



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

May 21, 2013

Ms. Ann Marie Holland Tiers  
Estate of Jack Holland  
1498 Hamrick Lane  
Hayward, CA 94544

Ms. Barbara Holland  
P.O. Box 5  
Kentfield, CA 94914

Ms. Eileen Dalton (*Sent via E-mail to: [eileen.dalton@acgov.org](mailto:eileen.dalton@acgov.org)*)  
Alameda County Redevelopment Agency  
224 West Winton Avenue  
Hayward, CA 94544

Subject: Case Closure for Fuel Leak Case No. RO0003078 and GeoTracker Global ID T10000003245, Ashland Youth Center, 16335 East 14<sup>th</sup> Street, San Leandro, CA 94580

Dear Ms. Tiers, Ms. Holland, and Ms. Dalton:

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

#### SITE INVESTIGATION AND CLEANUP SUMMARY

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

- Total Petroleum Hydrocarbons as diesel remains in soil at concentrations up to 17,000 ppm at a depth of approximately 8 feet below ground surface in the northwestern corner of the site.
- Benzene remains in soil at concentrations up to 0.65 ppm at a depth of approximately 8 feet below ground surface in the northwestern corner of the site.

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

Sincerely,

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

Donna L. Drogos, P.E.  
Division Chief

Enclosures:

1. Remedial Action Completion Certification
2. Case Closure Summary

cc:

Jaimie Orfanos  
Alameda County Redevelopment Agency  
224 West Winton Avenue  
Hayward, CA 94544  
(Sent via E-mail to: [jaimie.orfanos@acgov.org](mailto:jaimie.orfanos@acgov.org))

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

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

Charles Miller  
Alameda County GSA  
1401 Lakeside Drive, Suite 800  
Oakland, CA 94612  
(Sent via E-mail to: [charles.miller@acgov.org](mailto:charles.miller@acgov.org))

Lane Bailey  
Alameda County Redevelopment Agency  
224 West Winton Avenue  
Hayward, CA 94544  
(Sent via E-mail to: [lane.bailey@acgov.org](mailto:lane.bailey@acgov.org))

Alex Briscoe  
Alameda County Health Care Services Agency  
1000 San Leandro Blvd., Ste. 300  
San Leandro, CA 94577  
(Sent via E-mail to: [alex.briscoe@acgov.org](mailto:alex.briscoe@acgov.org))

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

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

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

ALEX BRISCOE, Director

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

REMEDIAL ACTION COMPLETION CERTIFICATION

May 21, 2013

Ms. Ann Marie Holland Tiers  
Estate of Jack Holland  
1498 Hamrick Lane  
Hayward, CA 94544

Ms. Barbara Holland  
P.O. Box 5  
Kentfield, CA 94914

Ms. Eileen Dalton (*Sent via E-mail to: [eileen.dalton@acgov.org](mailto:eileen.dalton@acgov.org)*)  
Alameda County Redevelopment Agency  
224 West Winton Avenue  
Hayward, CA 94544

Subject: Case Closure for Fuel Leak Case No. RO0003078 and GeoTracker Global ID T10000003245, Ashland Youth Center, 16335 East 14<sup>th</sup> Street, San Leandro, CA 94580

Dear Ms. Tiers, Ms. Holland, and Ms. Dalton:

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


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

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

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

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

Sincerely,

  
Ariu Levi  
Director

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

**I. AGENCY INFORMATION**

Date: March 6, 2013

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

**II. CASE INFORMATION**

Site Facility Name: Ashland Youth Center		
Site Facility Address: 16335 East 14 <sup>th</sup> Street, San Leandro, CA 94580		
RB Case No.: 01-0771	Local Case No.: StID#2423	LOP Case No.: RO0003078
URF Filing Date: 10/31/1990	Geotracker ID: T10000003245	APN: 80C-479-6-20

Responsible Parties	Addresses	Phone Numbers
Eileen Dalton, Alameda County Redevelopment Agency	224 West Winton Avenue, Hayward, CA 94544	510-670-6509
Estate of John Holland Sr., Ann Marie Holland Tiers, Executor	1498 Hamrick Lane, Hayward, CA 94544	510-537-3477
Barbara Holland	P.O. Box 172, Kentfield, CA 94914	No phone number

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
---	---	---	Tanks were located on adjacent parcel	---
Piping			---	---

### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: The releases were from underground and aboveground storage tanks located on the adjacent parcel.		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? Yes	Number: 2*	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 6.75 feet bgs	Lowest Depth: 8.97 feet bgs	Flow Direction: Northwest
Most Sensitive Current Use: Potential drinking water source.		

\* A total of 12 monitoring wells were installed to investigate the extent of contamination on the Holland Park site (Parcel 80C-479-6-21 and ACEH case RO0212) and Ashland Youth Center site (Parcel 80C-479-6-20 and ACEH case RO0003078). Two (MW-3 and MW-9) of the 12 monitoring wells were located on the Ashland Youth Center site.

Summary of Production Wells in Vicinity: The nearest water supply well is an irrigation well located approximately 500 feet northeast of the site. A second irrigation well and a domestic well are located approximately 1,600 feet and 1,000 feet, respectively, southwest of the site. Based on the distance from the site, limited extent of the dissolved phase plume, and cross gradient locations, the water supply wells are not expected to be receptors for the site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: San Lorenzo Creek is approximately 3,200 feet south of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tanks	---	The tanks were located on the adjacent Holland Park parcel	----
Piping	----	----	----
Free Product	---	----	----
Soil	4,352 tons	Soils were transported to Vasco Road Landfill in Livermore, CA for disposal.	09/22/2009 and 09/23/2009
	580 cubic yards	Soils were transported to West Winton Landfill in Hayward, CA for disposal.	01/13/2011 through 01/26/2011
Groundwater	----	----	----

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**

(Please see Attachments 1 through 6  
for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	5,700	5	<50	<50
TPH (Diesel)	17,000	17,000	4,700	<50
TPH (Motor Oil)	25,000	25,000	Not Analyzed	Not Analyzed
Benzene	0.65	0.65	<1	<1
Toluene	<0.005	<0.005	<1	<1
Ethylbenzene	<0.005	<0.005	<1	<1
Xylenes	<0.005	<0.005	<1	<1
Lead	2,000(1)	11(2)	Not Analyzed	Not Analyzed
MTBE	<0.34(3)	<0.005(4)	<0.5(5)	<0.5(5)
Other (8240/8270)	15(6)	<0.9(7)	<0.5(8)	<0.5(8)

- (1) Lead = 2,000 ppm; Cadmium 7.2 ppm; Chromium = 160 ppm; Nickel = 130 ppm; and Zinc = 11,000 ppm.  
 (2) Lead = 11 ppm; Cadmium = 0.33 ppm; Chromium = 47 ppm; Nickel = 53 ppm; and Zinc = 57 ppm.  
 (3) MTBE = 0.34 ppm; TBA, TAME, ETBE, DIPE, EDB, and EDC <0.005 ppm.  
 (4) MTBE, TBA, TAME, ETBE, DIPE, EDB, and EDC <0.005 ppm.  
 (5) MTBE <0.5 ppb, TBA, TAME, ETBE, and DIPE not analyzed, EDB and EDC <0.5 ppb.  
 (6) Napthalene = 15 ppm; Benzo(a)anthracene = 0.72 ppm; benzo(a)pyrene = 0.52 ppm; 1,4-Dichlorobenzene = 0.024 ppm; PCBs (Aroclor 1254) = 0.1 ppm; PCBs (Aroclor 1260) = 0.19 ppm; DDT = 0.064 ppm; other VOCs, organochlorine pesticides, polyaromatic hydrocarbons, and PCBs not detected at various reporting limits.  
 (7) Napthalene <0.9 ppm; Benzo(a)anthracene, benzo(a)pyrene, and 1,4-Dichlorobenzene <0.005 ppm; PCBs (Aroclor 1254 and Aroclor 1260 <- 0.12 ppm; DDT = 0.002 ppm; other VOCs, organochlorine pesticides, polyaromatic hydrocarbons, and PCBs not detected at various reporting limits.  
 (8) VOCs <0.5 ppb and polyaromatic hydrocarbons <0.2 ppb.

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

This case closure for fuel leak case RO0003078 (GeoTracker Global ID T1000003245) applies to Parcel 80C-479-6-20, which is the site of the Ashland Youth Center. This site was previously included within a fuel leak case (RO0000212 and GeoTracker Global ID T0600100709) that included Holland Park, a recreational facility owned and operated by the Hayward Area Recreation & Park District (HARD). Holland Park borders the site to the southwest and northeast. East 14<sup>th</sup> Street borders the site to the northeast and residential and commercial properties are southeast of the site.

Up until approximately 2007, the site was an auto sales lot that was bordered to the northwest by the Holland Oil bulk fuel storage and distribution facility. The bulk storage facility, which operated from the 1960's to the mid 1980's, consisted of aboveground storage tanks (ASTs) and eight underground storage tanks (USTs), three of which contained gasoline, two contained diesel, two contained kerosene, and one contained stoddard solvent. In 1998, the USTs were removed and the excavated overburden soil was placed back in the UST excavations. The bulk fuel storage and distribution business, including all of the ASTs and USTs, was primarily located on parcel 80C-479-6-21, which is currently the site of Holland Park. However, a portion of the bulk fuel storage and distribution facility extended into the northwestern and southwestern portions of Parcel 80C-479-6-20. Therefore, both current parcels were considered part of one fuel leak case until August 2011. In 2008, the properties were purchased by HARD and the Alameda County Redevelopment Agency and the property parcel boundaries were modified. On August 24, 2011, HARD requested that Parcel 80C-479-6-21, which is currently Holland Park, be considered under a separate fuel leak case in order to move the case towards closure more quickly. At that time, remedial actions, which included excavation and construction of a cap had been completed at Holland Park but remedial actions had not been completed for the Ashland Youth Center site. Therefore, ACEH opened a separate fuel leak case for Parcel 80C-479-6-20 on August 31, 2011. The fuel leak case for the Holland Park site (RO0000212 and GeoTracker Global ID T0600100709) closed on January 5, 2012. Readers are referred to the RO0000212 case file for detailed information regarding the site history, site investigation, and remediation of the Holland Park site. The remainder of this Site History will only describe activities that occurred within Parcel 80C-479-6-20, which is the site of the Ashland Youth Center.

The on-Site area located along East 14th Street and outside the Holland Oil facility area reportedly was used primarily for vehicle sales up until approximately 2007. The Alameda County Redevelopment Agency purchased the Ashland Youth Center site in May 2008. Two additional parcels (Parcels 80C-479-6-8 and 80C-479-6-9) were purchased in February 2011 and became part of the Ashland Youth Center site. Former uses of the two additional parcels to the south included a retail store, Moose lodge, a bar, a blacksmith, and an automobile window tinting shop.

As part of an investigation conducted largely within the Holland Park parcel, two soil borings (B-2 and B-7) were advanced within the Ashland Youth Center site in July 2007. Total petroleum hydrocarbons as diesel (TPHd) were detected in soil samples from the borings at concentrations up to 15,000 ppm. Five soil borings (B-9 through B-12 and pilot boring MW-9) were advanced in September and October 2008 in a follow-up investigation in the area of borings B-2 and B-7. TPHd and TPH as gasoline (TPHg) were detected at maximum concentrations of 2,300 and 80 ppm, respectively in soil samples from the five soil borings and MW-9.

In October 2008, soil vapor samples were collected from six locations (SVP-1 through SVP-6) within Parcel 80C-479-6-20, where construction of the Ashland Youth Center was planned. Benzene was detected in one of six soil vapor samples at a concentration of 2 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Benzene was not detected at concentrations above reporting limits in the remaining soil vapor samples. The concentrations of all constituents of concern were below Environmental Screening Levels (ESLs) screening criteria for potential vapor intrusion to indoor air under a residential land use scenario.

In September 2009, a remedial excavation was conducted on the Holland Park site and extended approximately 40 feet into the southwestern portion of the Ashland Youth Center site. Within two excavation cells that were approximately 35 feet by 35 feet (B1 and B2) and included borings B-2 and B-7, soils were excavated to a depth of approximately 6 feet bgs. Approximately 200 cubic yards of soil was removed from each excavation cell and transported to Vasco Road Landfill in Livermore, CA for disposal. Four confirmation soil samples and one bottom soil sample were collected from each excavation cell and analyzed for TPHd and TPHg. TPHd was detected in each of the five confirmation soil samples from cell B2 at concentrations ranging from 3.7 to 51 ppm. TPHg was detected in one of the five confirmation soil samples from cell B1 at a concentration of 1.3 ppm. TPHd was detected in two of the four sidewall confirmation soil samples from cell B2 at concentrations ranging from 1.4 to 30 ppm. TPHd was detected in the excavation base

confirmation soil sample from cell B2 at a concentration of 210 ppm. A second excavation base confirmation soil sample collected from cell B2 contained TPHd at a concentration of 9.1 ppm. TPHg was detected in one of the five confirmation soil samples from cell B2 at a concentration of 1.3 ppm. Fill materials used to backfill the excavation cells were provided from other on-site areas of the Holland Park site.

Outside excavation cells B1 and B2, the remedial excavation removed soil to a depth of one foot over an area (Area C) that extended approximately 40 feet into the southwestern portion of the Ashland Youth Center site. No confirmation soil samples were collected from Area C. The exposed surfaces within Area C were covered by hard surfaces such as asphalt or concrete or a minimum of one foot of clean fill or landscaped materials.

Grading activities for the construction of the youth center began on-site on August 16, 2011. The deeper (6 feet deep) excavations previously backfilled (excavation cells B1 and B2) were initially over-excavated and the material stockpiled on-site. The remainder of the Site was to be over-excavated to a depth of approximately 3 feet for re-compaction as engineered fill. During this initial excavation process, soil with significant petroleum odors was encountered. Soil excavation was halted and approximately 1,500 cubic yards of soil was stockpiled on site.

On August 30, 2011, twenty-one exploratory test pits were excavated to a depth of approximately 5 feet below original ground surface. A total of 67 soil samples were collected from the test pits. TPHd and TPH as motor oil (TPHmo) were detected in the soil samples at concentrations up to 2,700 and 4,900 ppm, respectively. The concentrations of TPH generally decreased with depth. Lead was detected at concentrations above the residential/unrestricted land use screening level of 80 ppm in 7 of 67 soil samples. The maximum concentration of lead detected was 1,700 ppm at a depth of 2-2.5 feet. PCBs were detected at concentrations above the residential/unrestricted screening level of 0.089 ppm in 2 of 67 soil samples at concentrations of 0.19 to 0.22 ppm. Polycyclic aromatic hydrocarbons (PAHs) were detected at concentrations above the residential/unrestricted screening level of 0.089 ppm in 2 of 69 soil samples from test pits TP-7 and TP-8. The PAHs in TP-7 were detected in a black sand layer and may have been related to a blacksmith shop within the building that formerly occupied the area near TP-7.

Based on the results of the exploratory test pits, the entire site was excavated to a minimum depth of approximately 3 feet in November 2011. No confirmation soil samples were collected from the areas of the site excavated to a depth of 3 feet because the test pit data were used to define the required depth of excavation. Within the northwest portion of the site, including the areas of test pits TP-14 and TP-18, soil was excavated to a depth of 6 to 8 feet below original ground surface. Verification soil samples were collected from the base of the excavation in the northwest portion of the site. Based on analytical results from soil samples collected at 6 feet, the excavation in the northwest portion of the site was extended to a depth of 8 feet. Five verification soil samples were collected at the base of the excavation from a depth of 8 feet. TPHd was detected in 5 of 5 soil samples at concentrations ranging from 550 to 17,000 ppm. TPHmo was detected in 5 of 5 soil samples at concentrations ranging from 470 to 25,000 ppm. Benzene was detected in one of the five deeper verification soil samples at a concentration of 0.65 ppm. Due to the location of the samples near the property boundary and the presence of ground water at the base of the excavation, this soil was left in place. Based on the detection of benzene at sample location VS-5, ACEH required a soil vapor investigation to be conducted in the northwest portion of the Site.

Two underground vaults were discovered during the excavation and removal of the upper 3 feet of fill material across the site. Both vaults were excavated and removed in December 2011. Vault 1 was concrete and was approximately 6 feet wide by feet long by 6 feet deep. Based on the presence of clay pipe extending approximately 20 feet from Vault 1 to the southeast, the vault appeared to have been a septic tank. One soil sample collected at the base of the Vault 1 excavation did not contain TPHg, BTEX, or fuel oxygenates at concentrations above reporting limits. TPHd was detected at a concentration of 1.6 ppm.

Vault 2 was also constructed of concrete and was approximately 4 feet wide by 12 feet in length and 4 feet deep. Petroleum odors were observed during removal of Vault 2, which was considered an underground storage tank for permitting of the removal. The base and sidewalls of the Vault 2 excavation were extended to remove obvious staining and odor. With the exception of the final confirmation soil sample from the east sidewall, the concentrations of all analytes were below ESLs for residential land use. The concentration of TPHd in the east sidewall sample was 130 ppm, which slightly exceeded the ESL cleanup goal of 110 ppm. BTEX and fuel oxygenates were not detected at concentrations above reporting limits in the east sidewall sample. Based on the fact that the final concentration was close to the cleanup goal, the depth of the sample, and the absence of volatile compounds, further removal was not required.



In order to investigate soil vapor and the potential for vapor intrusion to indoor air, three soil vapor probes (SV-1, SV-2 and SV-3) were installed in the northwest corner of the Site on March 26 and 27, 2012. The probes were initially sampled on April 6, 2012; however, probe SV-2 could not be sampled due to water in the tubing. TPHg, benzene and TCE were not detected in soil vapor sample SV-1. TPHg was detected in soil vapor sample SV-3 at a concentration of 1,200,000  $\mu\text{g}/\text{m}^3$ . Benzene was detected in soil vapor sample SV-3 at a concentration of 200  $\mu\text{g}/\text{m}^3$ . In addition, trichloroethene (TCE) was detected in soil vapor sample SV-3 at an estimated concentration of 340  $\mu\text{g}/\text{m}^3$ .

The soil vapor probes were subsequently sampled in May, June, and July 2012 to confirm the initial sampling results. During the subsequent three sampling events, TPHg was detected in soil vapor samples from probe SV-3 at concentrations ranging from 1,100,000 to 1,600,000  $\mu\text{g}/\text{m}^3$ . TPHg was detected in one of three soil vapor samples from probe SV-1 at a concentration of 290  $\mu\text{g}/\text{m}^3$  and was detected in two of three soil vapor samples from probe SV-2 at a maximum concentration of 2,700  $\mu\text{g}/\text{m}^3$ . Benzene was detected in three of nine soil vapor samples from probes SV-1, SV-2, and SV-3 at a maximum concentration of 6.3  $\mu\text{g}/\text{m}^3$  during the May, June, and July 2012 sampling events.

The Ashland Youth Center was constructed with a soil vapor membrane beneath the floor of the building. In addition, perforated pipe was installed beneath the membrane in an approximate 4- to 6-inch thick gravel bed. The perforated pipes are connected to 4-inch case iron ventilation risers that vent above the roof of the building. The sub-slab depressurization and vapor barrier system are designed to act as a passive system but could be converted to an active ventilation system if necessary.

In order to evaluate TPH and VOC concentrations beneath the concrete slab and vapor barrier system, sub-slab vapor samples were collected by sampling through the ventilation risers. During the July 2012 sampling event, TPHg was detected in five of five sub-slab vapor samples at concentrations ranging from 840 to 3,300  $\mu\text{g}/\text{m}^3$ . All detected concentrations are below the ESL for residential land use of 10,000  $\mu\text{g}/\text{m}^3$ . Benzene was not detected in the sub-slab vapor samples at concentrations above the reporting limit. Oxygen was detected in the five sub-slab vapor samples at concentrations between 20 and 21 percent. Sub-slab vapor samples were again collected through the five ventilation risers in on September 18, 2012. During the September 2012 sampling event, TPHg was detected in five of five sub-slab vapor samples at concentrations ranging from 2,200 to 7,200  $\mu\text{g}/\text{m}^3$ , which are below the ESL for residential land use of 10,000  $\mu\text{g}/\text{m}^3$ . Benzene was not detected in the sub-slab vapor samples at concentrations above the reporting limit. Based on these results, active operation of the sub-slab depressurization system does not appear to be necessary.

The site meets the general and media-specific criteria for case closure contained in the State Water Resources Control Board Low-Threat Closure Policy (LTCP). As defined in the LTCP, cases that meet the general and media-specific criteria pose a low threat to human health, safety, and the environment and satisfy the case closure requirements of Health and Safety Code section 25296.10. Based on meeting all criteria in the LTCP, this case is closed without restrictions on future land use. However, it should be noted that a Covenant and Environmental Restriction on Property and Site Management Plan have been put in place on the adjacent Holland Park site due to residual contamination remaining in place beneath a cap. Any subsurface activities that may continue from the Ashland Youth Center site to the Holland Park site that potentially could disturb the cap should consider the Covenant and Environmental Restriction on Property and Site Management Plan for the Holland Park site.

**IV. CLOSURE**

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? ? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, closure of this site appears to be consistent with the policies established by the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy which became effective on August 17, 2012.		
Site Management Requirements: This fuel leak case has been evaluated for closure consistent with the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy (LTCP). Based on this evaluation, no site management requirements appear to be necessary.		
Should corrective action be reviewed if land use changes? No		
Was a deed restriction or deed notification filed? No		Date Recorded: ---
Monitoring Wells Decommissioned: Yes	Number Decommissioned: 2	Number Retained: 0
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: --		

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

Considerations and/or Variances:

The site meets the general criteria for case closure under the LTCP.

The site meets the groundwater media-specific criteria for closure under the LTCP based on the following:

1. The plume is stable or decreasing in size.
2. The plume is less than 100 feet in length.
3. There is no free product.
4. Benzene and MTBE were not detected at concentrations above reporting limits in groundwater beneath the site.
5. No water supply wells or surface water bodies are within 250 feet of the plume boundary.

The site meets the numerical media-specific criteria in the LTCP for petroleum vapor intrusion to indoor air for the following reasons:

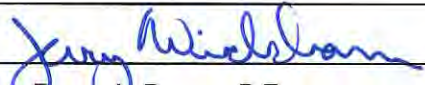
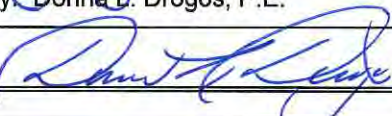
1. The site has a continuous zone that provides a separation of at least 5 feet vertically between the dissolved phase and the foundation of existing buildings and the soil. Therefore, the site is considered to have a bioattenuation zone under the LTCP.
2. TPH appears to be less than 100 ppm within the upper five feet of soil.
3. The maximum concentration of benzene detected in soil vapor is  $200 \mu\text{g}/\text{m}^3$ , which is significantly less than the residential and commercial LTCP soil gas criteria of 85,000 and 280,000  $\mu\text{g}/\text{m}^3$  (with a bioattenuation zone).
4. Ethylbenzene was not detected in soil vapor at concentrations above a reporting limit of  $3.4 \mu\text{g}/\text{m}^3$ .
5. Naphthalene not detected in soil vapor at concentrations above a reporting limit of  $16 \mu\text{g}/\text{m}^3$ .
6. The maximum concentration of benzene in groundwater during the most recent groundwater monitoring event was 81 ppb.

The maximum concentrations of benzene, ethylbenzene, and ethylbenzene in soil samples collected to date within the upper 10 feet are less than the media-specific criteria in Table 1 of the LTCP for direct contact and outdoor air exposure. Therefore, the site meets the media-specific criteria for direct contact and outdoor air exposure under the LTCP.

Conclusion:

Alameda County Environmental Health staff believe that the site meets the conditions for case closure under the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy. Based upon the information available in our files to date, no further investigation or cleanup for the fuel leak case is necessary at this time.

**VI. LOCAL AGENCY REPRESENTATIVE DATA**

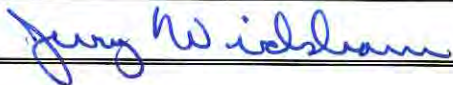
Prepared by: Jerry Wickham	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 05/21/13
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: 	Date: 05/21/13

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

## VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: 04/24/13	

## VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: NA	Date of Well Decommissioning Report: NA	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 2	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: 	Date: 05/21/13	

### Attachments:

1. Site Vicinity Map and Aerial Photographs (3 pp)
2. 2009 Excavation and Confirmation Sample Map and Groundwater Contour Map (2 pp)
3. Test Pit Location Map, Excavation Map, Soil Vapor Sample and Vent Riser Location Map (3 pp)
4. Soil Analytical Data (18 pp)
5. Soil Vapor Analytical Data (4 pp)
6. Groundwater Analytical Data (7 pp)
7. Boring Logs (9 pp)

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

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

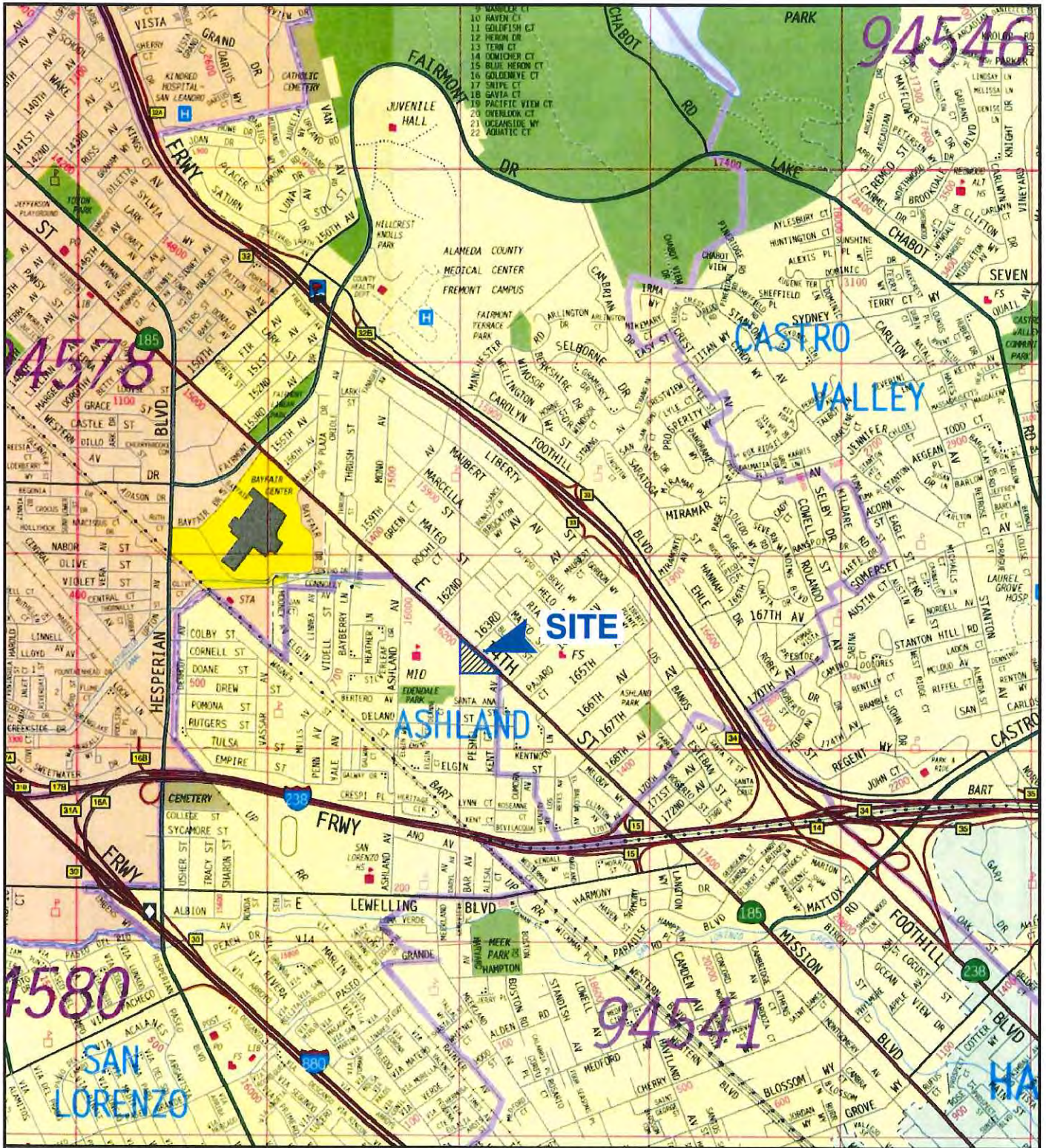
---

**From:** Wickham, Jerry, Env. Health  
**Sent:** Wednesday, April 24, 2013 2:58 PM  
**To:** Cherie MCcaulou  
**Subject:** Pending case closure for 16335 E 14th Street, San Leandro, CA

Hi Cherie,

This email provides notification of pending closure for ACEH case RO3078, 16335 E 14<sup>th</sup> Street, San Leandro, CA.

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



REFERENCE: 2005 THOMAS GUIDE FOR ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO AND SANTA CLARA COUNTIES, STREET GUIDE AND DIRECTORY.

APPROXIMATE SCALE IN FEET



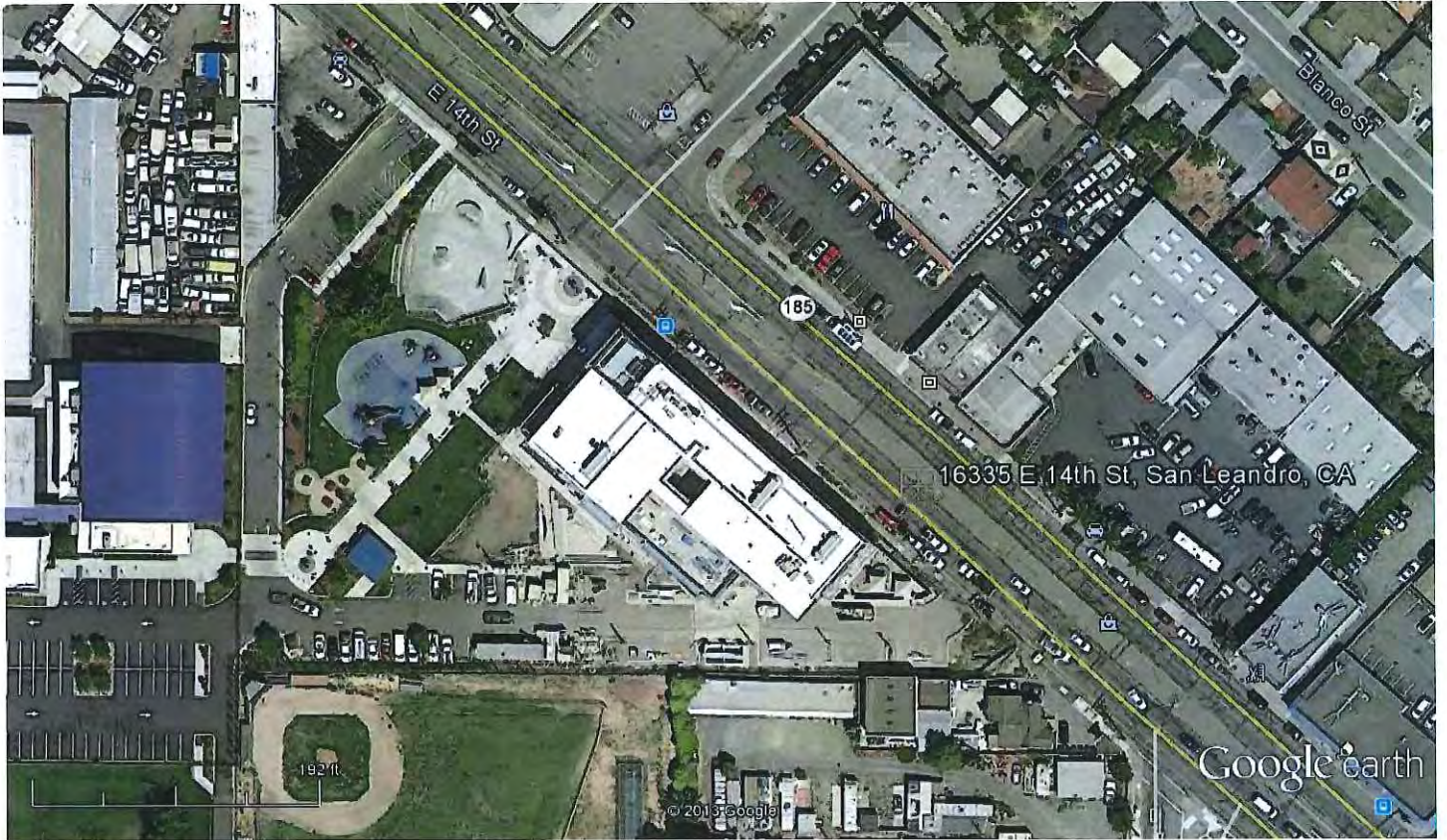
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.



401314-A1.DWG

		<b>SITE LOCATION MAP</b> HOLLAND OIL FACILITY 16301 EAST 14th STREET SAN LEANDRO, CALIFORNIA	FIGURE
			1
PROJECT NO.	DATE		
401314001	9/07		

ATTACHMENT 1



Google earth

feet  
meters





Project Property

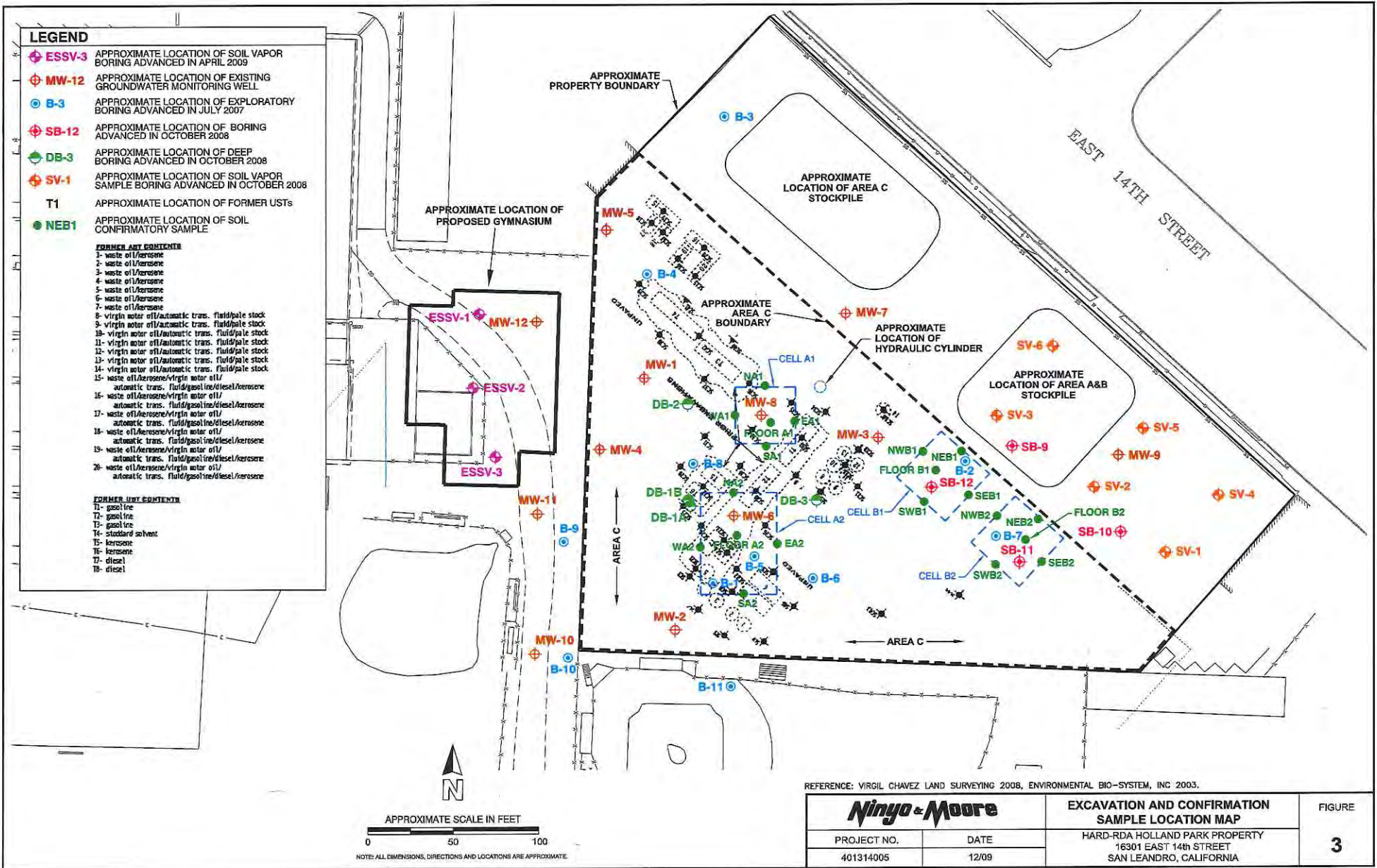


Figure 4: Aerial View of Project Property and Vicinity

HARD Park Property  
Corrective Action Plan

March 6, 2009





REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.

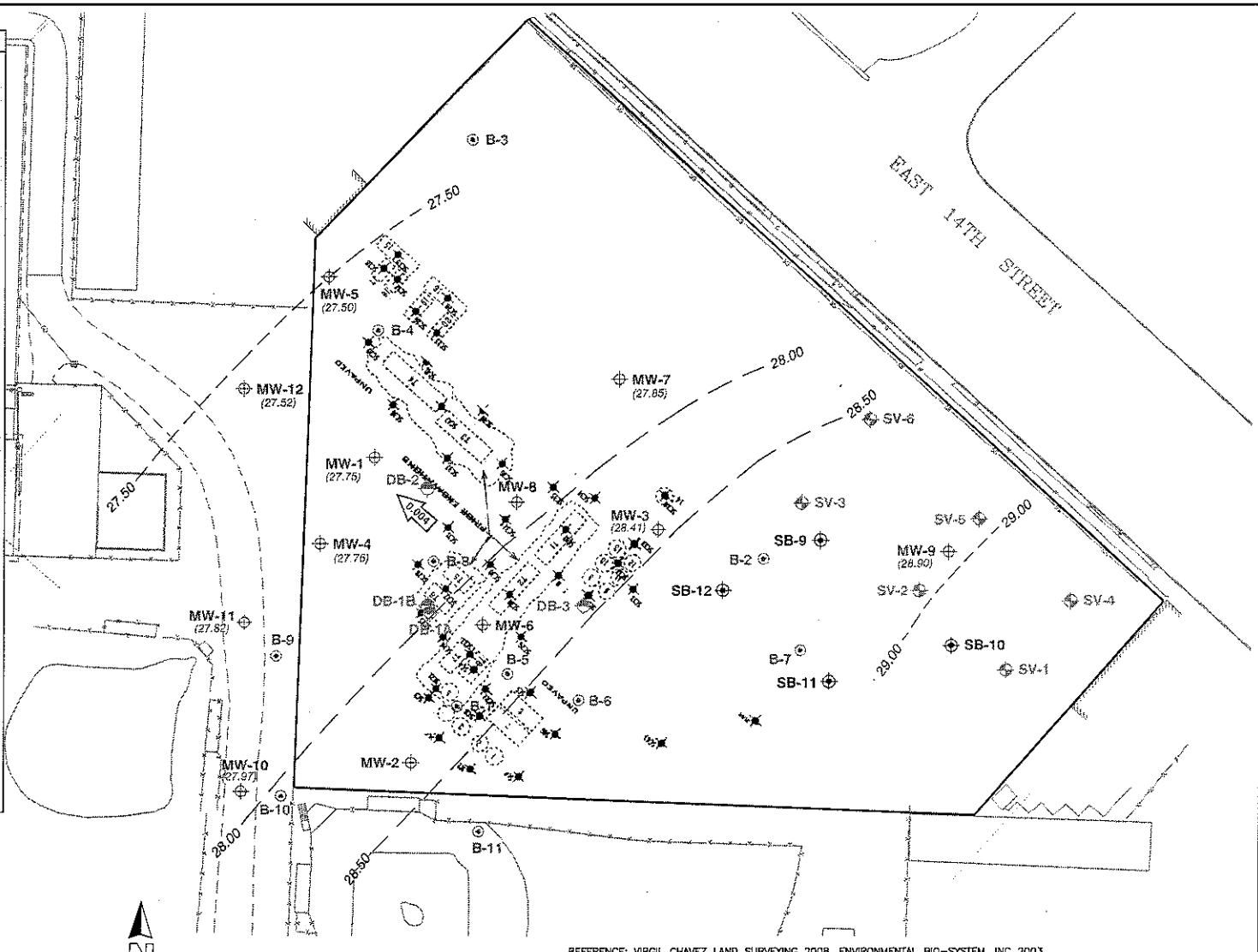
		EXCAVATION AND CONFIRMATION SAMPLE LOCATION MAP		FIGURE <b>3</b>
		HARD-RDA HOLLAND PARK PROPERTY 16301 EAST 14th STREET SAN LEANDRO, CALIFORNIA		
PROJECT NO.	DATE			
401314005	12/09			

**ATTACHMENT 2**

**LEGEND**

- ⊕ MW-12 (28.79) APPROXIMATE LOCATION OF EXISTING GROUNDWATER MONITORING WELL. GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL.
  - ⊙ B-3 APPROXIMATE LOCATION OF EXPLORATORY BORING ADVANCED IN JULY 2007.
  - ⊕ SB-12 APPROXIMATE LOCATION OF BORING ADVANCED IN OCTOBER, 2008.
  - ⊕ DB-3 APPROXIMATE LOCATION OF DEEP BORING ADVANCED IN OCTOBER, 2008.
  - ⊕ SV-1 APPROXIMATE LOCATION OF SOIL VAPOR SAMPLE BORING ADVANCED IN OCTOBER, 2008.
  - T1 APPROXIMATE LOCATION OF FORMER USTs
  - SC-1 APPROXIMATE LOCATION OF SOIL CONFIRMATION SAMPLE
  - 29.00 --- GROUNDWATER EQUIPOTENTIAL LINE ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 0.004 → GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET PER FOOT)
  - ⊕ MW-8 APPROXIMATE LOCATION OF MONITORING WELL DESTROYED DURING SEPTEMBER 2009 EXCAVATION
- FORMER UST CONTENTS**
- 1- waste oil/Aerosol
  - 2- waste oil/Aerosol
  - 3- waste oil/Aerosol
  - 4- waste oil/Aerosol
  - 5- waste oil/Aerosol
  - 6- waste oil/Aerosol
  - 7- waste oil/Aerosol
  - 8- virgin motor oil/automatic trans. fluid/pale stock
  - 9- virgin motor oil/automatic trans. fluid/pale stock
  - 10- virgin motor oil/automatic trans. fluid/pale stock
  - 11- virgin motor oil/automatic trans. fluid/pale stock
  - 12- virgin motor oil/automatic trans. fluid/pale stock
  - 13- virgin motor oil/automatic trans. fluid/pale stock
  - 14- virgin motor oil/automatic trans. fluid/pale stock
  - 15- waste oil/Aerosol/virgin motor oil/automatic trans. fluid/pale stock/Aerosol
  - 16- waste oil/Aerosol/virgin motor oil/automatic trans. fluid/pale stock/Aerosol
  - 17- waste oil/Aerosol/virgin motor oil/automatic trans. fluid/pale stock/Aerosol
  - 18- waste oil/Aerosol/virgin motor oil/automatic trans. fluid/pale stock/Aerosol
  - 19- waste oil/Aerosol/virgin motor oil/automatic trans. fluid/pale stock/Aerosol
  - 20- waste oil/Aerosol/virgin motor oil/automatic trans. fluid/pale stock/Aerosol

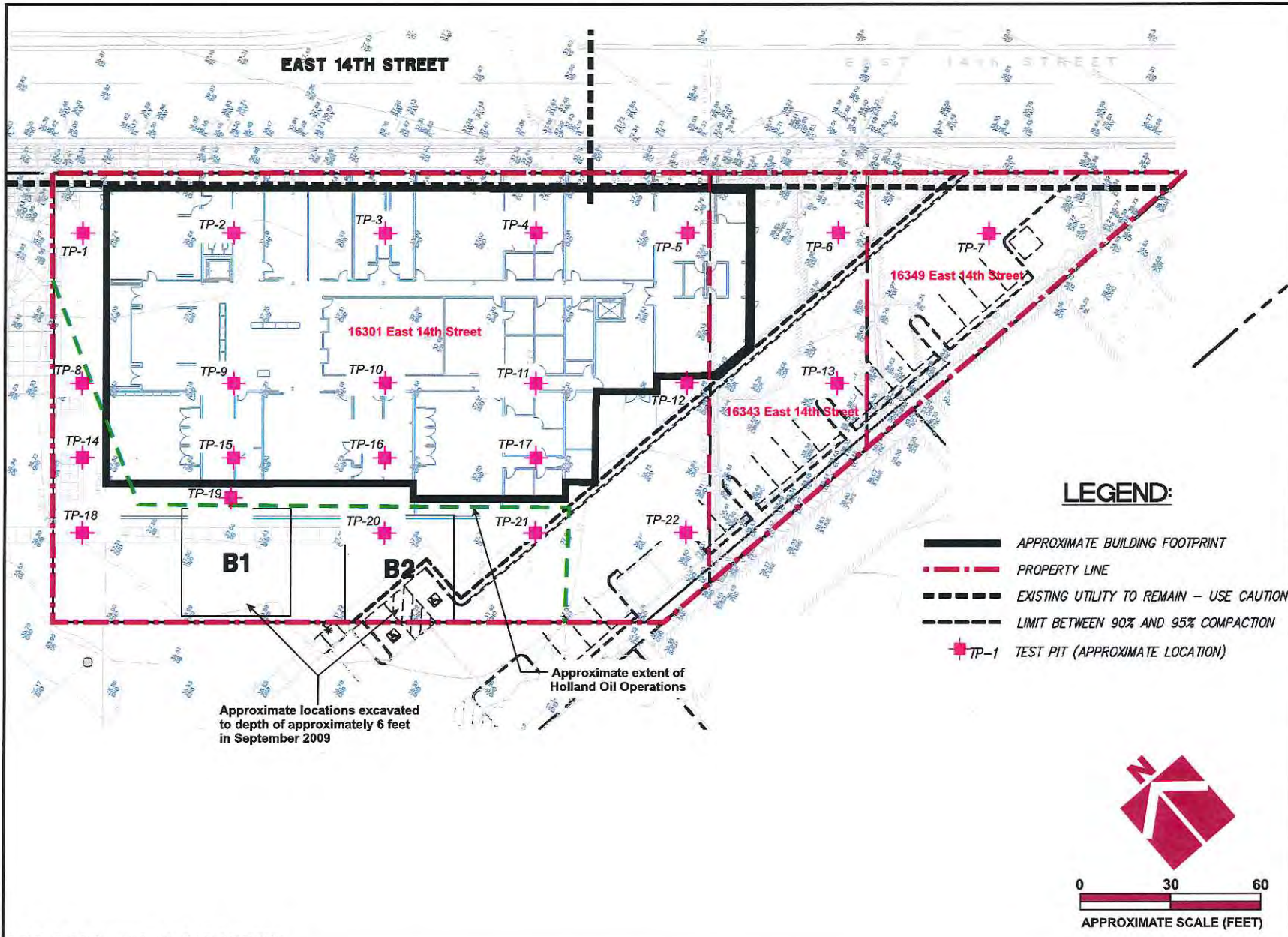
- FORMER UST CONTENTS**
- 11- gasoline
  - 12- gasoline
  - 13- gasoline
  - 14- standard solvent
  - 15- kerosene
  - 16- kerosene
  - 17- diesel
  - 18- diesel



REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.

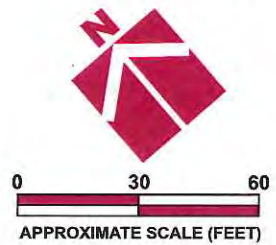
<b>Ningo &amp; Moore</b>		<b>SHALLOW GROUNDWATER ELEVATION CONTOUR MAP - SEPTEMBER 23-24, 2009</b>	FIGURE
PROJECT NO. 401314005	DATE 1/10	FORMER HOLLAND OIL FACILITY 1630 E EAST 14th STREET SAN LEANDRO, CALIFORNIA	<b>2</b>

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.














Base by Sandis, "Soils Management Excavation Work Plan," dated 9/29/2011


Project Number	165-11-1
Figure Number	Figure 2
Date	September 2011
Drawn By	REN
Site Plan	Ashland Youth Center 16335 East 14th Street San Lorenzo, CA



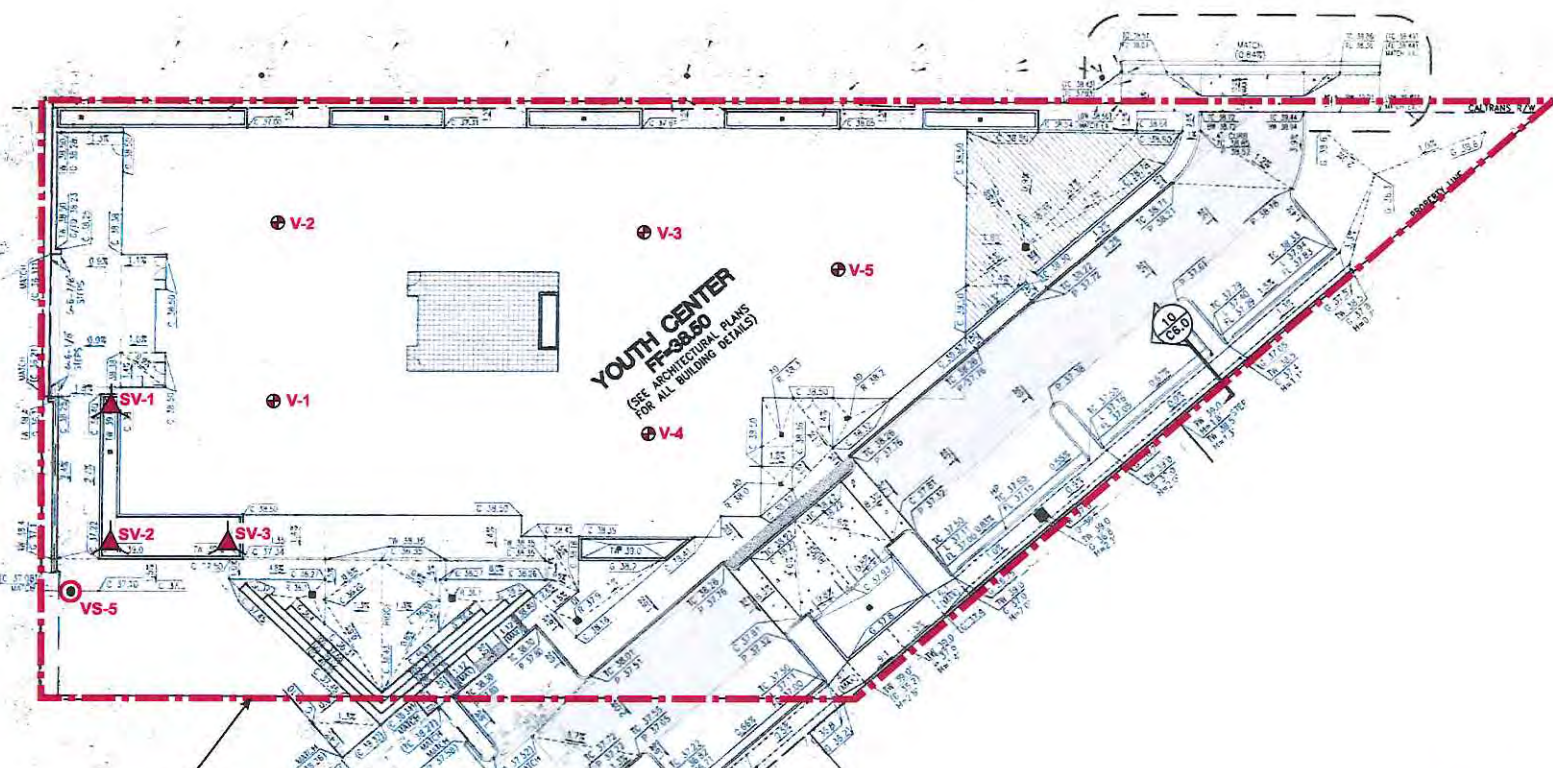
**LEGEND:**

- |   |   |   |   |
|---|---|---|---|
|  | 3' EXCAVATION & OFFHAUL TO CLASS II FACILITY    |  | TP-1 TEST PIT (APPROXIMATE LOCATION)  |
|  | 6' EXCAVATION & OFFHAUL TO CLASS II FACILITY    |  | Approximate location of soil vapor probe  |
|  | 3' EXCAVATION & OFFHAUL TO CLASS I FACILITY     |  | Approximate boundary of vault excavation  |
|  | 0'-3' EXCAVATION & OFFHAUL TO CLASS II FACILITY |  | Approximate location of soil sample   |
|   | 3'-6' EXCAVATION & OFFHAUL TO CLASS I FACILITY  |  | Approximate location of sidewall soil sample                                    |
|   |   |  | Approximate location of underground vault                                       |
|   |   |  | Area of additional excavation and off-haul to Class II facility, 6' to 8' depth |

Base by Sandis, "Soils Management Excavation Plan," dated 9/20/2011

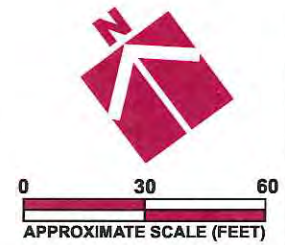
Project Number	165-11-1
Figure Number	Figure 2
Date	December 2011
Drawn By	RRN
Soil Removal Areas	
Ashland Youth Center 16335 East 14th Street San Lorenzo, CA	
	

EAST 14TH STREET  
(STATE HIGHWAY 185)



Approximate Site Boundary

- Legend**
-  Approximate location of Soil Vapor Probe (SV)
  -  Approximate location of former soil sample VS-5
  -  Approximate location of vent riser



Site Plan	<p style="text-align: center;"><b>ASHLAND YOUTH CENTER</b> 16335 East 14th Street San Lorenzo, CA</p>
Project Number	165-11-3
Figure Number	Figure 2
Date	October 2012
Drawn By	RRN



**Table 1. Analytical Results of Selected Soil Samples - Petroleum Hydrocarbons and VOCs**

(Concentrations in mg/Kg [ppm])

Sample ID	Depth (feet) below ground surface*	Depth (feet) below original ground surface**	TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Acetone	2-Butanone	4-Methyl-2-Pentanone	Toluene	Xylene	1,2,4-Trimethylbenzene
TP-1 (1/2-1)	1/2 - 1	1/2 - 1	<0.21	<b>110Y</b>	290	<0.020	<0.0099	<0.0099	<0.005	<0.005	<0.005
TP-1 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.24	1.2Y	8.1	<0.022	<0.0056	<0.0011	<0.0056	<0.0056	<0.0056
TP-1 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.19	<1.0	<5.0	<0.015b	<0.0037b	<0.0074b	<0.0037b	<0.0037b	<0.0056b
TP-2 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<1.1	<0.99	<5.0	<0.018	<0.0092	<0.0092	<0.0046	<0.0046	<0.0046
TP-2 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.18	2.1Y	8.2	0.048	0.015	<0.0092	<0.0046	<0.0046	<0.0046
TP-2 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.16b	<0.99	<5.0	0.043b	<0.0084b	<0.0084b	<0.0042b	<0.0042b	<0.0042b
TP-2 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.17b	<1.0	<5.0	0.017b	<0.0084b	<0.0084b	<0.0042b	<0.0042b	<0.0042b
TP-3 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.17	11Y	99	<0.017	<0.0087	<0.0087	<0.0043	<0.0043	<0.0043
TP-3 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.19	14Y	88	<0.017	<0.0084	<0.0084	<0.0042	<0.0042	<0.0042
TP-3 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.18b	<1.0	<5.0	<0.017b	<0.0084b	<0.0084b	<0.0042b	<0.0042b	<0.0042b
TP-3 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.17b	<1.0	<5.0	<0.017b	<0.0086b	<0.0086b	<0.0043b	<0.0043b	<0.0043b
TP-4 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.17	2.4Y	7	<0.021	<0.011	<0.011	<0.0053	<0.0053	<0.0053
TP-4 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.17	<1.0	5.5	<0.015	<0.0077	<0.0077	<0.0038	<0.0038	<0.0038
TP-4 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.18b	11Y	12	<0.015b	<0.0077b	<0.0077b	<0.0038b	<0.0038b	<0.0038b
TP-4 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	<1.0	<5.0	---	---	---	---	---	---
TP-5 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.16	28Y	230	<0.016	<0.0081	<0.0081	<0.0040	<0.0040	<0.0040
TP-5 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.17	4.7Y	44	<0.018	<0.0089	<0.0089	<0.0044	<0.0044	<0.0044
TP-5 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.18b	<1.0	<5.0	<0.016b	<0.0081b	<0.0081b	<0.004b	<0.004b	<0.004b
TP-5 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	<1.0	<5.0	---	---	---	---	---	---
TP-6 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<0.17	1.2Y	8.1	<0.019	<0.0093	<0.0093	<0.0046	<0.0046	<0.0046
TP-6 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.19b	1.1Y	8.5	<0.018	<0.0090	<0.0090	<0.0045	<0.0045	<0.0045
TP-6 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.23b	<1.0	<5.0	<0.017b	<0.0087b	<0.0087b	<0.0044b	<0.0044b	<0.0044b
TP-6 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	<1.0	<5.0	---	---	---	---	---	---
TP-7 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<0.20	81	84	<0.019	<0.0094	<0.0094	<0.0047	<0.0047	<0.0047
TP-7 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.18	1.3Y	7.4	<0.019	<0.0094	<0.0094	<0.0047	<0.0047	<0.0047
TP-7 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.19	<1.0	<5.0	<0.016	<0.0081	<0.0081	<0.0040	<0.0040	<0.0040
TP-7 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	<1.0	<5.0	---	---	---	---	---	---
TP-8 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.28	<b>2,100Y</b>	<b>4,200</b>	<0.020	<0.010	0.012	0.0058	0.019	0.0093
TP-8 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.18	<b>100Y</b>	240	0.024	<0.0082	<0.0082	<0.0041	<0.0041	<0.0041
TP-8 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.19b	<b>87</b>	<b>400</b>	0.056b	<0.0088b	<0.0088b	<0.0044b	<0.0044b	<0.0044b
TP-8 (5 - 5 1/2)	5 - 5 1/2	5 - 5 1/2	<0.17	3.7Y	7.4	<0.017	<0.0083	<0.0083	<0.0041	<0.0041	<0.0041
TP-9 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.19	17Y	200	<0.020	<0.010	<0.010	<0.0051	<0.0051	<0.0051
TP-9 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.20b	23Y	24	<0.021b	<0.011b	<0.011b	<0.0053b	<0.0053b	<0.0053b
TP-9 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.19	<1.0	<5.0	0.041	<0.0092	<0.0092	<0.0046	<0.0046	<0.0046
TP-9 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	<1.0	<5.0	---	---	---	---	---	---
TP-10 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<0.19	23Y	150	<0.017	<0.0087	<0.0087	<0.0043	<0.0043	<0.0043
TP-10 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.18b	1.4Y	5.7	<0.018b	<0.0089b	<0.0089b	<0.0044b	<0.0044b	<0.0044b
TP-10 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.17	<1.0	<5.0	<0.017	<0.0083	<0.0083	<0.0042	<0.0042	<0.0042
TP-10 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	1.2Y	<5.0	---	---	---	---	---	---
TP-11 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.20	<b>150Y</b>	<b>660</b>	<0.017	<0.0087	<0.0087	<0.0043	<0.0043	<0.0043
TP-11 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.22	78Y	<b>390</b>	<0.017	<0.0082	<0.0082	<0.0042	<0.0042	<0.0042
TP-11 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.17b	<0.99	<5.0	<0.016b	<0.0082b	<0.0082b	<0.0041b	<0.0041b	<0.0041b
TP-11 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	1.8Y	9.0	---	---	---	---	---	---
TP-12 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.19	56Y	<b>670</b>	<0.017	<0.0086	<0.0086	<0.0043	<0.0043	<0.0043
TP-12 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.17	<1.0	8.1	<0.017	<0.0087	<0.0087	<0.0043	<0.0043	<0.0043
TP-12 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.19b	<0.99	<5.0	<0.016b	<0.0081b	<0.0081b	<0.0041b	<0.0041b	<0.0041b
TP-12 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	<1.0	<5.0	---	---	---	---	---	---
TP-13 (1/2 - 1)	1/2 - 1	1/2 - 1	---	<0.99	<5.0	---	---	---	---	---	---
TP-13 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.17	39Y	260	<0.018	<0.0088	<0.0088	<0.0044	<0.0044	<0.0044
TP-13 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.19	<1.0	<5.0	<0.017	<0.0086	<0.0086	<0.0043	<0.0043	<0.0043
TP-13 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	---	<0.99	<5.0	---	---	---	---	---	---
TP-14 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.18	<b>180Y</b>	<b>670</b>	<0.021	<0.011	<0.011	<0.0053	<0.0053	<0.0053
TP-14 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	0.49Y	<b>170Y</b>	<b>480</b>	0.022	<0.0083	<0.0083	<0.0043	<0.0043	<0.0043
TP-15 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.18	5.0Y	11	0.055	0.012	<0.0089	<0.0044	<0.0044	<0.0044
TP-15 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.17	<1.0	<5.0	0.027	<0.0084	<0.0084	<0.0042	<0.0042	<0.0042
TP-16 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.17	<1.0	<5.0	0.035	<0.0083	<0.0083	<0.0042	<0.0042	<0.0042
TP-16 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.16	<1.0	<5.0	0.032	<0.0083	<0.0083	<0.0042	<0.0042	<0.0042
TP-17 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.17	<1.0	<5.0	<0.016	<0.0082	<0.0082	<0.0041	<0.0041	<0.0041
TP-17 (1 1/2 - 2)	1 - 1/2 - 2	4 1/2 - 5	<0.17b	<1.0	<5.0	<0.017b	<0.0084b	<0.0084b	<0.0042b	<0.0042b	<0.0042b
TP-18 (0 - 1/2)	0 - 1/2	3 - 3 1/2	0.31	<b>2,700</b>	<b>4,900</b>	<0.018	<0.0089	<0.0089	<0.0045	<0.0045	<0.0045
TP-18 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	0.69Y	<b>970</b>	<b>2,400</b>	0.028	0.0092	<0.0085	<0.0042	<0.0042	<0.0042
TP-19 (0 - 1/2)	0 - 1/2	3 - 3 1/2	0.20Y	<1.0	<5.0	0.074	0.02	<0.0093	<0.0046	<0.0046	<0.0046
TP-19 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.17b	<1.0	<5.0	0.041b	<0.008b	<0.008b	<0.004b	<0.004b	<0.004b
TP-20 (2 - 2 1/2)	2 - 2 1/2	8 - 8 1/2	46Y	24Y	27	<0.015	<0.0077	<0.0077	<0.0039	<0.0039	<0.0039
TP-21 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.17	1.4Y	6	<0.017	<0.0084	<0.0084	<0.0042	<0.0042	<0.0042
TP-21 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.16b	<0.99	<5.0	<0.016b	<0.008b	<0.008b	<0.004b	<0.004b	<0.004b
TP-22 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.15	<1.0	<5.0	<0.015	<0.0075	<0.0075	<0.0038	<0.0038	<0.0038
TP-22 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.18b	<1.0	<5.0	<0.017b	<0.0083b	<0.0083b	<0.0041b	<0.0041b	<0.0041b
Residential ESL <sup>1</sup>			83	83	370	0.5	NE	NE	2.9	2.3	NE
Residential RSL <sup>1</sup>			NE	NE	NE	61,000	NE	5,300	5,000	590	62

1 Environmental Screening Level. California Regional Water Quality Control Board - SF Bay Region, 2008  
 < Not detected at or above the laboratory detection limit.  
 NE None Established  
 \* Ground surface at the time of August 30, 2011 sampling  
 \*\* Original (post demolition) ground surface prior to excavation activities  
 Y Chromatogram pattern does not resemble standard  
 b Sample was analyzed past 7 day holding time

# ATTACHMENT 4



**Table 2. Analytical Results of Selected Soil Samples - Metals**  
(Concentrations in mg/Kg [ppm])

Sample ID	Depth (feet) below ground surface <sup>1</sup>	Depth (feet) below original ground surface <sup>2,3</sup>	Arsenic	Barium	Beryllium	Cadmium	Total Chromium	Cobalt	Copper	Lead	STLC Lead	TCLP Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
TP-1 (1/2-1)	1/2 - 1	1/2 - 1	7.6	120	0.33	<0.25	160	26	27	20	---	---	0.08	0.35	130	2.9	<0.25	<0.50	38	46
TP-1 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	4.9	130	0.39	<0.25	35	7.9	19	13	---	---	0.062	<0.25	34	<0.5	<0.25	<0.5	32	47
TP-1 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	5	140	0.048	<0.25	42	10	19	5.7	---	---	0.023	<0.25	45	<0.5	<0.25	0.54	36	44
TP-2 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	4.3	100	0.25	<0.25	1.2	6.1	19	3.2	---	---	0.044	<0.25	3.4	<0.50	<0.25	<0.50	22	62
TP-2 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	5.1	170	0.45	<0.25	40	9	19	6.2	---	---	<0.02	<0.25	41	<0.50	<0.25	<0.50	37	43
TP-2 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	6.7	150	0.51	0.26	44	11	22	5.9	---	---	0.03	<0.25	51	<0.50	<0.25	<0.50	39	49
TP-2 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	4.1	120	0.39	<0.25	36	8.2	16	4	---	---	0.038	<0.25	39	<0.50	<0.25	0.75	32	35
TP-3 (1/2 - 1)	1/2 - 1	1/2 - 1	4.8	110	0.32	<0.25	26	6.5	11	4.9	---	---	0.1	0.27	33	<0.50	<0.25	<0.50	29	28
TP-3 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	5.6	160	0.37	0.48	48	10	34	200	6.1	---	0.16	<0.25	40	<0.50	<0.25	<0.50	35	130
TP-3 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	5.3	160	0.52	0.27	45	9.8	22	12	<0.25	---	0.029	<0.25	51	<0.50	<0.25	0.74	39	52
TP-3 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	6.1	140	0.44	0.25	40	9.8	19	5.9	---	---	0.02	<0.25	45	<0.50	<0.25	1.2	36	41
TP-4 (1/2 - 1)	1/2 - 1	1/2 - 1	8.9	110	0.36	<0.25	35	8.3	19	17	---	---	0.1	<0.25	39	<0.50	<0.25	<0.50	32	40
TP-4 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	5.4	140	0.45	<0.25	40	8.4	19	6.3	---	---	0.027	0.36	44	<0.50	<0.25	<0.50	33	45
TP-4 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	4.9	150	0.49	0.27	41	10	21	6.6	---	---	0.027	<0.25	50	<0.50	<0.25	0.79	33	47
TP-4 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	4.7	120	0.35	<0.25	33	8.2	14	3.9	---	---	<0.020	<0.25	36	<0.50	<0.25	0.63	31	33
TP-5 (1/2 - 1)	1/2 - 1	1/2 - 1	9.4	130	0.3	0.36	33	8.2	53	370	7.1	---	0.14	0.37	36	<0.50	<0.25	<0.50	35	120
TP-5 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	5.5	150	0.42	<0.25	35	11	19	7.8	---	---	0.11	<0.25	45	1.1	<0.25	<0.50	31	44
TP-5 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	4.9	150	0.49	0.27	41	10	21	6.6	---	---	0.027	<0.25	50	<0.50	<0.25	0.79	33	47
TP-5 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	5.6	120	0.37	0.33	33	8.9	18	6.3	---	---	<0.020	<0.25	47	<0.50	<0.25	<0.50	30	39
TP-6 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	5.4	100	0.32	<0.25	36	8.5	120	20	---	---	0.067	0.31	37	<0.50	<0.25	<0.50	36	43
TP-6 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	4.4	140	0.41	<0.25	37	7.7	21	13	---	---	0.075	<0.25	37	0.86	<0.25	<0.50	32	41
TP-6 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	5.7	160	0.54	0.29	46	12	24	7.1	---	---	0.041	<0.25	47	<0.50	<0.25	0.62	38	50
TP-6 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	4.3	110	0.36	<0.25	33	9	14	4.3	---	---	0.026	<0.25	37	<0.50	<0.25	<0.50	31	34
TP-7 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	4.1	180	0.33	0.3	21	9	29	240	3.6	---	1.7	<0.25	27	<0.50	<0.25	<0.50	23	61
TP-7 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	4.9	130	0.43	<0.25	36	8.1	18	5.6	---	---	0.028	<0.25	36	<0.50	<0.25	<0.50	32	40
TP-7 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	5.1	130	0.4	<0.25	38	7.8	14	5.9	---	---	0.038	<0.25	41	<0.50	<0.25	<0.50	33	36
TP-7 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	3.8	92	0.3	<0.25	39	7.2	12	3.8	---	---	0.026	<0.25	31	<0.50	<0.25	<0.50	27	30
TP-8 (1/2 - 1)	1/2 - 1	1/2 - 1	6.6	110	0.4	0.44	67	14	25	57	11	---	0.27	0.39	58	1.8	<0.25	<0.5	54	62
TP-8 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	3.0	110	0.34	<0.25	41	9.9	27	20	---	---	0.24	<0.25	36	<0.50	<0.25	<0.50	28	42
TP-8 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	6.6	160	0.54	0.32	47	12	23	6.5	---	---	0.034	<0.25	53	<0.50	<0.25	<0.50	44	51
TP-8 (5 - 5 1/2)	5 - 5 1/2	5 - 5 1/2	5.2	120	0.34	<0.25	32	6.8	13	5.4	---	---	0.021	<0.25	35	<0.50	<0.25	<0.50	33	32
TP-9 (1/2 - 1)	1/2 - 1	1/2 - 1	1.3	21	<0.10	<0.25	47	18	29	2.6	---	---	<0.020	<0.25	36	<0.50	<0.25	0.89	28	19
TP-9 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	6.9	440	0.4	<0.25	47	12	58	1,500	---	0.31	13	<0.25	27	<0.50	<0.25	1.2	44	50
TP-9 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	6.4	140	0.49	<.25	42	10	19	5.3	---	---	0.048	<0.25	47	<0.50	<0.25	<0.50	39	42
TP-9 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	4.3	140	0.44	0.27	42	9.2	19	4.9	---	---	0.04	<0.25	48	<0.50	<0.25	0.94	35	41
TP-10 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	5.2	120	0.31	0.52	50	9.8	40	120	8.1	---	0.072	<0.25	38	<0.50	<0.25	<0.50	39	110
TP-10 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	4.4	150	0.42	0.28	39	8.9	21	39	110	---	0.15	<0.25	41	<0.50	<0.25	<0.50	31	54
TP-10 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	4.2	120	0.42	<0.25	35	7.9	15	4.6	---	---	0.031	<0.25	39	<0.50	<0.25	<0.50	33	36
TP-10 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	4.4	130	0.4	<0.25	36	8.7	16	7.4	---	---	<0.020	<0.25	41	<0.50	<0.25	0.9	31	41
TP-11 (1/2 - 1)	1/2 - 1	1/2 - 1	5.1	110	0.37	0.43	40	9.9	38	61	2.8	---	0.12	<0.25	35	<0.50	0.4	<0.50	40	99
TP-11 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	4	120	0.34	0.32	32	7	36	79	2.8	---	0.27	<0.25	31	<0.50	<0.25	<0.50	29	93
TP-11 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	5.6	160	0.43	<0.25	40	8.6	20	17	---	---	0.036	<0.25	41	<0.50	<0.25	<0.50	33	57
TP-11 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	4.2	110	0.37	<0.25	39	7.3	15	11	---	---	0.034	<0.25	37	<0.50	<0.25	<0.50	32	53

Sample ID	Depth (feet) below ground surface*	Depth (feet) below original ground surface**	Arsenic	Barium	Beryllium	Cadmium	Total Chromium	Cobalt	Copper	Lead	STLC Lead	TCLP Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
TP-12 (1/2 - 1)	1/2 - 1	1/2 - 1	4.9	100	0.28	0.25	35	7.7	47	31	---	---	0.14	<0.25	37	<0.50	<0.25	<0.50	37	61
TP-12 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	3.8	140	0.4	<0.25	34	7.4	18	6.5	---	---	0.036	<0.25	33	<0.50	<0.25	<0.50	30	38
TP-12 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	5	130	0.42	<0.25	37	8.9	17	4.8	---	---	0.028	<0.25	42	<0.50	<0.25	<0.50	33	40
TP-12 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	3.6	93	0.34	<0.25	34	7.3	14	3.9	---	---	0.021	<0.25	33	<0.50	<0.25	0.77	29	35
TP-13 (1/2 - 1)	1/2 - 1	1/2 - 1	2.6	100	0.31	<0.25	2.4	11	46	1.1	---	---	<0.020	<0.25	2.1	<0.50	0.39	<0.50	65	66
TP-13 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<b>23</b>	1,200	0.18	<b>7.2</b>	98	8.2	220	<b>1,700</b>	---	<b>0.67</b>	0.052	0.94	35	<0.50	0.76	<0.50	19	<b>11,000</b>
TP-13 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	4.9	130	0.46	<0.25	39	11	18	5.2	---	---	0.021	<0.25	52	<0.50	<0.25	<0.50	39	40
TP-13 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	3.3	67	0.3	<0.25	28	5.7	9.7	3.6	---	---	<0.020	<0.25	28	<0.50	<0.25	0.76	27	30
TP-14 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4.2	190	0.35	0.42	38	8.1	33	<b>290</b>	<b>8.4</b>	---	2.4	<0.25	32	<0.50	<0.25	<0.50	28	140
TP-14 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	4.6	110	0.4	<0.25	37	8.6	16	14	---	---	0.044	0.32	41	<0.50	<0.25	<0.50	35	40
TP-15 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4	150	0.47	0.26	39	8.2	22	6.7	---	---	0.039	<0.25	38	<0.50	<0.25	<0.50	35	49
TP-15 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	3.8	120	0.39	<0.25	34	7.7	16	4.9	---	---	0.031	<0.25	37	<0.50	<0.25	<0.50	31	37
TP-16 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4.5	120	0.4	<0.25	35	7.7	16	7.3	---	---	0.044	<0.25	37	<0.50	<0.25	<0.50	34	36
TP-16 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	3.9	140	0.42	<0.25	39	8.3	17	4.2	---	---	0.036	<0.25	41	<0.50	<0.25	<0.50	36	35
TP-17 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4.7	120	0.42	<0.25	36	8.7	16	4.8	---	---	0.041	<0.25	38	<0.50	<0.25	<0.50	34	36
TP-17 (1 1/2 - 2)	1 - 1/2 - 2	4 1/2 - 5	5.3	120	0.37	<0.25	33	9.2	14	5.6	---	---	0.02	<0.25	39	<0.50	<0.25	<0.50	34	36
TP-18 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4.8	150	0.37	<0.25	39	9.4	21	50	3.7	---	0.32	0.51	39	<0.50	<0.25	<0.50	30	57
TP-18 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	5.2	130	0.4	<0.25	37	8.3	16	6.1	---	---	0.032	0.27	41	<0.50	<0.25	<0.50	35	38
TP-19 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4.2	140	0.43	0.28	37	8.4	22	<b>140</b>	<b>0.54</b>	---	0.12	<0.25	38	<0.50	<0.25	<0.50	32	52
TP-19 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	5.5	140	0.46	0.25	42	9.5	18	7.1	<0.25	---	0.041	<0.25	49	<0.50	<0.25	<0.25	37	44
TP-20 (2 - 2 1/2)	2 - 2 1/2	8 - 8 1/2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TP-21 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4.5	130	0.39	<0.25	32	8.5	15	4.7	---	---	0.028	<0.25	37	<0.50	<0.25	<0.50	30	35
TP-21 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	4.8	100	0.32	<0.25	31	7.7	11	4.7	---	---	0.022	<0.25	34	<0.50	<0.25	<0.50	30	31
TP-22 (0 - 1/2)	0 - 1/2	3 - 3 1/2	4.6	130	0.44	<0.25	38	8.5	17	5	---	---	0.042	<0.25	42	<0.50	<0.25	<0.50	34	39
TP-22 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	5.1	88	0.31	<0.25	30	9.5	11	4.7	---	---	<0.020	<0.25	32	<0.50	<0.25	<0.50	31	31
Typical Background Range***			0.6 to 11	133 to 1,400	0.25 to 2.7	0.05 to 1.7	23 to 1,579	2.7 to 46.9	9.1 to 96.4	12.4 to 97.1	NA	NA	0.1 to 0.9	NE	9 to 509	0.15 to 0.43	0.1 to 8.3	20 to 271	39 to 288	88 to 236
Residential CHHSL <sup>1</sup>			0.07	5,200	150	1.7	NE	660	3,000	80	NA	NA	18	380	1,600	380	380	5	530	23,000
TTL California Hazardous Waste Limit			500	10,000	75	100	2,500	8,000	2,500	1,000	STLC = 5	TCLP = 5	20	3,500	2,000	100	500	700	2,400	5,000

1 California Human Health Screening Level (CHHSL), CalEPA - January 2005 and September 2009  
 < Not detected at or above laboratory reporting limit  
 NE Not Established  
 NA Not applicable  
 --- Not Analyzed  
 BOLD Concentration exceeds CHHSL and background maximum or hazardous waste limit  
 \* Ground surface at the time of August 30, 2011 sampling  
 \*\* Original (post demolition) ground surface prior to excavation activities  
 \*\*\* Bradford, et.al., 1996. Background Concentrations of Trace and Major Elements in California Soils  
 Note Other CAM 17 metals were not detected



**Table 3. Analytical Results of Selected Soil Samples - OCPs and PCBs**  
 (Concentrations in mg/Kg [ppm])

Sample ID	Depth (feet) below ground surface*	Depth (feet) below original ground surface**	Dieldrin	Aldrin	4,4'-DDT	4,4'-DDE	4,4'-DDD	DDT Total	Total Chlordane	alpha-Chlordane	gamma-Chlordane	Arochlor 1254 (PCB)	Arochlor 1260 (PCB)
TP-1 (1/2-1)	1/2 - 1	1/2 - 1	<0.017	<0.0086	<0.017	<0.017	<0.017	ND	ND	<0.0086	<0.0086	<0.012	0.017
TP-1 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-1 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-2 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-2 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-2 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-2 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-3 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-3 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-3 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-3 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-4 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-4 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-4 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-4 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-5 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.010	<0.0052	0.044	0.013	<0.010	0.057	0.028	0.014	0.014	<0.012	0.04
TP-5 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-5 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-5 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-6 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-6 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-6 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-6 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-7 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-7 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-7 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-7 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-8 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.016	<0.0084	<0.016	<0.016	0.047	0.047	ND	<0.0084	<0.0084	<b>0.1</b>	<b>0.12</b>
TP-8 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	<0.0017	ND	<0.0017	<0.0017	<0.012	<0.012
TP-8 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	<0.0017	ND	<0.0017	<0.0017	<0.012	<0.012
TP-8 (5 - 5 1/2)	5 - 5 1/2	5 - 5 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	<0.0017	ND	<0.0017	<0.0017	<0.012	<0.012
TP-9 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	0.016
TP-9 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-9 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0032	<0.0017	<0.0032	<0.0032	<0.0032	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-9 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-10 (1 - 1 1/2)	1 - 1 1/2	1 - 1 1/2	<0.0067	<0.0035	<0.0067	<0.067	<0.0067	ND	ND	<0.0035	0.0053	<0.012	0.033
TP-10 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	<0.0017	ND	<0.0017	<0.0017	<0.012	<0.012
TP-10 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	<0.0017	ND	<0.0017	<0.0017	<0.012	<0.012
TP-10 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	<0.0017	ND	<0.0017	<0.0017	<0.012	<0.012
TP-11 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.010	<0.0052	<0.010	<0.010	<0.010	ND	ND	<0.0052	<0.0052	<0.012	<b>0.19</b>
TP-11 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-11 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-11 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012

Sample ID	Depth (feet) below ground surface*	Depth (feet) below original ground surface**	Dieldrin	Aldrin	4,4'-DDT	4,4'-DDE	4,4'-DDD	DDT Total	Total Chlordane	alpha-Chlordane	gamma-Chlordane	Arochlor 1254 (PCB)	Arochlor 1260 (PCB)
TP-12 (1/2 - 1)	1/2 - 1	1/2 - 1	0.004	<0.0017	0.042	0.016	0.0064	0.0644	0.0051	0.002	0.0031	<0.012	0.023
TP-12 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-12 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-12 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-13 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-13 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0033	<0.0017	0.0062	0.0085	0.033	0.048	0.015	0.0078	0.0072	<0.012	0.028
TP-13 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-13 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-14 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-14 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0017	<0.0017	<0.0032	<0.0032	<0.0032	ND	ND	<0.0017	<0.0017	<0.012	0.02
TP-15 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-15 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-16 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-16 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-17 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	0.016
TP-17 (1 1/2 - 2)	1 - 1/2 - 2	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-18 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0084	<0.0084	<0.016	<0.016	<0.016	ND	ND	<0.0084	<0.0084	0.014	0.02
TP-18 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0017	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-19 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-19 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-20 (2 - 2 1/2)	2 - 2 1/2	8 - 8 1/2	---	---	---	---	---	---	---	---	---	---	---
TP-21 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-21 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-22 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
TP-22 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0033	<0.0017	<0.0033	<0.0033	<0.0033	ND	ND	<0.0017	<0.0017	<0.012	<0.012
Residential CHSL <sup>1</sup>			0.035	0.033	1.6	1.6	2.3	NE	0.43	NE	NE	0.089	0.089

1 California Human Health Screening Level, California EPA, 2005 and 2009  
 < Not detected above laboratory detection limit  
 NE None established  
 OCPs Organochlorine Pesticides  
 PCBs Polychlorinated Biphenyls  
 \* Ground surface at the time of August 30, 2011 sampling  
 \*\* Original (post demolition) ground surface prior to excavation activities



Sample ID	Depth (feet) below ground surface*	Depth (feet) below original ground surface**	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene	Chrysene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[a]pyrene	Indeno[1,2,3-cd]pyrene	Dibenz[a,h]anthracene	Benzo[g,h,i]perylene
TP-11 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-12 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	0.079	0.093	<0.070	<0.070	<0.070	<0.070	<0.070
TP-12 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-12 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
TP-12 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0058	0.0064	0.0067	<0.005	0.0052	<0.005	<0.005	<0.005	<0.005
TP-13 (1/2 - 1)	1/2 - 1	1/2 - 1	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
TP-13 (2 - 2 1/2)	2 - 2 1/2	2 - 2 1/2	<0.0049	0.0075	<0.0049	<0.0049	0.007	<0.0049	0.0074	0.0051	<0.0049	0.015	0.007	<0.0049	<0.0049	<0.0049	<0.0049	0.0053
TP-13 (3 - 3 1/2)	3 - 3 1/2	3 - 3 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-13 (4 1/2 - 5)	4 1/2 - 5	4 1/2 - 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-14 (0 - 1/2)	0 - 1/2	3 - 3 1/2	0.016	<0.0049	<0.0049	<0.0049	0.011	<0.0049	0.0089	0.014	<0.0049	0.0079	0.0065	<0.0049	0.0056	<0.0049	<0.0049	<0.0049
TP-14 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.005	<0.005	<0.005	0.0087	<0.005	<0.005	0.0062	0.012	<0.005	<0.005	<0.005	<0.005	0.0066	<0.005	<0.005	<0.005
TP-15 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-15 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
TP-16 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-16 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
TP-17 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
TP-17 (1 1/2 - 2)	1 - 1/2 - 2	4 1/2 - 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-18 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	0.14	<0.100	0.32	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
TP-18 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.025	<0.025	<0.025	<0.025	0.036	<0.025	<0.025	0.04	<0.025	0.09	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
TP-19 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-19 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
TP-20 (2 - 2 1/2)	2 - 2 1/2	8 - 8 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-21 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-21 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-22 (0 - 1/2)	0 - 1/2	3 - 3 1/2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TP-22 (1 1/2 - 2)	1 1/2 - 2	4 1/2 - 5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Residential CHHSL <sup>1</sup>			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.038	NE	NE	NE
Regional Screening Level <sup>2</sup>			3.6	NE	3,400	2,300	NE	17,000	2,300	1,700	0.15	15	0.15	1.5	0.015	0.15	0.015	NE

1 California Human Health Screening Level (CHHSL), CalEPA - January 2005 and September 2009  
2 Regional Screening Level. US EPA. 2011  
< Not detected at or above the laboratory detection limit  
NE None established  
\* Ground surface at the time of August 30, 2011 sampling  
\*\* Original (post demolition) ground surface prior to excavation activities

**Table 5. Analytical Results of Selected Test Pit Sidewall Soil Samples - Lead**

(Concentrations in mg/Kg [ppm])

Sample Location	Sample ID	Depth (feet) below ground surface*	Depth (feet) below original ground surface**	Lead
TP-3	SW-1	1 1/2 - 2	1 1/2 - 2	19
	SW-2	1 1/2 - 2	1 1/2 - 2	9.4
	SW-3	1 1/2 - 2	1 1/2 - 2	<b>100</b>
	SW-4	1 1/2 - 2	1 1/2 - 2	<b>110</b>
TP-5	SW-1	1 1/2 - 2	1 1/2 - 2	7.3
	SW-2	1 1/2 - 2	1 1/2 - 2	24
	SW-3	1 1/2 - 2	1 1/2 - 2	<b>160</b>
	SW-4	1 1/2 - 2	1 1/2 - 2	67
TP-8	SW-1	1 1/2 - 2	1 1/2 - 2	<b>240</b>
	SW-2	1 1/2 - 2	1 1/2 - 2	<b>140</b>
	SW-3	1 1/2 - 2	1 1/2 - 2	<b>450</b>
	SW-4	1 1/2 - 2	1 1/2 - 2	3.5
TP-9	SW-1	1 1/2 - 2	1 1/2 - 2	22
	SW-2	1 1/2 - 2	1 1/2 - 2	<b>180</b>
	SW-3	1 1/2 - 2	1 1/2 - 2	<b>110</b>
TP-10	SW-1	1 1/2 - 2	1 1/2 - 2	<b>360</b>
	SW-2	1 1/2 - 2	1 1/2 - 2	<b>660</b>
	SW-3	1 1/2 - 2	1 1/2 - 2	<b>1,100</b>
TP-13	SW-1	1 1/2 - 2	1 1/2 - 2	78
	SW-2	1 1/2 - 2	1 1/2 - 2	<b>2,000</b>
	SW-3	1 1/2 - 2	1 1/2 - 2	7.7
	SW-4	1 1/2 - 2	1 1/2 - 2	<b>1,200</b>
TP-14	SW-1	1/2 - 1	3 1/2 - 4	6.8
	SW-2	0 - 1/2	3 - 3 1/2	14
	SW-3	1/2 - 1	3 1/2 - 4	18
	SW-4	0 - 1/2	3 - 3 1/2	30
Residential CHHSL <sup>1</sup>				80
TTLC California Hazardous Waste Limit				1,000

1 California Human Health Screening Level

< Not detected at or above laboratory reporting

BOLD Concentration exceeds CHHSL or hazardous waste limit

\* Ground surface at the time of August 30, 2011

\*\* Original (post demolition) ground surface prior

**Table 7. Analytical Results of Selected Verification Soil Samples from Northwest Corner of the Site - Petroleum Hydrocarbons and VOCs**  
(Concentrations in mg/Kg [ppm])

Sample ID	Depth (feet) below original ground surface*	TPH as Diesel	TPH as Motor Oil	Acetone	Benzene	Chlorobenzene	Isopropylbenzene	Propylbenzene	sec-Butylbenzene	n-Butylbenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
VS-1	6 - 6 1/2	<0.99	<5.0	<0.017	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044
VS-2	6 - 6 1/2	<1.0	<5.0	<0.017	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042
VS-3	6 - 6 1/2	<b>690</b> Y	<b>910</b>	0.027	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044
VS-3 (8)	8 - 8 1/2	<b>6,700</b>	<b>9,200</b>	<b>&lt;9.4</b>	<0.0074	<0.94	<0.94	1.4	<0.94	<0.94	<b>&lt;0.94</b>	<0.94
VS-4	6 - 6 1/2	1.1 Y	<5.0	<0.017	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043
VS-5	6 - 6 1/2	<b>9,100</b>	<b>11,000</b>	<0.017	<b>0.063</b>	0.021	0.051	0.13	0.034	0.055	0.024	0.015
VS-5 (8)	8 - 8 1/2	<b>17,000</b>	<b>25,000</b>	<b>&lt;4.5</b>	<b>0.65</b>	<0.45	1.1	3.4	0.92	1.5	<0.45	<0.45
VS-6	6 - 6 1/2	<b>4,100</b>	<b>4,900</b>	<5.0	<1.3	<1.3	2.1	6.9	1.5	3.6	<1.3	<1.3
VS-6 (8)	8 - 8 1/2	<b>2,400</b>	<b>2,900</b>	<b>&lt;4.3</b>	<0.0046	<0.43	0.82	2.8	0.85	1.5	<0.43	<0.43
VS-7	6 - 6 1/2	<b>1,300</b>	<b>1,100</b>	<10.0	<2.5	<2.5	<2.5	7.3	3.3	3.1	<2.5	<2.5
VS-7 (8)	8 - 8 1/2	<b>3,900</b>	<b>4,200</b>	<b>&lt;4.6</b>	0.0052	<0.46	0.82	2.5	0.85	0.89	<0.46	<0.46
VS-8	6 - 6 1/2	<b>1,700</b>	<b>1,200</b>	<1.0	<0.25	<0.25	<0.25	0.32	0.7	0.85	<0.25	<0.25
VS-8 (8)	8 - 8 1/2	<b>550</b>	<b>470</b>	<0.042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042
Residential ESL <sup>1</sup>		110	370	0.5	0.044	1.5	NE	NE	NE	NE	0.59	1.1
Residential RSL <sup>2</sup>		NE	NE	61,000	1.1	290	NE	3,400	NE	3,900	2.4	1,900

1 Environmental Screening Level. California Regional Water Quality Control Board - SF Bay Region. May 2008. Direct contact ESL for TPH diesel and TPH motor oil.

2 Regional Screening Level. Federal EPA - June 2011.

< Not detected at or above the laboratory detection limit.

NE None Established

**BOLD** Detected concentration exceeds ESL or RSL

**RED** Laboratory detection limit exceeds ESL or RSL

**Y** Chromatogram pattern does not resemble standard

**Table 9. Analytical Results of Verification Soil Samples - Vaults 1 & 2**  
(Concentrations in mg/Kg [ppm])

Sample ID	Depth (feet) below original ground surface*	TPH as Gasoline	TPH as Diesel	Lead	MTBE	BTEX	DIPE	TAME	ETBE	TBA	Ethanol (EtOH)	EDB	EDC
VAULT 1 BOTTOM	8 - 8 1/2	<0.27	1.3	6.9	<0.0054	ND	<0.0054	<0.0054	<0.0054	<0.0054	<0.54	<0.0054	<0.0054
VAULT 2 SW-1	6 - 6 1/2	0.39	29	4	<0.0062	ND	<0.0062	<0.0062	<0.0062	<0.012	<0.62	<0.0062	<0.0062
VAULT 2 SW-2	6 - 6 1/2	<0.21	26	4.7	<0.0042	ND	<0.0042	<0.0042	<0.0042	<0.0042	<0.420	<0.0042	<0.0042
VAULT 2 SW-3	6 - 6 1/2	5.00	<0.98	5.2	<0.0045	ND	<0.0045	<0.0045	<0.0045	<0.0045	<0.45	<0.0045	<0.0045
VAULT 2 SW-4	6 - 6 1/2	<0.29	<b>800</b>	3.9	<0.0059	ND	<0.0059	<0.0059	<0.0059	<0.0059	<0.59	<0.0059	<0.0059
VAULT 2 SW-4A	6 - 6 1/2	1.60	<b>130</b>	4	<0.0043	ND	<0.0043	<0.0043	<0.0043	<0.0043	<0.43	<0.0043	<0.0043
VAULT 2 BOTTOM	8 - 8 1/2	<0.28	12	7.8	<0.0056	ND	<0.0056	<0.0056	<0.0056	<0.0056	<0.56	<0.0056	<0.0056
Residential ESL <sup>1</sup>		110	110	80 <sup>a</sup>	0.023	various	NE	NE	NE	NE	NE	0.00033	0.0045
Residential RSL <sup>1</sup>		NE	NE	400	43	various	2,400	NE	NE	NE	NE	0.034	0.43

- 1 Environmental Screening Level. California Regional Water Quality Control Board - SF Bay Region. May 2008
- 2 Regional Screening Level. Federal EPA - June 2011.
- a California Human Health Screening Level (CHHSL), CalEPA - September 2009
- \* Original (post demolition) ground surface prior to excavation activities
- < Not detected at or above the laboratory detection limit.
- NE None Established
- BOLD Detected concentration exceeds ESL or RSL
- RED Laboratory detection limit below ESL or RSL
- ND Not detected at or above the laboratory detection limit.
- Gray Indicates soil was excavated and removed from the Site

**Table 10. Analytical Results of Selected Vault 2 Soil and Concrete Samples - Metals**  
(Concentrations in mg/Kg [ppm])

Sample ID	Arsenic	Barium	Cadmium	Total Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Selenium	Silver	Vanadium	Zinc
VAULT 2 INSIDE	4.4	140	1.5	34	9.8	91	150	0.35	31	8.0	1.5	27	560
VAULT 2 SP-(1,2,3,4)	4.1	130	<0.50	35	9.7	18	21	0.044	43	<4.0	<0.99	28	44
VAULT 2 CONCRETE	5	220	<0.48	33	7.8	26	43	0.072	33	<3.8	<0.96	33	40
TTL California Hazardous Waste Limit	500	10,000	100	2,500	8,000	2,500	1,000	20	2,000	100	500	2,400	5,000

Note Other CAM 17 metals were not detected



**TABLE 1**  
**PREVIOUS SITE INVESTIGATION SOIL SAMPLE ANALYTICAL DATA - TPH, BTEX & MTBE**

Sample I.D.	Date	Depth (ft bgs)	TPH-d	Kerosene	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
			Analytical Results (mg/kg)							
B-1-S-2.0	7/2/2007	2.0	67	15	4	--	--	--		--
B-1-S-5.0	7/2/2007	5.0	3.2	3.3	1.1	--	--	--		--
B-1-S-6.5	7/2/2007	6.5	11,000	5,900	67	--	--	--		--
B-2-S-2.0	7/2/2007	2.0	15,000	4,600	37	--	--	--		--
B-2-S-5.0	7/2/2007	5.0	7,000	2,000	ND<1.0	--	--	--		--
B-2-S-6.5	7/2/2007	6.5	1.2	ND<1.0	ND<1.0	--	--	--		--
B-3-S-2.0	7/2/2007	2.0	18	ND<2.0	ND<1.0	--	--	--		--
B-4-S-2.0	7/2/2007	2.0	8.4	1.9	ND<1.0	--	--	--		--
B-4-S-5.0	7/2/2007	5.0	2	1.2	ND<1.0	--	--	--		--
B-4-S-8.0	7/2/2007	8.0	5,100	5,600	410	--	--	--		--
B-5-S-2.0	7/2/2007	2.0	1.5	ND<1.0	ND<1.0	--	--	--		--
B-7-S-2.0	7/2/2007	2.0	1,900	380	13	--	--	--		--
B-8-S-2.0	7/2/2007	2.0	2.1	1.2	ND<1.0	--	--	--		--
B-8-S-8.0	7/2/2007	8.0	23	14	14	--	--	--		--
MW-6-S-2.0	7/2/2007	2.0	1,200	760	1.7	--	--	--		--
MW-6-S-5.0	7/2/2007	5.0	1,500	850	34	--	--	--		--
MW-6-S-6.5	7/2/2007	6.5	2,000	1,300	54	--	--	--		--
MW-7-S-2.0	7/2/2007	2.0	770	74	ND<1.0	--	--	--		--
MW-7-S-5.0	7/2/2007	5.0	34	ND<5.0	ND<1.0	--	--	--		--
MW-7-S-7.5	7/2/2007	7.5	16	ND<2.0	ND<1.0	--	--	--		--
MW-8-S-2.0	7/2/2007	2.0	110	140	5,700	--	--	--		--
MW-8-S-5.0	7/2/2007	5.0	14,000	16,000	5,200	--	--	--		--
MW-8-S-6.5	7/2/2007	6.5	1,700	1,600	3,800	--	--	--		--

AYC →  
R03078

AYC →  
R03078

B-2 and B-7 are within Ashland Youth Center site. The remaining boring locations are in other parcels.

**TABLE 2**  
**PREVIOUS SITE INVESTIGATION SOIL SAMPLE ANALYTICAL DATA - VOCs**

Sample ID	Date	Depth (ft bgs)	Acetone	2-Butanone	Carbon disulfide	Isopropylbenzene	n-Propylbenzene	tert-Butylbenzene	n-Butylbenzene	Naphthalene	Other VOCs
			Analytical Results (mg/kg)								
MW-9-2	10/1/2008	2.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
MW-9-5	10/1/2008	5.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
MW-9-10	10/1/2008	10.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-9-2	10/2/2008	2.0	0.340	0.070	0.0045	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-9-5	10/2/2008	5.0	0.050	0.0071	0.0029	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-9-10	10/2/2008	10.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-10-2	10/2/2008	2.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-10-5	10/2/2008	5.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-10-10	10/2/2008	10.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-11-3	10/2/2008	3.0	1.200	2.600	ND<.200	0.400	1.100	0.200	2.100	2.700	sec-Butylbenzene (1.700)
SB-11-8	10/2/2008	8.0	0.460	2.100	ND<.200	1.100	4.400	0.780	26.000	15.000	sec-Butylbenzene (10.000)
SB-11-11	10/2/2008	11.0	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-12-2	10/2/2008	2.0	1.300	2.600	ND<.200	0.990	2.300	ND<.200	1.900	4.000	1,3,5-Trimethylbenzene (7.000) 4-Isopropyltoluene (1.300) 1,2,4-Trimethylbenzene (1.600)
SB-12-5	10/2/2008	5.0	0.050	0.010	0.0069	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND
SB-12-10	10/2/2008	10.0	0.0053	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND<.002	ND

**Notes and Abbreviations:**

ft bgs = feet below ground surface

VOCs analyzed using EPA Method 8260B

mg/kg = milligrams per kilogram

ND< X = not detected, below laboratory reporting limit of X

ND = not detected

All boring locations on this page are within the Ashland Youth Center site.

**TABLE 1**  
**PREVIOUS SITE INVESTIGATION SOIL SAMPLE ANALYTICAL DATA - TPH, BTEX & MTBE**

Sample I.D.	Date	Depth (ft bgs)	TPH-d	Kerosene	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
			Analytical Results (mg/kg)							
MW-9-2	10/1/2008	2.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
MW-9-5	10/1/2008	5.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
MW-9-10	10/1/2008	10.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-9-2	10/2/2008	2.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-9-5	10/2/2008	5.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-9-10	10/2/2008	10.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-10-2	10/2/2008	2.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-10-5	10/2/2008	5.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-10-10	10/2/2008	10.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-11-3	10/2/2008	3.0	1,200	--	30	ND<0.002	ND<0.002	ND<0.002	ND<0.004	0.320
SB-11-8	10/2/2008	8.0	2,300	--	80	ND<0.002	ND<0.002	ND<0.002	ND<0.004	0.310
SB-11-11	10/2/2008	11.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-12-2	10/2/2008	2.0	1,000	--	40	0.390	6.800	3.200	26.800	0.340
SB-12-5	10/2/2008	5.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005
SB-12-10	10/2/2008	10.0	ND<1.0	--	ND<0.5	ND<0.002	ND<0.002	ND<0.002	ND<0.004	ND<0.0005

**Notes and Abbreviations:**

ft bgs = feet below ground surface

TPH-d = total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B

kerosene analyzed by EPA Method 8015B

TPH-g = total petroleum hydrocarbons as gasoline analyzed by EPA Method 8015B

BTEX = benzene, toluene, ethylbenzene, xylenes analyzed by EPA Method 8260B

MTBE = methyl tert butyl ether analyzed by EPA Method 8260B

mg/kg = miligrams per kilogram

-- = not analyzed, not available, not applicable

ND< X = not detected, below laboratory reporting limit of X

All boring locations on this page are within the Ashland Youth Center site

**TABLE 7**  
**POST-EXCAVATION SOIL SAMPLE LABORATORY ANALYTICAL RESULTS**  
**POLYCHLORNIATED BIPHENYLS CONFIRMATION AND STOCKPILE SAMPLE ANALYTICAL RESULTS**

Sample ID	Sample Collection Date	Analyte								
		Aroclor 1016	Aroclor 1231	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
<b>Residential Land Use ESL (ug/kg)</b>		<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>
<b>Analytical Results (ug/kg)</b>										
Area C Composite 1	9/2/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>25</b>	<0.016	<0.016
Area C Composite 2	9/2/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>88</b>	<0.016	<0.016
Area C Composite 3	9/2/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<0.16	<0.016	<0.016
Area C Composite 4	9/2/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<0.16	<0.016	<0.016
Area C Composite 5	9/2/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>27</b>	<0.016	<0.016
Area C Composite 6	9/2/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>150</b>	<0.016	<0.016
Area C preexisting stockpile	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>3600</b>	<0.016	<0.016
Area C Composite 7	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>500</b>	<0.016	<0.016
Area C Composite 10	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>2000</b>	<0.016	<0.016
Area C Composite 11	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>950</b>	<0.016	<0.016
Area C Composite 12	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>2900</b>	<0.016	<0.016
Area C Composite 13	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>53</b>	<0.016	<0.016
Area C Composite 14	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>9100</b>	<0.016	<0.016
Area C Composite 15	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<b>160</b>	<b>790</b>	<0.016	<0.016
Area B stockpile composite	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>69</b>	<0.016	<0.016
Area A stockpile composite	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>37</b>	<0.016	<0.016
Area A stockpile composite 2	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>89</b>	<0.016	<0.016
Area A stockpile composite 3	9/3/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<b>25</b>	<0.016	<0.016
Area A stockpile composite 4	9/4/2009	<0.016	<0.033	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016

Ashland Youth Center Site →

**Notes and Abbreviations:**  
ug/kg = micrograms per kilogram  
ESLs = San Francisco Bay RWQCB Environmental Screening Levels - Table A Residential Land Use  
**Bold** indicates exceedence of laboratory detection limit  
**Shading** indicates exceedence of ESL  
PCBs = Polychlorinated Biphenyls

**TABLE 6**  
**POST-EXCAVATION SOIL SAMPLE LABORATORY ANALYTICAL RESULTS**  
**TPH-D AND TPH-G CONFIRMATION AND STOCKPILE SAMPLE ANALYTICAL**  
**RESULTS**

Sample I.D.	Sample Collection Date	Sample Depth (ft bgs)	Analytes	
			TPH-D	TPH-G
Residential Land Use ESL (mg/kg)			83	83
<b>CONFIRMATION SAMPLES</b>				
<b>CELL B2</b>				
Confirmatory SW B2	9/2/2009	3.0	<1.0	<1.0
Confirmatory NW B2	9/2/2009	3.0	<b>30</b>	<1.0
Confirmatory NE B2	9/2/2009	3.0	<b>1.4</b>	<1.0
Confirmatory SE B2	9/2/2009	3.0	<1.0	<1.0
Confirmatory floor B2	9/2/2009	6.0	<b>210</b>	<b>1.3</b>
Re-sample confirmatory floor B2	9/9/2009	6.0	<b>9.1</b>	<b>NA</b>
<b>CELL B1</b>				
Confirmatory SE B1	9/2/2009	3.0	<b>51</b>	<1.0
Confirmatory SW B1	9/2/2009	3.0	<b>27</b>	<b>1.3</b>
Confirmatory NW B1	9/2/2009	3.0	<b>5.3</b>	<1.0
Confirmatory NE B1	9/2/2009	3.0	<b>3.7</b>	<1.0
Confirmatory floor B1	9/2/2009	6.0	<b>47</b>	<1.0
<b>CELL A2</b>				
Confirmatory S A2	9/3/2009	5.0	<1.0	<1.0
Confirmatory W A2	9/3/2009	5.0	<1.0	<1.0
Confirmatory N A2	9/3/2009	5.0	<b>82</b>	<b>2.9</b>
Confirmatory E A2	9/3/2009	5.0	<1.0	<1.0
Confirmatory floor A2	9/3/2009	10.0	<b>8.6</b>	<b>3.9</b>
<b>CELL A1</b>				
Confirmatory S A1	9/4/2009	5.0	<1.0	<1.0
Confirmatory W A1	9/4/2009	5.0	<1.0	<1.0
Confirmatory E A1	9/4/2009	5.0	<b>1</b>	<1.0
Confirmatory N A1	9/4/2009	5.0	<1.0	<1.0
Confirmatory floor A1	9/4/2009	10.0	<b>3.1</b>	<1.0

AYC  
 Site  
 R03078

Holland  
 Park  
 Site  
 R0212

**TABLE 6  
POST-EXCAVATION SOIL SAMPLE LABORATORY ANALYTICAL RESULTS  
TPH-D AND TPH-G CONFIRMATION AND STOCKPILE SAMPLE ANALYTICAL  
RESULTS**

Sample I.D.	Sample Collection Date	Sample Depth (ft bgs)	Analytes	
			TPH-D	TPH-G
			Analytical Results (mg/kg)	
Residential Land Use ESL (mg/kg)			83	83

STOCKPILE SAMPLES				
Area C Composite 1	9/2/2009	n/a	200	<1.0
Area C Composite 2	9/2/2009	n/a	85	<1.0
Area C Composite 3	9/2/2009	n/a	23	<1.0
Area C Composite 4	9/2/2009	n/a	40	<1.0
Area C Composite 5	9/2/2009	n/a	200	<1.0
Area C Composite 6	9/2/2009	n/a	220	<1.0

Area C Composite 10	9/3/2009	n/a	340	<1.0
Area C Composite 11	9/3/2009	n/a	490	<1.0
Area C Composite 12	9/3/2009	n/a	630	<1.0
Area C Composite 13	9/3/2009	n/a	510	<1.0
Area C Composite 14	9/3/2009	n/a	470	<1.0
Area C Composite 15	9/3/2009	n/a	380	<1.0

Area C preexisting stockpile	9/3/2009	n/a	1000	<1.0
Area C Composite 7	9/3/2009	n/a	970	1.9

AYC Site →

Area B stockpile composite	9/3/2009	n/a	490	10
----------------------------	----------	-----	-----	----

Area A stockpile composite	9/3/2009	n/a	1100	460
Area A stockpile composite 2	9/3/2009	n/a	2400	290
Area A stockpile composite 3	9/3/2009	n/a	240	210
Area A stockpile composite 4	9/4/2009	n/a	1100	1400

**Notes and Abbreviations:**

TPH-D= Total Petroleum Hydrocarbons as Diesel analyzed by EPA Method 8015B

TPH-G = Total Petroleum Hydrocarbons as Gasoline analyzed by EPA Method 8015B

mg/kg = milligrams per kilogram

NA = Not Analyzed

Area C Composites 8 and 9 were not analyzed by the laboratory at the direction of Ninyo & Moore

< X = concentration not detected above laboratory reporting limits of X

ESLs = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels - Table A Residential Land Use, Revised May 2008

**Bold** indicates concentrations detected greater than laboratory reporting limits

Shading indicates concentrations detected greater than the ESL.

ft bgs = feet below ground surface

**TABLE 8  
POST-EXCAVATION SOIL SAMPLE LABORATORY ANALYTICAL RESULTS  
CAM 17 METAL CONFIRMATION AND STOCKPILE SAMPLE ANALYTICAL RESULTS**

Sample ID	Sample Collection Date	Analyte (mg/kg)																	STLC Analysis
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	
		<b>Analytical Results (mg/kg)</b>																	<b>mg/L</b>
Area C Composite 1	9/2/2009	<2.0	<1.0	77	<1.0	<1.0	11	6.3	21	21	11	13	<1.0	<1.0	<1.0	30	53	<0.1	
Area C Composite 2	9/2/2009	<2.0	<1.0	66	<1.0	<1.0	17	7.5	27	43	11	21	<1.0	<1.0	<1.0	31	66	<0.1	
Area C Composite 3	9/2/2009	<2.0	<1.0	86	<1.0	<1.0	22	5	19	35	7.9	18	<1.0	<1.0	<1.0	26	54	0.22	
Area C Composite 4	9/2/2009	<2.0	<1.0	57	<1.0	<1.0	16	4.5	20	100	7.8	13	<1.0	<1.0	<1.0	25	49	0.18	1.6
Area C Composite 5	9/2/2009	<2.0	<1.0	50	<1.0	<1.0	9.4	9.2	37	28	14	8.7	<1.0	<1.0	<1.0	55	73	0.21	
Area C Composite 6	9/2/2009	<2.0	<1.0	57	<1.0	<1.0	21	7.3	25	31	12	15	<1.0	<1.0	<1.0	38	51	<0.1	
Area C preexisting stockpile	9/3/2009	<2.0	<1.0	61	<1.0	<1.0	11	6.1	26	41	15	11	<1.0	<1.0	<1.0	21	69	<0.1	
Area C Composite 7	9/3/2009	<2.0	<1.0	76	<1.0	<1.0	17	6.1	22	42	13	21	<1.0	<1.0	<1.0	27	60	<0.1	
Area B stockpile composite	9/3/2009	<2.0	2.3	120	<1.0	<1.0	23	7.2	18	85	11	30	<1.0	<1.0	<1.0	24	53	<0.1	1.3
Area A stockpile composite	9/3/2009	<2.0	1.6	93	<1.0	<1.0	26	9	20	13	12	33	<1.0	<1.0	<1.0	28	38	<0.1	
Area A stockpile composite 2	9/3/2009	<2.0	1.3	86	<1.0	<1.0	29	8.8	20	22	11	34	<1.0	<1.0	<1.0	26	50	<0.1	
Area A stockpile composite 3	9/3/2009	<2.0	1.8	96	<1.0	<1.0	23	6.5	15	18	8.6	28	<1.0	<1.0	<1.0	20	36	<0.1	
Area A stockpile composite 4	9/4/2009	<2.0	2	110	<1.0	<1.0	31	8.7	21	13	9.9	36	<1.0	<1.0	<1.0	26	43	<0.1	

**Notes and Abbreviations:**

mg/kg = milligrams per kilogram

ESLs = San Francisco Bay RWQCB Environmental Screening Levels - Table A Residential Land Use

**Bold** indicates exceedence of laboratory detection limit

\*Chromium and Arsenic ESLs are background ranges found by City of Oakland Background Metal Concentration Study

Ashland Youth Center Site →

TABLE 5

## PREVIOUS SITE INVESTIGATION SOIL VAPOR ANALYTICAL DATA - VOCs

Analyte	Sample ID					
	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6
	Analytical Results ( $\mu\text{g}/\text{m}^3$ )					
1,1-Dichloroethene	ND<2.0	ND<2.0	ND<40	ND<2.0	ND<2.0	ND<10
1,1,1,2-Tetrachloroethane	ND<3.4	ND<3.4	ND<34	ND<3.4	ND<3.4	ND<170
1,1,1-Trichloroethane	ND<2.7	ND<2.7	ND<41	ND<2.7	ND<2.7	ND<14
1,1,2,2-Tetrachloroethane	ND<3.4	ND<3.4	ND<52	ND<3.4	ND<3.4	ND<170
1,1,2-Trichloroethane	ND<2.7	ND<2.7	ND<52	ND<2.7	ND<2.7	ND<14
1,1-Dichloroethane	ND<2.0	ND<2.0	ND<34	ND<2.0	ND<2.0	ND<10
1,1-Difluoroethane	ND<27	ND<27	ND<1400	ND<27	ND<27	ND<140
1,2,4-Trichlorobenzene	ND<3.6	ND<3.6	ND<25	ND<3.6	ND<3.6	ND<180
1,2,4-Trimethylbenzene	ND<2.5	ND<2.5	ND<44	ND<2.5	ND<2.5	ND<120
1,2-Dibromoethane(Ethylene dibromide)	ND<3.8	ND<3.8	ND<54	ND<3.8	ND<3.8	ND<19
1,2-Dichlorobenzene	ND<3.0	ND<3.0	ND<30	ND<3.0	ND<3.0	ND<150
1,2-Dichloroethane	ND<2.0	ND<2.0	ND<32	ND<2.0	ND<2.0	ND<10
1,2-Dichloropropane	ND<2.3	ND<2.3	ND<51	ND<2.3	ND<2.3	ND<12
1,3,5-Trimethylbenzene	ND<2.5	ND<2.5	ND<34	ND<2.5	ND<2.5	ND<120
1,3-Butadiene	ND<4.4	ND<4.4	ND<30	ND<4.4	ND<4.4	ND<22
1,3-Dichlorobenzene	ND<3.0	ND<3.0	ND<18	ND<3.0	ND<3.0	ND<150
1,4-Dichlorobenzene	ND<3.0	ND<3.0	ND<33	ND<3.0	ND<3.0	ND<150
1,4-Dioxane	ND<1.8	ND<1.8	ND<25	ND<1.8	ND<1.8	ND<9
2-Butanone (MEK)	<b>13</b>	<b>11</b>	ND<22	<b>4.3</b>	<b>6.2</b>	ND<7.4
2-Hexanone	ND<2.0	ND<2.0	ND<43	ND<2.0	ND<2.0	ND<10
4-Ethyl Toluene	ND<2.5	ND<2.5	ND<37	ND<2.5	ND<2.5	ND<120
4-Methyl-2-Pentanone (MIBK)	ND<2.0	ND<2.0	ND<33	ND<2.0	ND<2.0	ND<10
Acetone	<b>59</b>	<b>95</b>	<b>610</b>	<b>86</b>	<b>54</b>	<b>460</b>
Benzene	<b>2</b>	ND<1.6	ND<45	ND<1.6	ND<1.6	ND<8
Bromodichloromethane	ND<3.4	ND<3.4	ND<44	ND<3.4	ND<3.4	ND<17
Bromoform	ND<5.2	ND<5.2	ND<88	ND<5.2	ND<5.2	ND<260
Bromomethane	ND<1.9	ND<1.9	ND<39	ND<1.9	ND<1.9	ND<9.7
Carbon Disulfide	ND<1.6	<b>4.60</b>	ND<25	ND<1.6	ND<1.6	ND<7.8
Carbon Tetrachloride	ND<3.2	ND<3.2	ND<47	ND<3.2	ND<3.2	ND<16
Chlorobenzene	ND<2.3	ND<2.3	ND<21	ND<2.3	ND<2.3	ND<120
Chloroethane	ND<1.3	ND<1.3	ND<20	ND<1.3	ND<1.3	ND<6.6
Chloroform	ND<2.4	ND<2.4	ND<98	ND<2.4	ND<2.4	ND<12
Chloromethane	ND<1.0	ND<1.0	ND<36	ND<1.0	ND<1.0	ND<5.2
cis-1,2-dichloroethene	ND<2.0	ND<2.0	ND<28	ND<2.0	ND<2.0	ND<9.9
cis-1,3-Dichloropropene	ND<2.3	ND<2.3	ND<18	ND<2.3	ND<2.3	ND<11
Dibromochloromethane	ND<4.3	ND<4.3	ND<47	ND<4.3	ND<4.3	ND<21
Dichlorodifluoromethane	ND<2.5	ND<2.5	ND<37	ND<2.5	ND<2.5	ND<12
Diisopropyl ether (DIPE)	ND<2.1	ND<2.1	ND<33	ND<2.1	ND<2.1	ND<10
Ethyl Acetate	ND<1.8	ND<1.8	ND<21	ND<1.8	ND<1.8	ND<9
Ethyl Benzene	ND<2.2	ND<2.2	ND<16	ND<2.2	ND<2.2	ND<10
Ethyl tert-butyl ether (ETBE)	ND<2.1	ND<2.1	ND<33	ND<2.1	ND<2.1	ND<10
Freon 113	ND<3.8	ND<3.8	ND<46	ND<3.8	ND<3.8	ND<19
Hexachlorobutadiene	ND<5.3	ND<5.3	ND<91	ND<5.3	ND<5.3	ND<270
Hexane	ND<14	ND<14	ND<90	ND<14	ND<14	ND<70
Isopropanol*	<b>27</b>	ND<16	ND<82	ND<16	ND<16	ND<82
m,p-Xylene	<b>11</b>	<b>17</b>	ND<25	<2.0	<b>11</b>	ND<100
Methylene Chloride	ND<3.6	ND<3.6	ND<34	ND<3.6	ND<3.6	ND<18
MTBE	ND<1.8	ND<1.8	ND<25	ND<1.8	ND<1.8	<b>50</b>
Naphthalene	ND<2.6	ND<2.6	ND<130	ND<2.6	ND<2.6	ND<130
o-xylene	ND<2.2	ND<2.2	ND<31	ND<2.2	ND<2.2	ND<110
Styrene	ND<2.1	ND<2.1	ND<32	ND<2.1	ND<2.1	ND<110
t-Butyl alcohol (t-Butanol)	ND<6.1	ND<6.1	ND<24	ND<6.1	ND<6.1	ND<30
tert-Amyl methyl ether (TAME)	ND<2.1	ND<2.1	ND<33	ND<2.1	ND<2.1	ND<10
Tetrachloroethene (PCE)	ND<3.4	ND<3.4	ND<64	ND<3.4	ND<3.4	ND<17
Toluene	<b>15</b>	<b>16</b>	ND<26	<b>3.2</b>	<b>19</b>	ND<9.4
trans-1,2-Dichloroethene	ND<2.0	ND<2.0	ND<28	ND<2.0	ND<2.0	ND<9.9
Trichloroethene	ND<2.7	ND<2.7	ND<26	ND<2.7	ND<2.7	ND<13
Trichlorofluoromethane	ND<2.5	ND<2.5	ND<35	ND<2.5	ND<2.5	ND<12
Vinyl Acetate	ND<1.8	ND<1.8	ND<32	ND<1.8	ND<1.8	ND<8.8
Vinyl Chloride	ND<1.3	ND<1.3	ND<12	ND<1.3	ND<1.3	ND<6.4

## Notes:

ND&lt; X = not detected, below laboratory reporting limit of X

 $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter

Soil gas samples analyzed using US EPA Method TO-15

\* indicates Isopropanol was used as a leak detection compound.

**Bold** indicates analysis above laboratory reporting limits

ATTACHMENT 5



**Table 1. Analytical Results of Selected Soil Vapor Samples - TPHg and VOCs**  
(Concentrations in  $\mu\text{g}/\text{m}^3$ )

Sample Location	Date	Depth (feet)	TPHg	Acetone	2-Propanol	Carbon Disulfide	Hexane	cis-1,2 Dichloroethene	Cyclohexane	2,2,4- Trimethylpentane	Benzene	Heptane	Trichloroethene (TCE)	Tetrachloroethene	m,p-Xylene
SV-1	4/6/2012	5	<160	28	<7.5	21	<2.7	<3.0	<2.6	<3.6	<2.4	<3.1	<4.1	<5.2	3.6
	5/4/2012		290	<18	<7.5	<9.5	<2.7	<3.0	<2.6	<3.6	<2.4	<3.1	<4.1	<5.2	<3.3
	6/6/2012		<150	<18	<7.3	<9.3	<2.6	<3.0	<2.6	<3.5	<2.4	<3.0	<4.0	<5.0	<3.2
	7/9/2012		<160	<18	<7.5	<9.5	<2.7	<3.0	<2.6	<3.6	<2.4	<3.1	<4.1	28	<3.3
SV-2	4/6/2012	5	---	---	---	---	---	---	---	---	---	---	---	---	---
	5/4/2012		1,700	<75	<31	<39	<11	<12	<11	<15	10	<13	<17	<21	<14
	6/6/2012		1,700	<19	11	<9.8	3.8	<3.1	<2.7	<3.7	6.3	<3.2	<4.2	23	<3.4
	7/9/2012		<160	<19	<7.9	<10	3.5	3.4	<2.8	<3.8	2.6	<3.3	<4.3	30	<3.5
SV-3	4/6/2012	5	<b>1,200,000</b>	<1,500	<620	<780	3,200	<250	2,900	69,000	<b>200</b>	790	340 J	<430	<270
	5/4/2012		<b>1,600,000</b>	<480	<200	<250	2,600	<80	<69	72,000 E	<64	720	<110	<140	<87
	6/6/2012		<b>1,100,000</b>	<1,900	<800	<1,000	2,000	<320	1,300	64,000	<260	<330	<440	<550	<350
	7/9/2012		<b>1,300,000</b>	<760	<320	<400	1,400	<130	730	66,000 E	<100	<130	<170	<220	<140
Residential Soil Vapor CHHSL <sup>1</sup>			10,000 <sup>2</sup>	660,000 <sup>2</sup>	NE	NE	NE	41,000	NE	NE	85	NE	1,300	470	850,000

1 California Human Health Screening Level (CHHSL) - Cal/EPA - September 2010

2 Environmental Screening Level (ESL) - SF Bay Regional Water Board - May 2008 - Table E2

< Not detected at or above laboratory reporting limit

J Laboratory approximate value

E Exceeds laboratory instrument calibration range

**BOLD** Concentration exceeds CHHSL or ESL

--- Probe not sampled due to water in the tubing

**Red** Indicates detection limit that exceeds screening level

**Table 1. Analytical Results of Selected Vent Riser Samples**  
(Concentrations in  $\mu\text{g}/\text{m}^3$ )

Sample Location	Date	TPHg	Benzene	Freon-12	Ethanol	Acetone	2-Propanol	Carbon Disulfide	Hexane	2-Butanone (Methyl Ethyl Ketone)	Cyclohexane	Heptane	4-Methyl-2-pentanone	Toluene	2-Hexanone	Ethyl Benzene	m,p-Xylene	o-Xylene	Styrene	Cumene	4-Ethyltoluene
V-1	7/18/2012	2,500	<2.5	<3.9	<6.0	230	<7.8	25	3.6	13	3.0	3.9	17	5.4	<13	3.5	3.4	<3.4	28	<3.9	<3.9
	9/18/2012	2,200	<38	<5.9	<9.0	79	<12	85	6.7	<14	<4.1	<4.9	<4.9	<4.5	<19	<5.2	<5.2	<5.2	<5.1	<5.8	5.9
V-2	7/18/2012	3,300	<2.5	<3.9	36	96	<7.8	23	4.8	13	<2.7	14	9	5.3	<13	5.9	8.3	3.7	42	<3.9	<3.9
	9/18/2012	3,800	<3.6	<5.7	<8.6	<27	<11	240	6.9	<14	4.1	<4.7	5	9.1	<19	<5.0	11	<5.0	11	<5.6	<5.6
V-3	7/18/2012	2,200	<2.5	160	<5.8	160	10	56	3	12	4.9	<3.2	18	7	<13	16	4.8	<3.4	140	7.3	<3.8
	9/18/2012	5,000	<3.7	<5.8	<8.8	880	22	190	8.4	45	4.6	7.7	24	4.4	38	13	19	12	75	<5.7	<5.7
V-4	7/18/2012	2,500	<2.5	3.9	<6.0	120	<7.8	20	5.0	13	7.5	3.3	5.1	3.3	<13	3.6	<3.4	<3.4	28	<3.9	<3.9
	9/18/2012	7,200	<3.6	<5.5	11	80	<11	92	5.7	<13	5	5	6.2	5.9	<18	<4.9	<4.9	<4.9	16	15	<5.5
V-5	7/18/2012	840	<2.5	<3.9	<6.0	26	<7.8	39	4.5	<9.3	4.2	<3.2	<3.2	3.8	<13	<3.4	<3.4	<3.4	18	<3.9	<3.9
	9/18/2012	5,000	<3.8	<5.9	<9.0	46	<12	110	11	<14	4.1	8.7	<4.9	8.9	<19	6.5	26	9.9	9.5	<12	<5.8
Residential Soil Vapor CHHSL <sup>1</sup>		10,000 <sup>2</sup>	85	NE	NE	660,000 <sup>2</sup>	NE	NE	NE	NE	NE	NE	NE	320,000	NE	1,100	850,000	740,000	190,000	NE	NE

- 1 California Human Health Screening Level (CHHSL) - Cal/EPA - September 2010
- 2 Environmental Screening Level (ESL) - SF Bay Regional Water Board - May 2008 - Table E2
- < Not detected at or above laboratory reporting limit
- NE Not Established

**Table 2. Analytical Results of Selected Vent Riser Vapor Samples - Oxygen, Methane, and Carbon**  
(Concentrations in %)

Sample Location	Date	Oxygen	Methane	Carbon Dioxide
V-1	7/18/2012	21	<0.00022	0.073
	9/18/2012	21	<0.00024	0.042
V-2	7/18/2012	20	<0.00022	0.075
	9/18/2012	15	<0.00023	0.023
V-3	7/18/2012	21	0.00031	0.039
	9/18/2012	20	<0.00023	0.074
V-4	7/18/2012	20	0.00022	0.047
	9/18/2012	20	0.00023	0.12
V-5	7/18/2012	21	0.00024	0.052
	9/18/2012	18	0.00025	0.097

TABLE 2  
GROUNDWATER ANALYSIS DATA

Well Number	Date sampled	TPHG (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	TPHD (ppb)	TRPH (ppb)	MTBE (ppb)
MW-1	4/9/96	33,000	12	83	22	91	9,700	N.R.	N/A
	7/12/96	1,400	17	5.6	7.6	32	3,400	N.R.	N/A
	10/22/96	2,600	16	8.9	2.1	6.8	14,000	N.R.	N/A
	1/30/97	2,600	6.4	<0.5	<0.5	44	2,800	N.R.	N/A
	4/4/97	2,700	16.0	8	10	25	600	N.R.	N/A
	7/22/97	180	1.1	<0.5	1.3	2.6	4,400	N.R.	N/A
	10/14/97	830	14.0	<0.5	<0.5	8	100	N.R.	N/A
	1/13/98	150	5.0	<0.5	<0.5	<0.5	<50	N.R.	N/A
	4/7/98	1,400	13	2	2	7	100	N.R.	<0.5
MW-2	4/9/96	6,800	<0.5	<0.5	4.8	160	3,900	N.R.	N/A
	7/12/96	480	<0.5	<0.5	3.7	10	4,600	N.R.	N/A
	10/22/96	7,300	<0.5	<0.5	20	15	9,200	N.R.	N/A
	1/30/97	<50	<0.5	<0.5	<0.5	<0.5	2,000	N.R.	N/A
	4/4/97	63	<0.5	<0.5	2	<0.5	60	N.R.	N/A
	7/22/97	70	<0.5	<0.5	<0.5	1.5	2,700	N.R.	N/A
	10/14/97	<50	<0.5	<0.5	<0.5	<0.5	10	N.R.	N/A
	1/13/98	<50	<0.5	<0.5	<0.5	11	<50	N.R.	N/A
	4/7/98	<50	<0.5	<0.5	<0.5	<0.5	<50	N.R.	<0.5
MW-3	4/9/96	<50	<0.5	<0.5	<0.5	<0.5	1,100	41,000	N/A
	7/12/96	<50	<0.5	<0.5	<0.5	<0.5	380	N.R.	N/A
	10/22/96	<50	<0.5	<0.5	<0.5	<0.5	4,700	1,100	N/A
	1/30/97	<50	<0.5	<0.5	<0.5	<0.5	460	3	N/A
	4/4/97	<50	<0.5	<0.5	<50	<50	<50	<500	N/A
	7/22/97	<50	<0.5	<0.5	<50	<50	<50	<5,000	N/A
	10/14/97	<50	<0.5	<0.5	<50	<50	<50	<10,000	N/A
	1/13/98	<50	<0.5	<0.5	<50	<50	<50	N.R.	N/A
	4/7/98	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5
BB-1	4/9/96	<50	<0.5	0.5	<0.5	0.83	N.R.	N.R.	N.R.
	7/12/96	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	10/22/96	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	1/30/97	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	4/4/97	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	7/22/97	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	10/14/97	<50	<0.5	<0.5	<0.5	<0.5	N.R.	N.R.	N.R.
	1/13/98	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	4/7/98	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.

TRPH Total Recoverable Petroleum Hydrocarbons  
TPHD Total Petroleum Hydrocarbons as Diesel  
TPHG Total Petroleum Hydrocarbons as Gasoline  
ppb Parts-per-billion  
< Below laboratory detection limit

Current Department of Health Services Drinking Water Standards  
Benzene  
Toluene  
Ethylbenzene  
Xylenes

Note: Subject to change as reviewed by Department of Health Services

MCL: Maximum Contaminant Level  
AL: Action Level

MW-3 is the only well within  
Ashland Youth Center site

ATTACHMENT 6



**Table 4 - Groundwater Sample Analytical Results for Volatile Organic Compounds**

Analytes	Sample ID										
	MW-1-GW	MW-2-GW	MW-3-GW	MW-4-GW	MW-5-GW	MW-6-GW	MW-7-GW	MW-8-GW	B-9-GW	B-10-GW	B-11-GW
	Analytical Results (µg/l)										
1,1,1,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	82	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	0.51	<0.5	0.58	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	3.1	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.51	<0.5	<0.5	0.51	<0.5	9.1	<0.5	<0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Isopropyltoluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.5	<0.5	<0.5	<0.5
Benzene	3	<0.5	<0.5	3.7	<0.5	11	<0.5	110	<0.5	<0.5	<0.5
Bromobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.84	<0.5	<0.5	1.7	<0.5	2.1	0.94	3.8	<0.5	<0.5	<0.5
Chloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.67	<0.5	<0.5
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 4 - Groundwater Sample Analytical Results for Volatile Organic Compounds**

Analytes	Sample ID										
	MW-1-GW	MW-2-GW	MW-3-GW	MW-4-GW	MW-5-GW	MW-6-GW	MW-7-GW	MW-8-GW	B-9-GW	B-10-GW	B-11-GW
	<b>Analytical Results (µg/l)</b>										
Ethylbenzene	1.3	<0.5	<0.5	<0.5	<0.5	0.71	<0.5	76	<0.5	<0.5	<0.5
Hexachlorobutadiene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	51	0.68	<0.5	20	1.8	20	<0.5	12	<0.5	<0.5	<0.5
m,p-Xylene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	190	<1.0	<1.0	<1.0
Methylene chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MTBE	<0.5	<0.5	<0.5	13	6.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	38	<0.5	<0.5	<0.5
n-Butylbenzene	27	<0.5	<0.5	7.9	<0.5	5.4	<0.5	7.2	<0.5	<0.5	<0.5
n-Propylbenzene	130	0.6	<0.5	42	2.3	32	<0.5	30	<0.5	<0.5	<0.5
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	<0.5	25	<0.5	<0.5	<0.5
sec-Butylbenzene	25	0.52	<0.5	12	0.94	7	<0.5	2.5	<0.5	<0.5	<0.5
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	1.9	<0.5	<0.5	1.2	0.51	0.57	<0.5	0.59	<0.5	<0.5	<0.5
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	0.64	<0.5	6.8	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

**Notes:**

µg/l = micrograms per liter

**bold** indicates value above the detection limit

< indicates values below detection limits

Samples analyzed using EPA Method 8260B

**TABLE 4  
PREVIOUS SITE INVESTIGATION GROUNDWATER SAMPLE ANALYTICAL DATA - PAHS**

Monitoring Well ID (toc elev)	Sample I.D.	Sample Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft msl)	Acenaphthene	Flourene	Naphthalene	Phenanthrene	Other PAHs
					← Analytical Results (µg/L) →				

*Monitoring Well Groundwater Samples*

<b>MW-1</b> 36.59	MW-1-GW	7/10/2007	8.22	28.37	0.52	0.63	ND<0.2	ND<0.2	ND
<b>MW-2</b> 37.33	MW-2-GW	7/9/2007	8.41	28.92	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND
<b>MW-3</b> 37.38	MW-3-GW	7/10/2007	8.11	29.27	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND
<b>MW-4</b> 36.77	MW-4-GW	7/10/2007	8.38	28.39	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND
<b>MW-5</b> 36.24	MW-5-GW	7/10/2007	8.21	28.03	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND
<b>MW-6</b> 37.15	MW-6-GW	7/9/2007	8.25	28.90	0.37	1.1	ND<0.2	1.1	ND
<b>MW-7</b> 36.82	MW-7-GW	7/10/2007	8.24	28.58	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND
<b>MW-8</b> 36.81	MW-8-GW	7/9/2007	8.16	28.65	ND<0.2	0.29	40	0.32	ND

**Notes and Abbreviations:**

PAHs = polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C-SIM

ft btoc= feet below top of casing

ft msl = feet above mean sea level

µg/L = micrograms per liter

-- = not analyzed, not available, not applicable

ND< X = not detected, below laboratory reporting limit of X

Ninyo & Moore

Project # 401314005

TABLE 1. MONITORING WELL GROUNDWATER ANALYTICAL DATA - TPH & VOCs - Former Holland Oil Facility, 16301 East 14th Street, San Leandro, California

Well ID (loc elev)	Sample Date	Depth to Groundwater (ft btoe)	Groundwater Elevation (ft msl)	TPH-d	Kerosene	TPH-g	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	1,4-Dichloro- benzene	Chloro- benzene	Isopropyl- benzene	n-Butyl- benzene	n-Propyl- benzene	sec-Butyl- benzene	tert-Butyl- benzene	Other VOCs		
																				Analytical Results (µg/L)	
MW-1 36.59	7/19/2007	8.22	28.37	1,100	800	1,700	3	ND<0.5	1.3	ND<1.5	ND<0.5	0.51	0.84	51	27.0	130	25	1.9	ND		
	10/13/2008	8.73	27.86	550	--	440	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	20	5.5	30	ND<1.0	ND<1.0	ND		
	1/22/2009	8.25	28.34	500	--	930	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	20	5.6	40	7.9	ND<1.0	Naphthalene (2.5); Vinyl acetate (40)		
	4/1/2009	7.41	29.18	ND<50	--	770	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	10	2.7	20	4.5	ND<1.0	ND		
	9/23/2009	8.84	27.75	2,200	--	910	0.6	ND<0.5	1	ND<1.0	ND<0.5	ND<1.0	0.9	35	23	78	14	1.4	ND		
MW-2 37.33	7/9/2007	8.41	28.92	210	94	93	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<0.5	0.68	ND<0.5	0.6	0.52	ND<0.5	ND		
	10/13/2008	9.04	28.29	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	1/22/2009	8.64	28.69	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Naphthalene (1.7)		
	4/1/2009	7.47	29.86	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Acetone (3.8)		
	9/23/2009						WELL DESTROYED														
MW-3 37.38	7/10/2007	8.11	29.27	62	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND		
	10/13/2008	8.77	28.61	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	1/22/2009	8.45	28.93	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	4/1/2009	7.39	29.99	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	9/23/2009	8.97	28.41	50	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND		
MW-4 36.77	7/10/2007	8.38	28.39	710	400	670	3.7	ND<0.5	ND<0.5	ND<1.5	13	0.51	1.7	20	7.9	42	12	1.2	1,2-Dichlorobenzene (0.51)		
	10/13/2008	8.89	27.88	660	--	470	2.9	ND<1.0	ND<1.0	ND<1.0	1.9	ND<1.0	1.7	10	5.3	30	ND<1.0	ND<1.0	Carbon disulfide (2); Naphthalene (1.4)		
	1/22/2009	8.39	28.38	400	--	350	1.1	ND<1.0	ND<1.0	ND<1.0	1.0	ND<1.0	1.3	6.9	2.3	10	4.0	ND<1.0	ND		
	4/1/2009	7.63	29.14	500	--	390	1.0	ND<1.0	ND<1.0	ND<1.0	1.6	ND<1.0	1.1	6.7	1.7	10	ND<1.0	ND<1.0	ND		
	9/23/2009	9.01	27.76	3,800	--	640	0.5	ND<0.5	ND<0.5	ND<1.0	0.9	0.8	3	16	11	53	11	1.1	1,2-Dichlorobenzene (0.7)		
MW-5 36.24	7/10/2007	8.21	28.03	380	170	170	ND<0.5	ND<0.5	ND<0.5	ND<1.5	6.9	ND<0.5	ND<0.5	1.8	ND<0.5	2.3	0.94	0.51	ND		
	10/13/2008	8.66	27.58	ND<50	--	70	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Acetone (4.9)		
	1/22/2009	7.91	28.33	200	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	4/1/2009	7.55	28.71	ND<50	--	80	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	9/23/2009	8.74	27.50	1,800	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND		
MW-6 37.15	7/9/2007	8.25	28.9	1,500	910	780	11	0.64	0.71	2.4	ND<0.5	9.1	2.1	20	5.4	32	7	0.37	1,2-Dichlorobenzene (0.58); 1,3-Dichlorobenzene (3.1); 2-Chlorotoluene (1.6)		
	10/13/2008	8.85	28.30	600	--	470	7	ND<1.0	ND<1.0	1.1	ND<0.5	6.3	1.6	10	2.8	20	ND<1.0	ND<1.0	1,3-Dichlorobenzene (2)		
	1/22/2009	8.43	28.72	600	--	550	6.3	ND<1.0	ND<1.0	ND<1.0	ND<0.5	3.4	1.0	6.9	1.3	10	2.3	ND<1.0	1,3-Dichlorobenzene (1.1); Vinyl acetate (20)		
	4/1/2009	7.41	29.74	ND<50	--	680	20	ND<1.0	ND<1.0	ND<1.0	0.9	ND<1.0	ND<1.0	6.1	1.2	9	ND<1.0	ND<1.0	ND		
	9/23/2009						WELL DESTROYED														
MW-7 36.82	7/10/2007	8.24	28.58	510	91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	0.94	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND		
	10/13/2008	8.75	28.07	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	1/22/2009	8.22	28.60	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	4/1/2009	7.65	29.17	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND		
	9/24/2009	8.97	27.85	1,000	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND		

MW-3 and MW-9 were within the Ashland Youth Center site



**Ninyo & Moore**

Project # 401314005

**TABLE 1. MONITORING WELL GROUNDWATER ANALYTICAL DATA - TPH & VOCs - Former Holland Oil Facility, 16301 East 14th Street, San Leandro, California**

Well ID (loc elev)	Sample Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft msl)	TPH-d	Kerosene	TPH-g	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	1,4-Dichloro- benzene	Chloro- benzene	Isopropyl- benzene	n-Butyl- benzene	n-Propyl- benzene	sec-Butyl- benzene	tert-Butyl- benzene	Other VOCs
				Analytical Results (µg/L)															
36.81 MW-8	7/9/2007	8.16	28.65	790	500	2,100	110	6.8	76	215	ND<0.5	ND<0.5	3.8	12	7.2	30	2.5	0.59	1,2,4-Trimethylbenzene (82); 1,3,5-Trimethylbenzene (30); 4-Isopropyltoluene (3.5)
	10/14/2008	8.69	28.12	500	--	390	50	1.4	10	23.2	ND<0.5	ND<1.0	2.6	3.3	ND<1.0	8.6	ND<1.0	ND<1.0	Naphthalene (4.9)
	1/23/2009	8.16	23.65	500	--	1,200	180	3.7	40	67.4	ND<0.5	ND<1.0	1.7	4.7	ND<1.0	8.9	ND<1.0	ND<1.0	1,2,4-Trimethylbenzene (30); 1,3,5-Trimethylbenzene (6.6); Naphthalene (20); Vinyl acetate (30)
	4/2/2009	7.43	29.38	ND<50	--	2,800	140	3.5	60	200	ND<0.5	ND<1.0	ND<1.0	4.4	ND<1.0	10	ND<1.0	ND<1.0	1,2,4-Trimethylbenzene (40); 1,3,5-Trimethylbenzene (10); Naphthalene (20);
	9/23/2009			WELL DESTROYED															
37.22 MW-9	10/14/2008	8.11	29.11	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	1/23/2009	7.69	29.53	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	6.75	30.47	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.32	28.90	ND<50	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
36.79 MW-10	10/14/2008	8.77	28.02	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	1/23/2009	8.25	28.54	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	7.25	29.34	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.82	27.97	ND<50	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
36.2 MW-11	10/14/2008	8.35	27.85	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Acetone (10); Carbon disulfide (2.4)
	1/23/2009	7.76	28.44	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	6.93	29.27	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.38	27.82	420	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	0.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
36.06 MW-12	10/14/2008	8.31	27.55	ND<50	--	110	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	1/23/2009	7.83	28.23	300	--	100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	7.27	28.79	ND<50	--	60	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.2	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.54	27.52	850	--	94	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND

**Notes and Abbreviations:**

VOCs = volatile organic compounds analyzed by EPA Method 8260B  
 loc elev = top of casing elevation in feet above mean sea level  
 ft btoc = feet below top of casing  
 ft msl = feet above mean sea level  
 TPH-d = total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B  
 Kerosene analyzed by EPA Method 8015B  
 TPH-g = total petroleum hydrocarbons as gasoline analyzed by EPA Method 8015B  
 BTEX = benzene, toluene, ethylbenzene, xylenes analyzed by EPA Method 8260B  
 MTBE = methyl tert butyl ether analyzed by EPA Method 8260B  
 µg/L = micrograms per liter  
 -- = not analyzed, not available, not applicable  
 ND-X = not detected, below laboratory reporting limit of X

**Table 3 - Groundwater Sample Analytical Results for Diesel, Gasoline, and Kerosene**

Sample ID	Analyte		
	DRO	GRO	Kerosene
Analytical Results (mg/l)			
MW-1-GW	1.1	1.7	0.8
MW-2-GW	0.21	0.093	0.094
MW-3-GW	0.062	<.05	<.05
MW-4-GW	0.71	0.67	0.4
MW-5-GW	0.38	0.17	0.17
MW-6-GW	1.5	0.78	0.91
MW-7-GW	0.51	<.05	0.091
MW-8-GW	0.79	2.1	0.5
B-9-GW	<.05	<.05	<.05
B-10-GW	<.05	<.05	<.05
B-11-GW	0.74	<.05	0.27

**Notes:**  
 mg/l = milligrams per liter  
 < indicates values below the detection limit  
 Samples analyzed using EPA Method 8015B



**Compliance  
&  
Closure, Inc.**

# EXPLORATORY BORING LOG

**Project Name:** Former Jack Holland Oil Company

**Boring No.** MW-3

**Date Drilled:** 4/1/96

**Project Number:** 12059-1

**Logged By:** GM

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
1			CL	Black <del>CLAY</del> CLAY, moist, stiff, visible oil in soil, slight odor.		
2						
3						
4						
5	MW-3-1	13		Grey green SILTY CLAY TO SANDY CLAY, moist, stiff, rare open rootholes, slight odor. <i>stabilized</i>	▼	2
6						
7						
8						
9						
10	MW-3-2	18		Dark grey <del>CLAY</del> CLAY, moist, stiff, medium plasticity, slight odor, some visible oil staining on soil surface.	▼	5
11						
12						
13						
14						
15	Terzaggi	11		Grey <del>CLAY</del> CLAY, moist, stiff, medium plasticity, less than 5% open rootholes		
16						
17				Yellow-brown sandy clay at 17 feet		
18						
19						
20						
21	Terzaggi	16				
22						

Bottom at 22 feet

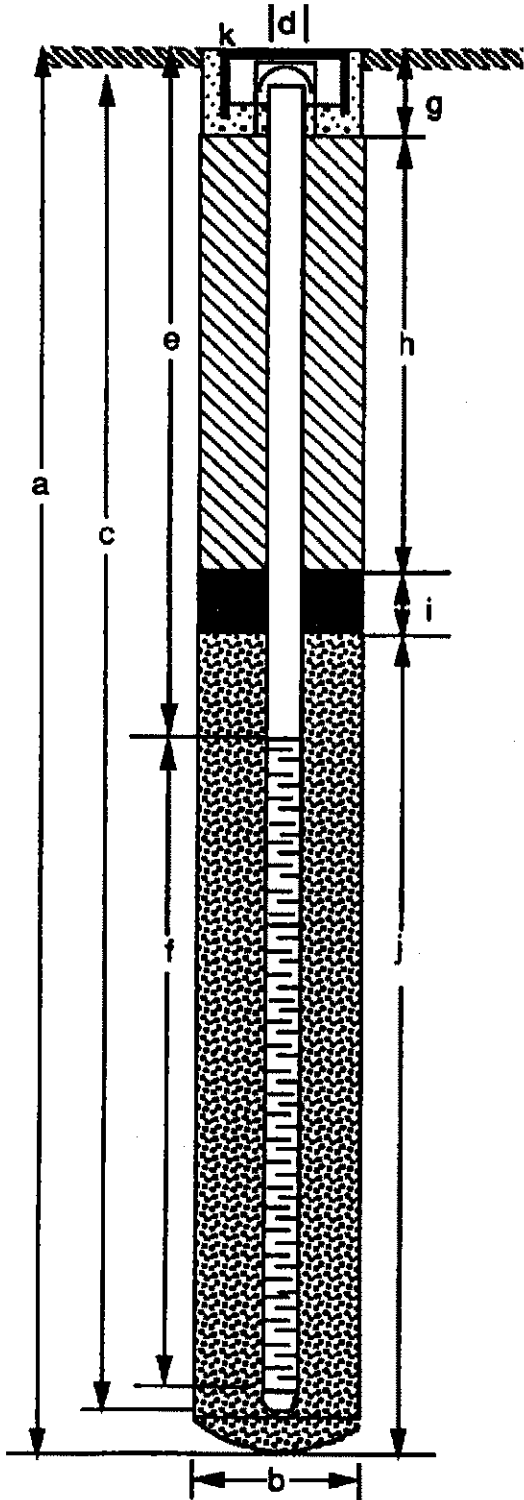
ATTACHMENT 7



**Compliance  
&  
Closure, Inc.**

# MONITORING WELL DETAIL

Project Number	<u>12059-1</u>	Boring/Well No.	<u>MW-3</u>
Project Name	<u>Former Jack Holland Oil Company</u>	Top of Casing Elev.	<u>37.37 feet</u>
County	<u>Alameda</u>	Ground Surface Elev.	<u>37.60 feet</u>
Well Permit No.	<u>96232</u>	Datum	<u>Mean Sea Level</u>



## EXPLORATORY BORING

- a. Total depth 22 ft.
- b. Diameter 8 in.
- Drilling method Hollow Stem Auger

## WELL CONSTRUCTION

- c. Casing length 22 ft.  
Material PVC Schedule 40
- d. Diameter 2 in.
- e. Depth to top perforations 7 ft.
- f. Perforated length 15 ft.  
Perforated interval from 22 to 7 ft.  
Perforation type Machine slot  
Perforation size 0.020 in.
- g. Surface seal 1 ft.  
Seal material Grout
- h. Backfill 4 ft.  
Backfill material Portland Cement
- i. Seal 1 ft.  
Seal material Bentonite
- j. Gravel pack 16 ft.  
Pack material Lonestar # 3
- k. Traffic rated, water tight vault box.

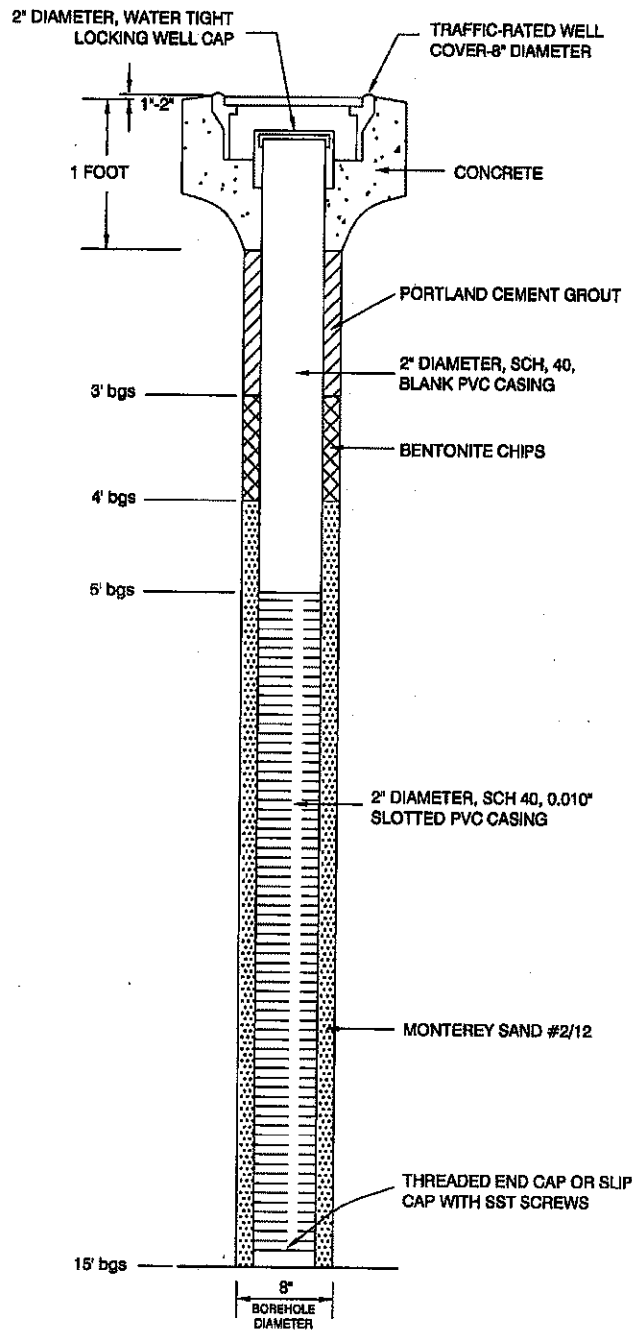
DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>10/1/08</u> BORING NO. <u>MW-9</u>	
	EMUL	DRIVEN							TOC ELEVATION <u>37.22' ABOVE MSL</u>	SHEET <u>1</u> OF <u>1</u>
									METHOD OF DRILLING <u>DIRECT PUSH</u>	
									DRIVE WEIGHT _____ DROP _____	
									SAMPLED BY <u>CRA</u> LOGGED BY <u>CRA</u> REVIEWED BY <u>KML</u>	
									DESCRIPTION/INTERPRETATION	
0						0		SC	<b>FILL:</b> Brown, dry, clayey gravelly SAND.	
						0		CL	<b>ALLUVIUM:</b> Dark brown, moist, dense silty CLAY.	
						0		CL	Brown, moist, dense silty sandy CLAY; fine sand.	
5						0		SM	Brown, moist, silty fine to medium SAND.	
						0		CL	Brown, moist, dense silty CLAY.	
						0		SM	Brown, saturated, silty fine to medium SAND.	
						0		CL	Brown, moist, dense silty CLAY.	
10						0		SM	Brown, saturated, silty fine to medium SAND.	
						0		CL	Brown, moist, dense silty CLAY.	
15						0		SM	Brown, saturated, silty fine to medium SAND.	
						0		CL	Brown, moist, dense silty CLAY.	
20									Total depth = 15 feet bgs. Groundwater encountered at approximately 8.5 feet bgs during drilling activities. Groundwater monitoring well installed 10/1/08. See MW-9 well construction diagram. Static groundwater measured at 8.11 feet below top of casing on 10/14/08.	



BORING LOG		
HOLLAND OIL - 16301 E. 14th STREET SAN LEANDRO, CALIFORNIA		
PROJECT NO. 401314002	DATE 11/08	FIGURE

MONITORING WELL NO: MW - 9

COMPLETION DATE: 10/1/08



NOT TO SCALE

TOTAL DEPTH = 15'

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

<b>Ninyo &amp; Moore</b>		<b>WELL CONSTRUCTION SCHEMATIC</b>		<b>MW-9</b>
PROJECT NO.	DATE	HOLLAND - OIL 16301 E.14th STREET SAN LEANDRO, CALIFORNIA		
401314002	11/08			

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>10/2/08</u> BORING NO. <u>SB-9</u>	
	Bulk	Disturbed							GROUND ELEVATION <u>37.34' ABOVE MSL</u>	SHEET <u>1</u> OF <u>1</u>
0								SC	<b>FILL:</b> Brown, damp, clayey gravelly SAND.	
						0		CL	<b>ALLUVIUM:</b> Black, moist, dense silty CLAY.	
						0		CL	Gray, moist, silty sandy CLAY; fine sand.	
5						0		CL	Gray, moist, silty sandy CLAY; fine sand.	
						0		SC	Gray, saturated, silty clayey fine to medium SAND.	
						0		CL	Brown, moist, silty CLAY.	
10						0		CL	Brown, saturated, silty, sandy CLAY; fine to medium sand.	
						0		SW	Brown, saturated, medium SAND.	
						0		CL	Brown, moist, silty, sandy CLAY; fine sand.	
15						0			Total depth = 15 feet bgs.  Groundwater encountered at approximately 8 feet bgs.  Boring tremie grouted with Portland cement on 10/2/08.	
20										

**Ninyo & Moore**

**BORING LOG**

HOLLAND OIL - 16301 E. 14th STREET  
 SAN LEANDRO, CALIFORNIA

PROJECT NO. 401314002	DATE 11/08	FIGURE
--------------------------	---------------	--------

DEPTH (feet)	Bulk Samples Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>10/2/08</u> BORING NO. <u>SB-10</u>		
								GROUND ELEVATION <u>37.72' ABOVE MSL</u> SHEET <u>1</u> OF <u>1</u>		
METHOD OF DRILLING <u>DIRECT PUSH</u>								DRIVE WEIGHT _____ DROP _____		
SAMPLED BY <u>CRA</u> LOGGED BY <u>CRA</u> REVIEWED BY <u>KML</u>								DESCRIPTION/INTERPRETATION		
0					0	SC	<b>FILL:</b> Light brown, dry, clayey gravelly SAND.			
					0	SM	Brown, damp, silty SAND; with organic materials.			
	X				0	CL	<b>ALLUVIUM:</b> Dark brown, moist, silty sandy CLAY; fine to medium sand.			
5	X				0	SW	Brown, moist, fine to medium SAND.			
					0	CL	Brown, moist, silty sandy CLAY; fine sand.			
					0	SP	Brown, moist, silty gravelly medium SAND.			
					0	SM	Brown, saturated, silty, clayey medium SAND.			
					0	CL	Dark brown, moist, dense silty CLAY.			
10	X				0	SW	Brown, saturated, fine to medium SAND.			
					0	CL	Brown, moist, silty sandy CLAY; fine sand.			
15					0		Total depth = 15 feet bgs.			
							Groundwater encountered at approximately 8.25 feet bgs.			
							Boring tremie grouted with Portland cement on 10/2/08.			
20										

**Ninyo & Moore**

**BORING LOG**

HOLLAND OIL - 16301 E.14th STREET  
SAN LEANDRO, CALIFORNIA

PROJECT NO. 401314002	DATE 11/08	FIGURE
--------------------------	---------------	--------



DEPTH (feet)	Bulk Driven	SAMPLES	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>10/2/08</u> BORING NO. <u>SB-11</u>		
									GROUND ELEVATION <u>38.20' ABOVE MSL</u> SHEET <u>1</u> OF <u>1</u>		
									METHOD OF DRILLING <u>DIRECT PUSH</u>		
									DRIVE WEIGHT _____ DROP _____		
									SAMPLED BY <u>CRA</u> LOGGED BY <u>CRA</u> REVIEWED BY <u>KML</u>		
									DESCRIPTION/INTERPRETATION		
0						73		SC	<b>FILL:</b> Brown, damp, clayey gravelly SAND.  Black, staining from 2.5 to 4 feet bgs.		
5						120		CL	<b>ALLUVIUM:</b> Black, moist, silty fine sandy CLAY.		
						276		CL	Gray, moist, dense, silty sandy CLAY; fine sand.		
10						546		SW	Gray, moist, fine to medium SAND.		
						630		CL	Gray, saturated, silty sandy CLAY.		
15						0		CL	Brown, moist, dense, silty CLAY.		
						0		CL	Brown, saturated, silty sandy CLAY; fine sand.		
						0		SW	Brown, saturated, medium SAND.		
20						0		CL	Brown, saturated, silty sandy CLAY; fine sand.		
									Total depth = 15 feet bgs.  Groundwater encountered at approximately 8 feet bgs.  Boring tremie grouted with Portland cement on 10/2/08.		

**Ninyo & Moore**

**BORING LOG**

HOLLAND OIL - 16301 E. 14th STREET  
SAN LEANDRO, CALIFORNIA

PROJECT NO.  
401314002

DATE  
11/08

FIGURE

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>10/2/08</u> BORING NO. <u>SB-12</u>	
								GROUND ELEVATION <u>37.55' ABOVE MSL</u> SHEET <u>1</u> OF <u>1</u>	
								METHOD OF DRILLING <u>DIRECT PUSH</u>	
								DRIVE WEIGHT _____ DROP _____	
								SAMPLED BY <u>CRA</u> LOGGED BY <u>CRA</u> REVIEWED BY <u>KML</u>	
								DESCRIPTION/INTERPRETATION	
0					76		SC	<b>FILL:</b> Brown, dry to damp, clayey gravelly SAND; dark staining.	
	X				0		CL	<b>ALLUVIUM:</b> Brown, moist, dense, silty sandy CLAY.	
					0		CL	Black, moist, dense silty CLAY.	
5	X				0		CL	Gray, moist, dense silty CLAY.	
					0		SM	Gray, moist, silty fine SAND.	
					0		CL	Gray, moist, silty sandy CLAY; fine sand.	
			X		0		SW	Gray, saturated, fine to medium SAND.	
10	X				0		CL	Dark brown, moist, dense, silty CLAY.	
					0		SM	Brown, saturated, silty fine to medium SAND.	
					0		CL	Brown, saturated, silty sandy CLAY; fine sand.	
15					0			Total depth = 15 feet bgs.	
								Groundwater encountered at approximately 9 feet bgs.	
								Boring tremie grouted Portland cement on 10/2/08.	
20									

**Ninyo & Moore**

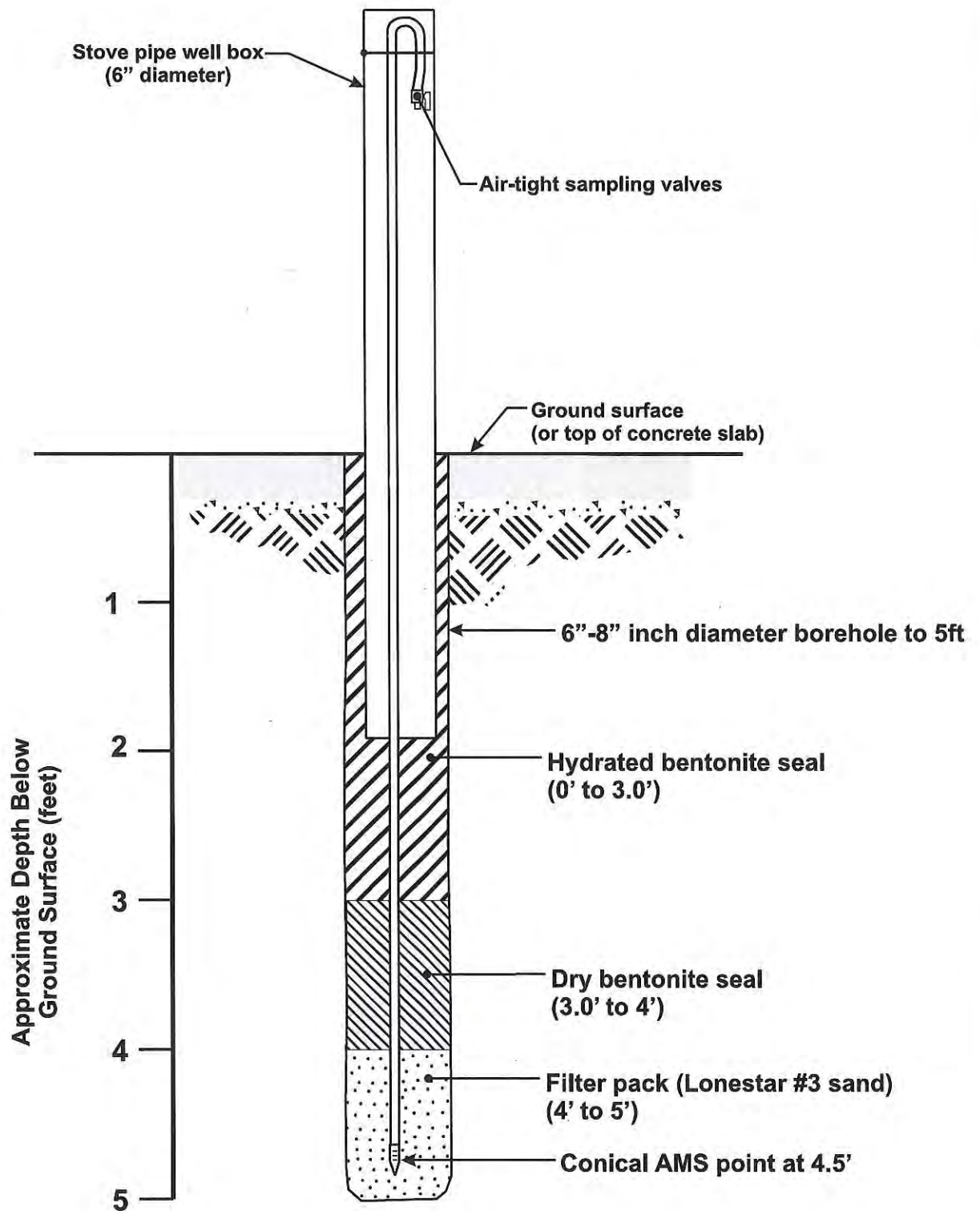
**BORING LOG**

HOLLAND OIL - 16301 E. 14th STREET  
SAN LEANDRO, CALIFORNIA

PROJECT NO.  
401314002

DATE  
11/08

FIGURE



**Soil Vapor Probe Construction Detail**

Not to Scale



Soil Vapor Probe Construction Detail  
 Ashland Youth Center  
 16335 East 14th Street  
 San Lorenzo, CA

Project Number	165-11-2
Figure Number	Figure 3
Date	April 2012
Drawn By	FL, RRN