



RECEIVED

1:37 pm, Mar 12, 2008

Alameda County
Environmental Health

**Soil Vapor Sampling and
Backfill Soil Sampling Report:**

Former Gas Station
2547 East 27th Street
Oakland, California

Date:

March 10, 2008

Prepared for:

Tomorrow Development
1305 Franklin Street, Suite 500
Oakland, California

Submitted to:

Jerry Wickham
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway
Alameda, California

Prepared by:

Ceres Associates
424 First Street
Benicia, California 94510
Tel. (707) 748-3170
Fax. (707) 748-3171



424 First Street
Benicia, California 94510
707 748-3170

March 10, 2008

Alameda County Health Care Services Agency (ACHCSA)
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California
94502-6577

**Subject: Soil Vapor Sampling and Backfill Soil Sampling Report, Former Gas Station,
2547 East 27th Street, Oakland, California (File No. 0396)**

Dear Mr. Wickham:

Ceres Associates has prepared this report of our findings from recently conducted soil vapor sampling and backfill soil sampling at the site located at 2547 East 27th Street, Oakland, California ("Property").

This work was conducted in accordance with a work plan approved by the ACHCSA, dated December 7, 2007. The ACHCSA requested this sampling in order to help assess if future residential occupants would be adversely impacted by potential vapor intrusion of subsurface contaminants. Further, ACHCSA was concerned about the quality of the imported fill materials used to backfill the former excavations. This report presents the investigation findings of both the soil vapor investigation and sampling of the backfill material.

Tomorrow Development and Ceres Associates request that the ACHCSA review and approve the enclosed report. If you have any questions or comments, please contact Ryan Meyer at (707) 748-3170 or via email at ryanmeyer@ceresassociates.com.

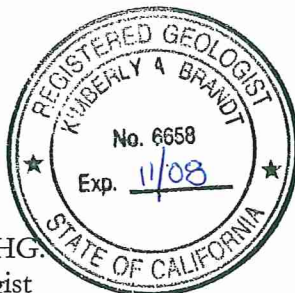
Sincerely,
Ceres Associates

A handwritten signature in black ink, appearing to read "Will Kleiner".

Will Kleiner
Project Manager

A handwritten signature in blue ink, appearing to read "Kimberly Brandt".

Kimberly A. Brandt, R.G., C.H.G.
Senior Associate Hydrogeologist




cc: Ted Dang
Tomorrow Development
1305 Franklin Boulevard
Oakland, California



Perjury Statement

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


Ted Dang, President

7/12/06
Date

Table of Contents

1.0	INTRODUCTION	1
2.0	SITE CHARACTERISTICS	2
2.1	Geologic/Hydrogeologic Setting	2
2.2	Soil	2
2.3	Groundwater	2
3.0	PREVIOUS PROPERTY INVESTIGATIONS	3
3.1	Previous Soil and Groundwater Sampling.....	3
3.2	September 1994 Aqua Science Engineers – Tank Removal Report.....	3
3.3	May 2001 M.L. River Group – Phase I ESA	4
3.4	August 2002 Kleinfelder- Soil and Groundwater Sampling	5
3.5	January 2005 Ceres Associates – Soil and Groundwater Sampling	6
3.6	February 2006 Ceres Associates – Soil and Groundwater Sampling.....	7
3.7	May 2006 Ceres Associates - Well Survey	8
3.8	October 2006 Ceres Associates - Deeper Groundwater Sampling.....	9
3.9	Revised Soil Excavation Report.....	9
3.10	August 2006 to April 2007 Ceres Associates - Quarterly Groundwater Monitoring Results	11
4.0	SOIL VAPOR SAMPLING.....	13
4.1	Soil Vapor Sampling	13
4.2	Laboratory Analysis	14
4.3	Results.....	15
5.0	BACKFILL SOIL SAMPLING	16
5.1	Soil Sampling.....	16
5.2	Laboratory Analysis	17
5.3	Results.....	17
6.0	CONCLUSIONS AND RECOMMENDATIONS	18
6.1	Soil Vapor Sampling Conclusions.....	18
6.2	Backfill Soil Sampling Conclusions	18
6.3	Recommendations.....	18
7.0	LIMITATIONS.....	19

Figures

- Figure 1 – Topographic Map
- Figure 2 – Previous USTs and Developments
- Figure 3 – Boring Location Map
- Figure 4 – Monitoring Well Location Map
- Figure 5 – Soil Vapor and Backfill Soil Sampling Map

Tables

- Table 1: Soil Sampling during UST Removal – August 1994
- Table 2: Kleinfelder Soil and Groundwater Sampling - June 2002
- Table 3: Ceres Associates Soil and Groundwater Sampling – January 2005
- Table 4: Ceres Associates Soil and Groundwater Sampling – February 2006
- Table 5: Ceres Associates Deeper Groundwater Sampling – September 2006
- Table 6: Ceres Associates Quarterly Groundwater Monitoring – August 2006 to April 2007
- Table 7: Ceres Associates Initial PID readings during Excavation – December 2006
- Table 8: Ceres Associates Initial Confirmation Soil Sampling – December 2006
- Table 9: Ceres Associates Additional Soil Sampling PID readings – June 2005
- Table 10: Ceres Associates Additional Soil Sampling – June 2007

Appendices

Permits

1.0 INTRODUCTION

The Property is located at 2547 East 27th Street, Oakland in Alameda County, California (*refer to Figure 1 – Topographic Map*). The Property was formerly occupied by a fuel and service station between 1927 and 1994. In 1994 the fuel and service station was demolished and the Property is currently unoccupied. A chain-link fence is present at the perimeter to secure the Property. The Property is periodically used for storage of building materials for nearby construction sites. The Property is located among single- and multiple- family residences.

In 1994, one 100-gallon waste oil underground storage tank (UST) and four 500-gallon gasoline USTs were excavated and removed from the Property. The 500-gallon USTs reportedly contained gas and diesel. After the USTs were removed, the excavation pits were lined with visqueen plastic and backfilled with the excavated material.

This report addresses the soil vapor sampling and backfill soil confirmation sampling completed on December 28, 2007, as requested by the Alameda County Health Care Services Agency (ACHCSA) in their letters, dated October 4 and December 7, 2007.

The regulatory risk criteria utilized in this report are Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) for residential sites where groundwater IS a potential or current drinking water source.

2.0 SITE CHARACTERISTICS

2.1 Geologic/Hydrogeologic Setting

Based upon geologic maps, the Property is underlain by Pleistocene alluvial fan deposits (Helley & Graymer, 1997). The Property lies at approximately 115 feet above mean sea level. The local topography slopes to the south-southeast.

2.2 Soil

The soils on the Property consist of generally sandy gravel fill from the surface to four (4) feet below ground surface (bgs). From four (4) feet to twelve (12) feet bgs the soil appears to consist of silty clays. Between twelve (12) feet and fifteen (15) feet bgs the soil is generally gravel and sand with some clay. At depths greater than fifteen (15) feet to a depth of twenty-seven (27) feet bgs, the soils are primarily clay with some silts, sands, and gravels.

Further, imported fill materials were used to backfill the excavations that occurred in November/December 2006. The bottom approximately three feet of the fill consisted of quarry fines supplied by Curtner Quarry of Milpitas California. This material is the sifted, primarily mineral component from a rock quarry. According to the Curtner Quarry, the fines have a maximum diameter of 9.50 millimeters (0.375 inch), and have at least 50% under 0.3 millimeters (0.012 inches). The quarry fines were compacted using a back-hoe and a “sheeps-foot” compaction attachment on an excavator. The compacted material was then overlain with Mirafi 140N non-woven, polypropylene, 55 mil thickness, geo-textile fabric. The placement of the fabric creates a barrier so that the fill soil placed on top of will be less likely to subside. Clean fill soil from undeveloped land was also acquired from Curtner Quarry to fill the remaining portion of the excavation. The fill material was brought onto the Property then spread out on top of the fabric. At approximately every 18 to 24 inches, the fill material was compacted in the same manner as described above for the quarry fines. A total of 380 tons of soil and base rock were brought on-site for backfill purposes.

2.3 Groundwater

Groundwater has been encountered on the Property between approximately three (3) and fourteen (14) feet bgs. Groundwater elevations are generally within three (3) to five (5) feet of the ground surface. The variable groundwater elevations across the Property suggest the possibility of a perched water-bearing zone.

The groundwater flow direction, based upon historic quarterly monitoring events by Ceres Associates, ranges from east-northeast to south-southeast, with an overall trend toward the southeast, with a gradient of 0.006 ft/ft.

3.0 PREVIOUS PROPERTY INVESTIGATIONS

Several investigations and remedial actions have been conducted at the Property. The following section summarizes those investigations and actions.

3.1 Previous Soil and Groundwater Sampling

Soil and groundwater contamination at the Property appears to have originated from historic uses of underground storage tanks for the purposes of storing gasoline and diesel fuel and waste oil (*refer to Figure 2 – Previous USTs and Developments*). The Property has been the subject of several previous assessments, including:

- Tank Removal Report, September 1994, Aqua Science Engineers
- Phase I ESA, May 2001, M.L. River Group
- Soil and Groundwater Sampling, August 2002, Kleinfelder
- Soil and Groundwater Sampling, January 2005, Ceres Associates
- Soil and Groundwater Sampling and Monitoring Well Installation, February 2006, Ceres Associates
- Well Survey, May 2006, Ceres Associates
- Deeper Groundwater Sampling, October 2006, Ceres Associates
- Quarterly Groundwater Monitoring, 2006 – 2007, Ceres Associates
- Revised Soil Excavation Report, August 2007, Ceres Associates

Based upon previous soil and groundwater sampling events at the Property, the following target compounds have been identified:

Compound	Abbreviation
Total Petroleum Hydrocarbons as Gasoline	TPHg
Total Petroleum Hydrocarbons as Diesel	TPHd
Total Petroleum Hydrocarbons as Motor Oil/Hydraulic Oil	TPHmo/ho
Benzene	Collectively, BTEX
Toluene	
Ethylbenzene	
Xylenes	

For the second quarter 2007 monitoring, concentrations of chlorinated hydrocarbons were sampled at the request of the EHD using US EPA method 8260B. Carbon Tetrachloride, ethylene dichloride, methylene chloride, tetrachloroethane, and trichloroethane were not detected above method detection levels in all wells sampled.

3.2 September 1994 Aqua Science Engineers – Tank Removal Report

An Underground Storage Tank Removal Report, dated September 15, 1994, was prepared for the Property by Aqua Science Engineers, Inc. According to the report four 500-gallon and one 100-



gallon steel underground storage tanks were removed from the Property on August 30 and 31, 1994 (refer to Figure 2 – Previous USTs and Developments). All four of the 500-gallon tanks were reported to have contained gasoline; the 100-gallon tank was reported to have contained waste oil.

Soil Sample Results

Soil samples collected from the bottom of the excavations indicated detectable concentrations of TPHg and BTEX (refer to Table 1: Soil Sampling during UST Removal – August 1994). Detectable concentrations of oil and grease were also identified in the soil directly beneath the former waste oil tank. TPHd and BTEX were not detected above laboratory limits beneath the waste oil tank. TPHg was detected at 1.1 ppm at that location. Concentrations ranged from a low of 0.2 mg/Kg to a high of 930 mg/Kg of TPHg beneath the four former gasoline USTs. There were no detectable concentrations of petroleum hydrocarbons found beneath the former pump islands. The samples were not analyzed for Chlorinated VOCs. Upon completion of the soil sample collection, the excavations were lined with visqueen plastic and backfilled immediately with the stockpiled material. According to the report, this re-filling was meant only as a temporary measure and this plan was verbally discussed at the time and approved by Mr. Barney Chan of the ACHCSA.

Recommendations

Aqua Science Engineers, Inc. recommend removal and stockpiling of the material that had been placed back into the excavations as temporary backfill; collecting samples and analyzing for profiling and acceptance into an off-site recycling facility, then off-hauling; over-excavating, stockpiling and sampling the residual contaminated soil; backfilling the excavation with clean, imported, compactable material to grade; and, conducting subsurface soil and groundwater investigations as requested by local the regulatory agency.

3.3 May 2001 M.L. River Group – Phase I ESA

A Phase I ESA report, dated May 10, 2001, was conducted for the Property by M.L. River Group Environmental Consultants. According to the report, the Property was first developed sometime between 1900 and 1920, and was operated as a gasoline and/or garage from 1927 through 1994. At the time of the report, the Property was vacant and no structures or building materials remained on the site.

Neither hazardous materials nor electrical transformers were observed on the Property. However, the report did summarize the above referenced UST Removal Report, noting that soil sampling conducted during the UST removal indicated subsurface contamination.

No further site study or remediation had been done at the Property between the time of the tank removal and the preparation of this Phase I ESA Report. The case had been referred to the Alameda County District Attorney's Office shortly before the Phase I ESA's publication. Prior to granting closure for the site, the ACHCSA reportedly required remediation of the contaminated soil and additional studies of the soil and groundwater. The Phase I ESA report concluded that "soil remediation and subsurface investigation of the Subject Site must be performed before redeveloping the Property".

3.4 August 2002 Kleinfelder- Soil and Groundwater Sampling

A Soil and Groundwater Sampling report, dated August 2, 2002, was prepared for the Property by Kleinfelder. The report cited the Phase I history noted above. Kleinfelder advanced three soil borings (EB-1, EB-2 and EB-3) on the Property on June 19, 2002 (*refer to Figure 3 – Boring Location Map*). At that time, monitoring wells were installed in each of the three borings. According to the boring logs (*refer to Appendix for a copy of the boring logs*), between two and five feet of screen was inserted into the borings and the remainder of the borings were backfilled with grout. These wells are no longer operational.

Soil Sample Results

According to the report, reported concentrations of TPHg, TPHd, TPHmo and BTEX compounds were detected in at least one of the soil samples collected from each soil boring exceeding State of California Regional Water Quality Control Board Risk Based Levels (RBSL) (*refer to Table 2: Kleinfelder Soil and Groundwater Sampling - June 2002*). TPHg was detected at 1,200 mg/Kg in EB-1 and 1,800 mg/Kg in EB-2. TPHd was detected at 650 mg/Kg in a soil sample collected from EB-1 and 1,500 mg/Kg in a soil sample collected from EB-2. TPHmo was detected in concentrations above laboratory reporting limits only in the soil sample from boring EB-1 at 14 mg/Kg. Further, the laboratory described the detected TPHg as strongly aged gasoline, and the TPHd was described as Stoddard solvent. A soil sample collected from EB-1 had reported concentrations of ethylbenzene at 1.6 mg/Kg, toluene at 0.62 mg/Kg, and xylenes of 3.3 mg/Kg. A soil sample collected from EB-2 had reported concentrations of ethylbenzene at 3.1 mg/Kg and xylenes at 4.9 mg/Kg. Concentrations of MTBE were not reported above the method reporting limit for any of the soil samples submitted for analysis. The soil samples were not analyzed for chlorinated VOCs.

Groundwater Sample Results

Groundwater samples were collected from each of the three groundwater monitoring wells. The groundwater samples reportedly contained concentrations of TPH in each of the three groundwater wells. TPHd was reported in monitoring well EB-1 at a concentration of 56 micrograms per liter ($\mu\text{g/L}$). The groundwater sample collected from monitoring well EB-2 was reported to contain TPHg at 82 $\mu\text{g/L}$, TPHd at 360 $\mu\text{g/L}$, and TPHmo at 310 $\mu\text{g/L}$. A groundwater sample from monitoring well EB-3 reportedly contained concentrations of TPHd at 270 $\mu\text{g/L}$ and TPHmo at 540 $\mu\text{g/L}$. Only EB-2 had reported concentrations of BTEX compounds. This well had concentrations of benzene at 0.97 $\mu\text{g/L}$, toluene at 1.3 $\mu\text{g/L}$, and xylenes at 1.3 $\mu\text{g/L}$. Ethylbenzene and MTBE were not reported above their laboratory reporting limits. The groundwater samples were not analyzed for chlorinated VOCs.

Recommendations

Kleinfelder recommended conducting further soil and groundwater sampling to determine the extent of soil contamination and to confirm the groundwater results from their initial study. Kleinfelder suggested a program of shallow drilling in a grid pattern in order to help delineate the extent of the impacted soil and that additional groundwater samples be collected to further study the potential impacts to groundwater.

3.5 January 2005 Ceres Associates – Soil and Groundwater Sampling

To further assess the extent of soil and groundwater impacts at the Property, Ceres Associates collected soil and groundwater samples on January 7, 2005 (project CA1264-1, dated January 28, 2005) (refer to Figure 3 – Boring Location Map). Ten (10) soil borings were drilled at the Property to a maximum depth of 10 feet bgs (labeled SB-1 through SB-10); soil samples were collected at five and 10 feet bgs from each boring. Additionally, grab groundwater samples were collected from soil borings SB-1 through SB-10, as well as from six Hydro-punch® borings (labeled GW-1 through GW-6).

Soil and grab groundwater samples were analyzed for TPHg, TPHd, BTEX, and methyl tertiary butyl ether (MTBE) (refer to Table 3: Ceres Associates Soil and Groundwater Sampling – January 2005).

Soil Sample Results

The only soil samples from five (5) feet bgs that were reported to contain concentrations of the target analytes above reporting limits were collected from soil boring SB-6, and had reported concentrations of benzene of 0.024 mg/Kg and ethylbenzene of 0.031 mg/Kg; and SB-9 which had reported concentrations of TPHg of 32 mg/Kg, TPHd of 52 mg/Kg, ethylbenzene of 0.017 mg/Kg, and xylenes of 0.013 mg/Kg.

The 10 foot bgs samples tended to have higher concentrations of the target analytes, although the 10 foot samples from SB-1, SB-2, and SB-8 were reported by the laboratory to not contain concentrations of the target analytes above their respective reporting limits. The highest concentrations of the target analytes were reported as 61 mg/Kg of TPHg (sample SB5-10), 46 mg/Kg of TPHd (sample SB5-10), 0.007 mg/Kg of benzene (sample SB5-10), 0.045 mg/Kg of ethylbenzene (sample SB5-10), and 0.027 mg/Kg of xylenes (sample SB5-10).

Although target analytes were detected in several of the analyzed soil samples, the reported concentrations of the target analytes in the soil samples analyzed from soil borings SB-1 through SB-10 did not exceed San Francisco Regional Water Quality Board's Environmental Screening Limits (ESLs). The soil samples were not analyzed for chlorinated VOCs.

Groundwater Sample Results

Target analytes were reported above method reporting limits in all but one of the grab groundwater samples. Concentrations of TPHg were as high as 90,000 µg/L (SB-9); 750,000 µg/L for TPHd (SB-9); 140 µg/L for benzene (SB-9); 1.5 µg/L for toluene (SB-1: note, however, that the result for SB-9 was reported as ND<50); 77 µg/L for ethylbenzene (SB-9); and 20 µg/L for xylenes (SB-6: note, however, that the result for SB-9 was reported as ND<50). MTBE was not reported above the method limits in any grab groundwater samples.

Benzene concentrations exceeded the regulatory limit of 1 µg/L in eight of the 16 samples submitted for analysis, set by the State of California Department of Health Services (CDHS) Maximum Contaminant Level (MCL). While the CDHS has not created MCLs for TPHg and TPHd, the RWQCB had established an ESL for both TPHg and TPHd of 100 µg/L. The groundwater samples were not analyzed for chlorinated VOCs.

Recommendations

Based on these results, Ceres Associates recommended the installation of additional monitoring wells both on and off the Property to help define the limits of contamination and to assess groundwater flow direction. This additional work was conducted in February 2006.

3.6 February 2006 Ceres Associates – Soil and Groundwater Sampling

Ceres Associates collected on and off-site soil and groundwater samples on February 16 and 17, 2006 (Ceres Associates Project # CA1264-3, dated February 28, 2006, revised July 2006). A total of 14 borings were advanced on and off the Property in an effort to confirm the concentrations of contaminants on the Property as well as assess off-site migration of target compounds (labeled SB-11 through SB-24). These borings were advanced to between 8 and 20 feet bgs (*refer to Figure 3 – Boring Location Map*). Soil samples were collected every two feet, and one grab groundwater sample was collected from each boring.

Though all samples were submitted to the laboratory, only three soil samples and the one grab groundwater sample from each boring were analyzed for target compounds. The soil samples were chosen for analysis according to observed field conditions (odors, colorations, capillary fringe location, and PID readings). Samples were analyzed for TPHg, TPHd, TPHmo, TPHho, volatile organic compounds (VOCs), and lead (*refer to Table 4: Ceres Associates Soil and Groundwater Sampling – February 2006*).

Groundwater Monitoring Well Installation

Additionally, Ceres Associates installed five groundwater monitoring wells (MW-1 through MW-5) and one extraction well that was intended for potential future remediation purposes (EX-1) (*refer to Figure 4 – Monitoring Well Location Map*). These wells were placed in locations anticipated to be have been impacted by the former use of the Property. The groundwater monitoring wells were installed to 15 feet bgs, with screened intervals between 5 and 15 feet bgs (except for MW-2: installed to 8 feet bgs, with screened interval between 3 and 8 feet bgs. MW-2 as stopped at this depth because of what the drill rig operator said was subsurface concrete obstruction). The extraction well was similarly installed to 15 feet bgs, with a screened interval between 5 and 15 feet bgs.

Soil Sample Results

Laboratory results indicated that target analyte concentrations in soil samples fell below the Residential ESL for TPHg and TPHd in all but two samples: SB12-14 at 250 mg/Kg of TPHg and SB21-12 at 490 mg/Kg of TPHd. Concentrations of TPHg in soil samples ranged from ND to 250 mg/Kg (SB12-14); concentrations of TPHd in soil samples ranged from ND to 490 (SB21-12); and, concentration of TPHho or TPHmo in soil samples ranged from ND to 38 mg/Kg (SB20-12). Concentrations of BTEX compounds were not reported by the laboratory above the method reporting limits, except for one sample (SB14-14) at 0.0074 mg/Kg. Other VOCs were not reported above the method reporting limits for submitted soil samples including trichloroethene. Lead concentrations were reported by the laboratory to range from ND to 51 mg/Kg.

Grab Groundwater Sample Results

Grab groundwater sampling results indicated that hydrocarbon-affected groundwater was detected off-site, east of the Property, in most of the sample points advanced by Ceres Associates during this sampling event. Concentrations of TPHg above the method reporting limits were only reported in three grab groundwater samples: 1,500 µg/L in SB-21 (on the Property), 74 µg/L in SB-14 (east of the Property), and 51 µg/L in SB-19 (south of the Property). However, points between these sample locations were not reported above ND. The highest concentrations of TPHd were reported off-site at SB-22 at 3,600 µg/L immediately south of the Property; and at SB-13 at 1,300 µg/L, east of the Property. On-site TPHd contamination was reported as high as 910 µg/L at SB-21 located along the southern boundary of the Property. Samples further south and east of SB-21 were also reported above ND at concentrations exceeding the ESL for TPHd. Concentrations of TPHmo (motor oil and hydraulic oil) were detected both on and off-site (SB-13, SB-15, SB-17, SB-20, and SB-22). Concentrations of these target analytes were generally higher than the concentrations reported for TPHg or TPHd, with highest concentrations detected at 28,000 µg/L of TPHmo in SB-22. Concentration of VOCs were not reported by the laboratory of their respective method reporting limits. Concentrations of lead were reported by the laboratory between ND and 17 µg/L.

Based on the results it was concluded that on-site contamination of petroleum hydrocarbons in groundwater had migrated off-site, down-gradient of the Property, in a generally easterly direction. Concentrations of petroleum hydrocarbons were reported above the ESL in groundwater samples collected as much as 100 feet down-gradient of the Property. The relatively high concentrations of petroleum hydrocarbons were not accompanied by high concentrations of BTEX compounds or fuel oxygenates. In fact, fuel oxygenates EDB and 1,2-DCA were reported as ND for all grab groundwater and soil samples submitted to the laboratory. Concentrations of BTEX compounds fell below the Maximum Contaminant Levels (MCLs) in all grab groundwater samples collected (SB-11 through SB-24).

Monitoring Well Sample Results

Samples were not collected from the monitoring wells during this sampling event; however, groundwater samples were collected as part of quarterly groundwater monitoring activities (*see Quarterly Groundwater Monitoring Summary below for further information regarding the results of such sampling*).

Recommendations

Based on the concentrations of the target analytes detected during this investigation, it was recommended that one deeper boring be advanced to 40 feet bgs to assess potential vertical contamination migration, preparing a corrective action plan, and preparing a risk assessment. This sampling work and preparation of a corrective action was completed in October 2006. Residential ESL values (which are based upon conservative, well-received, risk analyses) were used in lieu of a full risk assessment.

3.7 May 2006 Ceres Associates - Well Survey

Ceres Associates prepared a well survey, dated May 15, 2006 (Ceres Associates project CA1264-3). The ACHCSA requested that the well survey be conducted in a letter to Tomorrow Development, dated October 3, 2005. The survey was conducted to locate groundwater wells within a 2,000-foot radius of the Property. Ceres Associates collected data from the State of California Department of



Water Resources, the Alameda County Public Works Agency, and from the City of Oakland Public Works Department.

A total of 19 wells were identified in the search area, generally located between 1,000 and 2,000 feet from the Property. The Property is located to the west of Sausal Creek; however, all of the wells identified within the search radius are located east of Sausal Creek.

The report included figures and supporting documents regarding the identified wells. Recommendations were not made in the report, as the well survey was meant to compliment other on-going investigation reports.

3.8 October 2006 Ceres Associates - Deeper Groundwater Sampling

Ceres Associates advanced one deeper soil boring (SB25) on the Property to 27 feet bgs on September 20, 2006 (*refer to Figure 3 – Boring Location Map*). SB25 was placed in close proximity to extraction well EX-1. The sampling was conducted per the request by the ACHCSA in a letter dated May 18, 2006. The purpose of this boring was to assess soil stratigraphy beneath the Property and to collect depth-discrete grab groundwater samples to assess the vertical extent of affected groundwater at the site.

Although the initial request by ACHCSA was to sample to 40 feet bgs, the Geoprobe® 6600 met with refusal at 27 feet bgs. Other attempts were made in nearby locations (still on the Property) to exceed this depth, however these attempts were unsuccessful and also resulted in shallow borings.

Continuous soil cores were collected during the advancement of SB-25 and analyzed in the field for potential depth-discrete groundwater sampling points. Based upon the soil data, a higher permeability soil (clayey sands and sandy clay with moderate gravel content) was observed at approximately 13 and 21 feet bgs. Each of these areas of higher permeability soil were sandwiched between lower permeability soils (generally clays). Hydro-punch® was used to collect grab groundwater samples from these depth-discrete locations.

The groundwater samples collected were submitted to the laboratory for analysis of TPHg, TPHd, TPHmo, MTBE, and BTEX constituents (*refer to Table 5: Ceres Associates Deeper Groundwater Sampling – September 2006*). Soil samples were not requested in the May 18, 2006 letter from ACHCSA, therefore they were not collected.

Groundwater Sample Results

The results of the groundwater sampling indicated that only one concentration of target analytes was reported above the method reporting limits: 0.84 µg/L of benzene at 21 feet bgs. This result falls below the Residential ESL of 1 µg/L for benzene. Other sample analytes at both 13 and 21 feet bgs were not reported above the method reporting limits by the laboratory. The results of the deeper groundwater sampling were included in the quarterly monitoring report, dated October 27, 2006.

3.9 Revised Soil Excavation Report

To address the contaminated soil remaining at the site, Ceres proposed to excavate and off-haul the affected soil. At the direction of the ACHCSA, an interim CAP was prepared to remove the contaminated soil (considered a source of petroleum hydrocarbon contamination) and replace with



imported fill materials. Excavation activities to remove the contaminated backfill materials and other affected soils were completed on December 1 and 2, 2006. A total of approximately 200 cubic yards of contaminated soil was excavated and removed from the Property.

The excavation removed affected soils in three excavations (areas I, II, and III), with the exception of two sidewalls in excavation I. Laboratory sample results from the excavations were reported below the ESL for target compounds in those remaining sidewalls of excavation area II and III.

Two sidewall samples indicated concentrations of target compounds above the ESLs remained in place in area I. Concentrations of TPHg were reported at 450 mg/Kg in sample I-9-W and at 600 mg/Kg in sample I-9-N. Further, concentrations of TPHd were reported at 420 mg/Kg in sample I-9-N. These concentrations exceed the ESL of 100 mg/Kg. Other samples and/or analytes were not reported above their respective ESLs. However, further excavation in area I was not feasible given site constraints. The sidewall area of sample I-9-W could not feasibly be excavated further because it is adjacent to the public sidewalk of east 27th Street, and would have caused undermining; and, the sidewall area of sample I-9-N could not feasibly be excavated further due to shallow groundwater intrusion issues and stabilization of the excavation wall.

The ACHCSA expressed concern over the extent of excavations and their effectiveness with respect to source removal. Based upon this, Ceres Associates advanced a total of eight borings on the Property to confirm that the excavations were effective in remediating source material both horizontally (in areas I and III) and vertically (all areas), these borings were labeled CS-1 through CS-8.

Vertical Delineation

Each excavation was extended to approximately 9.5 feet bgs. For each excavation area, one confirmation soil sample (conducted as part of the subsequent soil sampling) was collected at approximately 10 feet bgs from near the center of each excavation, in undisturbed soil (not imported fill materials). These samples were meant to reflect the “floor” of the December 2006 excavations. According to the laboratory, target analytes [TPHg, TPHd, TPHmo, and BTEX] were not reported above the method reporting limits for these samples. Based on this data the vertical extent of the excavations was sufficient for effective source removal.

Horizontal Delineation - Area I

Ceres Associates collected two soil samples from one boring (CS-5) placed within three feet of former sample I-9-N. These two samples were analyzed for TPHg, TPHd, TPHmo, BTEX, and LUFT 5 metals. Only chromium, nickel, and zinc were reported above the method reporting limits; however, the reported concentrations were within anticipated background levels. Given these results, it would appear that the horizontal extent of area I was sufficient to remove affected material.

The area of I-9-W is adjacent to an impervious surface in the form of a sidewalk and roadway, therefore it is not anticipated that any residual contamination would adversely impact future surface occupants.

Although petroleum hydrocarbons were identified at slightly elevated concentrations during the excavation and subsequent confirmation sampling, the more volatile compounds (BTEX compounds) were not identified above the ESLs. Further, concentrations of target compounds are

not expected to pose a significant soil vapor intrusion risk to future buildings on the Property, based upon a comparison of soil and groundwater concentrations reported on-site to published screening levels. Residual contaminants were anticipated to naturally attenuate over time to concentrations below the ESLs.

Horizontal Delineation - Former Waste Oil Area

The ACHCSA requested additional analysis of the outer walls of excavation Area III, where a former waste-oil UST was located. In complying with the ACHCSA request, the laboratory analyzed the samples submitted from CS1 through CS4 (the 5 and 10-foot sample for each boring) for oil and grease, chlorinated hydrocarbons, 1,4-dioxane, EDB, EDC, MTBE, TAME, ETBE, DIPE, TBE, ethanol, LUFT 5 metals, PCBs, and PNAs. The laboratory did not report concentrations above the method reporting limits for these specified analytes, except for 5.9 mg/Kg of TPHmo at 5 feet bgs in CS-4 (the southwest wall of excavation Area III). That concentration is below the Residential ESL of 500 mg/Kg for TPHmo. Based on the analytical data the removal of the source material in Area III appears to be complete and meets the goals of the CAP.

3.10 August 2006 to April 2007 Ceres Associates - Quarterly Groundwater Monitoring Results

Ceres Associates has monitored the six groundwater monitoring wells on the Property (five groundwater monitoring and one extraction) since their installation in February 2006. Wells MW-1, MW-2, MW-3, MW-4, MW-5, and EX-1 have been sampled five times: August 2006, November 2006, January 2007, April 2007, and July 2007 (refer to Figure 3 – Boring Location Map). These wells have been sampled using low-flow purging/sampling methods.

Samples have been analyzed for various fuel and fuel related compounds, including TPHg, TPHd, TPHmo, MTBE, and BTEX using US EPA methods 8015 and 8021 (refer to Table 6: Ceres Associates Quarterly Groundwater Monitoring – August 2006 to April 2007). The ACHCSA requested additional compound analysis for samples collected during the Second Quarter 2007 sampling event (per the April 26, 2007 letter to Tomorrow Development) as follows: 1,2-dibromoethane (EDB), ethylene dichloride (EDC), MTBE, tert-amyl methyl ether (TAME), ethyl tert-butyl ether (ETBE), diisopropyl ether (DIPE), Tertiary Butanol (TBA), chlorinated hydrocarbons (including carbon tetrachloride, ethylene dichloride, methylene chloride, tetrachloroethane, trichloroethylene, and chloroform). These additional analytes were reported as ND by the laboratory for the groundwater samples submitted for analysis. Among the additional compounds that were required by the ACHCSA during the Second Quarter 2007, several compounds were detected above the method reporting limits only in MW-2 and included 23 µg/L of chloroform, 0.51 µg/L of bromoform, 0.55 µg/L of dichlorobromomethane, and 1.5 µg/L of bromochloromethane.

The source of VOCs in MW-2 is not known. However, well MW-2 is screened between 3 and 8 feet bgs, in an area of the soil horizon dominated by subsurface utility trenches and lines. It is possible that these minor VOC concentrations are a result of small releases associated with these utility lines (e.g., potable water and sewer), and not that of the Property. MW-1, located between the Property and MW-2, did not contain detectable concentrations of these compounds above the method reporting limits.

Based upon the five quarters of quarterly groundwater monitoring events, elevated concentrations of target compounds in on-site groundwater are generally limited to monitoring well EX-1. Only the

two wells closest to the Property, MW-1 and MW-2, have had groundwater sample results reported by the laboratory above the method reporting limits for target analytes TPHg, TPHd, TPHmo, ethylbenzene and xylenes. Concentrations of toluene and MTBE have not been reported in groundwater monitoring wells above the method reporting limits. Isoconcentration maps have not been generated for this site because of a lack of data points (no more than two data points are available for any given analyte and date).

There has been an overall decrease in target analyte concentrations over time. This is likely attributable to the remove of source material in December 2006 as well as natural attenuation. We expect these concentrations to continue to decline over time.

4.0 SOIL VAPOR SAMPLING

The ACHCSA requested that soil vapor sampling be conducted at the Property to confirm analytical results of soil and groundwater sampling previously conducted (refer to ACHCSA letter, dated October 4, 2007) and to assess potential future impacts to site residents, if any.

This work was conducted according to a work plan, dated November 7, 2007, and approved by the ACHCSA in a letter dated December 7, 2007.

4.1 Soil Vapor Sampling

Per the approved work plan, Ceres Associates collected soil vapor samples at three locations within the footprints of each of the two planned residences.

Ceres Associates subcontracted with TEG of Sacramento, California to conduct the soil vapor sampling. TEG conducted their sampling in strict accordance with DTSC guidelines for soil vapor sampling and requirements by ACHCSA in their letter dated December 7, 2007.

TEG advanced a total of six borings on the Property (*refer to Figure 5 –Soil Vapor Sampling and Backfill Soil Sampling Map*), using a Stratoprobe direct-push sampling rig. TEG collected a total of six soil vapor samples (SV-01 through SV-06); three from the footprint of each planned residence. A duplicate sample was taken of sample SV-04, (SV-04DUP).

Prior to conducting the field work, Ceres Associates marked the boring locations in white paint and notified USA prior to sampling. Ceres Associates also obtained a boring permit number W2007-1240 from the Alameda County Public Works Agency (*refer to Appendix for a copy of this permit*). On the field day, Ceres Associates held a Health and Safety Meeting, before proceeding with sampling.

While it had been planned to sample at approximately 5.0 feet bgs, such a depth was not possible. A 5.0 foot sample was initially attempted in each of the sample locations. However, due to tight soils and shallow groundwater, soil vapor was unable to be collected sufficient for soil vapor sampling. Therefore, soil vapor samples were collected at a depth of 3.0 feet bgs.

Soil vapor samples were collected using low-volume soil vapor sampling system (performed by TEG) which had been inspected and endorsed by regulatory agencies, including the U.S. EPA and Cal-EPA, specifically the DTSC. This system effectively eliminates air leakage down the soil vapor probe, ensures sample collection from the tip, and its design supports decontamination between samples. The soil vapor probes are constructed of 1-inch outer diameter chrome-moly steel and are equipped with a steel drop-off tip. An inert 1/8 inch tube runs through the center of the probe and is attached to the sampling port with a stainless steel post run fitting.

The probe was driven into the ground by the STRATAPROBE™ and once the desired depth was reached, the probe was then retracted slightly, while opening the tip and exposing the vapor sampling port. This design prevents clogging and cross-contamination from soil. Once the probe rod was in place, the sample was then collected after the probe equilibrated for at least 20 minutes.

The soil vapor sample was then withdrawn from the inert tubing using a calibrated syringe which couples into a sampling valve.

A purge volume test was conducted by sampling the first soil vapor location (SV-05) three times after sequentially collecting and discarding one, three, and seven tubing volumes of soil vapor. Based upon this initial work it was determined that three purge volumes were to be used on subsequent samples.

After purging, the next 20 cubic centimeters (cc) to 50 cc of soil vapor was withdrawn into the syringe, plugged, and immediately transferred to the mobile lab for analysis within the specified holding time. During sampling, a leak check gas (1,1-difluoroethene) was used to confirm that the sample train and probe rod are tight and leak free. To minimize the potential for cross-contamination between sampling locations, all external probe components were cleaned of excess dirt and moisture prior to insertion. The internal inert tubing and sampling syringes were then discarded.

4.2 Laboratory Analysis

Soil vapor samples collected from each probe were transferred directly to the state-certified, on-site mobile laboratory and analyzed immediately. There was minimal lag time between sample collection and analysis, ensuring that the integrity of the sample is maintained. Samples were analyzed on a gas chromatograph equipped with capillary columns and a mass spectrometer (GC/MS). This combination of columns and detectors ensured compound separation, recognition, and detection at the required levels.

Ceres Associates, in following DTSC guidance, requested that TEG's mobile laboratory analyze the seven samples collected for the following analytes:

- VOCs, TPHg, and TPHd using US EPA method 8260b

TEG provided Ceres Associates with the results of the sampling (*refer to Appendix – Laboratory Analytical Reports*).

4.3 Results

Only two analytes were detected about the method detection limits during the soil vapor sampling. Concentrations of TPHd and other VOCs were not reported above the method reporting limits. The results of the analysis of the soil vapor samples, as well as the ESLs established by the San Francisco Bay RWQCB for Shallow Soil Gas Screening Levels at Residential Sites for Potential Vapor Intrusion Concerns (Summary Table E, Nov. 2007) are listed in the following table:

Boring	TCE	TPH g
	<i>Concentrations reported in micrograms per liter (µg/L)</i>	
<i>ESL</i>	<i>1.2</i>	<i>10</i>
SV-01	ND	ND
SV-02	ND	8.4
SV-03	ND	ND
SV-04	5.7	ND
SV-05	ND	ND
SV-06	ND	ND

5.0 BACKFILL SOIL SAMPLING

The ACHCSA requested that Ceres Associates demonstrate that the backfill materials used by Ceres Associates and ERRG, Inc. to backfill the former excavations meets residential standards (refer to ACHCSA letter dated October 4, 2007). To accomplish this, Ceres Associates collected soils samples from the backfill material and chemically analyzed the soil samples as described below.

5.1 Soil Sampling

The work plan proposed collecting four soil samples in the area of the backfilled materials. The four separate samples will be taken at two, four, six and eight feet bgs. samples from multiple depths. However, the ACHCSA approval letter dated December 7, 2007 indicated that only two borings were required. The ACHCSA also noted that only the upper approximately five feet of soil needed to be sampled.

Ceres Associates advanced a total of two borings on the Property using hand auger equipment in the area of the backfilled materials (*refer to Figure 5 – Soil Vapor Sampling and Backfill Soil Sampling Map*). Sampling was done in accordance with the DTSC's guidance document *Information Advisory, Clean Imported Fill Material*, October 2001.

Prior to conducting the field work, Ceres Associates marked the boring locations in white paint and notified USA prior to sampling. On the field day, Ceres Associates held a Health and Safety Meeting, before proceeding with sampling.

The borings were identified as BF-01 and BF-02 and were advanced to a depth of 2.0 feet bgs. One sample was taken from each boring at approximately two feet bgs due to groundwater being present at approximately three feet bgs. The borings were then backfilled with available soil spoils.

Soil samples were collected using the hand auger and transferred to a laboratory-provided glass jar. The samples were labeled with unique identification information and stored in a chest cooled with ice, for delivery to Kiff Analytical, LCC., a state-certified analytical laboratory. Ceres Associates followed chain-of-custody protocol.

5.2 Laboratory Analysis

Ceres Associates, in following DTSC guidance and the ACHCSA letter dated December 7, 2007, requested that the laboratory analyze the two samples collected for the following analytes:

- LUFT 5 metals using US EPA method 6010
- Asbestos using PLM methods
- pH

5.3 Results

The results of the analysis of the backfill soil samples, as well as the ESLs (where applicable) established by the San Francisco Bay RWQCB for Shallow Soil Screening Levels at Residential Sites where Groundwater is a Potential Source of Drinking Water (Summary Table A, Nov. 2007) are listed in the following table:

Boring	Cadmium	Chromium*	Lead	Nickel	Zinc	pH	Asbestos
	<i>Concentrations reported as milligrams per kilogram (mg/Kg)</i>					-	%
<i>ESL</i>	<i>1.7</i>	<i>750</i>	<i>200</i>	<i>150</i>	<i>600</i>	-	-
BF-01	ND	18.7	8.23	18.6	28.5	8.85	ND
BF-02	ND	15.2	12.3	16.1	31.3	9.17	ND

*ESL is for Chromium III

Based on these results the soil imported from Curtner Quarry and used to backfill the soil excavations was appropriate for this use.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Soil Vapor Sampling Conclusions

TPHg was detected in only one soil vapor sample collected from SV-02 at a concentration of 8.4 µg/L. This concentration falls below the ESL for residential land use scenarios of 10.0 µg/L for TPHg. Therefore it appears that the TPHg concentration detected in the soil vapor do not pose a significant soil vapor intrusion risk to future site occupants. Concentrations of MTBE, BTEX compounds, and TPHd were reported as ND in all borings advanced on the Property.

With the exception of one sample, all VOCs (8260B list) were reported as ND. The single exception was SV-04, which was reported to contain 5.7 µg/L of trichloroethene (TCE). This concentration slightly exceeds the ESL for residential land use scenarios of 1.2 µg/L. TCE was also detected in the duplicate sample from the boring (see lab report, SV-04DUP), at a concentration of 3.4 µg/L. Boring SV-04 was placed in close proximity to the former waste oil tank excavation (to the southwest of the former excavation). Two soil borings and one confirmation wall sample have historically been advanced in the area of SV-04 (in locations closer to the former waste oil tank than SV-04), including samples from SB-1, CS-4, and III-9-S. Samples collected from SB-1 (at 5 and 10 feet bgs) and the wall sample from III-9-S (from the southwest wall of former Excavation III) were only analyzed for MTBE, BTEX, TPHg, TPHd, and TPHho. The soil samples from CS-4 (at approximately 5 and 10 feet bgs) were analyzed for VOCs, including TCE. However, the laboratory did not report concentrations of any VOCs above the method reporting limits (using US EPA method 8260B). In addition, VOCs have not been detected in the groundwater samples collected and analyzed from the Property. The source of the TCE detected in soil vapor sample SV-04 is not known; however, based upon the lack of TCE concentrations in Site soil and groundwater, it does not appear that this detection of TCE in soil vapor is significant and it doesn't warrant further investigation.

6.2 Backfill Soil Sampling Conclusions

Soil sample results were reported well below their respective ESLs for those analytes requested by ACHCSA for the backfill soil material. It would appear that the material used to backfill on the Property meets regulatory criteria for residential land use.

6.3 Recommendations

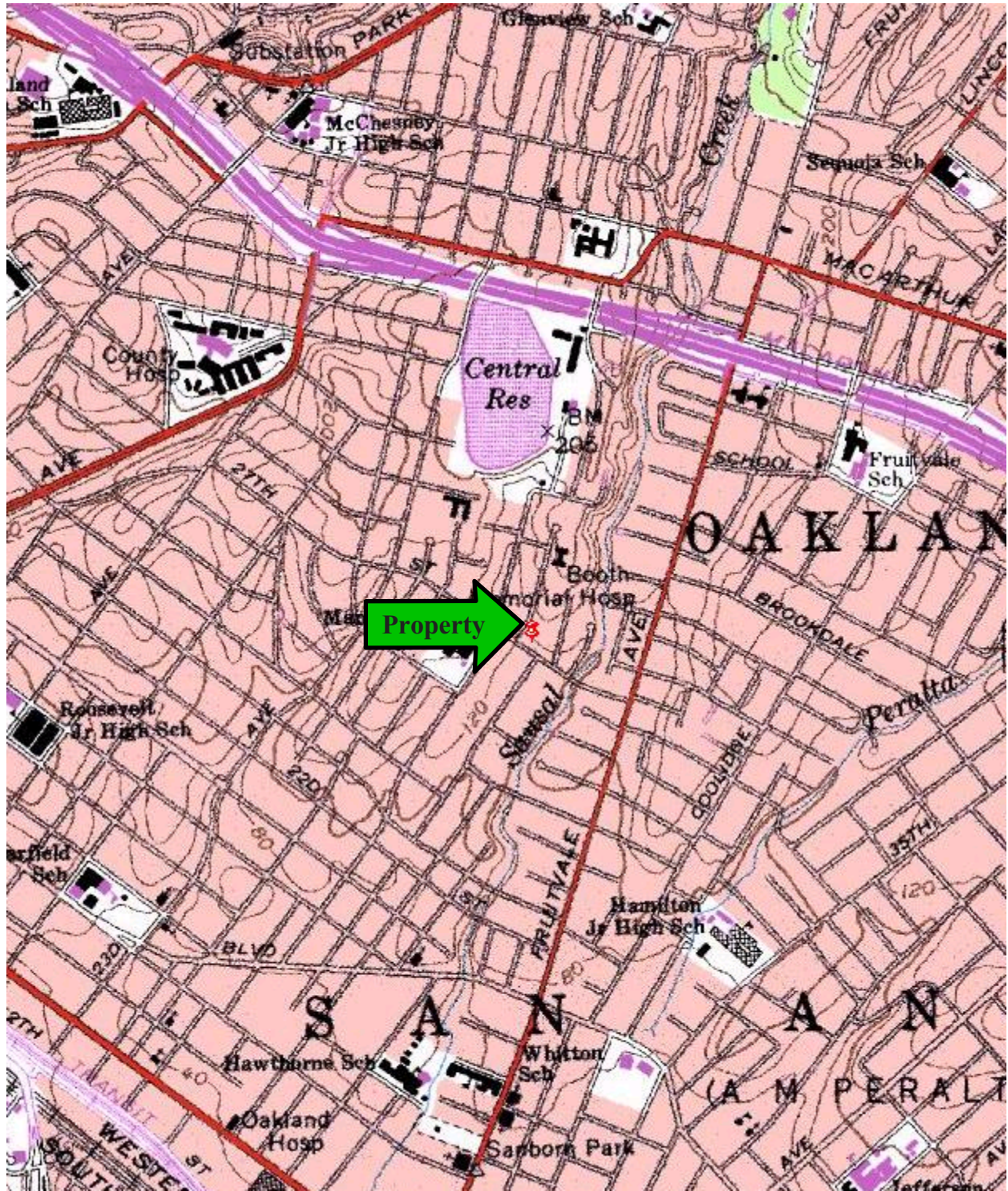
Based upon the results of this sampling further sampling of the backfill material does not appear warranted at this time. In addition, based on the single low detection of TCE in the soil vapor sampling and the absence of TCE in Site soil and groundwater sampling, additional investigation regarding VOCs at this Site does not appear to be warranted.

7.0 LIMITATIONS

This investigation was conducted according to accepted industry standards and guidelines for similar investigations conducted in this geographic region at this time.

In today's technology, no amount of assessment can certify that the Property is completely free of environmental concern. It is possible undocumented or concealed conditions of the Property could exist beyond what was found during this investigation. This report does not cover any Property conditions beyond the date the work was conducted.

Figures



1 inch equals 2000 feet

Map Taken From:
 United States Geological Survey
 7.5 Minute Topographic Series
 Oakland East, California Quadrangle

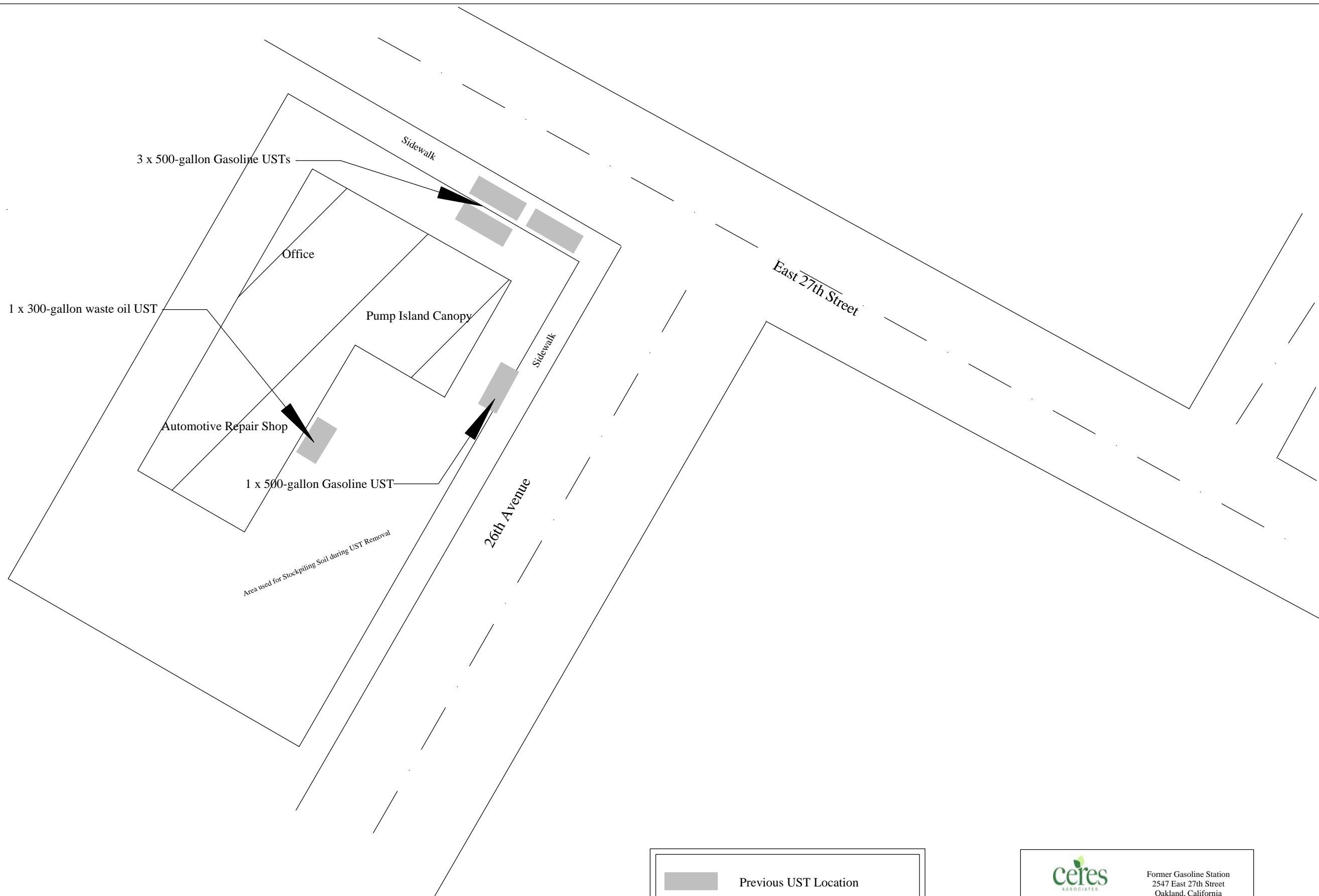


Project CA1264-6



Former Gasoline Station
 2547 East 27th Street
 Oakland, California


TOPOGRAPHIC MAP

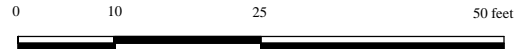
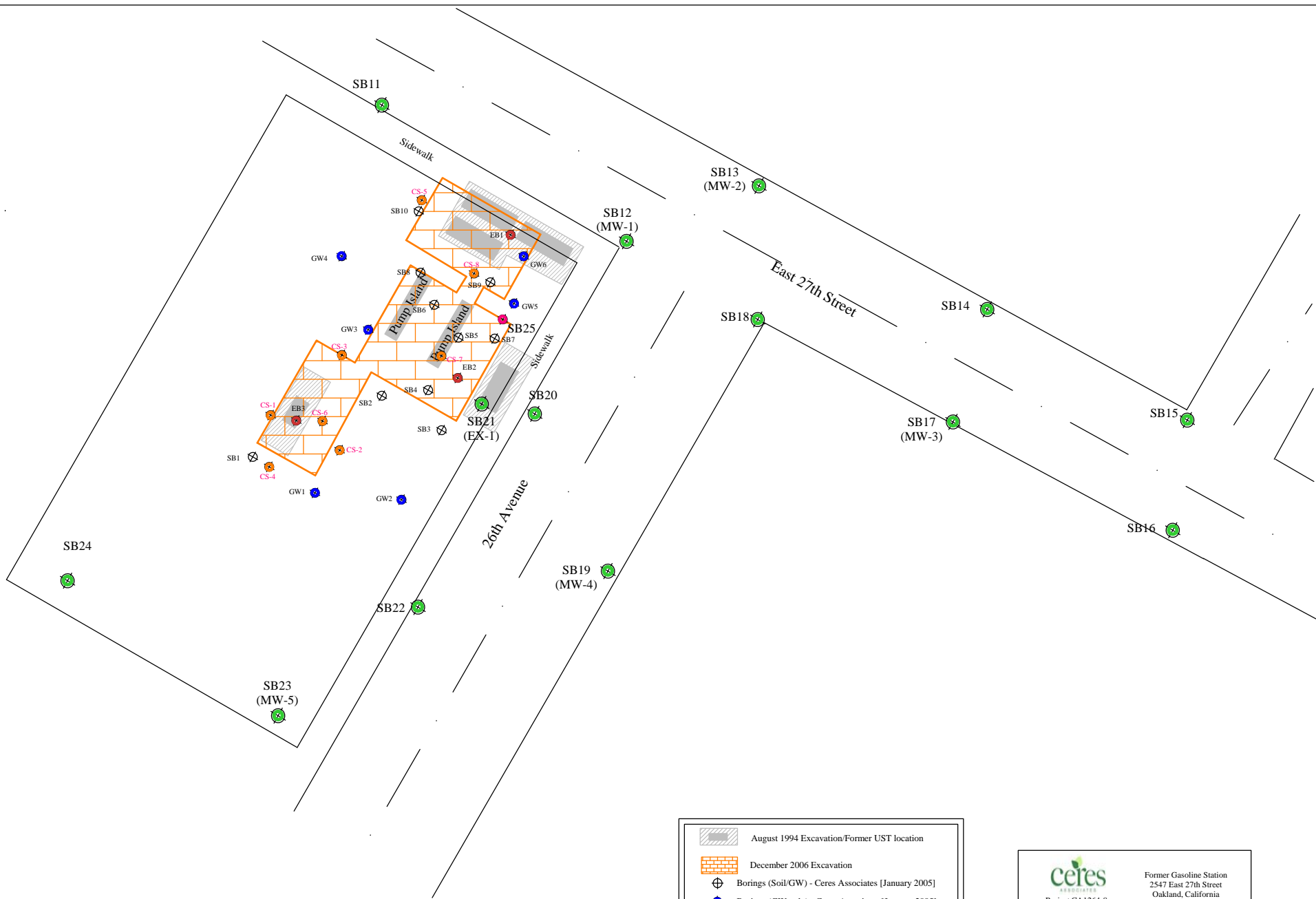
**FIGURE
 1**












0 10 25 50 feet

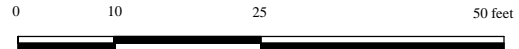
	Previous UST Location
	Previous Building Location





 Project CA1264-6	Former Gasoline Station 2547 East 27th Street Oakland, California	
	<table border="1"> <tr> <td> Previous USTs and Developments </td> <td> Figure 2 </td> </tr> </table>	Previous USTs and Developments
Previous USTs and Developments	Figure 2	




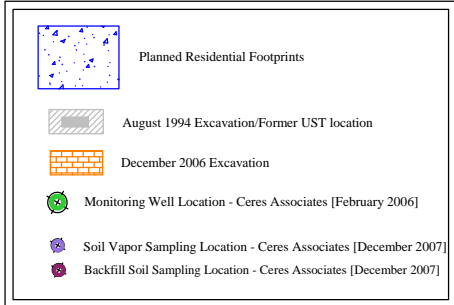
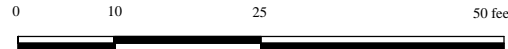
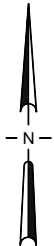
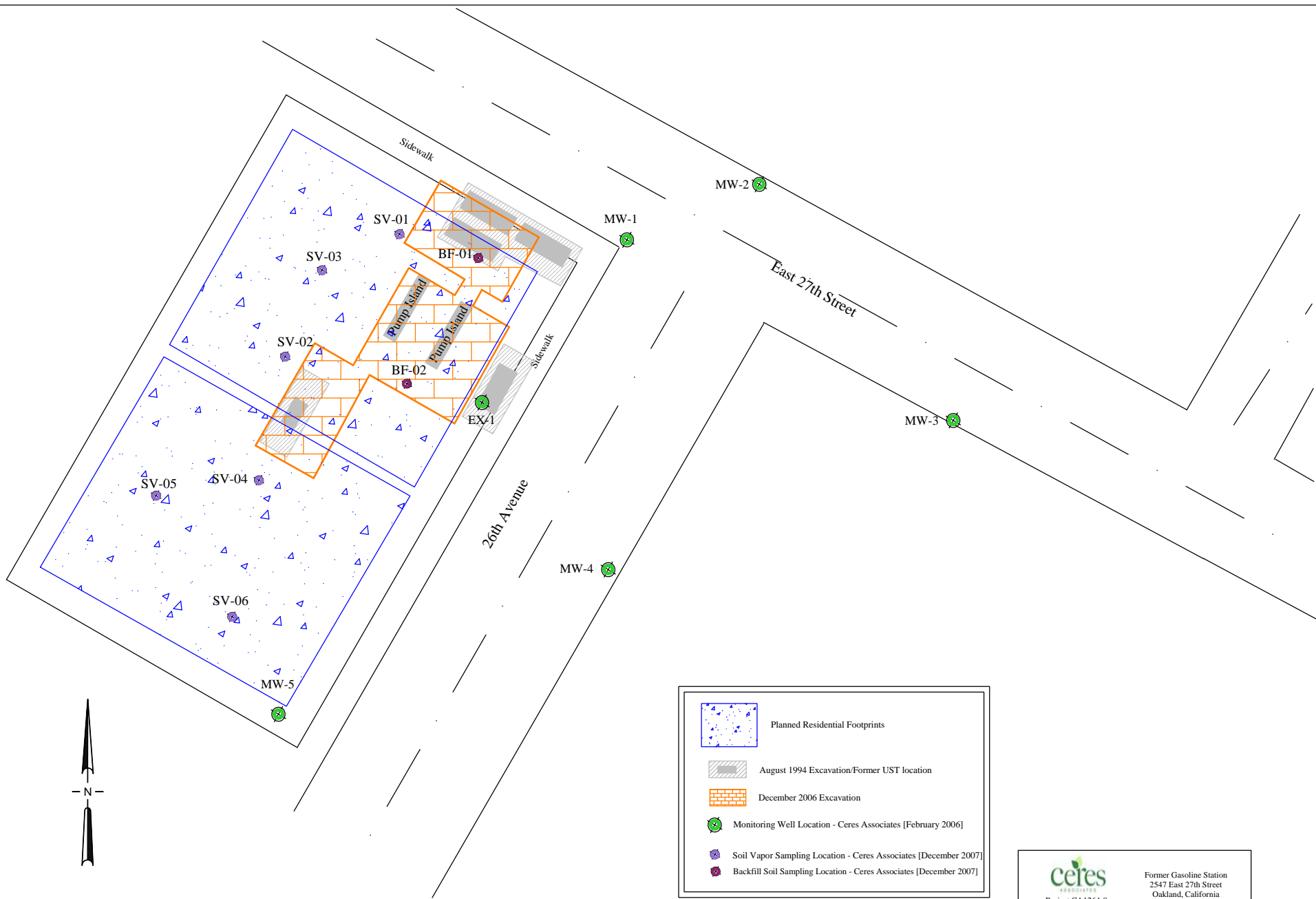
-  August 1994 Excavation/Former UST location
-  December 2006 Excavation
-  Borings (Soil/GW) - Ceres Associates [January 2005]
-  Borings (GW only) - Ceres Associates [January 2005]
-  Borings (Soil/GW) - Kleinfelder [June 2002]
-  Borings (Soil/GW) - Ceres Associates [February 2006]
-  Boring (GW only) - Ceres Associates [September 2006]
-  Subsequent Soil Sampling - Ceres Associates [June 2007]


	Former Gasoline Station 2547 East 27th Street Oakland, California Project CA1264-8
Boring Location Map	Figure 3



	August 1994 Excavation/Former UST location
	December 2006 Excavation
	Monitoring Wells - Kleinfelder [June 2002] [Removed in December 2006]
	Monitoring Wells - Ceres Associates [February 2006]

 Project CA1264-8	Former Gasoline Station 2547 East 27th Street Oakland, California	
	<table border="1"> <tr> <td> Monitoring Well Location Map </td> <td> Figure 4 </td> </tr> </table>	Monitoring Well Location Map
Monitoring Well Location Map	Figure 4	



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

Tables

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>						
Sample	Sample Location*							
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	
STKP-West	Stockpiled soil	860	NA	ND<0.005	0.72	1.9	2.1	NA

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 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
Boring	<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
Boring	<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 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
Sample	<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>	<i>use soil gas</i>	<i>use soil gas</i>	540	380,000	170,000	160,000	24,000
Sample	<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)

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

Groundwater Sample Results

	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	EDB	1,2-DCA	Lead
<i>ESL (Table F-1a): Groundwater IS a current or potential source of drinking water</i>	100	100	100	1	40	30	20	0.05	0.5	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	150	200	NE

Sample	<i>concentrations reported in micrograms per liter, µg/L</i>										
SB11-GW	ND	150	730	ND	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	ND	ND	ND	ND	ND	ND	ND	ND
SB14-GW	74	190	400	ND	ND	ND	1.7	ND	ND	ND	19
SB15-GW	ND	790	4900	ND	ND	ND	ND	ND	ND	ND	19
SB16-GW	ND	ND	310	ND	ND	ND	ND	ND	ND	ND	ND
SB17-GW	ND	ND	ND	ND	1.4	ND	0.51	ND	ND	ND	2.4
SB18-GW	ND	470	2300	ND	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	ND	ND	ND	ND	ND	ND	ND	18
SB21-GW	1500	910	ND	ND	ND	1.3	1.8	ND	ND	ND	16
SB22-GW	ND	3600	28000	ND	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

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 TPH hydraulic oil was reported as the same as TPHmo, therefore only TPHmo is 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 established

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
Target Depth	<i>Concentrations reported as micrograms per liter, µg/L</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

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 7: Ceres Associates Initial PID readings during Excavation - December 2006

Site: 2547 East 27th Street, Oakland, California
Sampling Dates: December 1 and 2, 2006

PID readings taken of sidewalls and floor during excavation process

Excavation / PID sample location	2 ft bgs	4 ft bgs	6 ft bgs	8 ft bgs	9.5 ft bgs
	<i>(reported as parts per million, ppm)</i>				
I-bottom	0	0	227	114	0
I-east	0	0	0	0	0
I-west	0	0	0	0	0
I-north	0	0	0	0	0
I-south	0	0	0	0	0
II-bottom	0	0	0	0	0
II-east	0	0	0	0	0
II-west	0	0	0	0	0
II-north	0	0	0	0	0
II-south	0	0	0	0	0
III-bottom	0	0	0	0	0
III-east	0	0	0	0	0
III-west	0	0	0	0	0
III-north	0	0	0	0	0
III-south	0	0	0	0	0

Sample	PID Reading	Depth of Sample (ft bgs)
I-9-W	0	9
I-9-E	0	9
I-9-N	0	9
I-9-S	0	9
II-9-W	0	9
II-9-E	0	9
II-9-N	0	9
II-9-S	0	9
III-9-W	0	9
III-8-E	0	9
III-9-N	0	9
III-9-S	0	9

Table 8: Ceres Associates Initial Confirmation Soil Sampling - December 2006

Site: 2547 East 27th Street, Oakland, California
Sampling Dates: December 1 and 2, 2006

Sample	TPHg	TPHd	TPHmo/ho	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
<i>Concentrations reported in milligrams per kilogram, mg/Kg</i>								
<i>ESL (Table A-1): Residential Site, shallow soils, where Groundwater IS a current or potential source of drinking water</i>	100	100	500	0.023	0.044	2.9	3.3	2.3
I-9-W	450	81						ND
I-9-E	1.7	ND						ND
I-9-N	600	420						1.1
I-9-S	7	1.2						0.016
II-9-W*	400	180						1
II-9-E								
II-9-N								
II-9-S								
III-9-W								
III-8-E								
III-9-N								
III-9-S								

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
 Shacklette, H.T., and Boerngen, J.G.: Element Concentrations in Soils and other Surficial Materials of the Conterminous United States. U.S. Geological Survey Professional Paper 127, 105 pages
 TPHg Total petroleum hydrocarbons as gasoline
 TPHd Total petroleum hydrocarbons as diesel
 TPHmo Total petroleum hydrocarbons as motor oil

Table 9: Ceres Associates Additional Soil Sampling PID readings - June 2005

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

Sample	PID Reading (ppm)*
CS1-2.5	4
CS1-5	1
CS1-7.5	1
CS2-2.5	3
CS2-5	1
CS2-7.5	2
CS2-10	1
CS3-2.5	2
CS3-5	3
CS3-7.5	1
CS3-10	3
CS4-2.5	9
CS4-5	1
CS4-7.5	1
CS4-10	1
CS5-2.5	7
CS5-5	1
CS5-7.5	2
CS5-10	1
CS6-10	1
CS7-10	1
CS8-10	1

*Note: Background PID readings during sampling were between 1.0 and 3

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>											
<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	58	150	150	600
CS1-5	ND (all samples)	ND (all samples)	ND (all samples in this block)	ND (all samples)	ND (all samples)	ND (all samples)	ND (all samples)	52	ND	40	42
CS1-10								31	ND	22	18
CS2-5								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								40	6.8	26	21
CS4-10								38	5.6	33	22
CS5-5								28	ND	19	13
CS5-10								51	ND	35	30
CS6-10*	36	ND	32	26							
CS7-10						NA (all samples in this block)					
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

Appendix

Laboratory Data Sheets



22 January 2008

Mr. Ryan Meyer
Ceres Associates
132 E Street, Suite 310
Davis, CA 95616

SUBJECT: DATA REPORT - Ceres Associates Project #CA1264-8
2547 East 27th Street, Oakland, California

TEG Project # 71228E

Mr. Meyer:

Please find enclosed a data report for the samples analyzed from the above referenced project for Ceres Associates. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 18 analyses on 9 soil vapor samples.

- 9 analyses on soil vapors for volatile organic hydrocarbons, fuel oxygenates, and total petroleum hydrocarbons-gasoline by EPA method 8260B.
- 9 analyses on soil vapors for total petroleum hydrocarbons-diesel by EPA method mod8015.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

1,1 difluoroethane was used as a leak check compound around the probe rods during the soil vapor sampling. No 1,1 difluoroethane was detected in any of the vapor samples reported at or above the DTSC recommended leak check compound reporting limit of 10 µg/L of vapor.

TEG appreciates the opportunity to have provided analytical services to Ceres Associates on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak
Director, TEG-Northern California



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	
	Blank					dup					
PURGE VOLUME:		3	3	3	3	3	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	nd	5.7	3.4	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 (MtBE)	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%	115%
Surrogate Recovery (1,2-DCA-d4)		103%	90%	93%	98%	106%	99%	91%	92%	95%	97%
Surrogate Recovery (1,4-BFB)		87%	76%	84%	82%	89%	83%	81%	82%	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# CA1264-8
2547 East 27th Street, Oakland, California

TEG Project #71228E

CALIBRATION STANDARDS - Initial Calibration / LCS

Instrument: Agilent 5973N MSD

COMPOUND	INITIAL CALIBRATION		LCS	
	RF	%RSD	RF	%DIFF
Dichlorodifluoromethane*	0.341	15.0%	0.332	2.6%
Vinyl Chloride*	0.325	11.1%	0.345	6.2%
Chloroethane*	0.187	10.7%	0.188	0.5%
Trichlorofluoromethane*	0.528	9.4%	0.532	0.8%
1,1-Dichloroethene	0.250	9.3%	0.259	3.6%
1,1,2-Trichloro-trifluoroethane*	0.293	17.1%	0.295	0.7%
Methylene Chloride	0.282	9.9%	0.290	2.8%
Methyl-t-butyl-ether (MtBE)	0.624	7.4%	0.679	8.8%
trans-1,2-Dichloroethene	0.276	11.9%	0.287	4.0%
1,1-Dichloroethane	0.520	9.5%	0.532	2.3%
cis-1,2-Dichloroethene	0.275	10.7%	0.302	9.8%
Chloroform	0.559	11.2%	0.565	1.1%
1,1,1-Trichloroethane	0.494	11.1%	0.515	4.3%
Carbon Tetrachloride	0.467	10.2%	0.477	2.1%
1,2-Dichloroethane	0.381	7.0%	0.376	1.3%
Benzene	1.051	13.1%	1.174	11.7%
Trichloroethene	0.274	7.0%	0.303	10.6%
Toluene	0.607	17.4%	0.654	7.7%
1,1,2-Trichloroethane	0.174	8.6%	0.178	2.3%
Tetrachloroethene	0.301	9.3%	0.328	9.0%
Ethylbenzene	0.458	14.8%	0.514	12.2%
1,1,1,2-Tetrachloroethane	0.355	7.4%	0.361	1.7%
m,p-Xylene	0.538	18.9%	0.608	13.0%
o-Xylene	0.536	18.3%	0.591	10.3%
1,1,2,2-Tetrachloroethane	0.475	18.5%	0.460	3.2%
Naphthalene	1.338	18.2%	1.522	13.8%
Acceptable Limits		20.0%		15.0%

*** Indicates RSD not to exceed 30% & LCS not to exceed 25%



Report Number : 60391

Date : 01/21/2008

Ryan Meyer
Ceres Associates
132 B St.
Davis, CA 95616

Subject : 2 Samples
Project Name : Tom. Dev.
Project Number : CA1264-8

Dear Mr. Meyer,

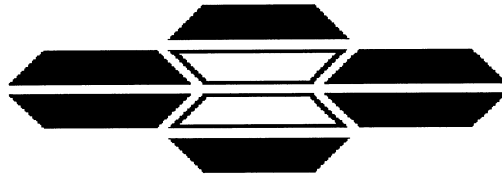
Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



ASBESTOS TEM LABORATORIES, INC.

**EPA Interim Method
Polarized Light Microscopy
Analytical Report**

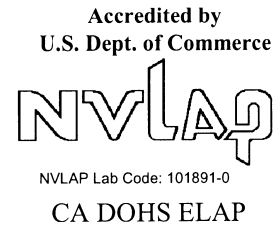
Laboratory Job # 1167-00012

630 Bancroft Way
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemplabs.com

With Branch Offices Located At:
1016 GREG STREET, SPARKS, NV 89431
Ph. (775) 359-3377



ASBESTOS TEM LABORATORIES, INC



Jan-17-08

Scott Forbes
KIFF Analytical, LLC
2795 Second Street, Suite 300
Davis, CA 95616

RE: LABORATORY JOB # 1167-00012
Polarized light microscopy analytical results for 2 bulk sample(s).
Job Site: Tom. Dev.
Job No.: CA1264-8

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into standard report format and subjected to a thorough quality assurance check before the information is released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

--- These results relate only to the samples tested and must not be reproduced, except in full, with the approval of the laboratory. This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government. ---

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

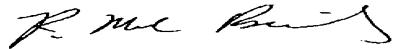

EPA Method 600/R-93/116 or 600/M4-82-020

Page: 1 of 1

Contact: Scott Forbes	Samples Indicated: 2	Report No. 066669
Address: KIFF Analytical, LLC 2795 Second Street, Suite 300 Davis, CA 95616	Reg. Samples Analyzed: 2	Date Submitted: Jan-03-08
	Split Layers Analyzed: 0	Date Reported: Jan-17-08
	Job Site / No. Tom. Dev. CA1264-8	

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA	DESCRIPTION
		1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	FIELD LAB
BF-01 Lab ID # 1167-00012-001	None Detected	1) None Detected 2) 99-100% Clay, Qtz, Opq, Other m.p. 3) Dec-28-07 4) Jan-17-08	soil Soil-Brown
BF-02 Lab ID # 1167-00012-002	None Detected	1) None Detected 2) 99-100% Clay, Qtz, Opq, Other m.p. 3) Dec-28-07 4) Jan-17-08	soil Soil-Brown
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Lab QC Reviewer  Analyst 

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemplabs.com

630 Bancroft Way, Berkeley CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377



2795 Second Street, Suite 300
 Davis, CA 95618
 Lab: 530.297.4800
 Fax: 530.297.4808

Asbestos TEM Labs
 630 Bancroft Way
 Berkeley, CA 94710
 510-704-8930

Lab No.

Page 1 of 1

Project Contact (Hardcopy or PDF to):

Scott Forbes

EDF Report? Yes No

Chain-of-Custody Record and Analysis Request

Company/Address:

Kiff Analytical

Recommended but not mandatory to complete this section:

Sampling Company Log Code: PENDING

Analysis Request

Date due:

Phone No.:

FAX No.:

Global ID: PENDING

Project Number:

CA1264-8

P.O. No.:

60391

EDF Deliverable to (Email Address):

inbox@kiffanalytical.com

Project Name:

Tom. Dev.

E-mail address:

inbox@kiffanalytical.com

Project Address:

Sampling

Container

Preservative

Matrix

Sample Designation

Date

Time

Glass

Poly

Sleeve

Amber

Tedlar

HNO₃

H₂SO₄

Na₂S₂O₃

ZnAc₂ & NaOH

None

WATER

SOIL

Air

Asbestos *

STANDARD

For Lab Use Only

BF-01

12/28/07

1

1

X

X

X

BF-02

12/28/07

1

1

X

X

X

Relinquished by:

Kiff Analytical

Date

01/02/08

Time

1100

Received by:

Relinquished by:

Date

1/3/8

Time

0800

Received by:

MR LATAM

Relinquished by:

Date

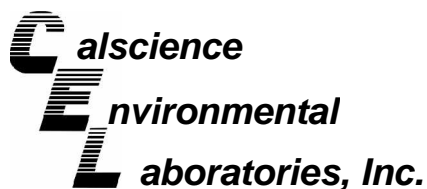
Time

Received by Laboratory:

Remarks: * Hold analysis until notified by Scott Forbes.

Bill to:

Accounts Payable



January 21, 2008

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **CalScience Work Order No.: 08-01-0072**
Client Reference: Tom. Dev

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 1/3/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script that reads 'Amanda Porter'.

CalScience Environmental
Laboratories, Inc.
Amanda Porter
Project Manager

Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 01/03/08
Work Order No: 08-01-0072
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: Tom. Dev

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-01	08-01-0072-1-A	12/28/07	Solid	ICP 5300	01/14/08	01/15/08 19:01	080114L06

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Cadmium	ND	0.500	1		Nickel	18.6	0.250	1	
Chromium	18.7	0.250	1		Zinc	28.5	1.00	1	
Lead	8.23	0.500	1						

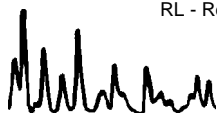
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-02	08-01-0072-2-A	12/28/07	Solid	ICP 5300	01/14/08	01/15/08 19:03	080114L06

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Cadmium	ND	0.500	1		Nickel	16.1	0.250	1	
Chromium	15.2	0.250	1		Zinc	31.3	1.00	1	
Lead	12.3	0.500	1						

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-10,284	N/A	Solid	ICP 5300	01/14/08	01/14/08 21:27	080114L06

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Cadmium	ND	0.500	1		Nickel	ND	0.250	1	
Chromium	ND	0.250	1		Zinc	ND	1.00	1	
Lead	ND	0.500	1						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 01/03/08
Work Order No: 08-01-0072

Project: Tom. Dev

Page 1 of 1

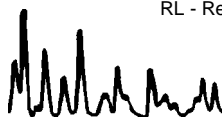
Client Sample Number	Lab Sample Number	Date Collected	Matrix
BF-01	08-01-0072-1	12/28/07	Solid

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method</u>
pH	8.85	0.01	1		pH unit	01/03/08	01/03/08	EPA 9045D

BF-02	08-01-0072-2	12/28/07	Solid
-------	--------------	----------	-------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method</u>
pH	9.17	0.01	1		pH unit	01/03/08	01/03/08	EPA 9045D

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

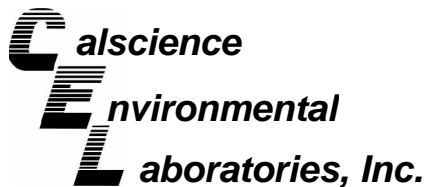
Date Received: 01/03/08
Work Order No: 08-01-0072
Preparation: EPA 3050B
Method: EPA 6010B

Project Tom. Dev

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-01-0724-19	Solid	ICP 5300	01/14/08	01/14/08	080114S06

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Cadmium	95	97	75-125	2	0-20	
Chromium	99	83	75-125	6	0-20	
Lead	96	89	75-125	6	0-20	
Nickel	92	75	75-125	9	0-20	
Zinc	95	81	75-125	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Duplicate



Kiff Analytical
 2795 2nd Street, Suite 300
 Davis, CA 95616-6593

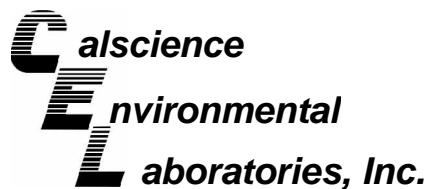
Date Received: N/A
 Work Order No: 08-01-0072

Project: Tom. Dev

Matrix: Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
pH	EPA 9045D	08-01-0059-13	01/03/08	8.31	8.32	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: N/A
Work Order No: 08-01-0072
Preparation: EPA 3050B
Method: EPA 6010B

Project: Tom. Dev

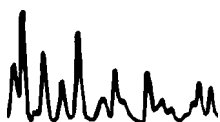
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-10,284	Solid	ICP 5300	01/14/08	01/14/08	080114L06

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Cadmium	101	101	80-120	0	0-20	
Chromium	101	101	80-120	0	0-20	
Lead	100	101	80-120	1	0-20	
Nickel	105	105	80-120	0	0-20	
Zinc	104	104	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 08-01-0072

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.





2795 Second Street, Suite 300
 Davis, CA 95618
 Lab: 530.297.4800
 Fax: 530.297.4808

Cal Science Environmental
 7440 Lincoln Way
 Garden Grove, CA 92841
 714-895-5494

Lab No. 0072 Page 1 of 1

Project Contact (Hardcopy or PDF to):
Scott Forbes

Company/Address:
Kiff Analytical

Phone No.: FAX No.:

Project Number: **CA1264-8** P.O. No.: **60391**

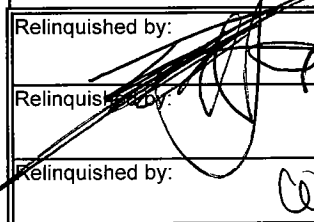
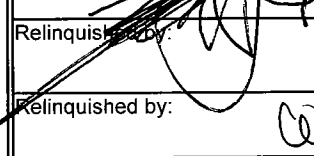
Project Name:
Tom. Dev.

EDF Report? Yes No

Recommended but not mandatory to complete this section:
 Sampling Company Log Code: **PENDING**
 Global ID: **PENDING**
 EDF Deliverable to (Email Address):
inbox@kiffanalytical.com
 E-mail address:
inbox@kiffanalytical.com

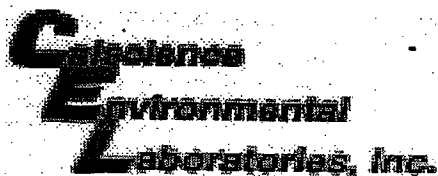
Chain-of-Custody Record and Analysis Request

Sample Designation	Sampling		Container					Preservative				Matrix			Metals, Luft 5 *	pH *	Date due:	For Lab Use Only				
	Date	Time	Glass	Poly	Sleeve	Amber	Tedlar	HNO ₃	H ₂ SO ₄	Na ₂ S ₂ O ₃	ZnAc ₂ & NaOH	None	WATER	SOIL					Air			
BF-01	12/28/07		1								1		X		X	X			X			
BF-02	12/28/07		1								1		X		X	X			X			

Relinquished by: 	Date: 01/02/08	Time: 1900	Received by:
Relinquished by: 	Date:	Time:	Received by:
Relinquished by: W	Date: 1-3-08	Time: 0800	Received by Laboratory: Woburn DE

Remarks: * Hold all analysis until notified by Scott Forbes.

Bill to: **Accounts Payable**



WORK ORDER #: 08 - 01 - 0072

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KIFF ANALYTICAL

DATE: 1-3-08

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature.
- °C Temperature blank.

LABORATORY (Other than Calscience Courier):

- 2.6 °C Temperature blank.
- °C IR thermometer.
- Ambient temperature.

Initial: WB

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: No (Not Intact) : _____ Not Present: _____
Initial: WB

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOA vial(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: WB

COMMENTS:

Project Contact (Hardcopy or PDF To): Ryan Meyer California EDF Report? Yes No

Company / Address: Ceres Associates Sampling Company Log Code:

Phone #: 530-554-1417 Fax #: 530-792-7168 Global ID:

Project #: CA1264-8 P.O. #: EDF Deliverable To (Email Address): ryanmeyer@ceresassociates.com

Project Name: Tom. Dev. Sample Signature: [Signature]

Project Address: 2547 East 27th St. Oakland, CA

Chain-of-Custody Record and Analysis Request

Analysis Request

Sample Designation	Sampling		Container				Preservative			Matrix			MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	Metals List	PH	Asbestos	TAT	For Lab Use Only
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO ₃	None	Ice	Water																			
BF-01	10/28/07				X					X																	X	X	X		01
BF-02	↓				X					X																	X	X	X		02

Relinquished by: [Signature] Date: 10/28/07 Time: 4:35pm Received by: _____

Relinquished by: _____ Date: _____ Time: _____ Received by: _____

Relinquished by: _____ Date: 12/28/07 Time: 1655 Received by Laboratory: [Signature] KIFF analytical

Remarks: _____

Bill to: _____

For Lab Use Only: Sample Receipt					
Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
3.8	PMH	122807	1650	IA4	<input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No

Other Documents

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 12/21/2007 By vickyh1

Permit Numbers: W2007-1240
Permits Valid from 12/28/2007 to 12/28/2007

Application Id: 1198259208858
Site Location: 2547 East 27th Street
Project Start Date: 12/28/2007

City of Project Site:Oakland

Completion Date:12/28/2007

Applicant: Ceres Associates - Ryan Meyer
132 E Street, Suite 310, Davis, CA 95616
Property Owner: Ted Dang
1305 Franklin Street, Oakland, CA 94612
Client: ** same as Property Owner **

Phone: 530-554-1417

Phone: --

Receipt Number: WR2007-0556 Total Due: \$200.00
Payer Name : Ryan Meyer Total Amount Paid: \$200.00
Paid By: MC PAID IN FULL

Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 6 Boreholes
Driller: TEG NCal - Lic #: 706568 - Method: DP

Work Total: \$200.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2007-1240	12/21/2007	03/27/2008	6	2.00 in.	5.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

Alameda County Public Works Agency - Water Resources Well Permit

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
