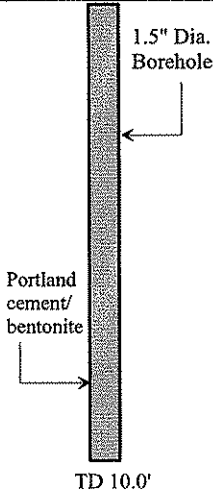
\*Background PID readings indicated a maximum of 3ppm

Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description
<p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10.0'</p>	1	SM		Mixed gravel and clay loam, olive brown 2.5Y4/4
	2	SC		Sandy clay, black 2.5Y2.5/1
	3	SC	4	Clay, black 2.5Y2.5/1, with some small gravel
	4	CL	1	Sandy clay, black 2.5Y2.5/1
	5			
	6	CL	2	Clay, black 2.5Y2.5/1, with small gravel, moist
	7			
	8	CL		Silty clay, 2.5Y4/4 olive brown, moist
	9			
	10	SC	1	Silty clay, olive 5Y5/6, with patches of clay, black 2.5Y2.5/1
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
	23			*Background PID readings indicated a maximum of 3ppm
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	25			
	26			
	27			
	28			
	29			
	30			
	31			



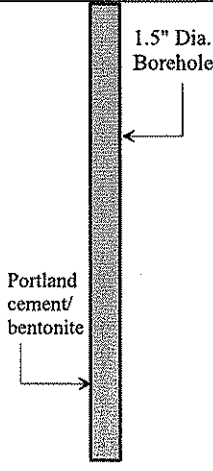
Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description	
 <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10.0'</p>	1	SC	2	Mixed gravel and sandy clay, olive brown 2.5Y4/3, with grey/white fines	
	2				
	3	CL	3	Silty clay, olive brown 2.5Y 4/4	
	4				
	5	CL	1	Clay, very dark grey 2.5Y3/1, moist	
	6				
	7	CL	3	Gravelly sandy clay, dark greyish brown 10YR4/2, moist	
	8				
	9				
	10				
11					
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13					
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\*Background PID readings indicated a maximum of 3ppm

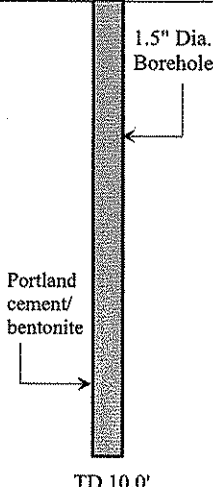
Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description
	1	SM		Gravelly sandy loam, olive brown 2.5Y4/4,
	2			
	3			
	4	CL		Silty clay, black 5Y2.5/2, with small gravel and rust color veins
	5			
	6	CL		Clay, black 5Y2.5/1
	7			
	8	CL		Clay, olive brown 2.5Y4/4, with small gravel, moist
	9			
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
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	29			
	30			
	31			
				*Background PID readings indicated a maximum of 3ppm

Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description	
<p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10.0'</p>	1	GM		Gravel, with some fines	
	2	CL	7	Sandy clay, dark olive grey 5Y3/2	
	3				
	4				
	5	CL	1	Clay, black 2.5Y2.5/1, moist, mild petroleum odor	
	6				
	7	CL	2	Sandy clay, dark grey 5Y4/1, with some gleying (5GY6/1), no petroleum odor	
	8		1		
	9				
	10				
11					
12					
13					
14					
15					
16				*Background PID readings indicated a maximum of 3ppm	
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29					
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31					

Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description
<p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10.0'</p>	1	SC		Sandy loam, light olive brown 2.5Y5/4, with small and medium gravel
	2			
	3			
	4			
	5			
	6	SC		Gravelly sandy loam, light olive brown 2.5Y5/4, wet
	7			
	8			
	9	SC	1	Sandy clay loam, light olive brown 2.5Y5/4, with sandy clay (2.5Y4/4) inclusions, moist
	10			
11			<p>*Background PID readings indicated a maximum of 3ppm</p>	
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Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description
 <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10.0'</p>	1			
	2	SC		Sandy loam, light olive brown 2.5Y5/4, with small gravel
	3			
	4			Some inclusions of clay, black 2.5Y2.5/1
	5			
	6			
	7			
	8	GM		Gravel, with some fines
	9	SC	1	Very gravelly sandy loam, light olive brown 2.5Y5/4
	10			
11				
12				
13				
14				
15				
16				
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\*Background PID readings indicated a maximum of 3ppm

Soil Boring Completion Details	Depth	USCS Code	PID Reading* (ppm)	Soil Description
 <p>1.5" Dia. Borehole</p> <p>Portland cement/bentonite</p> <p>TD 10.0'</p>	1	SC		Sandy loam, light olive brown 2.5Y5/4, with small gravel
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10	CL	1	Clay, black 2.5Y2.5/1, slight petrol odor
	11			<p>*Background PID readings indicated a maximum of 3ppm</p>
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
	23			
	24			
	25			
	26			
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	31			