WAREHAM
PROPERTY GROUP

September 2, 2008

Barbara Jakub
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Subject: Certification Letter
Groundwater Investigation Work Plan
5812 Hollis Street
Emeryville, California
Fuel Leak Case Site RO0000201, Former Hydraulic Electro Service/Alder's Property

Dear Ms. Jakub:

Per your request, the attached Groundwater Investigation Work Plan from Glenn Leong Environmental Consulting provides a written response to your letter to Mrs. Wilma Alders dated July 24, 2008 regarding Fuel Leak Case RO000201 located at 5812 Hollis Street, Emeryville, California (the Site). The attached Work Plan has been prepared on behalf of the current property owner, Wareham Development.

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.

If you have any questions, please call me at (415) 457-4964.

Sincerely yours,

Geoffrey B. Sears

Geoffrey B. Sears
WAREHAM DEVELOPMENT
On Behalf of EmeryStation Triangle II, LLC

September 2, 2008
Project 103-001

Barbara Jakub
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Subject: Groundwater Investigation Work Plan
Fuel Leak Case No. RO0000201
Former Hydraulic Electro Service/Alder's Property
5812 Hollis Street,
Emeryville, CA

Dear Ms. Jakub:

In accordance with your letter to Mrs. Wilma Alders dated 24 July 2008, this Groundwater Investigation Work Plan has been prepared on behalf of Wareham Development, the current property owners for the property located at 5812 Hollis Street, Emeryville, California (Figure 1). Wareham Development purchased the property earlier this year and they have been working with the City of Emeryville regarding oversight of soil management activities for the proposed redevelopment activities at the property.

It is our understanding that the fuel leak for the case is under the jurisdiction of Alameda County Environmental Health Services, but that the City of Emeryville will provide oversight of the non-underground storage tank issues at the Site. As part of the redevelopment, Wareham plans on removing the existing structures and parking areas. Although redevelopment plans have not been finalized, it is our understanding that the redevelopment will likely consist of a half level of sub-grade parking with commercial units on top. This Work Plan includes the following subsections:

- Site Background
- Previous Investigations
- Regional Geology and Hydrogeology
- Site-Specific Geology and Hydrogeology
- Proposed Scope of Work
- Schedule

SITE BACKGROUND

The Site consists of an approximately 36,000 square foot triangular-shaped lot which is occupied by surface parking and a temporary construction trailer in the northern part of the Site, a former dismantling yard in the center of the Site previously operated by Hydraulic Electro Service Corporation, and a single-story building in the southern part of the Site (Figure 2). Since the property transfer, the Hydraulic Electro Service Corporation has vacated the property and the center portion of the Site is vacant. The Site is bound by Hollis Street to the west, a commercial building to the north (at 5850 Hollis Street), and an alley approximately 25 feet wide to the east. The southern tip of the Site is at the intersection of Hollis Street and Powell Street.

2534 42nd Avenue, San Francisco, CA 94116 Tel: (415) 272-6986
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PREVIOUS INVESTIGATIONS

Three investigation documents are available for the Site:

- Limited Environmental Site Assessment (Kleinfelder, 1 May 2006)
- Phase II Environmental Site Assessment (Treadwell & Rollo, 24 March 2008)
- Additional Investigation (Treadwell & Rollo, 23 June 2008)

Each of these documents is summarized below.

Limited Environmental Site Assessment (Kleinfelder, 1 May 2006)

The Limited Environmental Site Assessment (ESA) dated 1 May 2006 was prepared by Kleinfelder for the City of Emeryville. The report included a summary of a site reconnaissance, a summary of file reviews, and the results of laboratory analyses of surface soil samples collected along the western edge of the property. At the time of the ESA, Mr. Peter Alders, the previous property owner, operated the property under Hydraulic Electro Service Corporation from 1977. Site activities included oil storage, battery storage, hazardous materials storage and two Underground Storage Tanks (USTs) located at the northern end of the Site (Figure 2). An 8,000-gallon tank with diesel fuel and a 3,000-gallon tank with gasoline were located at the Site. Both USTs and ancillary piping were removed on 5 December 1989. Other than the UST removal activities, no other remedial activities have been conducted at the Site.

During UST removal, a hydrocarbon sheen was observed in the water that had collected in the excavation pit. Up to 23 milligrams per kilogram (mg/kg) of Total Petroleum Hydrocarbons as diesel (TPH-d) were detected in soil samples from the excavation. Groundwater samples from the excavation reportedly contained the following maximum concentrations:

- TPH-d at 90,000 micrograms per liter (μg/L)
- Total petroleum hydrocarbons as gasoline (TPH-g) at 2,300 μg/L
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) at 100 μg/L, 200 μg/L, 40 μg/L, and 310 μg/L, respectively.

The inferred down-gradient direction of groundwater flow at the Site is to the west-southwest. A groundwater monitoring well (MW-1) was installed approximately 8 feet to the southwest of the former USTs on 17 June 1993 by Summit Engineering (Figure 2). Based on the boring log for MW-1, the subsurface consists of asphalt underlain by light to dark brown clay "fill" material to 14 feet below ground surface (bgs), and light brown to grayish brown silty clay from 14 to 21.5 feet bgs. The monitoring well was screened from 5 to 20 feet bgs. During well installation in 1993, groundwater was encountered at 12 feet bgs. Groundwater was encountered at 5 feet bgs approximately 48 hours after well construction. A groundwater sample collected from the well indicated analytical results reportedly below laboratory reporting limits, although methyl-tert-butyl ether was not part of the analytical suite.

As part of the ESA, surface soil samples were collected in the public right-of-way in 2006 in the planter areas adjoining the Site to the west due to observed surface staining, likely as a result of surface water runoff from the Site. Laboratory analytical results indicated that the concentration of lead detected in soil from these planters exceeded California hazardous waste criteria and contained TPH-d at 960 milligrams per kilogram (mg/kg) and total petroleum hydrocarbons as motor oil (TPH-mo) at 5,600 mg/kg.

Phase II Environmental Site Assessment (Treadwell & Rollo, 24 March 2008)

A Phase II ESA was conducted by Treadwell & Rollo to evaluate the environmental quality of soil and groundwater beneath the Site for consideration in the redevelopment of the Site. Based on an evaluation of the Limited ESA conducted by Kleinfelder, the scope of work included advancing 18 borings to depths between 1.5 feet to 28 feet

bgs, with 11 borings used to collect grab groundwater samples (Figure 2). Samples were analyzed for selected analytes, depending upon the known previous use of a specific area. The analytes included TPH-g, TPH-d, TPH-mo, polychlorinated biphenyls (PCBs), semivolatile organic compounds (SVOCs) including polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and metals. The results of the sampling are summarized in Tables 1 through 4, which indicate the following:

- Chemically-affected soils were generally limited to shallow soils at the Site (from 0 to 3.5 feet bgs), with samples collected from 5.0 to 5.5 bgs reported as not detected. Assorted polynuclear aromatic hydrocarbons, including indeno(1,2,3-cd)pyrene, benzo(a)pyrene, and benzo(b)fluoranthene, and naphthalene were detected in soil samples collected from TR-1, TR-4, TR-9, TR-10, and TR-21 at concentrations above the 2008 Direct Exposure Commercial Land Use Environmental Screening Level (ESL) from the San Francisco Bay Water Board. The property was previously and is planned for commercial land use with no native exposed soil so the Direct Exposure Commercial Land Use ESLs are considered the most appropriate for evaluating the soil data. Arsenic was detected up to 13 mg/kg and vanadium was detected up to 68 mg/kg in soil samples, which are above ESLs, but are within the range of regional background concentrations. At location TR-4 at 1.5 feet bgs lead was detected at 580 mg/kg, with the lead concentration decreasing to 6.4 mg/kg at 5 feet bgs. The soluble lead by the California Waste Extraction Test (WET) in the sample from TR-4 at 1.5 feet bgs was 5.33 milligrams per liter (mg/L), which exceeds the California Code of Regulations, Title 22 Soluble Threshold Limit Concentration (STLC), indicating that excavated soil at that location would be characterized as a California Hazardous Waste.
- Grab groundwater samples collected at the Site contains low concentrations of dissolved TPH, VOCs, and SVOCs at concentrations less than the 2008 Gross Contamination Ceiling Level ESLs and the 2008 Evaluation of Vapor Intrusion Concerns ESLs from the San Francisco Bay Water Board. Because the Site is located approximately 0.5 miles to the west and does not overlie a drinking water aquifer, neither aquatic protection ESLs or drinking water ESLs are not considered appropriate for the Site. Groundwater data comparisons for the Site are limited to the 2008 Gross Contamination Ceiling Level ESLs and the 2008 Evaluation of Vapor Intrusion Concerns ESLs from the San Francisco Bay Water Board. All detected organic chemicals and metals in groundwater were less than the ESLs. TPH-g was detected in TR-7 at 69.2 µg/L and in TR-17 duplicate at 656 µg/L, but the laboratory indicated the 656 µg/L was due to a detection of diisopropyl ether (DIPE) in the sample, which is discussed below.
- There were sporadic detections of VOCs in grab groundwater samples collected at the Site at concentrations less than ESLs. VOCs detected included benzene at TR-1 (1.17 µg/L), toluene at several locations (up to 3.07 µg/L), total xylenes at two locations (up to 2.35 µg/L) trichloroethene at two locations (up to 2.35 µg/L), cis-1,2-dichloroethene at two locations (up to 1.04 µg/L), sec-butylbenzene at TR-7 (0.52 µg/L), DIPE at TR-17 (up to 352 µg/L), 2-methylnaphthalene at TR-7 (17.8 µg/L) and pentachlorophenol at TR-1 (22.6 µg/L). DIPE, which is used as a fuel oxygenate, was only detected in grab groundwater from TR-17 within the vicinity of the former machine shop at the Site. No ESLs have been established for DIPE. No TPH-g, benzene, or other fuel oxygenates were detected in the sample from TR-17, suggesting that the DIPE is not from the former gasoline UST at the Site. DIPE was not detected in any of the analyzed soil samples.
- Metals were detected in groundwater at low concentrations less than the 2008 Gross Contamination Ceiling Level ESLs.

Additional Investigation (Treadwell & Rollo, June 23, 2008)

Based on comments received from the City of Emeryville following their review of the Limited ESA and the Phase II ESA, an additional investigation was conducted by Treadwell & Rollo. The scope of work included the following:

- Soil and groundwater sampling around boring TR-17, located along the northwestern edge of the Site (Figure 2) where DIPE was previously detected in a grab groundwater sample (borings TR-19 and TR-20)
- Soil sampling in the northeast corner of the Site (borings TR-23 and TR-24)

- Soil sampling in the eastern part of the Site between TR-1, TR-2, and TR-5 (TR-21 and TR-22)

The City of Emeryville requested that additional sampling be conducted at a later date at the southern tip of the Site following demolition of the office building overlying that portion of the Site. Five borings were advanced to approximately 12 feet below ground surface (TR-20 through TR-24) to collect soil samples and one boring was advanced to 19 feet bgs (TR-19) to collect soil and grab groundwater samples. Samples were analyzed for selected analytes, depending upon the location and depth. The analytes included TPH-g, TPH-d, TPH-mo, PCBs, SVOCs including PAHs, VOCs, and metals. The results of the sampling are summarized in Tables 1 through 4, which indicate the following:

- Soil samples collected from boring TR-19 (located adjacent to TR-17 where DIPE was detected in groundwater) and TR-20 (located approximately 50 feet east of TR-17) indicated TPH-d and TPH-mo were reported in soil samples collected at 2.5 feet bgs from TR-19 and TR-20, but at concentrations below the ESLs. TPH-d and TPH-mo were not detected in the soil samples collected at 5.0 feet bgs. TPH-g, PCBs, or SVOCs were not detected in the soil samples shallow soil samples from TR-19 and TR-20. Naphthalene was reported at a concentration of 0.071 milligrams per kilogram (mg/kg) in the shallow soil samples from TR-20, but the concentration is below the 2008 Direct Exposure Commercial Land Use ESL from the San Francisco Bay Water Board. DIPE was not detected in soil at TR-19 and TR-20 and was not detected in the grab groundwater sample collected from TR-19, indicating that the DIPE detection at TR-17 is likely localized.
- With the exception of lead, metals concentrations in the soil samples collected from TR-19 and TR-20 were less than the 2008 Direct Exposure Commercial Land Use ESL from the San Francisco Bay Water Board or within the range of regional background concentrations. The total lead concentration in TR-20 at 2.5 feet bgs was 710 mg/kg (with a soluble lead concentration of 81.5 mg/L by the California WET, which is above the STLC for characterization as a California Hazardous Waste). The lead in soil at 5.0 feet bgs was significantly less (5.2 mg/kg), indicating the elevated lead was limited to shallow soil at this location.
- Soil samples collected from TR-24, located in the northeast corner of the Site indicated TPH-mo detected in TR-24 at 2.5 feet bgs was below the 2008 Direct Exposure Commercial Land Use ESL from the San Francisco Bay Water Board and was not detected in the soil sample from 5.0 feet bgs. TPH-mo was not detected in soil samples collected from TR-23. TPH-g, TPH-d, PCBs, SVOCs and VOCS were not were detected in the soil samples collected from TR-23 and TR-24. All metals concentrations in the soil samples collected from TR-23 and TR-24 were less than the 2008 Direct Exposure Commercial Land Use ESLs from the San Francisco Bay Water Board or within the range of regional background concentrations.
- Soil samples collected from TR-21 and TR-22, located along the eastern edge of the Site, indicated detections of TPH-d and TPH-mo were below the 2008 Direct Exposure Commercial Land Use ESLs from the San Francisco Bay Water Board. In addition to the ESLs, the City of Emeryville requested that Emeryville Cleanup Goals be considered for detections of TPH-g, TPH-d and TPH-mo in soil. TPH-mo in the shallow soil sample from TR-21 (1,260 mg/kg) was above the Emeryville Cleanup Goal of 1,000 mg/kg, but the intermediate sample from TR-21 only had TPH-mo at 4.15 mg/kg. No PCBs were detected in the shallow soil samples from TR-21, TR-22, and TR-23. Naphthalene was detected in the shallow soil sample from TR-22 but at a concentration less than ESLs and no other VOCs were detected in shallow, intermediate and deep soil samples from TR-22, and TR-23. The soil sample from TR-21 at 2.5 feet bgs had PAH detections (including naphthalene) above ESLs, which is consistent with the detections of TPH mo in the shallow soil samples (see Figure 3).
- With the exception of lead, metals concentrations in the soil samples collected from TR-21, TR-22, and TR-23 were less than the 2008 Direct Exposure Commercial Land Use ESLs from the San Francisco Bay Water Board or within the range of regional background concentrations. The total lead concentration in TR-21 at 2.5-3.0 feet bgs was 120 mg/kg and 3.9 mg/kg at 5.0-5.5 feet bgs. Due to the potential for the 120 mg/kg of lead in the shallow soil sample to have soluble lead above hazardous waste criteria, the at 2.5-

3.0 feet bgs sample from TR-21 was analyzed for soluble lead by the WET and was found to have soluble lead at 9.21 mg/L, which is above the STLC of 5 mg/L of lead for the characterization of a California hazardous waste. Shallow soil at TR-21 will require testing for soluble lead by the TCLP to evaluate whether the soil will be classified as a RCRA hazardous waste. No other total metals results for samples collected from TR-21, TR-22 or TR-23 were at concentrations above hazardous waste criteria or possibly at soluble metals concentrations above hazardous waste criteria.

REGIONAL GEOLOGY AND HYDROGEOLOGY

According to the United States Geological Survey (USGS) 7.5-Minute Series Topographic Map of the Oakland West, California, Quadrangle (1959, photorevised 1980), the Site is located at elevations of approximately 20 feet above mean sea level (msl). The Site is in the Coast Ranges Geologic Province of California, characterized by northwest-trending mountain ranges and valleys. Effects of the Hayward Fault Zone and associated transpressional/transtensional structural features dominate the geology of western Alameda County. This general area is underlain by Jurassic and Cretaceous sedimentary and igneous rocks of the Franciscan Assemblage and Alameda formation. The Franciscan basement rocks generally do not contain significant water-producing units. Within the Coast Ranges Geologic Province of California, the Site is located within the flatlands of the East Bay Alluvial Plain near the shore of San Francisco Bay. The sediments of the East Bay Alluvial Plain slope gently westward from the Oakland-Berkeley Hills to San Francisco Bay.

Water-producing zones (aquifers) are present throughout the Bay Plain sequence as sand and gravel layers, separated both vertically and horizontally by silt and clay lenses of lower permeability. Aquifers in the Emeryville and Berkeley area are generally discontinuous and interspersed with less-permeable layers, as typical of alluvial systems. The aquifers are composed of gently westward-sloping sand and gravel beds deposited by streams within the complex alluvial fan feature, which shifted and braided over a period of hundreds of thousands of years. Because of the discontinuous and interspersed subsurface geological layers typical of alluvial fan units, local groundwater gradients are complex and can be expected to change over short distances.

The predominant, regional direction of shallow groundwater flow is westward toward San Francisco Bay, which is located approximately 0.5 miles to the west. East Bay Municipal Utility District provides potable water for the Site and vicinity. The regional groundwater flow is inferred to follow the topography and flow to the west towards the San Francisco Bay.

The Site is not near a source of drinking water, nor does it overlie a shallow aquifer used for drinking water. Potability of shallow groundwater in the vicinity of the Site is questionable because of tidal influence and probable saltwater intrusion and susceptibility to pollution from area industries. Temescal Creek is the nearest perennial stream, located approximately 1 mile south of the Site. The creek flows through a u-shaped, concrete-lined channel about 30 feet wide and 12 feet deep. Temescal Creek drains into San Francisco Bay within the tidal marshes of Emeryville Crescent.

SITE-SPECIFIC GEOLOGY AND HYDROGEOLOGY

The hydrogeologic conditions noted below are based on observations made by Treadwell & Rollo during the drilling activities performed at the Site on January 22-23 and March 4-5, 2008. Generally, the Site consists of an asphalt-concrete surface (approximately 3-inches thick) underlain by a stiff, olive-black, sandy clay from 3-inches to 3 feet bgs, and a stiff, brown to olive clay from 3 feet bgs to a maximum observed depth of 28 feet bgs. No discolored soil, oily sheen, or soil with petroleum odors were encountered during drilling activities.

The unstabilized depth to groundwater in previous grab groundwater samples was measured between 3 to 8 feet bgs. The direction of groundwater flow could not be determined (temporary wells were not surveyed). However, the general groundwater flow direction is assumed to be westerly toward the San Francisco Bay.

SCOPE OF WORK

The proposed scope of work address the issues, concerns and requests by the Alameda County Health Care Services regarding the former USTs at the Site as noted in your letter dated 24 July 2008. In addition to the information presented previously in this Work Plan, Figure 3 presents TPH detections in soil at the Site and Figure 4 presents TPH, VOCs and oxygenates in groundwater. While the previous Site sampling has been focused on potential sources of chemical contamination from a variety of sources, samples have not been collected from the existing groundwater well or from directly within the former UST location.

Three tasks are proposed for the scope of work outlined in this Work Plan:

- Task 1 Existing Well (MW-1) Redevelopment and Sampling
- Task 2 Vertical Contaminant Distribution in Groundwater
- Task 3 Technical Summary Report

The specific work tasks and deliverables are discussed below.

Task 1 Existing Well (MW-1) Redevelopment and Sampling

The existing onsite groundwater monitoring well (MW-1) was apparently installed on 17 June 1993 by Summit Engineering of Oakland, California. The well construction details are attached. According to the well installation log, the total depth of the well is approximately 20 feet below ground surface (bgs). The well is constructed with approximately 15 feet of slotted casing (well screen) and 5 feet of blank casing. The well has a bentonite seal and a concrete surface seal. Groundwater was initially encountered at approximately 12 feet bgs, and rose to approximately 4.5 feet bgs after 48 hours. Based on the well installation log, the water level at the time the well was installed in June 1993 was slightly above the top of the screened interval. The current groundwater level conditions are unknown.

At your request, the existing groundwater monitoring well will be redeveloped to obtain an accurate and current water level measurement, and to collect a representative groundwater sample. The well will be developed using a surging and purging technique.

Before well development, the existing static water level will be measured and recorded and will be used as the baseline measurement. A drilling subcontractor will be retained to redevelop the well. A well surge block will be placed in the well and gently lowered and raised through the entire depth of the well. This surging action will loosen and dislodge sediments and biological growth in the well screen, and cause sediments that have collected in the bottom of the well to become suspended in the water column. After the well has been surged, the water in the well casing will be purged to remove water containing suspended solids. This procedure of surging and purging will be repeated until the purged water clears (i.e., low turbidity) or until at least 10 well casings of water are purged from the well.

After well development is complete, the well will be allowed to stabilize for approximately 48 hours. After the well has stabilized, the well will be prepared for sampling. The depth to groundwater will be measured and recorded before the sampling procedure begins. Additionally, an oil/water interface probe will be lowered into the well to check for the presence of floating free-phase product. The oil/interface probe is capable of measuring a free-phase product thickness of 0.01 foot (equivalent to a “sheen”).

Prior to sampling, additional static groundwater will be purged from the well using a low-flow purging technique. The low flow purging technique is intended to minimize sediment disturbance and to reduce the potential to volatilize petroleum hydrocarbons dissolved in the groundwater. As the well water is being purged, the field parameters, including temperature, pH, specific conductivity, and dissolved oxygen will be measured and recorded. A representative groundwater sample will be collected after the field parameters have stabilized (less

than a 10 percent variation). The groundwater samples will be collected in clean laboratory supplied cleaned and preserved sample containers: 40-mililiter volatile organic analysis (VOA) vials and 1-liter amber glass jars.

The groundwater sample bottles will be sealed, labeled, and placed in an ice-chilled cooler for delivery to the certified analytical laboratory under chain-of custody protocol. The groundwater from Monitoring Well MW-1 will be analyzed for the following constituents:

- TPH-g and TPH-d using EPA Test Method 8015M;
- Benzene, Toluene, Ethylbenzene, and Xylenes using EPA Test Method 8260; and
- Methyl tert-butyl ether (MTBE), Ethyl tertiary butyl ether (ETBE), DIPE, Tertiary amyl methyl ether (TAME), Tert-butyl alcohol (TBA), Ethylene dibromide (EDB), and 1,2-dichloroethane (1,2-DCA) using EPA Test Method 8260.
- Total dissolved solids by EPA Method 160.1.

Well development observations and analytical results will be included and discussed in the technical report as discussed below (Task 3). The top of casing for well MW-1 will be surveyed to mean sea level and latitude and longitude to sub-meter accuracy using NAD 83 to provide data for the GeoTracker web site.

Task 2 Vertical Contaminant Distribution in Groundwater

At the time the USTs was removed, a petroleum hydrocarbon sheen was reportedly observed floating on the groundwater surface within the former tank pit. At your request, additional groundwater samples will be collected from within the area of the former underground storage tank USTs (UST) to evaluate whether residual concentrations are present. In addition to evaluating potential residual petroleum hydrocarbons, additional grab groundwater samples will be collected from temporary boreholes at various depth intervals to evaluate the vertical extent of hydrocarbons in the shallow groundwater near the former USTs.

Three exploratory groundwater sampling probes will be advanced within and near the former UST. The probe locations will be field adjusted depending upon the presence of subsurface obstructions. A direct-push Geoprobe® drill-rig will be used to advance the probes.

- One probe will be advance to approximately 1 to 2 feet below the top of the current groundwater surface. If floating free-phase product is present, this probe should encounter a high petroleum hydrocarbon concentration zone.
- One probe will be advanced to approximately 20 feet bgs (the maximum depth of the existing well) to confirm the monitoring well groundwater quality results.
- One probe will be advanced to between 25 and 30 feet bgs to evaluate whether detectable concentrations of petroleum hydrocarbons are present in the groundwater below the maximum depth of the existing monitoring well.

After the probes have been pushed to their maximum depth, the probe will be opened to allow collecting a discrete grab groundwater sample from that depth interval. After the groundwater sample has been collected, the exploratory probe will be removed and the temporary soil boring will be sealed using a neat cement grout. Each grab groundwater sample will be place in the appropriate sample bottle and sealed, labeled, and placed in an ice-chilled cooler for delivery to the certified analytical laboratory under chain-of custody protocol. The groundwater from the three exploratory probes will be analyzed for the following constituents:

- TPH-g and TPH-d using EPA Test Method 8015M;
- Benzene, Toluene, Ethylbenzene, and Xylenes BTEX using EPA Test Method 8260; and
- MTBE, ETBE, DIPE, TAME, TBA, EDB, and 1,2-DCA using EPA Test Method 8260.

- Total dissolved solids by EPA Method 160.1.

Groundwater sampling observations and analytical results will be included and discussed in the technical report as discussed below (Task 3).

Task 3 Technical Summary Report

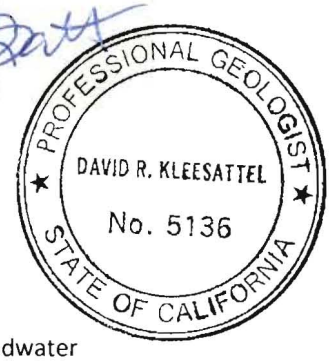
Following the completion of the additional groundwater sampling field and the receipt and evaluation of the new groundwater analytical results, a technical summary report will be prepared and submitted to document the investigation results. In addition to a detailed discussion of the investigation results, the technical summary report will include copies of field notes, analytical laboratory datasheets, and site plans depicting the locations of samples collected. The report will also include copies of the three reports cited previously in this Work Plan.

The site will be claimed and established on the GeoTracker website. All future documents, including the proposed Technical Summary Report, as described above, will be uploaded onto GeoTracker and the Alameda County Environmental Health's ftp site.

If you have any questions regarding this Work Plan, please contact Glenn Leong at 415-272-6986 or at glenn@leongenv.com.

Glenn M. Leong, R.E.A.
Principal Scientist

David R. Kleesattel, P.G.
Consulting Geologist



Attachment:
Figure 1 Site Plan
Figure 2 Previous Sampling Locations
Figure 3 TPH Concentrations in Soil
Figure 4 TPH, Volatile Organic Compounds and Oxygenates in Groundwater

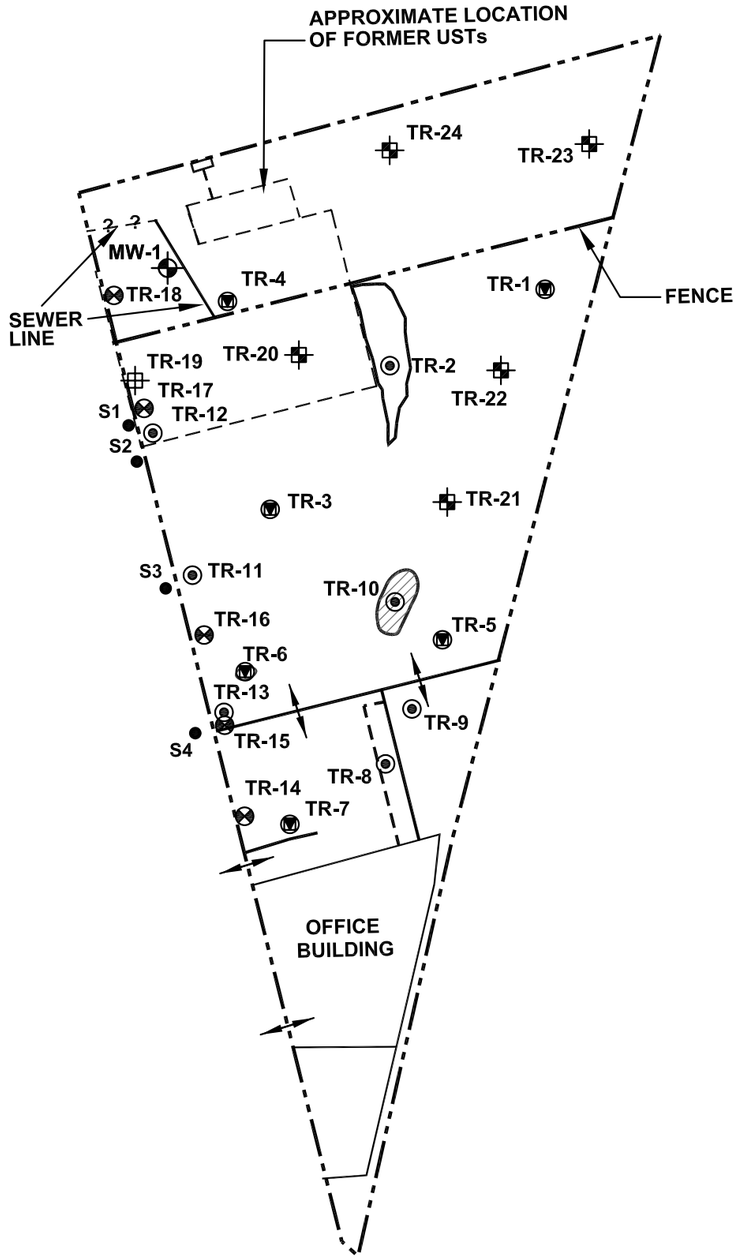
Table 1 Organic Compounds in Soil
Table 2 Metals in Soil
Table 3 Organic Compounds in Groundwater
Table 4 Metals in Groundwater

Base map: The Thomas Guide
Alameda County 1999.

0 1/4 1/2 Mile

Approximate scale

Glenn M. Leong, REA	**ALDERS PROPERTY** **5812 HOLLIS STREET** Emeryville, California		**SITE LOCATION MAP**
	Date 01/25/08	Project No 103.001	Figure 1



EXPLANATION

- Monitoring well installed by Summit Engineering, June 1993
- Groundwater sampling locations by Treadwell & Rollo, Inc., March 2008
- Soil sampling location by Treadwell & Rollo, Inc., January 2008
- Soil and groundwater sampling location by Treadwell & Rollo, Inc., January 2008
- Soil sampling location by Treadwell & Rollo, Inc., April 2008
- Soil and groundwater sampling location by Treadwell & Rollo, Inc., April 2008
- Property boundary
- Previous sampling locations by Kleinfelder in 2006
- Building access

N

0 50 Feet

Approximate scale

Reference: www.terraserver-usc.com, 2006.

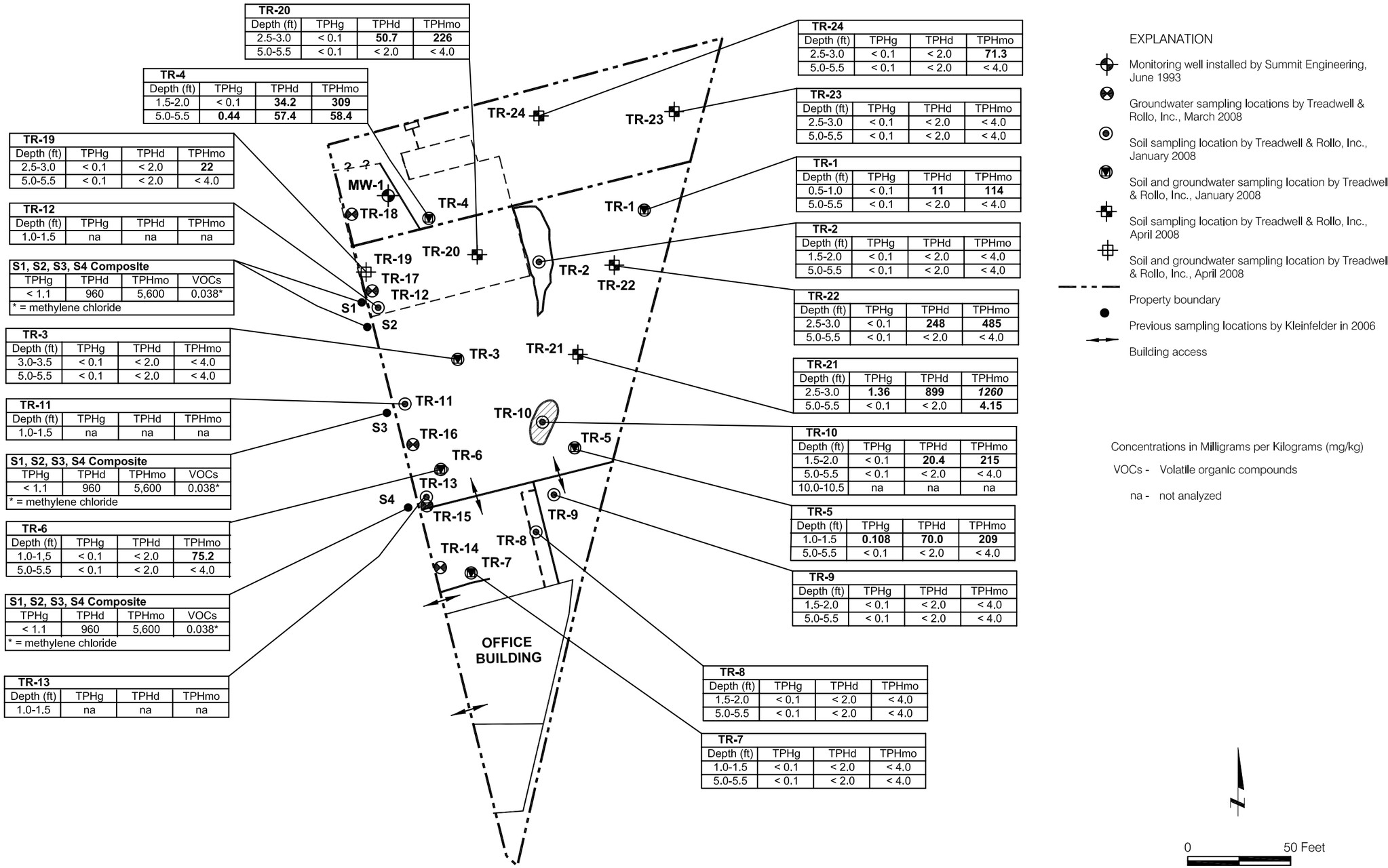
GL

Glenn M. Leong, REA

ALDERS PROPERTY
5812 HOLLIS STREET
Emeryville, California

PREVIOUS SAMPLING LOCATIONS

Date 08/29/08 | Project No. 103.001 | Figure 2



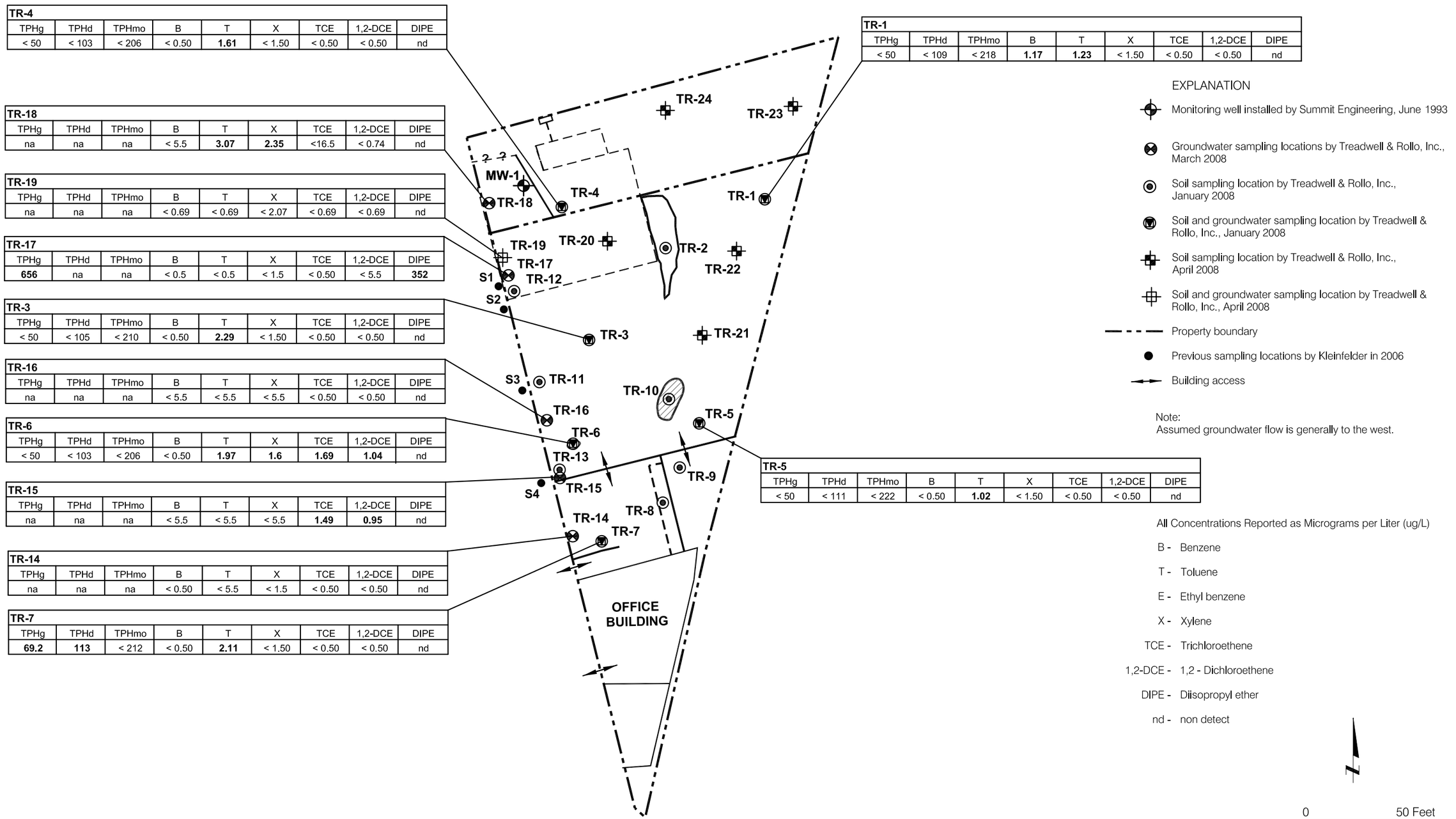
Reference: www.terraserver-usc.com, 2006.

Glenn M. Leong, REA

ALDERS PROPERTY
5812 HOLLIS STREET
Emeryville, California

TPH CONCENTRATIONS IN SOIL

Date 08/29/08 | Project No. 103.001 | Figure 3



Reference: www.terraserver-usc.com, 2006.

Glenn M. Leong, REA

ALDERS PROPERTY
5812 HOLLIS STREET
Emeryville, California

TPH, VOLATILE ORGANIC COMPOUNDS AND OXYGENATES IN GROUNDWATER

Date 08/29/08 | Project No. 103.001 | Figure 4

TABLE 1
ORGANIC COMPOUNDS IN SOIL
5812 Hollis Street/Alders Property
Emeryville, California

Sample ID	Depth	Date Sampled	TPH-g	TPH-d	TPH-mo	PCBs	SVOCs	VOCs
	feet bgs		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
S-1 through S-4	Surface, Composite	4/7/2006	< 1.1	960	**5600**	Aroclor 1260 = 0.2	ND	Methylene chloride = 0.038
TR-1	0.5-1.0	1/22/2008	< 0.100	11.0x	114x	ND	Fluoranthene = 64.3; **Indeno(1,2,3-cd)pyrene = 78.4**; Pyrene = 79.4; Other SVOCs = ND	Naphthalene = 0.039e; Other VOCs = ND
	5.0-5.5	1/22/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-2	1.5-2.0	1/22/2008	< 0.100	< 2.0	< 4.0	ND	ND	ND
	5.0-5.5	1/22/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-3	3.0-3.5	1/22/2008	< 0.100	< 2.0	< 4.0	ND	ND	ND
	5.0-5.5	1/22/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-4	1.5-2.0	1/22/2008	< 0.100	34.2x	309x	Aroclor 1260 = 0.61j; All other PCBs = ND	Benzo(g,h,i)perylene = 134; Fluoranthene = 183; **Indeno(1,2,3-cd)pyrene = 186;** Pyrene = 214; Others SVOCs = ND	ND
	5.0-5.5	1/22/2008	0.44x	57.4x	58.4x	--	ND	ND
TR-5	1.0-1.5	1/22/2008	0.108	70.0x	209x	ND	ND	ND
	5.0-5.5	1/22/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-6	1.0-1.5	1/22/2008	< 0.100	< 2.0	75.2	ND	ND	Naphthalene = 0.052; Other VOCs = ND
	5.0-5.5	1/22/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-7	1.0-1.5	1/22/2008	< 0.100	< 2.0	< 4.0	ND	ND	ND
	5.0-5.5	1/22/2008	< 0.100	< 2.0	< 4.0	--	ND	ND
TR-8	1.5-2.0	1/23/2008	< 0.100	< 2.0	< 4.0	ND	ND	ND
	5.0-5.5	1/23/2008	< 0.100	< 2.0	< 4.0	--	--	ND

TABLE 1
ORGANIC COMPOUNDS IN SOIL
5812 Hollis Street/Alders Property
Emeryville, California

Sample ID	Depth	Date Sampled	TPH-g	TPH-d	TPH-mo	PCBs	SVOCs	VOCs
	feet bgs		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TR-9	1.5-2.0	1/23/2008	< 0.100	< 2.0	< 4.0	ND	Benz(a)anthracene = 0.620; **Benzo(a)pyrene = 1.11**; **Benzo(b)fluoranthene = 1.55**; Benzo(k)fluoranthene = 0.455; Benzo(g,h,i)perylene = 0.619; Chrysene = 0.684; Fluoranthene = 2.56; Indeno(1,2,3-cd)pyrene = 0.512; Phenanthrene = 1.13; Pyrene = 2.93; Other SVOCs= ND	ND
	5.0-5.5	1/23/2008	< 0.100	< 2.0	< 4.0	--	--	All ND
TR-10	1.5-2.0	1/23/2008	< 0.100	20.4x	215x	ND	**Benzo(a)pyrene = 119; Benzo(b)fluoranthene = 160**; Fluoranthene = 281; **Indeno(1,2,3-cd)pyrene = 155**; Phenanthrene = 196; Pyrene = 354; Other SVOCs = ND	Naphthalene = 0.160; All others = ND
	5.0-5.5	1/23/2008	< 0.100	< 2.0	< 4.0	--	ND	ND
	10.0-10.5	1/23/2008	--	--	--	--	--	--
TR-11	1.0-1.5	1/23/2008	--	--	--	--	--	--
TR-12	1.0-1.5	1/23/2008	--	--	--	--	--	--
TR-13	1.0-1.5	1/23/2008	--	--	--	--	--	--
TR-19	2.5-3.0	4/17/2008	< 0.100	< 2.0	22.0	ND	ND	ND
	5.0-5.5	4/17/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-20	2.5-3.0	4/17/2008	< 0.100	50.7x	226x	ND	ND	Naphthalene = 0.071 by EPA 8260 and ND by EPA
	5.0-5.5	4/17/2008	< 0.100	< 2.0	< 4.0	--	--	ND

TABLE 1
ORGANIC COMPOUNDS IN SOIL
5812 Hollis Street/Alders Property
Emeryville, California

Sample ID	Depth	Date Sampled	TPH-g	TPH-d	TPH-mo	PCBs	SVOCs	VOCs
	feet bgs		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TR-21	2.5-3.0	4/17/2008	1.36x	899x	1260x	ND	**Benz(a)anthracene = 182**; **Benzo(a)pyrene = 316**; **Benzo(b)fluoranthene = 399**; Fluoranthene = 831; **Naphthalene = 308**; Phenanthrene = 663; Pyrene = 1,190; Other SVOCs = ND	**Naphthalene = 20**; All others = ND
	5.0-5.5	4/17/2008	< 0.100	< 2.0	4.15	--	--	ND
	10.0-10.5	4/17/2008	--	--	--	--	--	ND
TR-22	2.5-3.0	4/17/2008	< 0.100	248x	485x	ND	Fluoranthene = 189; Pyrene = 296; Other SVOCs = ND	Naphthalene = 0.076 by EPA 8260 and ND by EPA 8270; All others = ND
	5.0-5.5	4/17/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-23	2.5-3.0	4/17/2008	< 0.100	< 2.0	< 4.0	ND	ND	ND
	5.0-5.5	4/17/2008	< 0.100	< 2.0	< 4.0	--	--	ND
TR-24	2.5-3.0	4/17/2008	< 0.100	< 2.0	71.3	ND	ND	ND
	5.0-5.5	4/17/2008	< 0.100	< 2.0	< 4.0	--	--	ND
ESLs (Table K-2) - Commercial Land Use, Direct Exposure (mg/kg)			450	2,200	2,200	PCBs = 0.74	Benz(a)anthracene = 1.3; Benzo(a)pyrene = 0.13; Benzo(b)fluoranthene = 1.3; Benzo(k)fluoranthene = 1.3; Benzo(g,h,i)perylene = 3,300; Chrysene = 210; Fluoranthene = 22,000; Indeno(1,2,3-cd)pyrene = 2.1; Naphthalene = 2.8 Phenanthrene = 17,000; Pyrene = 33,000	Naphthalene = 2.8

TABLE 1
ORGANIC COMPOUNDS IN SOIL
5812 Hollis Street/Alders Property
Emeryville, California

Sample ID	Depth	Date Sampled	TPH-g	TPH-d	TPH-mo	PCBs	SVOCs	VOCs
	feet bgs		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
ESLs (Table K-3) - Construction/Trench Worker, Direct Exposure (mg/kg)			21,000	21000	58,000	PCBs = 34	Benzo(a)anthracene = 15; Benzo(a)pyrene = 1.5; Benzo(b)fluoranthene = 15; Benzo(k)fluoranthene = 15; Benzo(g,h,i)perylene = 53,000; Chrysene = 2,400; Fluoranthene = 70,000; Indeno(1,2,3-cd)pyrene = 24; Naphthalene = 130 Phenanthrene = 11,000; Pyrene = 21,000	Naphthalene = 130
Emeryville Cleanup Goals			400	400	1,000	NE	NE	NE

Notes:
All concentrations in milligrams per kilogram (mg/kg)
bgs = feet below ground surface
Detected concentrations are highlighted in **bold**.
x = Sample chromatogram does not resemble typical diesel or motor oil pattern.
e, j = estimated value
< = indicates not detected at the indicated laboratory detection limit
ND = Not detected. Refer to the laboratory analytical report for detection limits.
NE = Not Established
"--" = not analyzed
ESLs = Environmental Screening Levels (SF-RWQCB, 2008). NE = Not Established
ESLs (Table K-2) = Direct exposure soil screening levels, commercial scenario. Carcinogens (RISK = 10^{-6}), Non-carcinogens (HQ = 1.0)
ESLs (Table K-3) - = Direct exposure soil screening levels, construction/trench worker scenario. Carcinogens (RISK = 10^{-6}), Non-carcinogens (HQ = 1.0)

Emeryville Cleanup Goals - Cleanup Goals for Constituents Approved at Sites in Emeryville. a = multifamily residential land-use
BOLD concentrations exceed the most conservative ESL or Emeryville Cleanup Goal
Total Petroleum Hydrocarbons (TPH) quantified as gasoline (TPH-g), diesel fuel (TPH-d), and motor oil (TPH-mo) analyzed by EPA Method 8015. TPH-d and TPH-mo analyzed with silica gel cleanup.
Volatile Organic Compounds (VOCs) analyzed by EPA Method 8260B.
Polychlorinated Biphenyls (PCBs) analyzed by EPA 8082
Semi-volatile organic compounds (SVOCs) analyzed by EPA 8270C

TABLE 2
METALS IN SOIL
5812 Hollis Street/Alders Property
Emeryville, California

Sample ID	Depth	Date Sampled	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Pb by WET	Mo	Ni	Se	Ag	Tl	Vn	Zn	Hg
	feet bgs		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
S-1 through S-4	Surface, Composite	4/7/2006	10	10	140	0.2	3.6	130	7.6	150	**2100**	--	14	55	0.53	< 0.19	0.24	42	500	0.63
TR-1	0.5-1.0	1/22/2008	< 5.0	**3.2**	200	< 2.0	< 1.0	16	6.6	40	36	--	< 5.0	25	< 5.0	< 1.0	< 5.0	24	95	< 0.16
	5.0-5.5	1/22/2008	--	**5.0**	160	--	< 1.0	25	--	--	5.8	--	--	--	< 5.0	< 1.0	--	--	--	--
TR-2	1.5-2.0	1/22/2008	< 5.0	**4.5**	160	< 2.0	< 1.0	20	16	14	6.7	--	< 5.0	17	< 5.0	< 1.0	< 5.0	31	24	< 0.10
	5.0-5.5	1/22/2008	--	**2.6**	74	--	< 1.0	27	--	--	4.8	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-3	3.0-3.5	1/22/2008	< 5.0	**2.8**	140	< 2.0	< 1.0	15	5.0	18	4.4	--	< 5.0	21	< 5.0	< 1.0	< 5.0	25	31	< 0.10
	5.0-5.5	1/22/2008	--	**3.2**	160	--	< 1.0	23	--	--	4.8	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-4	1.5-2.0	1/22/2008	14	**8.6**	240	< 2.0	3.0	17	9.5	150	580	**5.33**	< 5.0	97	< 5.0	< 1.0	< 5.0	68	1,700	0.92
	5.0-5.5	1/22/2008	--	**6.6**	140	--	< 1.0	19	--	--	6.4	--	--	--	< 5.0	< 1.0	--	--	--	< 0.12
TR-5	1.0-1.5	1/22/2008	< 5.0	**13**	160	< 2.0	1.4	13	9.4	41	120	3.68	< 5.0	21	< 5.0	< 1.0	< 5.0	25	270	< 0.10
	5.0-5.5	1/22/2008	--	**2.8**	310	--	< 1.0	34	--	--	7.8	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-6	1.0-1.5	1/22/2008	< 5.0	**3.3**	150	< 2.0	< 1.0	19	< 5.0	16	5.2	--	< 5.0	12	< 5.0	< 1.0	< 5.0	22	19	< 0.10
	5.0-5.5	1/22/2008	--	**4.6**	180	--	< 1.0	22	--	--	7.4	--	--	--	< 5.0	1.0	--	--	--	< 0.10
TR-7	1.0-1.5	1/22/2008	< 5.0	**4.4**	120	< 2.0	< 1.0	20	< 5.0	13	4.7	--	< 5.0	11	< 5.0	< 1.0	< 5.0	24	20	< 0.10
	5.0-5.5	1/22/2008	--	**3.8**	180	--	< 1.0	25	--	--	6.0	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-8	1.5-2.0	1/23/2008	< 5.0	**2.2**	200	< 2.0	< 1.0	17	8.0	13	6.4	--	< 5.0	12	< 5.0	< 1.0	< 5.0	21	18	< 0.10
	5.0-5.5	1/23/2008	--	**3.4**	160	--	< 1.0	26	--	--	7.4	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-9	1.5-2.0	1/23/2008	< 5.0	**5.0**	180	< 2.0	< 1.0	17	9.4	13	14	--	< 5.0	15	< 5.0	< 1.0	< 5.0	32	55	< 0.10
	5.0-5.5	1/23/2008	--	**3.8**	69	--	< 1.0	27	--	--	5.8	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-10	1.5-2.0	1/23/2008	< 5.0	**3.6**	160	< 2.0	< 1.0	16	8.7	23	44	--	< 5.0	17	< 5.0	< 1.0	< 5.0	21	100	< 0.10
	5.0-5.5	1/23/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10.0-10.5	1/23/2008	--	**6.3**	340	--	< 1.0	24	--	--	5.6	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-11	1.0-1.5	1/23/2008	< 5.0	**2.0**	190	< 2.0	< 1.0	9.1	6.1	35	11	--	< 5.0	8.8	< 5.0	< 1.0	< 5.0	21	66	0.32
TR-12	1.0-1.5	1/23/2008	< 5.0	**5.1**	470	< 2.0	< 1.0	21	30	12	12	--	< 5.0	29	< 5.0	< 1.0	< 5.0	38	52	< 0.10
TR-13	1.0-1.5	1/23/2008	< 5.0	**6.8**	310	< 2.0	< 1.0	18	5.8	13	7.2	--	< 5.0	11	< 5.0	< 1.0	< 5.0	25	17	< 0.10
TR-19	2.5-3.0	4/17/2008	< 5.0	**2.2**	130	< 2.0	< 1.0	22	< 5.0	11	13	--	< 5.0	19	< 5.0	< 1.0	< 5.0	26	38	< 0.10
	5.0-5.5	4/17/2008	--	< 1.7	81	--	< 1.0	23	--	--	3.8	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-20	2.5-3.0	4/17/2008	15	**4.5**	240	< 2.0	1.6	20	9.0	72	710	**81.5**	< 5.0	36	< 5.0	1.2	< 5.0	27	650	0.52
	5.0-5.5	4/17/2008	--	**5.3**	82	--	< 1.0	32	--	--	5.2	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
	10.0-10.5	4/17/2008	--	**8.9**	120	--	< 1.0	23	--	--	5.7	--	--	--	< 5.0	< 1.0	--	--	--	0.10
TR-21	2.5-3.0	4/17/2008	< 5.0	**2.6**	140	< 2.0	< 1.0	17	< 5.0	31	120	**9.21**	< 5.0	29	< 5.0	< 1.0	< 5.0	22	820	0.14
	5.0-5.5	4/17/2008	--	**4.3**	97	--	< 1.0	25	--	--	3.9	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
	10.0-10.5	4/17/2008	--	**12**	160	--	< 1.0	18	--	--	6.8	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-22	2.5-3.0	4/17/2008	< 5.0	**3.5**	240	< 2.0	< 1.0	29	15	20	15	--	< 5.0	42	< 5.0	< 1.0	< 5.0	37	69	0.11
	5.0-5.5	4/17/2008	--	**5.4**	180	--	< 1.0	34	--	--	5.2	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
	10.0-10.5	4/17/2008	--	**9.8**	140	--	< 1.0	31	--	--	7.0	--	--	--	< 5.0	< 1.0	--	--	--	0.17
TR-23	2.5-3.0	4/17/2008	< 5.0	**7.4**	150	< 2.0	< 1.0	27	8.7	16	6.5	--	< 5.0	37	< 5.0	< 1.0	< 5.0	33	40	< 0.10
	5.0-5.5	4/17/2008	--	< 1.7	160	--	< 1.0	26	--	--	3.3	--	--	--	< 5.0	< 1.0	--	--	--	< 0.10
TR-24	2.5-3.0	4/17/2008	< 5.0	**2.4**	260	< 2.0	< 1.0	26	7.1	15	5.2	--	< 5.0	23	< 5.0	< 1.0	< 5.0	30	36	< 0.10
	5.0-5.5	4/17/2008	--	**5.1**	130	--	< 1.0	19	--	--	3.3	--	--	--	< 5.0	< 1.0	--	--	--	0.11
ESLs (Table K-2) - Commercial Land Use, Direct Exposure (mg/kg)			410	1.6	170,000	1,900	7.4	1,500,000[a]	1,900	410,000	750	--	5,100	17,000	5,100	5,100	82	1,000	310,000	88

TABLE 2
METALS IN SOIL
5812 Hollis Street/Alders Property
Emeryville, California

Sample ID	Depth	Date Sampled	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Pb by WET	Mo	Ni	Se	Ag	Tl	Vn	Zn	Hg
	feet bgs		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
ESLs (Table K-3) - Construction/Trench Worker, Direct Exposure (mg/kg)			1,500	15	13,000	490	39	5,800,000[a]	94	1,500,000	750	--	19,000	1,300	19,000	19,000	310	3,900	1,200,000	290
TTLC (mg/kg)			500	500	10,000	75	100	2,500	8,000	2,500	1,000	--	3,500	2,000	100	500	700	2,400	5,000	2
STLC (mg/L)			15	5	100	0.75	1	5	80	25	--	5	350	20	1	5	7	24	250	0.2
Regulatory Level (Federal) (mg/L)			NE	5	100	NE	1	5	NE	NE	5	--	NE	NE	1	5	NE	NE	NE	0.2

Notes:
All concentrations in milligrams per kilogram (mg/kg) with the exception of Pb by WET which is listed in milligrams per liter (mg/L).
Concentrations listed in **bold** indicate an exceedance of the most stringent criteria between the ESL or TTLC. STLC criteria used to screen samples analyzed by the Waste Extraction Test (WET)
bgs = below ground surface
< = indicates not detected at or above the indicated laboratory detection limit
"--" = not analyzed
NE = Not Established
ESLs = Environmental Screening Levels (SF-RWQCB, 2008). NE = Not Established
ESLs (Table K-2) = Direct exposure soil screening levels, commercial scenario. Carcinogens (RISK = 10^{-6}), Non-carcinogen (HQ = 1.0)
ESLs (Table K-3) = Direct exposure soil screening levels, construction/trench worker scenario. Carcinogens (RISK = 10^{-6}), Non-carcinogen (HQ = 1.0)
[a] = Total chromium ESL not established. Chromium III ESL used as a surrogate.
Total Threshold Limit Concentration (TTLC) listed in mg/kg. Soluble Threshold Limit Concentration (STLC) listed in milligrams per liter (mg/L).
Pb by WET = Soluble lead concentrations analyzed by the Waste Extraction Test.
Sb = Antimony, As = Arsenic, Ba = Barium, Be = Beryllium, Cd = Cadmium, Cr = Chromium, Co = Cobalt, Cu = Copper, Pb = Lead, Mo = Molybdenum, Ni = Nickel, Se = Selenium, Ag = Silver, Tl = Thallium, Vn = Vanadium, Zn = Zinc, Hg = Mercury

TABLE 4
METALS IN GROUNDWATER
5812 Hollis Street/Alders Property
Emeryville, California

Sample ID	Date Sampled	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	Vn	Zn	Hg
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TR-1-GW	1/23/2008	< 0.010	< 0.0050	0.076	< 0.0050	< 0.0050	< 0.0050	0.014	< 0.0050	< 0.015	0.024	0.034	0.010	< 0.0050	< 0.0050	0.026	< 0.0050	< 0.00020
TR-3-GW	1/23/2008	< 0.010	0.0075	1.7	< 0.0050	< 0.0050	< 0.0050	0.025	0.037	< 0.015	< 0.010	0.010	0.018	< 0.0050	< 0.0050	0.032	0.034	< 0.00020
TR-4-GW	1/23/2008	< 0.010	< 0.0050	0.31	< 0.0050	< 0.0050	< 0.0050	0.019	< 0.0050	< 0.015	< 0.010	0.049	< 0.010	< 0.0050	< 0.0050	0.029	< 0.0050	< 0.00020
TR-5-GW	1/23/2008	< 0.010	< 0.0050	0.23	< 0.0050	< 0.0050	< 0.0050	0.0086	< 0.0050	< 0.015	< 0.010	0.015	< 0.010	< 0.0050	< 0.0050	0.016	< 0.0050	< 0.00020
TR-6-GW	1/23/2008	< 0.010	< 0.0050	0.058	< 0.0050	< 0.0050	< 0.0050	0.011	< 0.0050	< 0.015	< 0.010	0.020	< 0.010	< 0.0050	< 0.0050	0.020	< 0.0050	< 0.00020
TR-7-GW	1/24/2008	0.021	0.0064	0.29	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	0.015	0.045	< 0.010	< 0.0050	< 0.0050	0.026	0.0054	< 0.00020
ESLs (Table I-2) - Gross Contamination Ceiling Value (mg/L)		50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50

Notes:
All concentrations in milligrams per liter (mg/L)
Concentrations listed in **bold** exceed their respective ESL.
< = not detected at or above the indicated laboratory detection limit
ESLs = Environmental Screening Levels (SF-RWQCB, 2008)
Sb = Antimony, As = Arsenic, Ba = Barium, Be = Beryllium, Cd = Cadmium, Cr = Chromium, Co = Cobalt, Cu = Copper, Pb = Lead, Mo = Molybdenum, Ni = Nickel, Se = Selenium, Ag = Silver, Tl = Thallium, Vn = Vanadium, Zn = Zinc, Hg = Mercury

TABLE 3
ORGANICS IN GROUNDWATER
5812 Hollis Street/Alders Property
Emeryville, California

		Total Petroleum Hydrocarbons			Volatile Organic Compounds								SVOCs		
Sample ID	**Date Sampled**	**TPH-g**	**TPH-d**	**TPH-mo**	**Benzene**	**Toluene**	**Total Xylenes**	**TCE**	**cis-1,2 DCE**	**Naphthalene**	**sec-But**	**Other VOCs**	**2-Met**	**Pent**	**Other SVOCs**
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TR-1-GW	1/23/2008	< 50	< 109	< 218	1.17	1.23	< 1.50	< 0.50	< 0.50	< 0.50	< 0.50	ND	< 13.0	22.6	ND
TR-3-GW	1/23/2008	< 50	< 105	< 210	< 0.50	2.29	< 1.50	< 0.50	< 0.50	< 0.50	< 0.50	ND	--	--	--
TR-4-GW	1/23/2008	< 50	< 103	< 206	< 0.50	1.61	< 1.50	< 0.50	< 0.50	< 0.50	< 0.50	ND	< 13.0	< 12.5	ND
TR-5-GW	1/23/2008	< 50	< 111	< 222	< 0.50	1.02	< 1.50	< 0.50	< 0.50	< 0.50	< 0.50	ND	--	--	--
TR-6-GW	1/23/2008	< 50	< 103	< 206	< 0.50	1.97	1.6	1.69	1.04	< 0.50	< 0.50	ND	--	--	--
TR-7-GW	1/24/2008	69.2	133x	< 212	< 0.50	2.11	< 1.50	< 0.50	< 0.50	< 0.50	0.52	ND	17.8	< 11.2	ND
TR-14	3/5/2008	--	--	--	< 5.5	< 5.5	< 5.5	< 16.5	< 5.5	< 5.5	< 5.5	ND	--	--	--
TR-15	3/5/2008	--	--	--	< 5.5	< 5.5	< 5.5	1.49	0.95	< 5.5	< 5.5	ND	--	--	--
TR-16	3/5/2008	--	--	--	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5	< 0.5	< 0.5	ND	--	--	--
TR-17	3/5/2008	--	--	--	< 5.5	< 5.5	< 5.5	< 16.5	< 5.5	< 5.5	< 5.5	DIPE = 352	--	--	--
TR-17-Dup	3/17/2008	656y	--	--	< 5.5	< 5.5	< 16.5	--	--	--	--	DIPE = 292	--	--	--
TR-18	3/4/2008	--	--	--	< 0.74	3.07	2.35	< 0.74	< 0.74	< 0.74	< 0.74	ND	--	--	--
TR-19-GW	4/17/2008	--	--	--	< 0.69	< 0.69	< 2.07	< 0.69	< 0.69	< 0.69	< 0.69	ND	--	--	--
ESLs (Table E-1) - Commercial Land Use, Evaluation of Vapor Intrusion (µg/L)		NE	NE	NE	1800	530000	160000	1800	17000	11000	NE	DIPE = NE	26000	NE	NE
ESLs (Table I-2) - Gross Contamination Ceiling Value (µg/L)		5,000	2,500	2,500	20000	400	5300	50000	50000	210	NE	DIPE = NE	100	5,900	Various

Notes:
All concentrations in micrograms per liter (µg/L)
Concentrations exceeding the screening levels are highlighted in **bold**.
"<" = indicates not detected at or above the indicated laboratory detection limit
ND = Not detected. Refer to the laboratory analytical report for detection limits.
"x" = laboratory flag indicating that the sample chromatogram does not resemble the typical diesel fuel pattern.
"y" = laboratory flag indicating that the reported concentration is DIPE which was detected within the TPH-g range.
"--" = not analyzed
NE = Not Established
DIPE = Diisopropyl ether (no ESL established)
ESLs = Environmental Screening Levels (SF-RWQCB, 2008).
NE = Not Established
Total Petroleum Hydrocarbons (TPH) quantified as gasoline (TPH-g), diesel fuel (TPH-d), and motor oil (TPH-mo) analyzed by EPA Method 8015. TPH-d and TPH-mo analyzed with silica gel cleanup.
Volatile Organic Compounds (VOCs) analyzed by EPA Method 8260B. TCE = Trichloroethylene, cis-1,2-DCE = cis-1,2 Dichloroethylene, sec-But = sec-Butylbenzene, DIPE = Diisopropyl ether
Semi-Volatile Organic Compounds (SVOCs) analyzed by EPA Method 8270C. 2-Methylnapthalene (2-Met), Pentachlorophenol (Pent)