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March 27, 2013

Mr. Jerry Wickham
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

c/o

Mr. Jeffery Cook
Peralta Community College District
Facilities Project Coordinator
Department of General Services
388 East 8th Street
Oakland, CA 94606

RE: Additional Soil and Groundwater Characterization Work Plan
Peralta Community College District Maintenance Yard, 501 5th Avenue, Oakland, California
Fuel Leak Case No. RO0000384, GeoTracker Global ID T0600100983
ACC Project Number: 6045.014.02

Dear Mr. Cook and Mr. Wickham:

ACC Environmental Consultants, Inc., (ACC) has prepared the enclosed Work Plan for additional soil and groundwater characterization at 501 5th Avenue, Oakland, California. The Work Plan was designed to obtain additional soil, soil vapor and groundwater data needed to support the pursuit of regulatory Site Closure and/or No Further Action status. In addition, this work Plan addresses the Technical Comments in the September 25, 2012 letter from Alameda County Health Care Services (Attached in Appendix A).

If you have any questions regarding the content of this Work Plan, please call (510) 638-8400, extension 110 or email isutherland@accenv.com.

Sincerely,

Ian Sutherland
Project Geologist

Enclosures

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Additional Soil and Groundwater Site Characterization Work Plan
Peralta Community College District Maintenance Yard
501 5th Avenue
Oakland, California

ACC Project Number 6045-014.02

Prepared for:

Mr. Jerry Wickham
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
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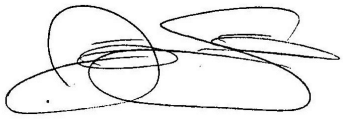
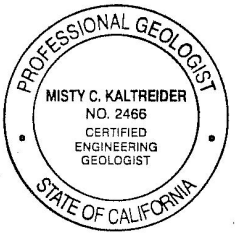
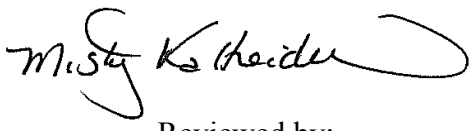


Julia Siudyla
Project Geologist





Reviewed by:
Misty C. Kaltreider, PG 7016, CEG 2466
Engineering Geologist

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1.0 INTRODUCTION

At the request of Peralta Community College District (Peralta), ACC Environmental Consultants, Inc. (ACC) has prepared this Work Plan to perform additional soil and groundwater site characterization. This Work Plan was designed to obtain additional soil, soil vapor and groundwater characterization to move the site towards regulatory closure. This work Plan specifically addresses the Technical Comments in the September 25, 2013 letter from Alameda County Health Care Services (Attached in Appendix A).

This investigation work plan is prepared for the express use of Peralta, its agents and employees and shall not be relied upon by third party interests unless written authorization is provided by Peralta and ACC. The information and or proposed scope of work included in this work plan may be required to be submitted and approved to regulatory agencies overseeing work. This work plan is not intended to be used as a specification to address items outside the scope of this document or to provide guidance for remedial activities unless otherwise stated.

1.1 Background

The Site is located at 501 5th Avenue in Oakland, California (Figure 1). The Peralta Community College District Maintenance Yard currently occupies the Site. The table below summarizes the known USTs that have been historically located at site (no known USTs currently occupy the site):

UST #	Size in Gallons	Contents	Year Installed/Removed From Ground	Construction
D1	4,000	Gasoline	Installed in 1981/Removed from Ground in 1993	Fiberglass
D2	6,000	Gasoline		Fiberglass
D3	6,000	Gasoline		Fiberglass
D4	2,000	Diesel	Installed Prior to 1960/ Abandoned in place1981/ Removed from Ground in 1992	Unknown
D5	6,000	Gasoline		Unknown
D6	6,000	Gasoline		Unknown
D7	2,000	Gasoline/Premium		Unknown
D8	550	Waste Oil		Unknown
T1	1,115	Motor oil	Unknown Installation Date/Removed from Ground in 1995-1996	Unknown
T2	523	Diesel/Bunker Fuel		Unknown
T3	7,000	Diesel		Unknown
T4	7,000	Gasoline	Unknown Installation Date/Removed from Ground in 1998-1999	Unknown

Five underground storage tanks (D4, D5, D6, D7, and D8) were installed prior to the 1960's at the Site. These original five (5) tanks were used for storage of fuel and waste oil for the City of

Oakland Corporation Yard (historical occupant of the subject property 1960's through the 1980's). The tanks consisted of two 6,000-gallon gasoline tanks, one 2,000-gallon diesel tank, one 2,000-gallon ethyl (premium) gasoline tank, and one 550-gallon waste oil tank. In 1980 Peralta Community College District acquired the property. In 1981 the District abandoned the existing five (5) underground tanks by filling with them with water and installed three (3) new fiberglass underground storage tanks. The three (3) new tanks (D1, D2 and D3) consisted of two 6,000-gallon and one 4,000-gallon fiberglass tanks to store gasoline fuel. The new tanks were installed approximately 150 feet from the original tanks.

In September 1992 (ACC Tank Closure Report dated October 9, 1992), the five original (D4, D5, D6, D7, and D8) underground storage tanks were removed. During the excavation a floating brown liquid was observed on the groundwater within the excavation. Approximately 2,400-gallons of water was pumped out of the excavation and disposed of under manifest. The USTs were found to be in good condition and no holes were observed in the tanks. During removal, a total of eight soil samples and one grab groundwater sample were collected from the excavation. Laboratory analysis of the soil samples indicated up to 228 parts per million (ppm) of Total Petroleum Hydrocarbons (TPH) as diesel, 134 ppm of TPH as gasoline, 2,407 parts per billion (ppb) benzene, 4,617 ppb toluene, 7,170 ppb ethylbenzene, 6,147 ppb total xylenes and 5,477 ppm oil and grease. Laboratory analysis of the water samples collected from the excavation indicated 170 ppm TPH as diesel, 15 ppm TPH as gasoline, 286 ppb benzene, 698 ppb toluene, 300 ppb ethylbenzene, 808 ppb total xylenes and 284 ppm oil and grease.

In September 1992, a preliminary study was performed by Environ of Emeryville to evaluate the soil and groundwater conditions on the site and on neighboring sites. This study indicated that hydrocarbons constituents were found in the soil and grab groundwater samples conducted at the site. This report indicates that two possible groundwater plumes impacted by BTEX and petroleum hydrocarbon constituents are located beneath the maintenance yard portion (western parcel) of the site located to the west of 7th Street and beneath the athletic field (eastern parcel) located to the east of 7th Street (see Figure 2). This study indicated that the hydrocarbon constituents are present beyond the tank excavation and may have resulted from alternate, unknown sources.

In November 1992, ACC performed a subsurface environmental site assessment of the soil around the former tank excavation (Tanks D4, D5, D6, D7, and D8). Petroleum hydrocarbons as gasoline and motor oil were detected in the soil and groundwater samples collected from the borings. Laboratory analysis of the soil indicated up to 370 ppm of TPH as gasoline, 12 ppm TPH as diesel, 5,342 ppm motor oil, 76.94 ppm benzene, 73.9 ppm toluene, 30.4 ppm ethylbenzene, and 95.41 ppm xylenes.

In November 1993, three additional fiberglass underground gasoline tanks (D1, D2, and D3) were removed from the property by ACC. During the initial excavation a strong hydrocarbon odor and a sheen on the groundwater was observed. Soil Samples collected from the excavation indicated up to 1.3 ppm TPH as gasoline, 190 ppb benzene, and 18 ppb toluene. Initial groundwater samples collected from the excavation indicated 27 ppm TPH as gasoline, 1,200 ppb benzene, 5,100 ppb toluene, 690 ppb ethylbenzene and 5,700 ppb xylenes. Approximately

3,500 gallons of water was removed from the excavation. Analysis of subsequent groundwater samples form the excavation indicated 210 ppb TPH as gasoline, and 14 ppb xylenes. Due to the detectable levels reported in the soil and groundwater onsite, additional groundwater investigations were requested from the regulatory agencies.

In February 1994, four soil borings (MW-1, MW-2, MW-3 and MW-4) were drilled onsite by ACC and converted into 2-inch monitoring wells. The monitoring wells were used to evaluate the extent of groundwater impact from the two former excavations associated with the removal of tanks D4, D5, D6, D7, and D8. Laboratory analysis of the groundwater samples collected in February 1994 from monitoring wells MW-1 and MW-4 (down gradient from the tank excavations) indicated below detectable levels of the constituents evaluated. The groundwater results from monitoring well MW-1 indicated a down-gradient extent of groundwater impact. Laboratory analysis of groundwater collected from monitoring wells MW-2 and MW-3 (up-gradient of the former tank excavations) indicated detectable levels of constituents. Samples collected from boring MW-2 and MW-3 indicated detectable levels of TPH as diesel, TPH as gasoline with BTEX. Motor oil was reported in the soil from boring MW-2. However, motor oil was not detected in the groundwater sample from monitoring well MW-2. TPH as diesel was only detected in the soil from boring MW-2.

An additional soil and groundwater investigation was conducted on May 9, 1994 (ACC Additional Subsurface Report Dated June 1994) to evaluate possible up-gradient sources onsite. The investigation included drilling five borings up-gradient (east) of existing monitoring wells MW-2 and MW-3. Laboratory analysis of the soil samples collected during the additional investigation indicated detectable levels of diesel up to 11 ppm and motor oil up to 100 ppm. Below detectable levels of TPH as gasoline and BTEX were reported in the soil samples analyzed. Groundwater was encountered approximately 5 to 6 feet below ground surface (bgs) during the additional investigation. Laboratory analysis of grab groundwater samples collected from the boreholes indicated below detectable levels of diesel, motor oil, and BTEX. TPH as gasoline at 61 parts per billion (ppb) was reported in one grab groundwater sample. Motor oil was not detected in the groundwater samples collected from the borings and monitoring wells, therefore motor oil does not appear to impact the groundwater. Results of the analytical data from previous investigations indicate that up-gradient sources of TPH and motor oil exist. Fine-grain fill material and Bay Mud appear to restrict the mobility of the petroleum hydrocarbons from impacting groundwater. However, groundwater flow direction data suggest that constituent movement is to the westerly direction, away from monitoring wells MW-2 and MW-3.

September 1994 ACC Quarterly Groundwater Sampling indicated below detectable levels of petroleum hydrocarbons in MW-1 and MW-4 and detectable concentrations of petroleum hydrocarbons in MW-2 and MW-3.

May 4, 1995 ACC Quarterly Groundwater Sampling indicated below detectable levels of petroleum hydrocarbons in MW-1 and detectable concentrations of petroleum hydrocarbons in MW-2, MW-3, and MW-4.

May 9, 1996 ACC Remedial Action and Underground Storage Tank Closure Report indicated that over excavation in and around the former tank excavation was recommended as a cost effective means to remediate the source of impact remaining at the Site. In addition, three previously unknown USTs were removed from the Site. One previously unknown UST was left in place due to its proximity to onsite buildings. Based on the soil sampling preformed during this remedial action, impact to shallow soil and groundwater was evident. Soil not removed during this remedial action was left in place due to subsurface utilities and buildings within the area. Remedial activates during this event included the removal of approximately 2,250 cubic yards of impacted soil, removal of approximately 14,900 gallons of pit water and the removal of three (3) previously unknown USTs. ACC indicated that with the removal of the USTs and the soils in the adjacent vicinity, the bulk of the source of impact was mitigated. Quarterly groundwater monitoring was reinstated after this event.

May 20 and November 8, 1996 ACC Quarterly Groundwater Monitoring events, these events document the initial groundwater monitoring conducted after interim remedial action was preformed in 1995. Results of the groundwater monitoring indicated that groundwater flow direction was consistent with previous sampling events, that the groundwater gradient had become slight steeper compared with previous events and detectable concentrations of petroleum hydrocarbons were found in MW-1 and MW-3. The concentrations of TPHg had increased since the previous sampling event conducted prior to remedial action. Remedial actions conducted appeared to influence groundwater flow and constituents movements.

Additional groundwater monitoring and sampling events conducted in January 1997 and Febuary 1998 indicated that groundwater flow direction is to the west, consistent with prior sampling events. Overall, the gasoline constituents concentrations in the groundwater decreased over time whereas the diesel and motor oil fluctuated in select wells.

On March 30, 1998 ACC (Monitoring Well Destruction Report) destroyed monitoring well MW-3 in preparation for additional over-excavation and removal of the remaining UST. This well was destroyed by over drilling and removing all well materials and backfilling the hole with bentonite.

June 10, 1999 ACC UST and Remedial Action Report indicated that interim remedial action included the removal of the remaining UST, source removal and excavation of approximately 2,209 tons of impacted soil and treatment of approximately 100,000 gallons of groundwater. ACC concludes that with the removal of the UST, surrounding impacted soil and groundwater resulted in mitigation of residual source of impact and the remaining residual petroleum hydrocarbons should degrade naturally over time. Based on the findings, observations and analytical results of verification samples, no further investigation with regards to the extent of soil impact was recommended.
August 23, 1999 ACC Groundwater Monitoring Report indicated that minor concentrations of TPH as diesel were detected in MW-1. The concentrations of motor oil we no longer present above laboratory detection limits. No TPHg, BTEX or MtBE were detected above the reporting limits in MW-1. No groundwater flow or gradient could be calculated as only two wells remain at the site. ACC requested regulatory site case closure.

July 2012 ACC conducted a soil and groundwater characterization investigation at the site. This investigation included the areas around the former USTs on the western parcel and the areas near the athletic fields on the eastern parcel. A total of sixteen (16) soil borings advanced to a total depth of 24 feet bgs, were conducted in an effort to delineate the extent of soil and groundwater impact at the Site. All but two (2) of these boring were conducted on the western parcel. A total of thirty-four (34) soil samples and seventeen (17) soil samples were collected and analyzed from these sixteen soil boings. In addition, nine (9) soil vapor samples were also collected from the western parcel.

Soil samples in the western parcel indicated; the southern, western, and eastern extent of residual impacts were defined as borings ACC-B-1 through B5, ACC-B-8, and ACC-B-13 whereas, no detectable concentrations of constituents above the Bay Area Regional Water Quality Control Board Environmental Screening levels (ESLs). Boring ACC-B-7 completed within the former tank excavation reported the residual impact and sheen on the water. Additionally, boring ACC-B-12 reported residual impacts at shallow depths (2-3') but no other signs of residual contamination were detected. Boring ACC-B-14 reported residual impacts of gasoline range organics (GRO), Ethylbenzene, and total xylenes below 17-18 feet bgs above their respective ESLs and Risk-Based Screening Levels (RSLs) for Ethylbenzene.

Soil samples in the eastern parcel indicated; the two borings completed (ACC-B-16 and B-17) reported signs of impact at 14 to 19.5 feet bgs. Samples reported concentrations of residual diesel range organics (DRO) and motor oil range organics (TPHmo) above their respective ESLs. In addition, elevated concentrations of lead were reported in the soil up to 480 mg/Kg (B16 at 14-15 feet bgs).

Groundwater sampling indicated that samples ACC-B-1 through B-3, ACC-B-4 (DEEP), ACC-B-8 and B-9, ACC-B-11 through B-13 report no detectable concentration of constituents above the ESLs.

The southern extent of the residual impact is defined in the eastern parcel, as boring ACC-B-16 reported no detectable concentration of constituents above the ESLs.

Groundwater samples collected were highly turbid. Elevated concentrations of lead were reported in select shallow groundwater samples and likely attributed to the precipitate from the sediment in the turbid samples and may not represent lead concentrations in groundwater.

Soil vapor sample ACC-SV-1 did not have detections of any target constituents. Elevated leak detection compound 1,1-Difluoroethane (1,1-DFA) was identified in this sample indicating a possible leak of ambient air. Acetone was reported in all vapor samples and chloroform was identified in 4 vapor samples and considered a potential laboratory-introduced compound since acetone and chloroform are not considered target constituents from the former UST releases. Samples ACC-SV-6 and ACC-SV-8 reported detections of constituents of concern including, toluene, MIBK. benzene and xylenes however, none exceeded their respective RBSLs.

Previous sample locations are provided on Figure 3- Historical Sample Location Map.

All historical soil sampling data is provided on Table 1-Historical Soil Data.

All historical groundwater sampling data is provided on Table 2-Historical groundwater Data.

1.2 Subsurface Conditions

The site is located in the East Bay Plain of the Coastal Range physiographic province. The East Bay Plain is an area composed of flat alluvial lowland san bay and tidal marshes lying between the bedrock hills of the Diablo Range to the east and San Francisco bay to the west. Geologic material underlying the plain are classified as consolidated and unconsolidated. The presence of consolidated material beneath the site are estimated are estimated to begin at a depth of about 1,000 feet below the ground surface and are not considered to be aquifers. The unconsolidated materials, present from ground surface and to a depth of approximately 1,000 feet below ground surface, contain the groundwater aquifers of the East Bay Plain. These materials consist of a heterogeneous mixture of clay, slit, sand and gravel mainly derived by erosion from the Diablo Range.

Based on the boring and well logs for MW-1, MW-2, MW-3 and MW-4 on the western parcel, the lithology appears to consist of light brown silty gravel and clayey gravel to one foot below ground surface (bgs). Below 1-foot bgs to approximately 15 feet bgs soils consist of dark greenish grey to black clay, slightly plastic, soft and saturated. Groundwater in these borings was encounter during drilling at approximately 3 to 7 feet bgs.

Groundwater flow at the site was measured during quarterly monitoring events at the Site from 1994-1998 and was typically reported to flow to the west towards San Francisco Bay. Groundwater elevation at the site ranged from -0.27 to 4.71 during monitoring events.

2.0 PROPOSED SCOPE OF WORK

At the request of Peralta Community College District (Peralta), ACC Environmental Consultants, Inc. (ACC) has prepared this Work Plan to perform additional soil and groundwater site characterization. This Work Plan was designed to obtain additional soil, soil vapor, and groundwater characterization to move the site towards regulatory closure. This work Plan specifically addresses the Technical Comments in the September 25, 2013 letter from Alameda County Health Care Services (Attached in Appendix A). In the July 2011 workplan ACC proposed a two-phased approach, which included the initial soil and groundwater characterization, summarized above in Section 1.1 followed by the installation of several groundwater monitoring wells. However, based on Phase I it is clear that the installation of a well on the western parcel is not deemed necessary and the installation of groundwater monitoring wells on the eastern parcel is premature at this point. Based on the limited data collected to date ACC concurs with ACDEH's recommendation for additional investigation of the eastern parcel.

2.1 Technical Comment Response

1. **Leak Detection for Soil Vapor Samples.** The Report indicates that 100% tetrafluoroethane was used as the leak detector tracer gas at each sample location. However, leak detection results are not discussed in the narrative of the Report and tetrafluoroethane does not appear as an analyte in the Analytical Results in Appendix A. The compound 1,1-difluoroethane was detected in two of the soil vapor samples. We request that you provide a discussion of leak detection results and data quality for the soil vapor samples. This discussion and responses to technical comments 1 through 5 can be provided as a separate section of the Work Plan requested below.

Response: *The indication of 100% tetrafluoroethane in the site characterization report was an error and the actual leak detection compound was 1,1-Difluoroethane. The Leak detection compound (1,1-Difluoroethane) concentrations in soil vapor samples ranged from less than reporting limit to 6,814 ppbv (18,400 µg/m^3) in ACC-SV-1. The detection limit for SV-1 was increased due to the elevated leak detection compound identified. Based on the elevated leak detection constituent reported, this sample has a probable leak and therefore not valid for the soil vapor evaluation.*

Detectable concentration of leak detection chemical was also identified in sample ACC-SV-2 up to 3,520 µg/m3 (1,303.7 ppbv). This concentration indicates an approximately leak of 0.0013% indicating a probable leak of air.

Detectable concentrations of the 1,1-Difluorethane was identified in vapor samples ACC-SV-4, and SV-9 at 5.83 µg/m3 (2.16 ppbv) and 138 µg/m3 (51.11 ppbv), respectively. These concentrations indicated that less than 0.0005% of the sample volume consisted of leaked air; therefore, the reported constituent concentrations are likely representative of in-situ conditions.

Several fuel-related chemicals (including benzene and toluene) were detected in the samples ACC-SV-6 and ACC-SV-8; however, these constituents were reported below the CHHSLs and ESLs. No other fuel-related chemicals were reported above analytical reporting limits in samples SV-4, and SV-9. Overall, due to the low concentrations of the leak detection gas identified in SV-4 and SV-9, these locations likely indicate that minimal impact from any fuel-related release.

The detection of fuel-related COCs at ACC-SV-6 and SV-8 validate the selection of these locations. The absence of leak detection gas in these soil vapor samples indicates the samples are valid. The sample results indicate COC concentrations are below residential risk levels. With the exception of SV-1, acetone was reported in the vapor samples collected. It is suspected that acetone is a lab-introduced contaminant and not associated with suspected constituents from a site release since it was reported in 8 of the vapor samples.

Additional vapor sampling shall be conducted utilizing the following protocol: Sampling shall

be conducted at a rate of 50 ml/min and collected with varying amounts of time allowing a small net vacuum to remain in each sample canister at the end of the sample cycle. An ambient air sample (AA-1) shall be collected using a 6-liter Summa canister with a flow regulator set at a higher flow rate of 100 ml/min. The larger sample size of AA-1 allows for lower reporting limits of the COCs. The collection times and remaining vacuum of each summa canister shall be recorded onto chain of custody forms. The samples shall be delivered to the laboratory within 24 hours after the time of collection.

2. **Dilution Factors.** For soil vapor sample SV-1, the analytical results indicate a dilution factor of 50. In the Work Plan requested below, please identify the known or suspected reason for the dilution factor.

Response: *As indicated above, the elevated detection limit in SV-1 is likely due to the increase leak detection chemical in the sample.*

3. **Analytical Methods for Soil Vapor Samples.** In the conditional Work Plan approval letter dated August 15, 2012, ACEH requested that the soil vapor samples be analyzed for Total Petroleum Hydrocarbons as gasoline using Method TO-15 or 8260 and oxygen, methane, and carbon dioxide by ASTM 1946. It does not appear that these analyses were performed. These data would have been useful in helping to evaluate the items described in the technical comments above and would have provided supporting data for consideration of low-threat closure. In the Work Plan requested below, please indicate the reason or rationale for not collecting these data.

Response: *The lack of analysis for TPH as gasoline, oxygen, methane and carbon dioxide was an oversight on ACC's behalf. ACC proposes to collect two (2) additional soil vapor samples. The newly proposed soil vapor samples will be placed near SV-2 and SV-3. These soil vapor samples will be analyzed for TPH as gasoline and VOCs by TO-15, oxygen, methane, and carbon dioxide by ASTM 1946.*

4. **Sub-Slab Vapor Sampling Methods.** The Report indicates that the sub-slab vapor samples were collected in accordance with relevant guidance documents. In the Work Plan requested below, please provide a description of the sampling methods used and data quality.

Response: *The following sampling methods were used at the soil vapor sampling points:*

A 2 to 4-inch core was drilled at each of the soil vapor sampling points. A 0.25-inch vapor point consisting of polyethylene tubing with a permeable probe tip was inserted sub-slab, approximately 5-inches below ground surface in each of the cored holes. A Teflon™ disk was used to seal the joint between the tubing and the probe tip. The probe tip was covered with sand and hydrated bentonite chips were used to seal the annular air space between the probe tip and the ground surface or to the bottom of the building foundation (if possible).

Prior to sampling, each soil vapor point was allowed to equilibrate for approximately 120

minutes. During sample collection at each sampling point, ACC purged vapor from the tubing, probe tip, and sand pack within the soil gas probe. Each sample point was purged for 30 seconds prior to sampling.

At the completion of purging, ACC collected soil vapor samples by opening the vapor-tight valve on each Summa canister, allowing the canister to fill with extracted soil vapor. ACC record the vacuum at the time the valve was opened, monitored, and recorded the vacuum during sample collection. ACC utilized 1,1-Difluorethane as the leak detector tracer gas at each sample location. The tracer compound was gently applied at the surface where air could enter the soil vapor probes (i.e. at the top of the probe) and at all the connections of the sampling train when the sampling starts. ACC ended sample collection when the vacuum within the sample canister reached approximately -5-inches Hg. All soil vapor sample containers were labeled and stored at ambient temperature in laboratory-supplied containers. All Soil Vapor Samples were submitted to Torrent Laboratories for volatile organic compound analysis (VOCs) via EPA method TO-15 Analysis.

Upon completion of the sampling program each location was decommissioned by grouting and sealing with concrete.

Although, the Leak detection compound (1,1-Difluoroethane) concentrations in soil vapor samples. The concentrations of leak detection compound indicated that less than 0.0005% of the sample volume consisted of leaked air in samples SV-4 and SV-9; therefore, the reported constituent concentrations are representative of in-situ conditions. Elevated concentrations leak-detect chemical was reported in Samples SV-1 and SV-2 indicating a probable leak of air in these samples. Several fuel-related chemicals were detected in the samples ACC-SV-6 and ACC-SV-8; however, these were below the CHHSLs and ESLs. No other detections on VOCs related to petroleum constituents were detected in any of the soil vapor samples collected. Based on this information ACC does not believe additional soil vapor sampling for TO-15 analysis is necessary at the site, with the exception of SV-1 and SV-2. A probable leak of SV-1 and SV-2 make the results of these samples suspect. Therefore, resampling of these sample locations is recommended.

5. Grab Groundwater Sampling Methods. In the Work Plan requested below, please provide clarification that grab groundwater samples were not filtered in the field using a 0.45 micron filter.

Response: *None of the grab groundwater samples collected from the site during the 2012-sampling event were filtered in the field.*

2.2 Additional Soil and Groundwater Characterization

2.2.1 Further Investigation of Plume A (Western Parcel)

To further delineate Plume A, ACC proposed to collect three (3) additional soil vapor samples to address the data gaps from the previous soil vapor sampling results.

Proposed sample locations are provided on Figure 4A-Proposed Sample Location Map

2.2.2 Delineation of Plume B (Eastern Parcel)

To further delineate the extent of Plume B, and to obtain current data ACC proposes to advance nine exploratory soil borings with Geoprobe™ equipment to depth of 24 feet bgs or first encountered groundwater. If the bottom of the soil boing has obvious signs of impact in the soil (odor or discoloration), ACC will continue the boring until signs of impact are no longer present to a maximum depth of 50 feet bgs.

ACC proposes to collect up to thirty (54) soil samples from the nine soil boring locations on the eastern parcel. The soil samples will either be collected at 4-foot intervals, at the soil/groundwater interface, lithologic changes, or areas depicting field impact. In addition, ACC proposes to collect one grab groundwater sample from each boring, if encountered

Proposed sample locations are provided on Figure 4B-Proposed Sample Location Map. It should be noted that the Bart Train runs under the eastern parcel and that the sample locations will be placed upon clearance of all subsurface utilities.

2.4 GeoTracker Compliance

The site will be claimed in GeoTracker and all available reports will be electronically uploaded to GeoTracker and the Alameda County Environmental Cleanup Oversight Program FTP site.

3.0 SAMPLING METHODS

3.1 Soil Sampling Standard Procedures for Geoprobe™ Drilling and Sampling

A total of nine soil borings will be conducted at the Site with a Portable Geoprobe™ Sampling Rig. The Geoprobe Rig is equipped with a four-foot long, stainless steel Geoprobe® macro-core sampling tool and 2-inch inside-diameter clear acetate liners. The soil borings will be conducted to a max depth of 25 feet bgs or to where no evident signs of field impact are observed (within the capabilities of the Geoprobe equipment) to a maximum depth of 50 feet bgs. The ground surface immediately adjacent to the boring will as a datum to measure sample depth. The horizontal location of each boring will be measured from a permanent site fixture with a measuring tape/wheel. Soil intervals saved for analysis will be immediately placed in plastic sampling tubes with polyethylene sheeting and tight-fitting plastic caps, labeled, placed in resealable plastic bags, and placed in a pre-chilled insulated container and prepared for transport and analysis using standard chain of custody protocol. Soil samples collected for analysis will be sealed and cooled as soon as feasible to minimize potential volatilization. All samples will be in

a locked vehicle or in direct observation at all times. All soils will be logged using the Unified Soil Classification System (USCS), field screened with a PID meter, or prepared for analysis.

Prior to conducting all invasive work, ACC will contact Underground Service Alert, underground utility locator to mark all utilities at the subject property. In addition, ACC will hire a private utility locator to clear the individual soil boring locations prior to drilling. ACC will obtain a drilling permit from Alameda County Public Works this scope of work.

3.2 Grab Groundwater Sampling

Grab groundwater samples will be collected with the use of a PVC schedule 40, 1-inch, temporary monitoring wells. Each soil boring will be conducted to the respective depth of interest (25) feet bgs or five (5) feet below the first encountered groundwater and the temporary monitoring well will be set with a 5-foot long screen which will be exposed to the formation. Grab water samples will be collected using low-flow, low-turbidity techniques if possible. The amount of sediment and turbidity observed in the water samples will be noted on field logs. Grab groundwater samples will be collected into laboratory-supplied 40-milliliter sample vials without headspace, 1-liter amber bottles and plastic bottles, labeled and immediately sealed and cooled to minimize potential volatilization.

All samples collected will be stored in a pre-chilled, insulated container pending ACC transport to a state-certified analytical laboratory. Every effort will be made to minimize disturbance of the groundwater samples prior to placement in the sample containers and maintaining the samples at four degrees Celsius prior to analysis. Standard turnaround time for analytical results is 5 working days. However, an expedited turn around time may be elected for the proposed work.

3.3 Soil Vapor Sampling

At each of the soil vapor sampling points a 2-inch-diameter boring will be drilled into the sub utilizing a Geoprobe direct-push rig, and 0.25-inch vapor points consisting of polyethylene tubing with a permeable probe tip will be installed in the cored holes. The probe tip as covered with sand and hydrated bentonite chips will be used to seal the annular air space between the probe tip and the bottom of the building foundation.

Prior to sampling, each soil vapor point will be allowed to equilibrate for approximately 30 minutes. During sample collection at each sampling point, ACC will purge vapor from the tubing, probe tip, and sand pack within the soil gas probe. Each sample point will be purged for 30 seconds prior to sampling.

At the completion of purging, ACC will collect the soil vapor samples by opening the vapor-tight valve on the Summa canister and allowing the canister to fill with extracted soil vapor. ACC will record the vacuum at the time the valve is opened and monitor and record the vacuum during sample collection. ACC will utilize Isopropyl Alcohol at each sample location as the leak detector tracer gas. ACC will end sample collection when the vacuum within the sample canister

is approximately 5 in Hg. Soil vapor sample containers will be labeled and stored at ambient temperature in laboratory-supplied containers. Soil vapor samples will be submitted to a State-Certified lab for volatile organic compound analysis (VOCs + TPH-g) via EPA method TO-15 Analysis.

An ambient air sample (AA-1) shall be collected using a 6-liter Summa canister with a flow regulator set at a higher flow rate of 100 ml/min. The larger sample size of AA-1 allows for lower reporting limits of the COCs.

Upon completion of the sampling the soil vapor point will be grouted and sealed with concrete.

Subslab sampling will be conducted following guidance criteria for the evaluation and mitigation of subsurface Vapor Intrusion to Indoor Air (Interim Final), Department of Toxic Substance Control of the California Environmental Protection Agency (December 15, 2004, revised February 7, 2005) (DTSC, 2005), Advisory-Active Soil Gas Investigations, jointly issued by the Department of Toxic Substances Control of the California Environmental Protection Agency.

3.3 Sample Containers and Preservation

Soil samples collected in plastic sampling tubes which will be immediately capped with polyethylene sheeting and tight-fitting plastic caps or collected and placed in glass jars. Grab groundwater samples will be collected in laboratory-supplied new glass 40-milliliter glass vials, plastic containers, and 1 liter amber bottles with the appropriate preservative.

Soil vapor samples will be collected in vapor tight summa canisters proved by the laboratory.

Samples will be labeled with pre-printed laboratory-supplied labels, placed in new resealable plastic bags, and immediately placed in a pre-chilled, insulated container maintained at four degrees Celsius pending transport to the analytical laboratory. Each sample cooler will be chilled with ice and no blue ice containers will be used.

3.4 Sample Packaging and Shipment

All samples will be handled according to ACC sampling protocols. Soil samples will be covered at each open end with new polyethylene (Teflon®) sheeting, fitted with tight-fitting plastic caps, or collected in glass jars labeled, placed in resealable plastic bags, placed in a pre-chilled, insulated container pending transport. ACC will properly refrigerate the samples until they are picked up by the analytical laboratory courier or delivered directly to the lab. Standard chain of custody documentation will be maintained at all times. Samples will be submitted to the laboratory within 24 hours of collection.

3.5 Sample Documentation

ACC will utilize a unique sample numbering system to identify sample locations and depths. Each sample will be designated with the following: 1) Unique boring number – “B11”; and 2)

maximum depth – "B11-7.5". A sample designated B11-7.5 is therefore a soil sample collected at soil boring location B11 at 7.0-7.5 feet bgs. Each respective sample designation will be placed at the top of the sample label and on each line of the chain of custody form.

Soil samples will be logged and fully described on pre-printed ACC log forms. These log forms are designed to facilitate preparing boring logs for the final report of findings and prompt the ACC field geologist to obtain and document specific types of information.

3.6 Analytical Methods

An EPA certified analytical laboratory will analyze the soil and groundwater samples. Select soil and groundwater samples will be analyzed for the following:

- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), MtBE by EPA Method 8260B,
- Total Petroleum Hydrocarbons purgeable (as gasoline) (TPHg) by EPA Method 8015B,
- Total Petroleum Hydrocarbon as Diesel and Motor Oil (TPHd and TPHmo) and Total Extractable Petroleum Hydrocarbons (all other) (TEPH) by EPA Method 8015B,
- Ethylene dibromide (EDB) and Ethylene dichloride (EDC; also known as 1,2-dichloroethane or 1,2-DCA) (lead scavengers) by EPA Method 8260
- Tert-amyl methyl ether (TAME), Disopropyl ether (DIPE), Ethyl tert-butyl ether (ETBE), Tert-butyl alcohol (TBA) (five fuel oxygenates) by EPA Method 8260
- Total lead by EPA Method 6010B.

An EPA certified analytical laboratory will analyze all soil vapor samples. Soil vapor samples will be analyzed for the following:

- TPH as gasoline and VOCs by TO-15
- Oxygen, methane, and carbon dioxide by ASTM 1946

3.7 Decontamination

All sampling equipment will be either new disposable equipment or pre-cleaned, stainless steel sampling equipment. Decontamination of drilling and sampling equipment will be performed between sample locations by washing the equipment with a tap water and Alconox cleaning solution, rinsing the equipment with clean tap water, and a final rinse with tap water.

New clean nitrile surgical gloves will be worn at each new sample location and at each new depth at each sample location. Gloves will be replaced before the collection and/or handling of every sample.

3.8 Backfilling Soil Borings

The soil borings will be backfilled by tremie with neat cement slurry consisting of approximately six gallons of water mixed with 94 pounds of Portland cement). The cement slurry will be prepared with an electric mixing rod to minimize cement lumps in the slurry mix. The surface of the soil boring will be covered with approximately 3 to 6 inches of.

All cuttings shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

4.0 TECHNICAL REPORTS

A technical report discussing fieldwork, observations and findings, analytical results, conclusions, and recommendations will be prepared for Peralta and for submission to ACEH.

5.0 SCHEDULE

ACC will perform and complete the work within two weeks upon authorization to proceed from the Client and approval from ACEH.

6.0 PERJURY STATEMENT

ACC Environmental Consultant's declares, under penalty and perjury, that the information and/or recommendations contained in this document are true to the best of our knowledge.

Source: Google Earth, 2010

Title ***Site Location Map 501 5th Avenue Oakland, California***	
Figure Number: 1	Scale: None
Project Number: 6045-019.01	Drawn By: JS
A·C·C ENVIRONMENTAL CONSULTANTS An Employee Owned Company	Date: 6/27/11
	N W E S

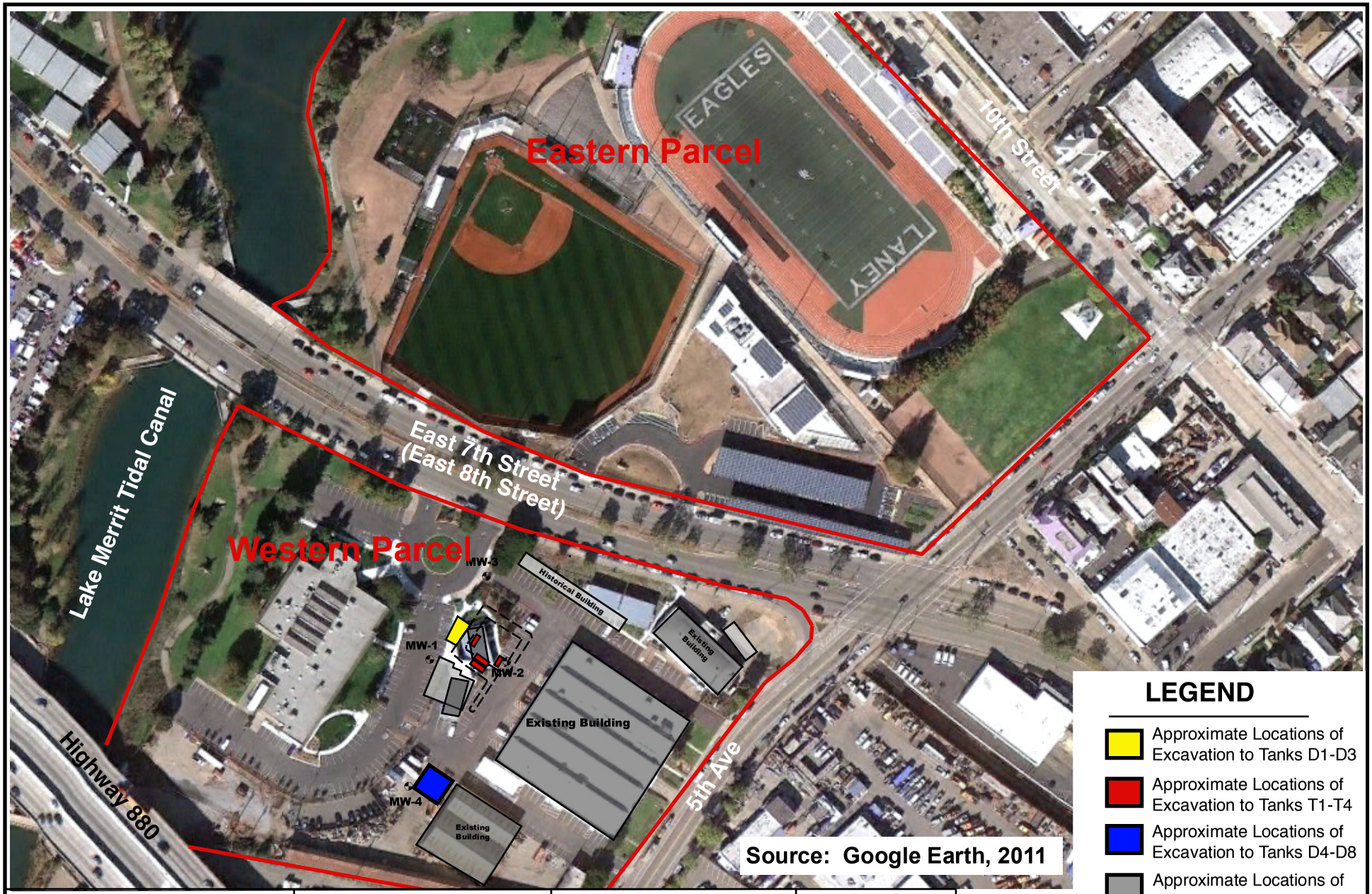

Figure Number: 2

Title **Site Plan**
501 5th Avenue
Oakland, California

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Project Number: 6045-019.01

Drawn By: JS/GS

Date: 6/26/12

Scale
0 100 200

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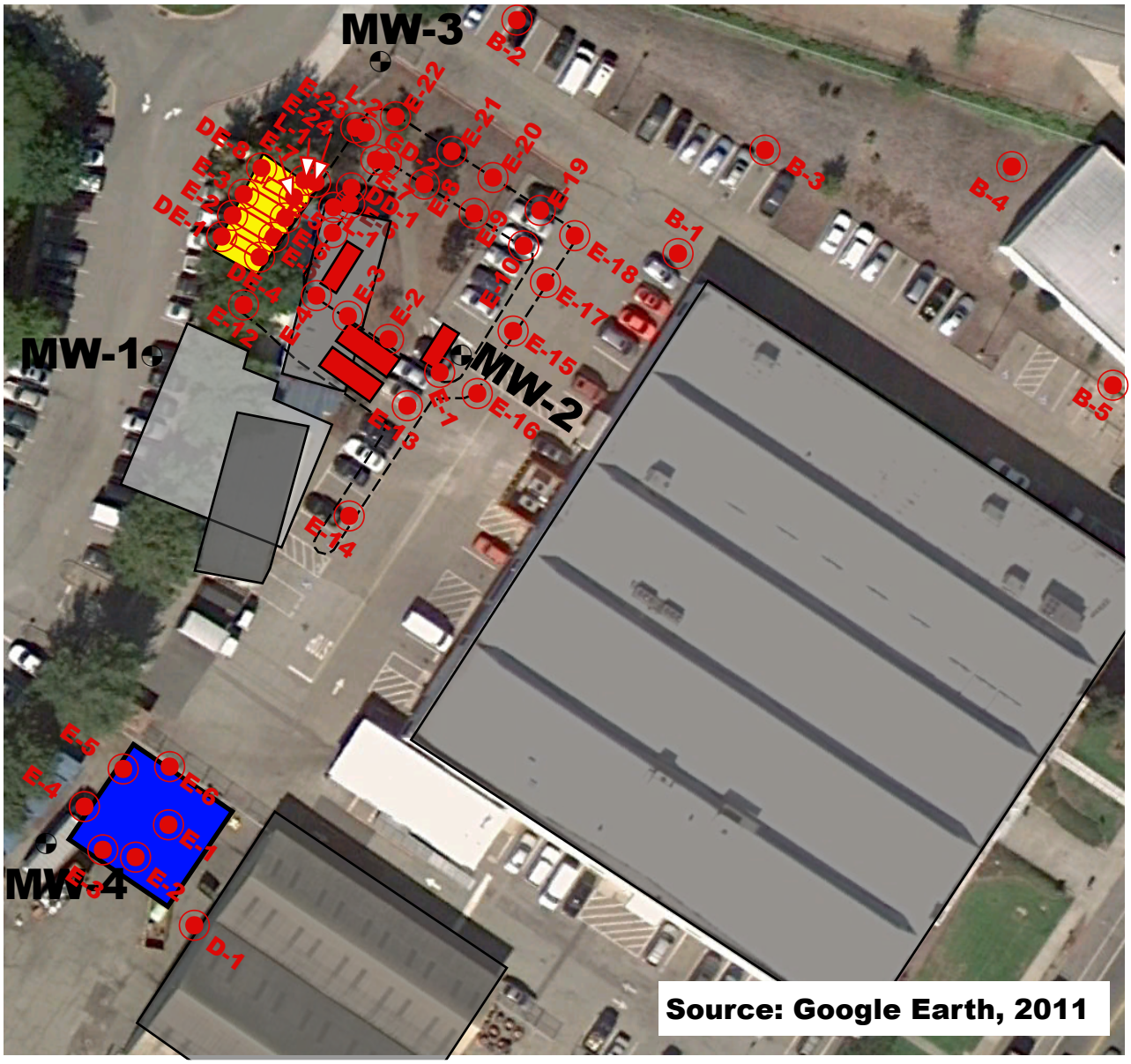

LEGEND

- Approximate Locations of Excavation to Tanks D1-D3
- Approximate Locations of Excavation to Tanks T1-T4
- Approximate Locations of Excavation to Tanks D4-D8
- Approximate Locations of Existing Building
- Approximate Locations of Historical Building
- Approximate Location of Historical Over-Excavation
- Approximate Location of Historical Monitoring Wells
- Approximate Location of Historical Soil Samples

Title ***Historical Sample Location Map***
501 5th Avenue
Oakland, California

Figure Number: 3	Scale: None
Project Number: 6045-019.01	Drawn By: JS
	Date: 6/27/11

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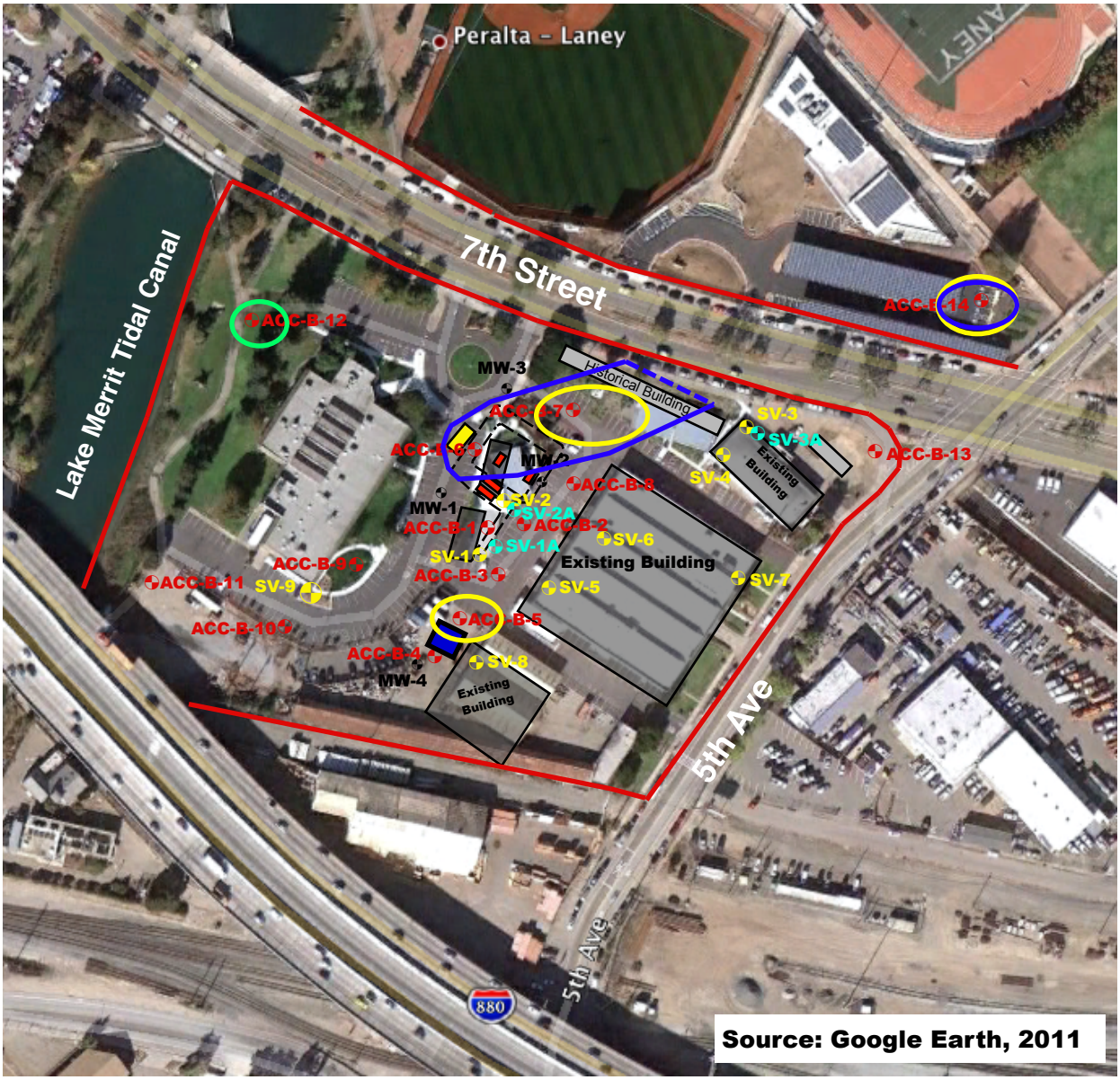

LEGEND

- Approximate Locations of Excavation to Tanks D1-D3
- Approximate Locations of Excavation to Tanks T1-T4
- Approximate Locations of Excavation to Tanks D4-D8
- Approximate Locations of Existing Building
- Approximate Locations of Historical Building
- Approximate Location of Historical Over-Excavation
- Approximate Location of Historical Monitoring Wells
- Historical Soil Vapor Sample Locations
- Historical Soil Boring Locations (Soil and GW Samples)
- Proposed Soil Vapor Sample Locations

Plumes - Based on 2012 Investigation Data

- Approximate TPHg (gasoline range organics) Plume
- Approximate TPHd (diesel range organics) Plume
- Approximate TPHmo (motor oil range organics) Plume
- Undefined edge of TPHd (diesel range organics) Plume

Title: ***Sample Location Map***
501 5th Avenue
Oakland, California

Figure Number: 4A	Scale: None
Project Number: 6045-019.01	Drawn By: JS/GS
	Date: 6/26/12

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Source: Google Earth, 2012

- Historical 2012 Soil Boring Locations
- Proposed Soil Boring Locations

Title ***Sample Location Map***
501 5th Avenue
Oakland, California

Figure Number: 4B	Scale: None
Project Number: 6045-019.01	Drawn By: GS
	Date: 5/29/12

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Table 1-Soil Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

					Constituents and Concentrations (mg/kg)												
					TEPH	TPHg	TPHd	TPHmo	B	T	E	X	MtBE	Lead	Lead Scavengers		O&G
Sample Number	Sample Depth Feet Below Ground Surface (bgs)	Source of Data	Sampling Date	Matrix	Total Extractable Petroleum Hydrocarbons	Total Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons- Diesel (with Silica Gel Cleanup)	Total Petroleum Hydrocarbons-Motor Oil (With Silica Gel Cleanup)	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Lead	EDB	1,2-DCA	Total Oil and Grease
ACC-B-1 (3-4')	4	ACC Environmental Consultants	4/24/12	Soil	---	<0.25	15	89	<0.005	<0.005	<0.005	<0.01	<0.005	<2	<0.005	<0.005	---
ACC-B-1 (12-13')	13		4/24/12	Soil	---	<0.24	21	<50	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	16	<0.0048	<0.0048	---
ACC-B-2 (3-4')	4		4/24/12	Soil	---	<0.25	11	66	<0.005	<0.005	<0.005	<0.01	<0.005	5.6	<0.005	<0.005	---
ACC-B-2 (14-15')	15		4/24/12	Soil	---	<0.23	47	79	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	55	<0.0046	<0.0046	---
ACC-B-3 (2-3')	3		4/24/12	Soil	---	<0.24	37	120	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	6.9	<0.0048	<0.0048	---
ACC-B-3 (15-16')	16		4/24/12	Soil	---	<0.24	61	100	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	47	<0.0049	<0.0049	---
ACC-B-4 (2.5-3.5')	3.5		4/24/12	Soil	---	<0.24	5.8	<50	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	9.4	<0.0049	<0.0049	---
ACC-B-4 (5-6')	6		4/24/12	Soil	---	<0.24	26	93	<0.0047	<0.0047	<0.0047	<0.0095	<0.0047	11	<0.0047	<0.0047	---
ACC-B-5 (5-6')	6		4/25/12	Soil	---	5.6	3.5	<49	0.021	0.0054	0.057	0.28	<0.005	6.9	<0.005	<0.005	---
ACC-B-5 (23-24')	24		4/25/12	Soil	---	<0.25	2.3	<50	<0.005	<0.005	<0.005	<0.01	<0.005	5.7	<0.005	<0.005	---
ACC-B-6 (2-3')	3		4/25/12	Soil	---	1.7	<50	**6,000**	<0.0049	<0.0049	<0.0049	0.058	<0.0049	15	<0.0049	<0.0049	---
ACC-B-6 (23-24')	24		4/25/12	Soil	---	<0.25	1.5	<49	<0.005	<0.005	<0.005	<0.0099	<0.005	4.8	<0.005	<0.005	---
ACC-B-7 (3-4')	4		4/25/12	Soil	---	5.2	2.5	<50	<0.005	<0.005	<0.005	<0.01	<0.005	9.7	<0.005	<0.005	---
ACC-B-7 (11-12')	12		4/25/12	Soil	---	5.9	8.1	<50	<0.005	<0.005	<0.005	<0.0099	<0.005	11	<0.005	<0.005	---
ACC-B-8 (7-8')	8		4/25/12	Soil	---	<0.25	<1	<50	<0.005	<0.005	<0.005	<0.01	<0.005	4.3	<0.005	<0.005	---
ACC-B-8 (15-16')	16		4/25/12	Soil	---	<0.25	30	52	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	14	<0.0049	<0.0049	---
ACC-B-9 (7-8')	8		4/25/12	Soil	---	<0.25	3.5	<50	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	73	<0.0049	<0.0049	---
ACC-B-9 (15-16')	16		4/25/12	Soil	---	<0.25	4.7	<50	<0.005	<0.005	<0.005	<0.0099	<0.005	17	<0.005	<0.005	---
ACC-B-10 (6-7')	7		4/25/12	Soil	---	<0.25	<0.99	<49	<0.005	<0.005	<0.005	<0.01	<0.005	9.5	<0.005	<0.005	---
ACC-B-10 (23-24')	24		4/25/12	Soil	---	<0.25	1.2	<50	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	3.7	<0.0049	<0.0049	---
ACC-B-11 (5.5-6.5')	6.5		4/27/12	Soil	---	<0.25	4.3	<50	<0.005	<0.005	<0.005	<0.0099	<0.005	43	<0.005	<0.005	---
ACC-B-11 (11.5-12')	12		4/27/12	Soil	---	<0.24	13	51	<0.0047	<0.0047	<0.0047	<0.0095	<0.0047	16	<0.0047	<0.0047	---
ACC-B-12 (3-4')	4		4/26/12	Soil	---	<0.25	**710**	**1,300**	<0.005	<0.005	<0.005	<0.0099	<0.005	15	<0.005	<0.005	---
ACC-B-12 (23-24')	24		4/26/12	Soil	---	<0.24	4.9	<50	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	11	<0.0049	<0.0049	---
ACC-B-13 (3-4')	4		4/26/12	Soil	---	<0.25	<1	<50	<0.005	<0.005	<0.005	<0.0099	<0.005	2.5	<0.005	<0.005	---
ACC-B-13 (15-16')	16		4/26/12	Soil	---	<0.24	<1	<50	<0.0048	<0.0048	<0.0048	<0.0095	<0.0048	4.4	<0.0048	<0.0048	---
ACC-B-14 (3-4')	4		4/26/12	Soil	---	<0.25	2	<49	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	3.9	<0.0049	<0.0049	---
ACC-B-14 (6-7')	7		4/26/12	Soil	---	37	56	<50	<0.025	<0.025	<0.025	<0.05	<0.025	3.2	<0.025	<0.025	---

Table 1-Soil Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

					Constituents and Concentrations (mg/kg)												
					TEPH	TPHg	TPHd	TPHmo	B	T	E	X	MtBE	Lead	Lead Scavengers		O&G
Sample Number	Sample Depth Feet Below Ground Surface (bgs)	Source of Data	Sampling Date	Matrix	Total Extractable Petroleum Hydrocarbons	Total Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons- Diesel (with Silica Gel Cleanup)	Total Petroleum Hydrocarbons-Motor Oil (With Silica Gel Cleanup)	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Lead	EDB	1,2-DCA	Total Oil and Grease
ACC-B-14 (17-18')	18		4/26/12	Soil	---	**200**	65	<50	<0.025	<0.025	**140**	**84**	<0.025	4.3	<0.025	<0.025	---
ACC-B-16 (7-8')	8		4/27/12	Soil	---	<0.24	**96**	240	<0.0049	<0.0049	<0.0049	<0.0099	<0.0049	**180**	<0.0049	<0.0049	---
ACC-B-16 (14-15')	15		4/27/12	Soil	---	<0.25	**430**	**1,000**	<0.005	<0.005	<0.005	<0.01	<0.005	**480**	<0.005	<0.005	---
ACC-B-17 (2-3')	3		4/27/12	Soil	---	<0.24	8.7	52	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	60	<0.0048	<0.0048	---
ACC-B-17 (18.5-19.5')	19.5		4/27/12	Soil	---	2.2	**630**	**1,200**	<0.025	<0.025	<0.025	<0.05	<0.025	**270**	<0.025	<0.025	---
ACC-B-17 (23-24')	24		4/27/12	Soil	---	<0.25	2.8	<50	<0.005	<0.005	<0.005	<0.0099	<0.005	10	<0.005	<0.005	---
Historical Summary																	
DE-1	9	ACC UST Closure Report October 9, 1992	03-Sep-92	Soil	---	NA	ND	---	**1.3785**	**0.4158**	**0.7429**	**1.3655**	---	NA	---	---	---
E-2	9		03-Sep-92	Soil	---	**4.0**	NA	---	**0.126**	**0.8860**	**0.9860**	**0.3286**	---	ND	---	---	---
E-3	9		03-Sep-92	Soil	---	**4.8**	NA	---	**0.527**	**0.1627**	**0.1197**	**0.6574**	---	ND	---	---	---
DE-4	9		03-Sep-92	Soil	---	NA	ND	---	**2.4078**	**0.6909**	**1.5720**	**2.2922**	---	NA	---	---	---
E-5	9		03-Sep-92	Soil	---	**5.0**	NA	---	**0.0015**	**0.0047**	**0.0470**	**0.2530**	---	**1.0**	---	---	---
E-6	9		03-Sep-92	Soil	---	**134.70**	NA	---	**1.4695**	**4.6177**	**7.1701**	**6.1470**	---	ND	---	---	---
E-7	9		03-Sep-92	Soil	---	**30.11**	NA	---	**0.255**	**0.5766**	**1.3976**	**2.7334**	---	2.0	---	---	---
E-8	9		03-Sep-92	Soil	---	**3.78**	**228.37**	**---**	**0.0110**	**0.0510**	**0.0350**	**0.1890**	---	40.0	---	---	---
L-1	4		03-Sep-92	Soil	---	**243.21**	**11.40**	**---**	**4.4851**	**7.2284**	ND	**10.2210**	---	5.0	---	---	---
L-2	4		03-Sep-92	Soil	---	**612.57**	NA	---	**5.9124**	**14.7240**	**10.4810**	**32.3530**	---	4.0	---	---	---
L-3	4		03-Sep-92	Soil	---	**78.82**	**449.19**	**---**	**0.8865**	**1.3992**	ND	**8.1775**	---	4.0	---	---	---
DD-1	3		04-Sep-92	Soil	---	ND	ND	---	ND	ND	ND	ND	---	42.0	---	---	---
GD-2	3		04-Sep-92	Soil	---	ND	ND	---	ND	ND	ND	ND	---	NA	---	---	---
E-1	7	ACC Tank Closure Report December 22, 1993	04-Nov-92	soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	---	6.1	**---**	**---**	---
E-2	7		04-Nov-92	soil	---	<1.0	---	---	**0.19**	**0.0069**	<0.005	<0.005	---	5.8	**---**	**---**	---
E-3	7		04-Nov-92	soil	---	<1.0	---	---	**0.0089**	<0.005	<0.005	<0.005	---	3.8	**---**	**---**	---
E-4	7		04-Nov-92	soil	---	<1.0	---	---	**0.041**	**0.018**	<0.005	<0.005	---	6.3	**---**	**---**	---
E-5	7		04-Nov-92	soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	---	8.8	**---**	**---**	---
E-6	7		04-Nov-92	soil	---	**1.3**	---	---	<0.005	<0.005	<0.005	<0.005	---	8.0	**---**	**---**	---
D-1	3		04-Nov-92	soil	---	<1.0	---	---	<0.005	<0.005	<0.005	**0.047**	---	4.5	**---**	**---**	---

Table 1-Soil Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

					Constituents and Concentrations (mg/kg)												
					TEPH	TPHg	TPHd	TPHmo	B	T	E	X	MtBE	Lead	Lead Scavengers		O&G
Sample Number	Sample Depth Feet Below Ground Surface (bgs)	Source of Data	Sampling Date	Matrix	Total Extractable Petroleum Hydrocarbons	Total Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons- Diesel (with Silica Gel Cleanup)	Total Petroleum Hydrocarbons-Motor Oil (With Silica Gel Cleanup)	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Lead	EDB	1,2-DCA	Total Oil and Grease
B-1	3	ACC Additional Subsurface Investigation June 1994	09-May-94	soil	<1.0/**31** (k/m)	<1.0	**6.8**	**---**	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
B-2	6		09-May-94	soil	<1.0/**51** (k/m)	<1.0	<1.0	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
B-3	5		09-May-94	soil	<1.0/**24** (k/m)	<1.0	<1.0	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
B-3	6.5		09-May-94	soil	<1.0/**43** (k/m)	<1.0	**11**	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
B-4	5		09-May-94	soil	<1.0/<10 (k/m)	<1.0	<1.0	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
B-4	6.5		09-May-94	soil	<1.0/<10 (k/m)	<1.0	<1.0	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
B-5	5		09-May-94	soil	<1.0/**100** (k/m)	<1.0	<1.0	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
B-5	6.5		09-May-94	soil	<1.0/<10 (k/m)	<1.0	<1.0	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
MW-1 6-1/2	6.5	ACC Soil and Groundwater Investigation March 1994	7-Feb-94	soil	---	<1.0	<1.0	---	<5.0	<5.0	<5.0	<5.0	---	---	---	---	<50
MW-1 11	11		7-Feb-94	soil	---	<1.0	<1.0	---	<5.0	<5.0	<5.0	<5.0	---	---	---	---	<50
MW-2 6-1/2	6.5		7-Feb-94	soil	---	**680**	**13**	---	<5.0	<5.0	**1,200**	<5.0	---	---	---	---	**150**
MW-2 11-1/2	11.5		7-Feb-94	soil	---	<1.0	<1.0	---	<5.0	<5.0	<5.0	<5.0	---	---	---	---	<50
MW-3 6-1/2	6.5		7-Feb-94	soil	---	**1.1**	<1.0	---	<5.0	6.9	<5.0	<5.0	---	---	---	---	<50
MW-3 11-1/2	11.5		7-Feb-94	soil	---	<1.0	<1.0	---	<5.0	<5.0	<5.0	<5.0	---	---	---	---	<50
MW-4 6-1/2	6.5		7-Feb-94	soil	---	<1.0	---	---	<5.0	<5.0	<5.0	<5.0	---	---	---	---	---
MW-4 11-1/2	11.5		7-Feb-94	soil	---	<1.0	---	---	<5.0	<5.0	<5.0	<5.0	---	---	---	---	---
E-1	7		June-July 1995	soil	**1,600/1,600 (k/m)**	**1,700***	---	---	<0.5	<0.5	**4..6**	**6.5**	---	---	---	---	---
E-2	7		June-July 1995	soil	**3,800.2,000 (k/m)**	**3,100***	---	---	<0.5	<0.5	**6.3**	**8.6**	---	---	---	---	---
E-3	7		June-July 1995	soil	**1,200/1,200 (k/m)**	**1,300***	---	---	<0.5	<5.0	**4.2**	**6**	---	---	---	---	---
E-4	7		June-July 1995	soil	**1,700/2,100**	**2,100***	---	---	<0.5	<0.5	**6.3**	**8.7**	---	---	---	---	---
E-5	7		June-July 1995	soil	<10	<2.0	---	---	<0.01	<0.01	<0.01	<0.01	---	---	---	---	---
E-6	7		June-July 1995	soil	**3,400/1,500 (k/m)**	**1,400***	---	---	<0.5	<0.5	**3.3**	**4.7**	---	---	---	---	---
E-7	7		June-July 1995	soil	**82 (k)**	**1,100***	---	---	<0.5	<0.5	**2.6**	**3.4**	---	---	---	---	---
E-8	7		June-July 1995	soil	**340/120 (k/m)**	**1,700***	---	---	<0.5	<0.5	**3.7**	**4.9**	---	---	---	---	---
E-9	7		June-July 1995	soil	**2,000/420 (k/m)**	**3,400***	---	---	<0.5	<0.5	**6.3**	**8.2**	---	---	---	---	---
E-10	7		June-July 1995	soil	<10	**4.2**	---	---	0.06	0.01	**0.02**	**0.03**	---	---	---	---	---
E-11	7		June-July 1995	soil	This Sample Does Not Exist												

Table 1-Soil Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

					Constituents and Concentrations (mg/kg)												
					TEPH	TPHg	TPHd	TPHmo	B	T	E	X	MtBE	Lead	Lead Scavengers		O&G
Sample Number	Sample Depth Feet Below Ground Surface (bgs)	Source of Data	Sampling Date	Matrix	Total Extractable Petroleum Hydrocarbons	Total Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons- Diesel (with Silica Gel Cleanup)	Total Petroleum Hydrocarbons-Motor Oil (With Silica Gel Cleanup)	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Lead	EDB	1,2-DCA	Total Oil and Grease
E-12	7	Remedial Action and UST Removal Report May 9, 1996	June-July 1995	soil	**52 (m)**	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	---	---	---	---	**110**
E-13	7		June-July 1995	soil	**400/670 (k/m)**	**1,800**	---	---	<5.0	<5.0	**7**	**11**	---	---	---	---	**1,300**
E-14	7		June-July 1995	soil	**300/290 (k/m)**	**1,800**	---	---	<0.5	<0.5	<5.0	**13**	---	---	---	---	**660**
E-15	7		June-July 1995	soil	**280/860 (k/m)**	**910**	---	---	<0.5	<0.5	**2.3**	**3**	---	---	---	---	**1,000**
E-16	7		June-July 1995	soil	**15 (m)**	**22**	---	---	<0.1	<0.1	<0.1	<0.1	---	---	---	---	<50
E-17	7		June-July 1995	soil	**1,200 (m)**	**35**	---	---	<0.1	<0.1	**0.12**	**0.17**	---	---	---	---	**2,000**
E-18	7		June-July 1995	soil	**86 (m)**	**12**	---	---	<0.05	<0.05	<0.05	<0.05	---	---	---	---	<50
E-19	7		June-July 1995	soil	**380/280 (k/m)**	**1,300**	---	---	<5.0	<5.0	<5.0	**6**	---	---	---	---	**960**
E-20	7		June-July 1995	soil	**9.5/12/14 (k/d/m)**	**320**	---	---	<5.0	<5.0	**0.8**	**1.2**	---	---	---	---	**110**
E-21	7		June-July 1995	soil	**230/230 (k/m)**	**2,400**	---	---	<5.0	<5.0	**5.9**	**8.0**	---	---	---	---	**280**
E-22	7		June-July 1995	soil	**550/590 (k/m)**	**2,200**	---	---	<5.0	<5.0	**5.8**	**7.5**	---	---	---	---	**860**
E-23	7		June-July 1995	soil	**810/1,00 (k/m)**	**3,100**	---	---	<5.0	<5.0	**7.2**	**9.7**	---	---	---	---	**1,100**
E-24	7		June-July 1995	soil	**840/1,100 (k/m)**	**5,200**	---	---	<5.0	<5.0	**12.0**	**17.0**	---	---	---	---	**3,200**
1X98N7.5	7.5	ACC UST Removal and Remedial Action Report June 10, 1999	3-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---
1X98S7.5	7.5		3-Sep-98	Soil	---	<20	---	---	**4.0**	**10**	**4.1**	**19**	<1.2	---	---	---	---
1X98W7.5	7.5		3-Sep-98	Soil	---	<10	---	---	<0.62	<0.62	<0.62	<0.62	<0.62	---	---	---	---
2X98W7.0TANK	7.5		4-Sep-98	Soil	---	<10	---	---	<0.62	**1.0**	**7.5**	**5.0**	<0.62	---	---	---	---
2X98N7.0TANK	7.5		4-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---
2X98E7.0TANK	7.5		4-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---
2X98S7.0TANK	7.5		4-Sep-98	Soil	---	<10	---	---	<0.62	**2.3**	**2.2**	**8.8**	<0.62	---	---	---	---
1X98W8.0A	7.5		8-Sep-98	Soil	---	<1.2	---	---	<0.005	**0.012**	**0.007**	**0.0062**	<0.005	---	---	---	---
2X98W7.0PIT	7.5		8-Sep-98	Soil	---	<1.2	---	---	<0.005	**0.008**	**0.0051**	<0.005	<0.005	---	---	---	---
2X98N7.0a	7.5		9-Sep-98	Soil	---	<1.1	---	---	<0.005	**0.038**	**1.0**	**1.2**	<0.005	---	---	---	---
2X98S7.0a	7.5		9-Sep-98	Soil	---	<1.1	---	---	<0.005	0.0057	<0.005	<0.005	<0.005	---	---	---	---
2X98W7.0C4	7.5		10-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---
2X98S7.0C4	7.5		10-Sep-98	Soil	---	<100	---	---	<6.2	**22**	**18**	**62**	<6.2	---	---	---	---
2X98W7.0C3	7.5		10-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	**0.0084**	<0.005	---	---	---	---
2X98S7.0C2	7.5		10-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	**0.0180**	<0.005	---	---	---	---

Table 1-Soil Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

Sample Number	Sample Depth Feet Below Ground Surface (bgs)	Source of Data	Sampling Date	Matrix	Constituents and Concentrations (mg/kg)												
					TEPH	TPHg	TPHd	TPHmo	B	T	E	X	MtBE	Lead	Lead Scavengers		O&G
					Total Extractable Petroleum Hydrocarbons	Total Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons- Diesel (with Silica Gel Cleanup)	Total Petroleum Hydrocarbons-Motor Oil (With Silica Gel Cleanup)	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Lead	EDB	1,2-DCA	Total Oil and Grease
2X98W7.0C2	7.5		10-Sep-98	Soil	---	<1.0	---	---	<0.005	**0.006**	<0.005	**0.039**	<0.005	---	---	---	---
2X98W7.0C1	7.5		10-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---
2X98S7.0C1	7.5		10-Sep-98	Soil	---	<50	---	---	<3.1	**5.2**	**7.2**	**20**	<3.1	---	---	---	---
2X98W7.0C5	7.5		10-Sep-98	Soil	---	<40	---	---	4	**9.3**	**4.8**	**20**	<2.5	---	---	---	---
2X98N7.0C3	7.5		10-Sep-98	Soil	---	<20	---	---	<1.2	<1.2	<1.2	<1.2	<1.2	---	---	---	---
2X98S7.0C3	7.5		10-Sep-98	Soil	---	<40	---	---	<2.5	2.8	<2.5	**6**	<2.5	---	---	---	---
2X98N7.0C1	7.5		10-Sep-98	Soil	---	<20	---	---	<1.2	<1.2	<1.2	**2**	<1.2	---	---	---	---
2X98N7.0C2	7.5		10-Sep-98	Soil	---	<1.0	---	---	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---
2X98N7.0C4	7.5		10-Sep-98	Soil	---	<20	---	---	<1.2	**4.6**	**4.7**	**14**	<1.2	---	---	---	---
****ESLs - Residential (unrestricted site usage)**			**Shallow Soil (≤ 3 m)**	**Soil (mg/kg)**	**370**	**83**	**83**	**370**	**0.044**	**2.9**	**2.3**	**2.3**	**0.023**	**200**	**NA**	**0.0045**	**---**
			Deep Soil (>3 m)	**Soil (mg/kg)**	**5,000**	**83**	**83**	**5,000**	**0.044**	**2.9**	**3.3**	**2.3**	**0.023**	**750**	**NA**	**0.0045**	**---**
****ESLs - Commercial site usage**			**Shallow Soil (≤ 3 m)**	**Soil (mg/kg)**	**370**	**83**	**83**	**370**	**0.044**	**2.9**	**3.3**	**2.3**	**0.023**	**750**	**NA**	**0.0045**	**---**
			Deep Soil (>3 m)	**Soil (mg/kg)**	**5,000**	**83**	**83**	**5,000**	**0.044**	**2.9**	**3.3**	**2.3**	**0.023**	**750**	**NA**	**0.0045**	**---**
RSL's			**Residential**	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**1.1**	**5,000**	**5.4**	**630**	**43**	**400**	**NA**	**0.43**	**---**
			Commercial	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**5.4**	**45,000**	**27**	**2,700**	**220**	**800**	**NA**	**2.2**	**---**
California Human Health Screening Levels (CHHSLS)			**Residential**	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**80**	**NA**	**NA**	**---**
			Commercial	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**320**	**NA**	**NA**	**---**

Notes

***ESLs = Bay Area Regional Water Quality Control Board Environmental Screening Levels (Interim Final May 2008), where groundwater is NOT a source of Drinking Water*

RSLs=EPA Region 9 Regional Screening Levels May 2012)

DTW: ;Depth to water (ft.) measured from top of casing (TOC).

NT: Not Tested; NM: Not Measured; NS: Not Sampled

**--- No Data*

Bolded Values Exceed Their Respective Criteria

TPHg = Total Petroleum Hydrocarbons as Gasoline

TPHd= Total Petroleum Hydrocarbons as Diesel

ppm = parts per million

ppb = parts per billion

Table 2-Groundwater Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

Sample Number and Well Elevation	Sampling Date	Matrix	DTW (ft)	Groundwater Elevation (ft)	Constituents and Concentrations (µg/L)											
					TVPHg	TPHg	TEPH			B	T	E	X	MtBE	TBA	
					Total Volatile Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons as Gasoline	Total Extractable Petroleum Hydrocarbons as Diesel (with Silica Gel Cleanup)	Total Extractable Petroleum Hydrocarbons as Motor Oil (with Silica Gel Cleanup)	Total Extractable Petroleum Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Tert-butyl Alcohol	Total Lead
ACC-B-1 (DEEP)	4/27/12	Water	---	---	---	<50	---	---	---	<0.5	<0.5	<0.5	<1	<0.5	6.9	---
ACC-B-2 (DEEP)	4/24/12	Water	---	---	---	<50	<51	<100	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**47**
ACC-B-3 (GW)	4/24/12	Water	---	---	---	<50	<51	<100	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**30**
ACC-B-4 (SHALLOW)	4/24/12	Water	---	---	---	<50	<51	**250**	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**350**
ACC-B-4 (DEEP)	4/26/12	Water	---	---	---	<50	<58	<120	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**59**
ACC-B-5 (SHALLOW)	4/25/12	Water	---	---	---	**440**	**310**	**360**	---	1.5	<0.5	0.96	5.7	<0.5	<4	**32**
ACC-B-6 (SHALLOW)	4/25/12	Water	---	---	---	54	100	**270**	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**1,200**
ACC-B-7 (GW)	4/25/12	Water	---	---	---	**5,300**	**1,300**	**3,300**	---	<10	<10	<10	<20	<10	<80	**21**
ACC-B-8 (SHALLOW)	4/25/12	Water	---	---	---	<50	<52	<100	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**110**
ACC-B-9 (SHALLOW)	4/25/12	Water	---	---	---	<50	<50	120	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**270**
ACC-B-10 (GW)	4/25/12	Water	---	---	---	<50	52	**250**	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**1,500**
ACC-B-11 (GW)	4/27/12	Water	---	---	---	<50	95	<110	---	<0.5	<0.5	<0.5	<1	<0.5	<4	1.2
ACC-B-12 (GW)	4/26/12	Water	---	---	---	<50	<51	130	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**160**
ACC-B-13 (GW)	4/26/12	Water	---	---	---	<50	<50	<99	---	<0.5	<0.5	<0.5	<1	<0.5	<4	<5
ACC-B-14 (GW)	4/26/12	Water	---	---	---	**2,000**	**1,300**	<100	---	7.3	0.71	18	7.6	<0.5	<4	**11**
ACC-B-16 (GW)	4/27/12	Water	---	---	---	96	150	<50	---	<0.5	<0.5	<0.5	<1	<0.5	<4	**95**
ACC-B-17 (GW)	4/27/12	Water	---	---	---	<50	**3,000**	**5,500**	---	<0.5	<0.5	<0.5	<1	<0.5	5.1	**1,200**
MW-1 6.78	02/14/94	Water	3.69	3.09	<50	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/16/94	Water	6.80	-0.02	---	---	---	---	---	---	---	---	---	---	---	---
	05/23/94	Water	---	---	<50	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	08/25/94	Water	7.05	-0.27	<50	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	11/16/94	Water	3.50	3.28	<50	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/14/95	Water	3.91	2.87	<50	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	05/18/95	Water	6.46	0.32	<50	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/27/96	Water	4.32	2.46	<50	---	---	---	120(d)	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/08/96	Water	6.96	-0.18	<50	---	---	---	570(d)/670(m)*	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/13/97	Water	3.36	3.42	<50	---	---	---	720(d)/1,000(m)*	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/17/97	Water	6.21	0.57	<50	---	---	---	500(d)*/760(m)	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	01/19/98	Water	3.41	3.37	<50	---	---	---	340(d)*/740(m)*	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	07/21/98	Water	5.58	1.20	<50	---	---	---	54(d)*	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	01/25/99	Water	4.78	2.00	<50	---	---	---	170(d)*	<0.5	<0.5	<0.5	<0.5	<5.0	---	---
	08/11/99	Water	6.30	0.48	<50	---	---	---	230(d)	<0.5	<0.5	<0.5	<0.5	<0.5	---	---
MW-2 8.70	02/14/94	Water	4.70	4.00	200	---	---	---	<50	1.7	<0.5	1.1	1.1	---	---	---
	05/16/94	Water	4.74	3.96	---	---	---	---	---	---	---	---	---	---	---	---
	05/23/94	Water	---	---	600	---	---	---	<50	1.8	0.9	0.7	2.1	---	---	---

Table 2-Groundwater Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

Sample Number and Well Elevation	Sampling Date	Matrix	DTW (ft)	Groundwater Elevation (ft)	Constituents and Concentrations (µg/L)												
					TVPHg	TPHg	TEPH			B	T	E	X	MtBE	TBA	Total Lead	
					Total Volatile Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons as Gasoline	Total Extractable Petroleum Hydrocarbons as Diesel (with Silica Gel Cleanup)	Total Extractable Petroleum Hydrocarbons as Motor Oil (with Silica Gel Cleanup)	Total Extractable Petroleum Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Tert-butyl Alcohol		
	08/25/94	Water	5.49	3.21	70	---	---	---	---	<50	<0.5	<0.5	0.5	---	---	---	
	11/16/94	Water	5.03	3.67	<50	---	---	---	---	<50	<0.5	<0.5	0.6	---	---	---	
	02/14/95	Water	4.55	4.15	160	---	---	---	---	0.7	0.6	<0.5	1.0	---	---	---	
	05/18/95	Water	4.77	3.93	50	---	---	---	---	<0.5	<0.5	<0.5	0.6	---	---	---	
	Destroyed	Water	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3 8.83	02/14/94	Water	4.57	4.26	780	---	---	---	<50	0.6	0.6	1.7	2.7	---	---	---	
	05/16/94	Water	4.78	4.05	---	---	---	---	---	---	---	---	---	---	---	---	
	05/23/94	Water	---	---	680	---	---	---	<50	<0.5	<0.5	2.2	2.2	---	---	---	
	08/25/94	Water	5.93	2.90	310	---	---	---	---	6.4	2.7	1.9	4.1	---	---	---	
	11/16/94	Water	4.04	4.79	650	---	---	---	---	1.6	1.5	<0.5	2.7	---	---	---	
	02/14/95	Water	4.55	2.72	70	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	05/18/95	Water	4.49	4.34	470	---	---	---	---	<0.5	1.1	0.7	0.6	---	---	---	
	03/27/96	Water	4.51	4.32	740	---	---	---	390(d)*	7.9	19.0	3.0	8.0	---	---	---	
	10/08/96	Water	6.60	2.23	640	---	---	---	640(d)/680(m)	7.6	3.8	3.9	5.6	---	---	---	
	01/13/97	Water	4.12	4.71	640	---	---	---	1,300(k)/1,200(m)*	4.4	2.2	2.6	4.0	---	---	---	
	07/17/97	Water	6.60	2.23	600	---	---	---	1,400(d)*/1,100(m)	7.3	11.0	3.6	4.8	<5.0	---	---	
	01/19/98	Water	4.16	4.67	<50	---	---	---	520(d)*/1,000(m)*	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	
	Destroyed	Water	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4 5.45	02/14/94	Water	1.69	3.76	<50	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	
	05/16/94	Water	2.36	3.09	---	---	---	---	---	---	---	---	---	---	---	---	
	05/23/94	Water	---	---	93	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	
	08/25/94	Water	3.25	2.20	---	---	---	---	---	---	---	---	---	---	---	---	
	08/29/94	Water	---	---	<50	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	11/16/94	Water	1.01	4.44	100	---	---	---	---	2.7	<0.5	<0.5	1.0	---	---	---	
	02/14/95	Water	6.11	2.72	60	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	05/18/95	Water	2.32	3.13	<50	---	---	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	
	03/27/96	Water	2.35	3.10	<50	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	
	10/08/96	Water	3.75	1.70	<50	---	---	---	430(d)*	<0.5	<0.5	<0.5	<0.5	---	---	---	
	01/13/97	Water	1.69	3.76	<50	---	---	---	830(d)/950(m)*	0.8	<0.5	<0.5	<0.5	---	---	---	
	07/17/97	Water	3.48	1.97	<50	---	---	---	190(d)*	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	
	01/19/98	Water	1.73	3.72	53	---	---	---	200(d)*/550(m)*	2.2	<0.5	<0.5	<0.5	<5.0	---	---	
	07/21/98	Water	3.08	2.37	<50	---	---	---	53(d)*	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	
	01/25/99	Water	1.85	3.60	<50	---	---	---	200(d)*	<0.5	<0.5	<0.5	<0.5	10.0	---	---	
	08/11/99	Water	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	---	Water	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

Table 2-Groundwater Data (Current and Historical)
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

Sample Number and Well Elevation	Sampling Date	Matrix	DTW (ft)	Groundwater Elevation (ft)	Constituents and Concentrations (µg/L)											
					TVPHg	TPHg	TEPH			B	T	E	X	MtBE	TBA	
					Total Volatile Petroleum Hydrocarbons - Gasoline	Total Petroleum Hydrocarbons as Gasoline	Total Extractable Petroleum Hydrocarbons as Diesel (with Silica Gel Cleanup)	Total Extractable Petroleum Hydrocarbons as Motor Oil (with Silica Gel Cleanup)	Total Extractable Petroleum Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butyl ether	Tert-butyl Alcohol	Total Lead
VPP-1	11/04/92	Water	---	---	27.0	---	---	---	---	1,200	5,100	690	5,700	---	---	---
PP-2	11/04/92	Water	---	---	0.21	---	---	---	---	<0.5	<0.5	<0.5	14.0	---	---	---
B-1	05/09/94	Water	---	---	61.00	---	---	---	<50/<50/<500 (d/k/m)	<0.5	<0.5	<0.5	<500	---	---	---
B-2	05/09/94	Water	---	---	<50	---	---	---	<50/<50/<500 (d/k/m)	<0.5	<0.5	<0.5	<500	---	---	---
B-5	05/09/94	Water	---	---	<50	---	---	---	<50/<50/<500 (d/k/m)	<0.5	<0.5	<0.5	<500	---	---	---
ESL's	**Surface Water Screening Levels (Estuary Habitats)**	**Water**			**210**	**210**	**210**	**210**	**210**	**46**	**40**	**30**	**100**	**180**	**18,000**	**2.5**
RSL's	**MCLs**	**Water**			**N/A**	**NA**	**NA**	**NA**	**N/A**	**5**	**1,000**	**700**	**10,000**	**N/A**	**NA**	**15**

Notes

***ESLs = Bay Area Regional Water Quality Control Board Environmental Screening Levels (Interim Final May 2008), where groundwater is NOT a source of Drinking Water*

RSLs=EPA Region 9 Regional Screening Levels (May 2012)

DTW: ;Depth to water (ft.) measured from top of casing (TOC).

DTW, Groundwater Elevation, and Well Elevation are reported in feet (ft); Well Elevation measured to top of casing

NT: Not Tested; NM: Not Measured; NS: Not Sampled

--- = No Data

Bolded Values Exceed Their Respective Criteria

µg/L = micrograms per liter (approximately equivalent to ppb)

< = Less than laboratory reporting limit indicated

d = The noted concentration is TEPH as diesel

m = The noted concentration is TEPH as motor oil

k = The noted concentration is TEPH as kerosene

** Hydrocarbons do not match laboratory's standard profile*

TABLE 3 - Soil Vapor Analytical Summary Table
Peralta Maintenance Yard
501 5th Avenue
Oakland, California
6045-019.01

Sample ID	Sampling Date	Matrix	Unit of Measurement µg/m³					
			Benzene	m,p- Xylene	Acetone	Chloroform	Toluene	MIBK
ACC-SV-1	27-Apr-12	Soil Vapor	<34	<81	<44	<62	<48	<42
ACC-SV-2	27-Apr-12	Soil Vapor	<6.9	<16	109	<12	<9.5	<8.5
ACC-SV-3	27-Apr-12	Soil Vapor	<6.9	<16	15	19	<9.5	<8.5
ACC-SV-4	27-Apr-12	Soil Vapor	<0.69	<1.6	10.7	9.85	<0.95	<0.85
ACC-SV-5	27-Apr-12	Soil Vapor	<0.69	<1.6	24	<1.2	<0.95	<0.85
ACC-SV-6	27-Apr-12	Soil Vapor	<0.69	<1.6	20	9.11	4.18	6.19
ACC-SV-7	27-Apr-12	Soil Vapor	<0.69	<1.6	15.6	<1.2	<0.95	<0.85
ACC-SV-8	27-Apr-12	Soil Vapor	2.62	5.93	23.6	<1.5	8.13	6.07
ACC-SV-9	27-Apr-12	Soil Vapor	<0.69	<1.6	12.9	17.7	<0.95	<0.85
Reference Standards								
ESLs**	Residential	Soil Vapor	84	21,000	660,000	460	63,000	NA
	Commercial	Soil Vapor	280	58,000	1,800,000	1,500	180,000	NA
California Human Health Screening Levels (CHHSLS)	Residential	Soil Vapor	36.2	315,000	NA	NA	135,000	NA
	Industrial	Soil Vapor	122	879,000	NA	NA	378,000	NA

Notes

***ESLs = Bay Area Regional Water Quality Control Board Environmental Screening Levels (Interim Final May 2008), where groundwater is NOT a source of Drinking Water*

Total Xylenes = m,p-Xylenes + o-Xylenes

CHHSLs = California Human Health Screening Levels for Soil, Cal EPA (January 2005) (Lead Revision September 2009)

N/A = No regulation limits available under ESL, PRG, or CHHSLS

ND = None Detected

MIBK = 4-Methyl-2-Pentanone

Bold Values Exceed Their Respective Criteria

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

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

September 25, 2012

Mr. Jeffrey Cook (*Sent via E-mail to: jcook@peralta.edu*)
Facilities Program Coordinator
Peralta Community College District
333 East 8th Street
Oakland, CA 94606

Subject: Case File Review for Fuel Leak Case No. RO0000384 and GeoTracker Global ID T0600100983, Peralta College District, 501 5th Avenue, Oakland, CA 94606

Dear Mr. Cook:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted documents entitled, "*Soil and Groundwater Characterization Report/Request for Low Risk Closure Report,*" dated July 12, 2012 (Report) and received by ACEH on July 30, 2012. The Report, which was prepared on behalf of the Peralta Community College District by ACC Environmental, Inc., presents results from soil, soil vapor, and groundwater sampling at various locations within the site.

The Report recommends that the area surrounding the former tank excavations in Plume A be considered for low risk closure. No specific data collected during the April 2012 investigation activities appear to indicate that the former tank excavation area poses potential risks to human health or the environment. However, we request additional information regarding sampling and analytical methods prior to consideration of whether additional action is needed in the former tank excavation area. Therefore, we request that you address technical comments 1 through 5 as a separate section of the Work Plan requested below.

Based on the detections of petroleum hydrocarbons in soil and groundwater, the Report recommends additional investigation upgradient of Plume A and near Plume B. We concur that additional investigation is needed in the area of the former service station and wash rack near boring ACC-B-14. We also concur that additional investigation is needed in the areas of borings ACC-B-16 and ACC-B-17. Please present plans for additional investigation in these areas in the Work Plan requested below.

Given the proximity of the former tank excavation to other areas of detected contamination (upgradient of Plume A and Plume B), case closure for the site would occur after investigation and/or cleanup activities have been concluded for all areas of the site. We envision one case closure document that incorporates each of the separate areas of investigation.

TECHNICAL COMMENTS

1. **Leak Detection for Soil Vapor Samples.** The Report indicates that 100% tetrafluoroethane was used as the leak detector tracer gas at each sample location. However, leak detection results are not discussed in the narrative of the Report and tetrafluoroethane does not appear as an analyte in the Analytical Results in Appendix A. The compound 1,1-difluoroethane was detected in two of the soil vapor samples. We request that you provide a discussion of leak detection results and data quality for the soil vapor samples. This discussion and responses to technical comments 1 through 5 can be provided as a separate section of the Work Plan requested below.

2. **Dilution Factors.** For soil vapor sample SV-1, the analytical results indicate a dilution factor of 50. In the Work Plan requested below, please identify the known or suspected reason for the dilution factor.

3. **Analytical Methods for Soil Vapor Samples.** In the conditional Work Plan approval letter dated August 15, 2012, ACEH requested that the soil vapor samples be analyzed for Total Petroleum Hydrocarbons as gasoline using Method TO-15 or 8260 and oxygen, methane, and carbon dioxide by ASTM 1946. It does not appear that these analyses were performed. These data would have been useful in helping to evaluate the items described in the technical comments above and would have provided supporting data for consideration of low-threat closure. In the Work Plan requested below, please indicate the reason or rationale for not collecting these data.

4. **Sub-Slab Vapor Sampling Methods.** The Report indicates that the sub-slab vapor samples were collected in accordance with relevant guidance documents. In the Work Plan requested below, please provide a description of the sampling methods used and data quality.

5. **Grab Groundwater Sampling Methods.** In the Work Plan requested below, please provide clarification that grab groundwater samples were not filtered in the field using a 0.45 micron filter.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **December 31, 2012** – Work Plan
  File to be named: WP_R_yyyy-mm-dd RO384

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Case files can be reviewed online at the following website: http://www.acgov.org/aceh/index.htm.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

Gwen Santos, ACC Environmental Consultants, 7977 Capwell Drive, Oakland, CA 94621 (*Sent via E-mail to: gsantos@accenv.com*)

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

GeoTracker, e-File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to .loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to .loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

PERJURY STATEMENT

Name of Document or Report:

Additional Soil and Groundwater Characterization Work Plan (3.27.13)
Peralta Community College District Maintenance Yard, 501 5th Avenue, Oakland, California
Fuel Leak Case No. RO0000384, GeoTracker Global ID T0600100983

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

Sadiq B. Ikharo

Signature

Dr. Sadiq B. Ikharo
Company Officer or Legal Representative Name

Vice Chancellor of General Services.
Title

4-1-2013

Date