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**DATA GAP INVESTIGATION PLAN AND FOCUSED CONCEPTUAL  
SITE MODEL**

For the Site Located at:

**2145 35<sup>TH</sup> AVENUE**

**OAKLAND, CALIFORNIA 94601**

Prepared for:

Salisbury Avenue Associates LLC

Prepared by:

Eagle Environmental Construction (EEC)

1485 Bayshore Boulevard, Suite 374

San Francisco, CA 94124

May 2, 2014

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## FIGURES

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*FIGURE 1* SITE LOCATION

*FIGURE 2* FUTURE SITE PLAN AND LOCATIONS OF SOIL GAS SAMPLING

*FIGURE 3* TEMPORARY SOIL GAS WELL DIAGRAM



1485 Bayshore Boulevard, Suite 374, San Francisco, CA 94124

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# EXHIBIT

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## *CONCEPTUAL SITE MODEL*



1485 Bayshore Boulevard, Suite 374, San Francisco, CA 94124

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## 1.0 INTRODUCTION

This Data Gap Investigation Plan and Focused Site Conceptual Model (Plan and CSM) are prepared for the former gasoline service station located at 2145 35<sup>th</sup> Avenue, Oakland, California (Figure 1). The Plan and CSM are prepared at the request of Alameda County Environmental Health (ACEH), in a letter dated February 20, 2014.

The Focused CSM is presented in a tabulated form and included in the attached Exhibit. The focused CSM concluded that in order for the site to qualify for closure under the Low Threat Underground Storage Tank Case Closure Policy (LTCP), data gap need to be satisfied. The data gap includes conducting a soil gas survey where the combined limits of TPH gasoline and diesel of 100 mg/kg or higher were encountered in the shallow soil, near the following borings: B1, B4, BH5, and BH9 (Figure 2). Additionally, the Soil and Groundwater Investigation Report, dated November 12, 2013, indicated that shallow soil at the site contains lead concentrations up to 310 mg/kg. The Interim Remedial Action Plan to deal with the lead impact to shallow soil, requested by ACEH letter, dated February 20, 2014, is the subject of another submittal, included under a separate cover.

## 2.0 BACKGROUND AND PURPOSE

The onsite soil and groundwater investigation performed through 2012 was documented in a report titled “Phase II Environmental Investigation Report and Supplemental Investigation Workplan” dated August 2012. The 2012 report documented the following:

- Removal of the car maintenance pit;
- Removal of the hydraulic lift;
- Removal of the dispenser island and associated piping;
- Drilling of fifteen soil borings onsite with soil and groundwater sampling and analysis;
- Installation and closing of 4 temporary piezometers; and
- Drilling and sampling of four monitoring wells

The offsite soil and groundwater investigation performed in 2013 was documented in a report titled “Soil and Groundwater Investigation Report”, dated November 12, 2013. The 2013 report documented the drilling and sampling of additional 10 offsite borings.

To date, the site has been fully characterized, except a data gap identified by the attached site focused CSM. This data gap includes conducting a soil gas survey where the combined limits of TPH gasoline and diesel of 100 mg/kg or higher were encountered in the shallow soil, near the following borings: B1, B4, BH5, and BH9 (Figure 2).

## 3.0 WORKPLAN FOR SOIL GAS SURVEY

### 3.1 Soil Gas Sampling Locations

A drilling permit will be obtained from Alameda County Public Works Agency if needed. A Health and Safety Plan will be prepared for the job. USA will be called to mark the utilities.

Three soil gas sampling locations are planned (Figure 2), SG-1, SG-2, and SG-3. The rationale and locations of these samples are as follows:

- SG-1 will be placed in the former underground storage tank (UST) location near B1, B4, and BH5, where the highest concentrations of combined TPH-G and TPH-D are encountered in the shallow soil and exceeded the 100 mg/kg, limit for closure under the LTCP.
- SG-2 will be placed near Boring BH9, next location where combined TPH-G and TPH-D are encountered in the shallow soil and exceeded the 100 mg/kg, limit for closure under the LTCP.
- SG-3 will be placed near monitoring well MW-2 and the property border to evaluate the potential for soil gas next to the neighboring building. Also, MW-2 showed the highest concentration of benzene, TPH-G, and TPH-D among all four monitoring wells.

### 3.2 Study Purpose and Data Quality Objectives

This site falls into the Low concentration groundwater scenario with or without Oxygen Figure A, Appendix 3, Page 12 of the LTCP Policy. The planned foundation of the building onsite is 2.5 feet bsg. The LTCP, Appendix 3, Figure A sets a limit of 100 mg/kg combined TPH as gasoline (TPH-G) and diesel (TPH-D) in shallow soil at 5 feet below the planned building onsite, when benzene level is less than 100 µg/L in the shallow groundwater. That is, a total depth of 7.5 feet bsg. To date, at this depth of 7.5 feet bsg or shallower, soil exceeded the combined limits of TPH gasoline and diesel of 100 mg/kg in the following borings: B1, B4, BH5, and BH9.

None of the analyzed compounds, benzene, ethylbenzene, or naphthalene exceeded its corresponding limit in the soil for residential direct contact and air exposure scenario of the LTCP in the shallow soil.

The data quality objective in this case is to determine whether any of the concentrations in the soil gas samples of TPH-G, benzene, ethyl benzene, or naphthalene exceeds the limits in the LTCP Appendix 4. That is the limits listed are benzene <85 µg/m<sup>3</sup>, Ethylbenzene <1,100 µg/m<sup>3</sup>; and Naphthalene <93 µg/m<sup>3</sup>. Since there is no value listed for TPH-G in the LTCP Appendix 4,

the environmental screening level (ESL) published by the Bay Area Water Resources Control Board, Table E-2 (SFCRWQCB 2013) will be used, 300,000  $\mu\text{g}/\text{m}^3$  will be used. Due to the heavy nature of TPH-D and lack of volatile organics in this compound, no soil gas analysis will be performed for TPH-D.

### 3.3 Sampling and Analysis Plan

#### 3.3.1 Drilling and Temporary Soil Gas Well Description

The building onsite will be built on a 2-foot thick concrete slab. The building foundation will reach 2.5 feet bsg. The LTCP, Appendix 4, calls for collecting the soil gas sample 5 feet below the foundation of the building. That is at 7.5 feet bsg for this site. Due to encountering water once at this site in monitoring well MW-1 at 7.98 feet bsg, and to avoid having moisture impacting the soil gas sample, we plan to collect the samples from approximately 6.0 to 7.0 feet bsg.

Sampling collection will follow the Advisory for Active Soil Gas Investigations, Prepared by DTSC in April 2012 (DTSC 2012).

Temporary soil gas wells for SG-1, SG-2, and SG-3 will be installed. A diagram of the temporary soil gas well is included in Figure 3. The installation procedures are as follows:

1. Use direct-push Geoprobe Method to drill each borehole to a depth of 7 feet bsg. Describe the lithology and generate a boring log.
2. Insert a  $\frac{1}{4}$  inch Teflon or other suitable material tubing with end Probe Tip to a depth of approximately 6.5 feet. Fill the borehole with the materials shown in Figure 3.

#### 3.3.2 Leak Testing, Purging, and Sampling

- To allow for the subsurface to equilibrate back to representative conditions, allow two hours of time for equilibrium to be established.
- Use a shroud or upside down plastic storage container to contain the tracer in a closed atmosphere.
- Perform shut in test - To conduct a shut-in test, assemble the above-ground valves, lines and fittings downstream from the top of the probe. Evacuate the system to a minimum measured vacuum of about 100 inches of water using the purge suma canister. The test is conducted while the canister, is attached with its valve in the closed position. Observe the vacuum gauge connected to the system with a "T"-fitting for at least one minute or

longer. If there is any observable loss of vacuum, the fittings are adjusted until the vacuum in the sample train does not noticeably dissipate.

- Perform a leak test - A leak test is used to evaluate whether ambient air is introduced into the soil gas sample during the collection process. Isopropyl alcohol on a clean rag will be used for leak test of all the fittings.
- Purge Volume Test - The purpose of a purge volume test is to ensure that stagnant air is removed from the sampling system and to ensure that samples are representative of subsurface conditions. Evacuate three volumes before collection of soil gas samples. One purge volume includes the following: the internal volume of tubing; the void space of the sand pack around the probe tip; and the void space of the dry bentonite in the annular space. Flow rates between 100 to 200 milliliters per minute (ml/min) and vacuums less than 100 inches of water will be maintained during purging and sampling.
- Passivated stainless steel canisters, 1.2 liter suma canisters with a flow regulator and vacuum gauge will be used. Five total canisters will be rented from a certified laboratory. One canister will be used for purging. One canister will be used as a replicate sample, and three canisters will be used for sampling. At least five days of dry weather will be allowed before any soil gas sampling is conducted.
- Once the system is purged as described above, the sampling suma canister will be attached to the line instead of the purging suma canister. Flow rates between 100 to 200 milliliters per minute (ml/min) and vacuums less than 100 inches of water will be maintained during sampling. The process will be repeated at the other two temporary soil gas wells.
- As a QC/QA measure, a replicate soil gas sample will be collected from SG-1. That is, immediately after collecting the soil gas sample from SG-1, a second replicate suma canister will be connected to the sampling train and filled with soil gas with the same flow rate and vacuum as the first sample.
- A chain of custody form will be completed in the field and include any relevant problems encountered during sample collection. The starting and ending pressures for passivated stainless steel canisters will be recorded on the chain of custody form.

### 3.3.3 Analysis of Soil Gas Samples

Once the samples are collected, they will be shipped to certified laboratory for analysis, accompanied by a completed chain of custody. The samples will be analyzed for the following:

- Using method TO-15 for volatile organics. In particular LTCP Appendix 4 compounds benzene, Ethyl benzene, and naphthalene will be included. Also, Isopropyl alcohol, the tracer compound will be included in method TO-15. Naphthalene will be verified by using TO-17 Method;

- Method TO-3 will be used for analyzing for the TPH-G range; and
- Method ASTM D1946 for Oxygen, Nitrogen, Carbon Dioxide, and Methane to help determine if atmospheric gases have infiltrated the sample.

The reporting limits will be low enough to satisfy the DQOs for this project. That is, to be able to detect and compare the compound concentrations to the risk levels for indoor vapor intrusion.

### **3.3.4 Waste Management**

All generated soil cuttings will be stored in a labeled 55-gallon drum onsite. The drum will be profiled and disposed of at a regulated disposal facility. Or this small quantity of drill cutting will be added to the soil to be disposed of later from the lead impacted soil excavation.

## **3.4 Soil Gas Well Decommissioning**

Once the soil gas sampling is completed, the temporary soil gas sampling wells will be closed in place according to the Advisory for Active Soil Gas Investigations, Prepared by DTSC in April 2012 (DTSC 2012). The following decommissioning steps will be followed:

- 1) Squeeze cement into the exposed tubing until the entire tubing is filled with material;
- 2) Cut the well tubing as far below grade as possible;
- 3) Fill the open hole with hydrated bentonite or as specified by the Alameda County Public Works inspector onsite.

## **4.0 DATA INTERPRETATION/ REPORT PREPARATION**

Following completion of the soil gas sampling and analysis, and receiving the analytical data, all field and analytical data will be reviewed and a technical report summarizing the activities, findings, and conclusions of the investigation will be prepared. The report will be submitted electronically to ACEH Department. An update of the conceptual site model will be completed.

## **5.0 GEOTRACKER AB2886 ELECTRONIC SUBMITTAL**

Following receipt of all electronic laboratory analytical reports, EEC will upload the sample results (EDF) and report to the State GeoTracker Database System, in general accordance with State Assembly Bill 2886.

## 6.0 SCHEDULE AND APPROVAL

We anticipate beginning the pre-field activities within 30 days from receiving written approval to proceed from ACEH and client. Drilling and sampling will occur within 30 to 60 days from the permitting approval. The report of findings will be available within 60 days of all analytical results and waste disposal.

Thank you for your cooperation. If you have any questions, please call at (925) 858-9608 or email Sami Malaeb at [s.malaeb@comcast.net](mailto:s.malaeb@comcast.net).

All engineering information, conclusions, and recommendations contained in this report and workplan have been prepared by a California Professional Engineer.

Workplan Prepared by:



Sami Malaeb, P.E.  
Project Manager

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



Salisbury Avenue Associates LLC

Peter Robertson  
Property Owner

## 7.0 REFERENCES

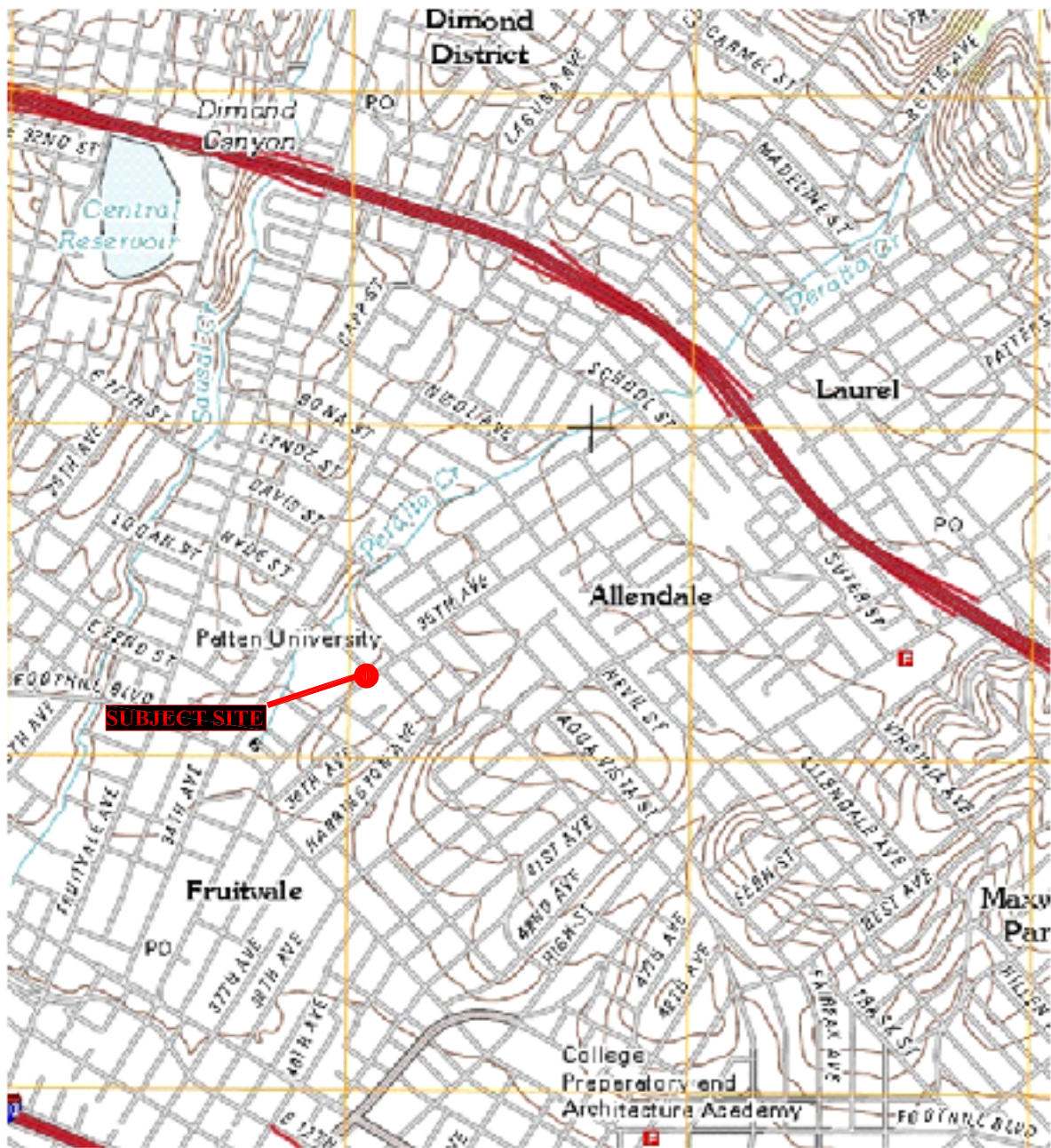
Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region (SFCRWQCB), 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - Revised May 2013.

Advisory, Active Soil Gas Investigations, Prepared by California Environmental Protection Agency (CAEPA); Department of Toxic Substances Control (DTSC); Los Angeles Regional Water Quality Control Board (LARWQCB); and San Francisco Regional Water Quality Control Board (SFRWQCB), April 2012.

## FIGURES

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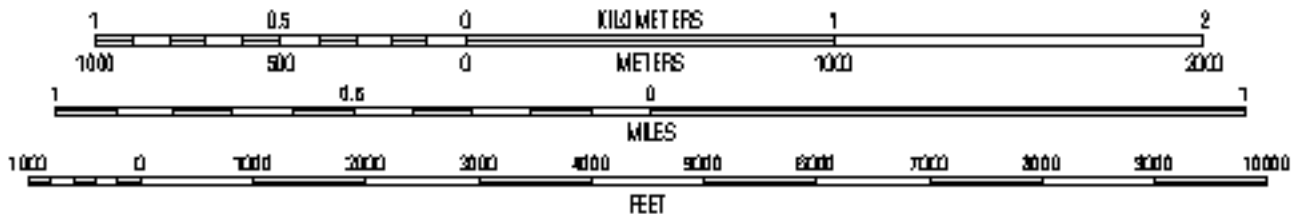




**SUBJECT SITE**



**SCALE 1:24 000**



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

SITE LOCATION  
2145 35TH AVENUE  
OAKLAND, CA 94601

FIGURE 1  
OCTOBER  
2013

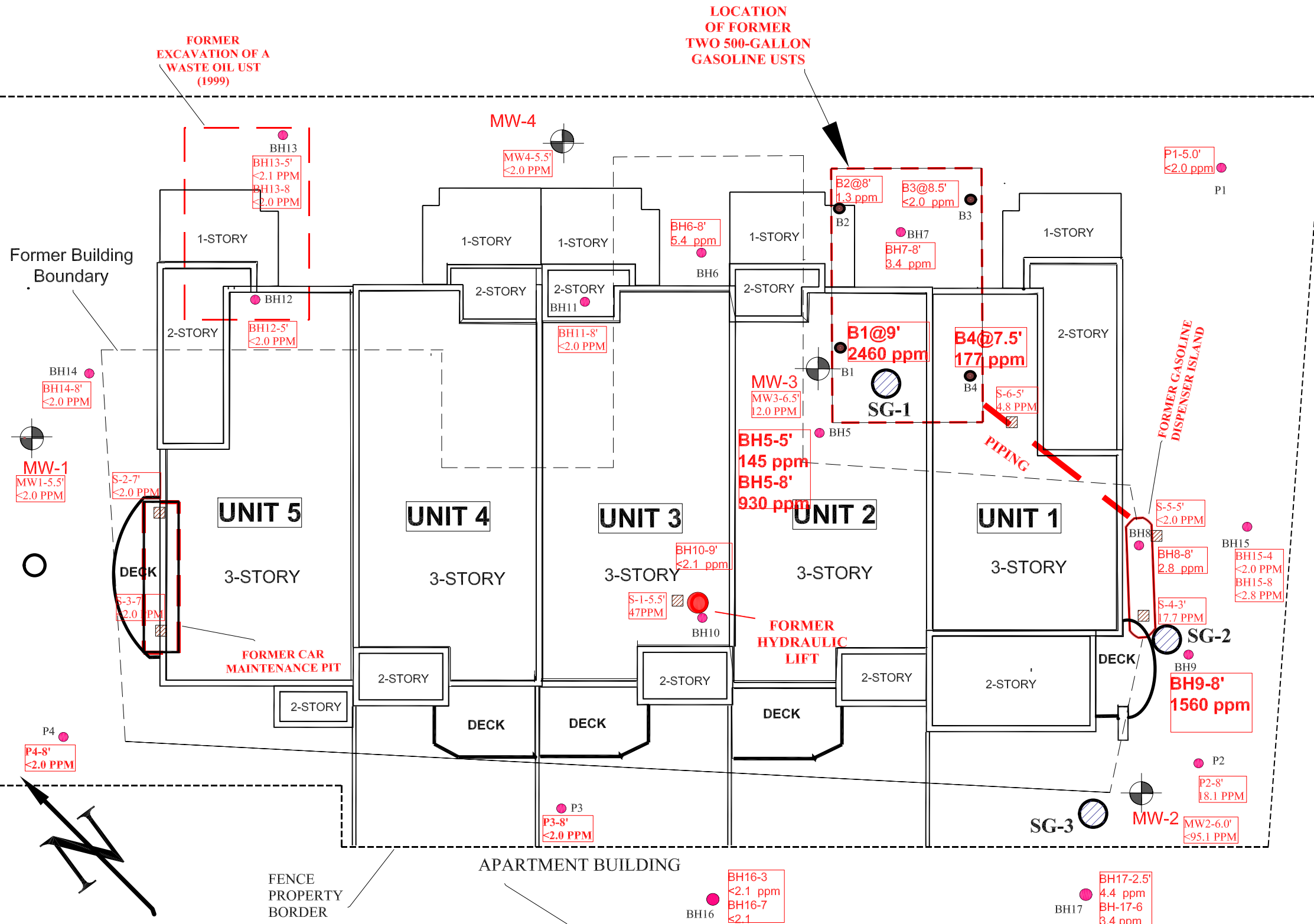
RESIDENTIAL HOUSES

# SALISBURY STREET

SIDEWALK



SUBJECT SITE



35TH AVENUE

FUTURE BUILDING FOUNDATIONS ARE ON THE DOUBLE LINES ALONG THE WALLS OF THE BUILDING

**P3-8'**  
**<2.0 PPM** Denotes TPHG+TPH-D in Soil  
Bold where TPHG + TPHD exceeds 100 ppm

**SG-1** Soil Gas Sampling Locations

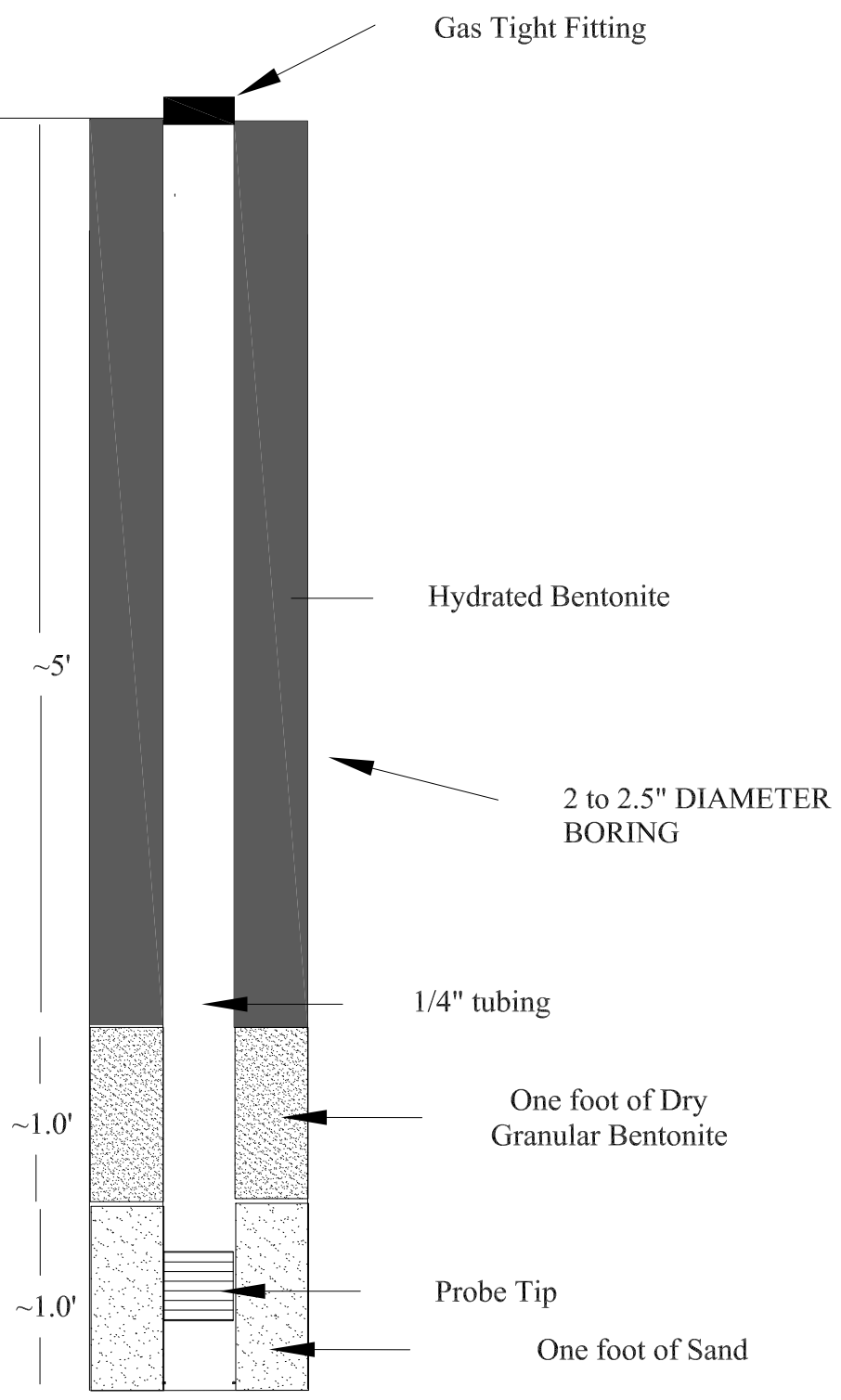


1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

FUTURE SITE PLAN AND  
LOCATIONS OF SOIL GAS SAMPLING  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 2  
MARCH 2014

GROUND SURFACE



1485 BAYSHORE BOULEVARD  
SUITE 374  
SAN FRANCISCO, CA 94124

2145 35th AVENUE  
OAKLAND, CALIFORNIA

(03/13/14) BY SM  
NOT TO SCALE

FIGURE 3  
SOIL GAS WELL  
CONSTRUCTION DIAGRAM

# EXHIBIT CONCEPTUAL SITE MODEL

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**Table**  
**CONCEPTUAL SITE MODEL (CSM)**  
**2145 35<sup>th</sup> Avenue, Oakland, California**  
**Fuel Leak Case No.: RO0002945; Global ID T0619778840**  
**(May 02, 2014)**

CSM Element	Description	Data Gap	How to Address
<b>Geology and Hydrogeology</b>	<p><b><u>REGIONAL</u></b></p> <p>The site is located to the west of the Oakland-Berkeley Hills on the East Bay Plain, which slopes gently to the west (Figure 1). The site is located near the range front, and therefore within an area characterized by relatively shallow bedrock and minimal thickness of alluvium. The site is directly situated at the lateral margin of stream channel deposits attributed to the Temescal Formation. These deposits overlie and in the vicinity of the site are laterally adjacent to the Upper Member of the San Antonio formation, consisting of clay, silt sand and gravel (Radbruch, 1969). Helley and Graymer (Helley and Graymer, 1997) portray essentially the same geology, using differing terminology. Both formations are Quaternary in age (formed over the past approximately one million years). Younger relatively thick alluvial deposits characteristic of the East Bay Plain are situated approximately 1,500 feet to the southwest; these deposits thicken as one proceeds further to the southwest towards San Francisco Bay.</p> <p>The site is located in the East Bay Plain Subbasin. Peralta Creek is located upgradient to crossgradient from the site and at a distance of approximately 700 feet. In 1996, the Regional Board reviewed General Plans for Oakland and other communities. The Board found that Oakland and most other cities did not have any plans to develop local groundwater resources for drinking water, due to existing or potential saltwater intrusion, contamination, or poor or limited quality (Regional Water Quality Control Board, San Francisco Bay Region, June 1999). Throughout most of the East Bay Plain, in the region of the site, surface elevation contours show a slope from the east towards the west to southwest (Figure 1).</p>	None	NA

CSM Element	Description	Data Gap	How to Address
	<p><b><u>THE SITE</u></b></p> <p>Based on the borings drilled and logged in 2007, 2012, and 2013 (Appendix), the site lithology was explored to a maximum depth of 25 bsg. Three borings BH5, BH9, and BH12 were drilled deeper with dual casing to 35.5 feet, 37.5 feet, and 30 feet bsg respectively (Figures 2 and 3). These borings revealed the depth of the fill material at between approximately 2 to 7 feet. The fill was mottled, black clay with minor traces of gravel. A brown to grayish brown clay was logged beneath the fill, except some intermingling layers of silty sands and gravel.</p> <p>The encountered strata underlying the site consisted of inter-bedded laterally discontinuous in some locations and continuous in others. Soils ranged from clay to gravel. Locations of revised cross sections A-A' through E-E' (Figure 5 and respectively shown on Figures 6 through 10) indicate our interpretation of these soil strata. Sections A-A' and C-C' are approximately perpendicular to the regional ground water flow direction, and B-B' and D-D' approximately parallel to the regional flow direction. Section EE' was approximately through the groundwater flow direction and included the offsite area.</p> <p>Depth to groundwater measured from four monitoring wells onsite ranged from 8 to 11 feet bsg. The calculated groundwater flow direction was towards the south (Figure 11 and Table 1). The underground utilities were surveyed onsite and on the vicinity streets. The results of the survey are documented in Figure 14. These results are as follows:</p> <ul style="list-style-type: none"> <li>• The former or existing water, electrical, and gas lines onsite and offsite are less than three feet bsg. Since the depth to groundwater is at least 9 feet bsg, these utility lines are unlikely to interfere with or affect the groundwater flow direction or preferential pathway for groundwater.</li> <li>• The nearest storm water inlet is located approximately 300 feet from the site and at a depth of less than 5 feet bsg. The storm water line is unlikely to influence the groundwater flow.</li> <li>• The sewer main on 35<sup>th</sup> Avenue is located at a depth of 10 to 12 feet bsg. This line is located crossgradient to downgradient and may have some influence on affecting the groundwater flow or be a preferential pathway. However, drilling the offsite borings BH16 through BH25 did not indicate groundwater plume to extend to the middle or beyond the middle of 35<sup>th</sup> Avenue (Figure 13).</li> </ul>	None	NA

CSM Element	Description	Data Gap	How to Address
<b>Surface Water Bodies</b>	Peralta Creek is located upgradient to crossgradient from the site and at a distance of approximately 700 feet. No other identified surface water bodies were identified in the vicinity of the site (Figure 1).	None	NA
<b>Nearby Wells</b>	Review of documentation provided by EDR and Alameda County Public Works Agency, Well Section for the property revealed no public drinking water wells or environmental monitoring wells within 1/4 mile of the site.	None	NA
<b>Release History</b>	<p>The identified primary sources of contamination at this site are as follows (Figure 2):</p> <ul style="list-style-type: none"> <li>• Two former 500-gallon USTs, used to contain gasoline fuel;</li> <li>• the associated piping and gasoline dispenser island;</li> <li>• a former 500-gallon waste oil UST;</li> <li>• a former hydraulic lift; and</li> <li>• a former car maintenance pit</li> </ul> <p>The identified secondary sources of contamination at this site are the impacted soil and groundwater. All the identified primary sources of contamination onsite have been removed.</p> <p>The contaminants of concerns (COCs) are TPH as Gasoline; TPH as Diesel; benzene, toluene, ethyl benzene, and xylenes (BTEX); TPH as motor oil; naphthalene; nickel; and lead. See Table 2 for the COCs and maximum concentrations. Tables 3 and 4 summarize the cumulative analytical results and Tables 5 through 9 summarize the groundwater analytical results.</p>	None	NA
<b>Plume and Dynamics</b>	<p><b>Soil</b></p> <ul style="list-style-type: none"> <li>• This site falls into the Low concentration groundwater scenario with or without Oxygen Figure A, Appendix 3, Page 12 of the LTCP Policy. The planned foundation of the building onsite is 2.5 feet bsg. The low-threat UST case closure policy (LTCP), Appendix 3, Figure A sets a limit of 100 mg/kg combined TPH as gasoline and diesel in shallow soil at 5 feet below the planned building onsite, when benzene level is less than 100 µg/L in the shallow groundwater. That is, a total depth of 7.5 feet bsg. To date, at this depth of 7.5 feet bsg or shallower, soil exceeded the combined limits of TPH gasoline and diesel of 100 mg/kg in the following borings: B1, B4, BH5, and BH9 (Table 3, Figures 12 and 16).</li> <li>• None of the analyzed compounds, benzene, ethylbenzene, or naphthalene exceeded its corresponding limit in the soil for residential direct contact and outdoor air exposure scenario of the LTCP in the shallow soil.</li> </ul> <p><b>Groundwater</b></p> <ul style="list-style-type: none"> <li>• Groundwater-Specific Criteria – The LTCP policy, Page 6, Case (1). The following is applicable to the groundwater at the subject site.</li> </ul>	Soil Gas Data	Perform soil gas survey where the combined limits of TPH gasoline and diesel of 100 mg/kg or higher, near the following borings: B1, B4, BH5, and BH9



CSM Element	Description	Data Gap	How to Address
	<ol style="list-style-type: none"> <li>1. The contaminant plume that exceeds water quality objectives is less than 100 feet in length (Figure 13).</li> <li>2. There is no free product. No free product was encountered at the subject site.</li> <li>3. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary.</li> </ol> <ul style="list-style-type: none"> <li>• The vertical extent of the plume has been defined. The analytical data to date did not identify soil or groundwater contamination below 30 feet bsg. Borings BH5, BH9, and BH12 were extended to greater depths with dual casing to 35.5 feet, 37.5 feet, and 30 feet bsg respectively. No signs of impact with petroleum hydrocarbons or detected PID reading were noticed beyond approximately 20 feet of depth in any of the deeper borings BH5, BH9, or BH12. Analytical results indicated that no impact to deeper groundwater was encountered.</li> <li>• Direct Contact and Outdoor Air Exposure – The LTCP policy, Page 8, scenario (a) applies to this site. None of the analyzed compounds, benzene, ethylbenzene, or naphthalene exceeded its corresponding limit. Maximum of Benzene, Ethylbenzene, and Naphthalene were detected to date, within the specified depth, were Non-detected for benzene, 6.4 mg/kg for ethylbenzene, and 5.8 mg/kg for Naphthalene.</li> <li>• Fuel Oxygenates, Lead Scavengers, and Chlorinated Hydrocarbons - Fuel oxygenates, lead scavengers, and chlorinated hydrocarbons were not detected in the soil or groundwater.</li> <li>• Benzene Level in Groundwater – Benzene was detected to date in the monitoring wells onsite at a maximum of 92 µg/l in December 2012. Such level decreased to 50 µg/l in June 2013. Maximum benzene level is still below 100 µg/l to qualify the site for Low concentration groundwater scenario with or without Oxygen, Figure A, Appendix 3, Page 12 of the LTCP Policy.</li> </ul> <p>Soil Gas</p> <p>Soil gas sampling has not been conducted at this site yet.</p>		
<b>Summary Tables of Chemical Concentrations</b>	<p>Tables 3 and 4 summarize the cumulative analytical results and Tables 5 through 9 summarize the groundwater analytical results.</p>	None	NA



CSM Element	Description	Data Gap	How to Address
	<p>The tables summarize the groundwater analytical results as follows:</p> <ul style="list-style-type: none"> <li>• Table 3 includes the groundwater analytical results from the borings for petroleum hydrocarbons; MTBE; naphthalene, and PCBs.</li> <li>• Table 4 includes the groundwater analytical results for LUFT five metals.</li> <li>• Table 5 includes the groundwater from the monitoring wells analytical results for petroleum hydrocarbons, BTEX, and MTBE.</li> <li>• Table 6 includes the analytical results for Polycyclic Aromatic Hydrocarbons (PAHs) from the monitoring wells.</li> <li>• Table 7 summarizes the lab results for petroleum hydrocarbons in the monitoring wells.</li> <li>• Table 8 includes the groundwater PAHs results from the monitoring wells.</li> <li>• Table 9 includes the groundwater analytical results for five metals from the monitoring wells.</li> </ul>		
<p><b>Current and Historic Site Structures/ Operations/Processes</b></p>	<p>At the present time, the site is a vacant and unpaved lot. An automobile repair and fueling station operated at the Site from the 1930s until early 1970s (Figure 2). An iron fence and grating company used the facility between late 1970s and approximately 1990. Interviews with a former owner of the iron fence company revealed that two 500-gallon gasoline underground storage tanks (USTs) were removed in approximately 1984; An attempt was made in 1999 to locate and remove a waste oil UST from the site. Although a closure permit and excavation were undertaken, the waste oil UST could not be located. Inspection of the site during the Phase 1 ESA revealed the presence of an auto maintenance pit in the rear garage and a hydraulic lift (Figure 2). All USTs, piping, hydraulic lift, and building onsite have since been removed.</p> <p>The plan for the near future is to build 5 residential units onsite. The units will be built on a 2 foot thick concrete slab and footing not to exceed 2.5 feet below surface grade. Figures 15 through 19 show the future location of the building onsite with respect to the former sources.</p>	None	NA
<p><b>Other Contaminant Release Sites in the Vicinity of the Site</b></p>	<p>The subject site is located within a residential area of Oakland and surrounded from all four sides by residential properties (Figure 2). No releases from the neighboring sites have been reported.</p>	None	NA
<p><b>Land Uses and Exposure Scenarios</b></p>	<p>As mentioned above, the land use in the area of the site is residential. Peralta Creek is located upgradient to crossgradient from the site and at a distance of approximately 700 feet. No other identified surface water bodies were identified in the vicinity of the site. Nearest School is within</p>	None	NA

CSM Element	Description	Data Gap	How to Address
	<p>500 feet from the site and to the South (downgradient). However, the offsite groundwater plume is contained within 100 feet from the site and does not impact the nearby school (Figure 13). Review of documentation provided by EDR and Alameda County Public Works Agency, Well Section for the property revealed no public drinking water wells or environmental monitoring wells within 1/4 mile of the site.</p> <p>The potential exposure pathways and Receptors are presented in Table 10. The only valid exposure pathway is the intrusion of vapor to indoor air and direct exposure under the future residential building onsite.</p>		
<b>Data Gaps</b>	<p>The lateral and vertical extents of impacts to soil and groundwater from the release of petroleum hydrocarbons have been fully characterized (see previous section under Plume and Dynamics in this Table). A total of 15 borings were drilled onsite and 10 borings were drilled offsite. Soil and groundwater sampling and analyses were conducted from each boring. Four monitoring wells were drilled onsite and sampled to date for five events.</p> <p>In order for this site to qualify for closure under the LTCP policy, the following is recommended:</p> <ul style="list-style-type: none"> <li>• Since the site exceeded the 100 mg/kg combined for TPH-G and TPH-D in borings B1, B4, BH5, and BH9 (Figure 3), soil gas survey needs to be conducted to evaluate the risk to indoor air of future occupants of the planned residential building onsite.</li> </ul>	Soil Gas Data	Perform soil gas survey where the combined limits of TPH gasoline and diesel of 100 mg/kg or higher, near the following borings: B1, B4, BH5, and BH9

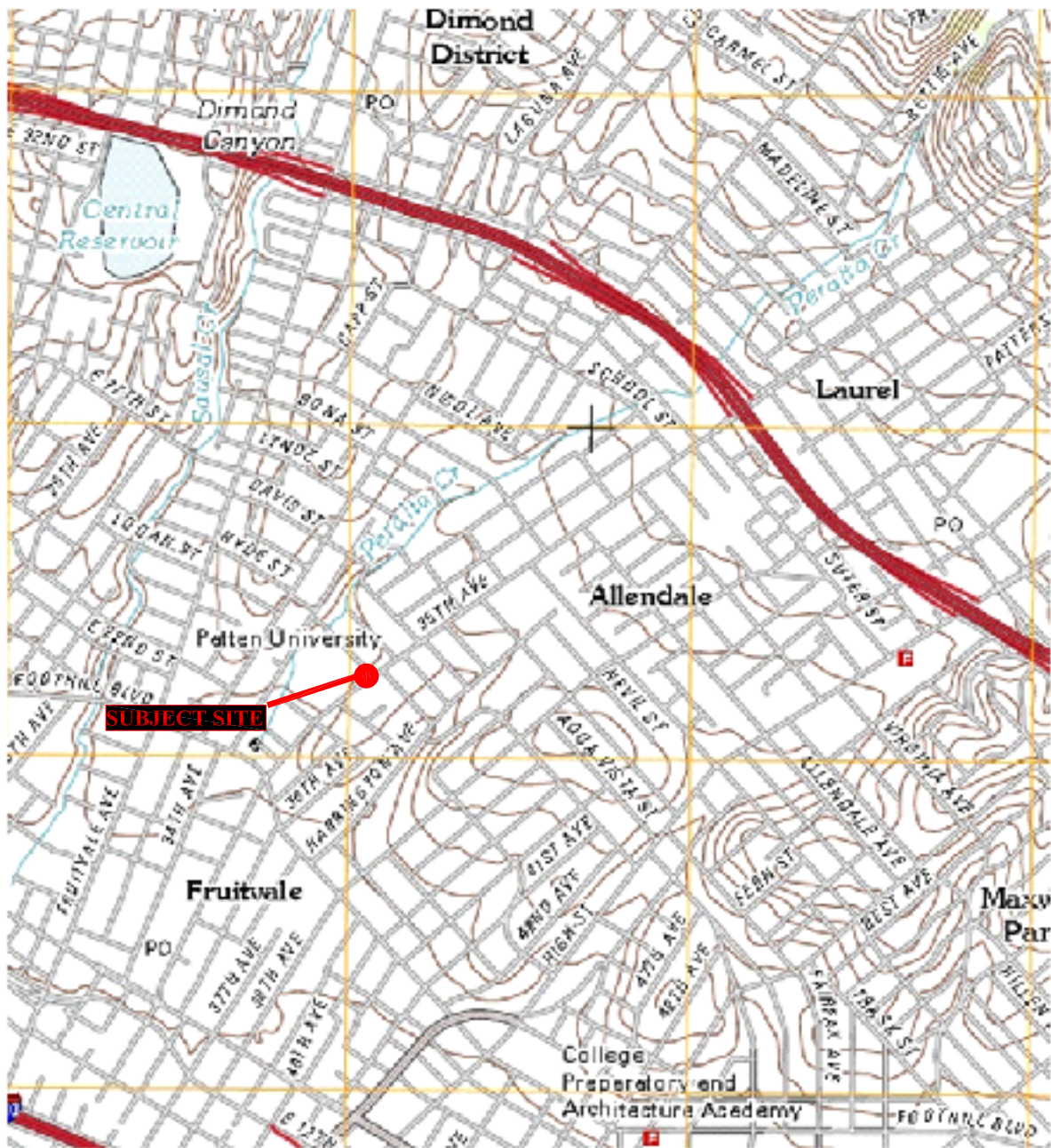
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Helley, E.J, and Graymer, R.W, 1997, *Quaternary Geology of Alameda County, and Parts of Contra Costa, Santa Clara, San Mateo, San Francisco, Stanislaus, and San Joaquin Counties, California: A Digital Database*, USGS Open File Report OF97-97, Scale 1:100,000.

Regional Water Quality Control Board, San Francisco Bay Region-Groundwater Committee, 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report. June 1999*.

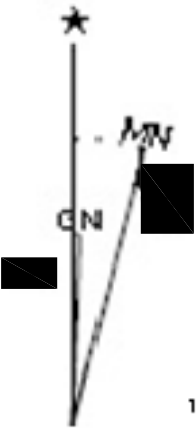
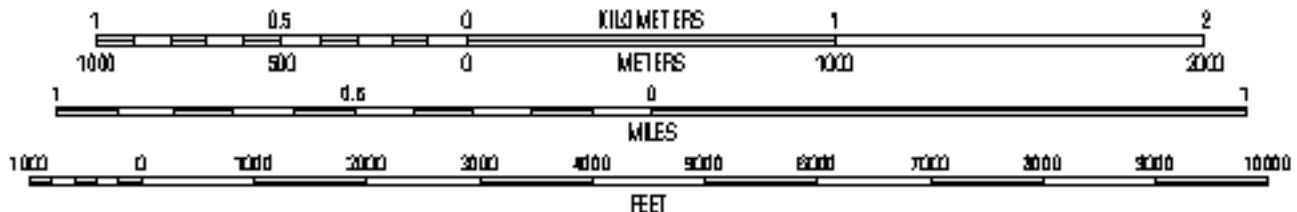
Helley, E.J, and Graymer, R.W, 1997, *Quaternary Geology of Alameda County, and Parts of Contra Costa, Santa Clara, San Mateo, San Francisco, Stanislaus, and San Joaquin Counties, California: A Digital Database*, USGS Open File Report OF97-97, Scale 1:100,000.

## FIGURES



**SUBJECT SITE**

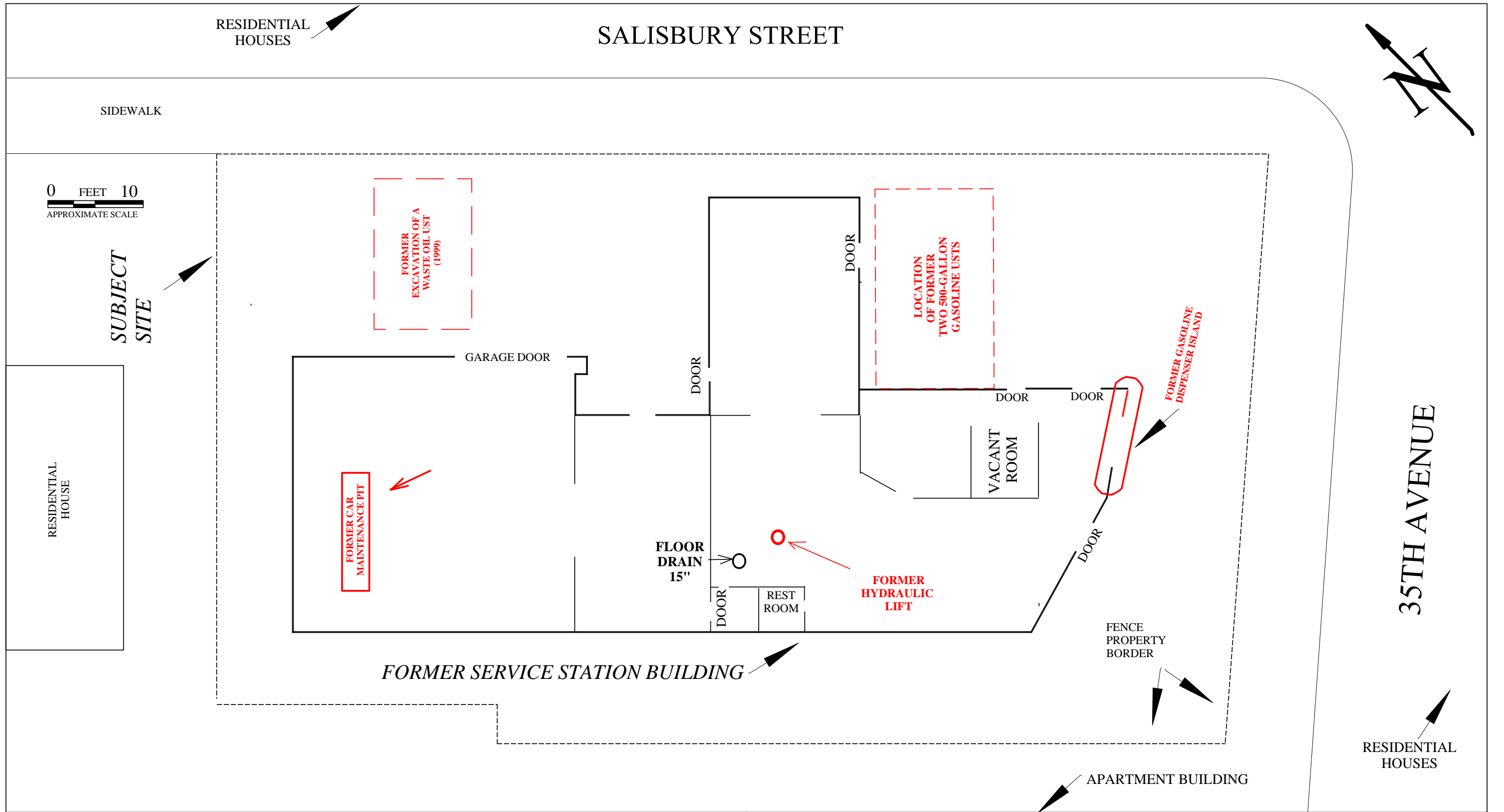
SCALE 1:24 000



  
1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

SITE LOCATION  
2145 35TH AVENUE  
OAKLAND, CA 94601

FIGURE 1  
OCTOBER  
2013



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

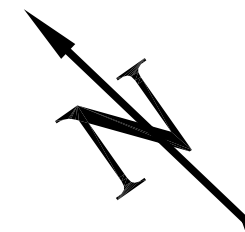
SITE PLAN  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 2  
AUGUST 2012

RESIDENTIAL HOUSES

# SALISBURY STREET

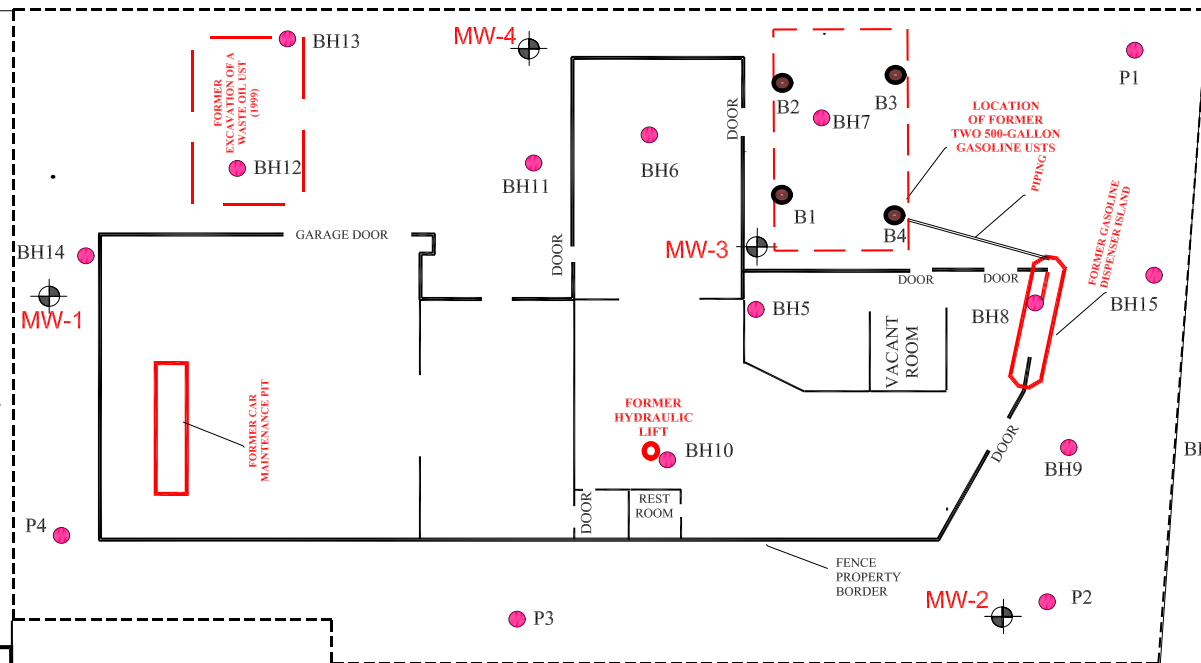
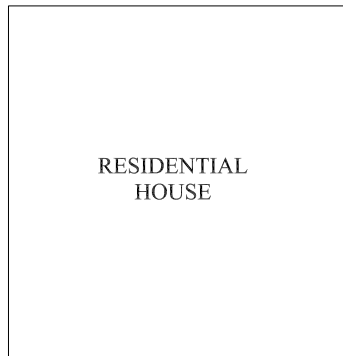
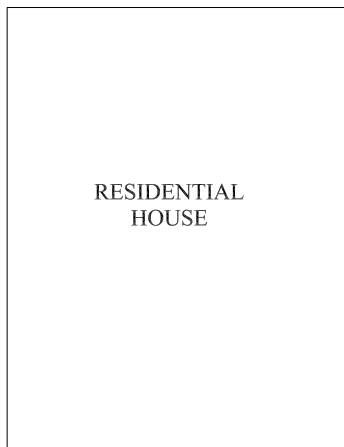
CALCULATED GROUNDWATER FLOW DIRECTION



SIDEWALK

0 FEET 20  
APPROXIMATE SCALE

SUBJECT SITE



SIDEWALK

35TH AVENUE

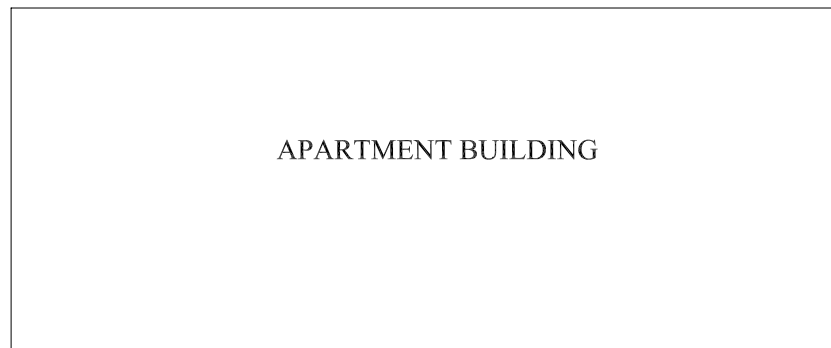
SIDEWALK

RESIDENTIAL HOUSES

RESIDENTIAL HOUSES

RESIDENTIAL HOUSES

- DRILLED MONITORING WELLS IN 2012
- BORINGS DRILLED IN 2012
- BORINGS DRILLED IN 2007
- BORINGS DRILLED IN JULY 2013
- BORINGS DRILLED IN SEPTEMBER 2013



SCHOOL PARKING LOT

## FIGURE 3

### OCTOBER 2013

#### BORING LOCATIONS 2145 35TH AVENUE, OAKLAND, CALIFORNIA



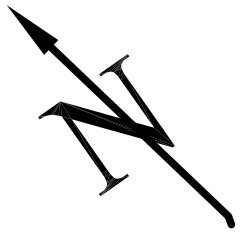
1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124



RESIDENTIAL HOUSES

# SALISBURY STREET

CALCULATED GROUNDWATER FLOW DIRECTION



0 FEET 20  
APPROXIMATE SCALE

SUBJECT SITE

RESIDENTIAL HOUSE

RESIDENTIAL HOUSE

DRILLED MONITORING WELLS

TPHg 560 ug/l  
TPHd 1,400 ug/l  
Benzene ND<1.3 ug/l

Concentrations  
in Groundwater

- BORINGS DRILLED IN 2012
- BORINGS DRILLED IN 2007
- BORINGS DRILLED IN JULY 2013
- BORINGS DRILLED IN SEPTEMBER 2013

## FIGURE 4

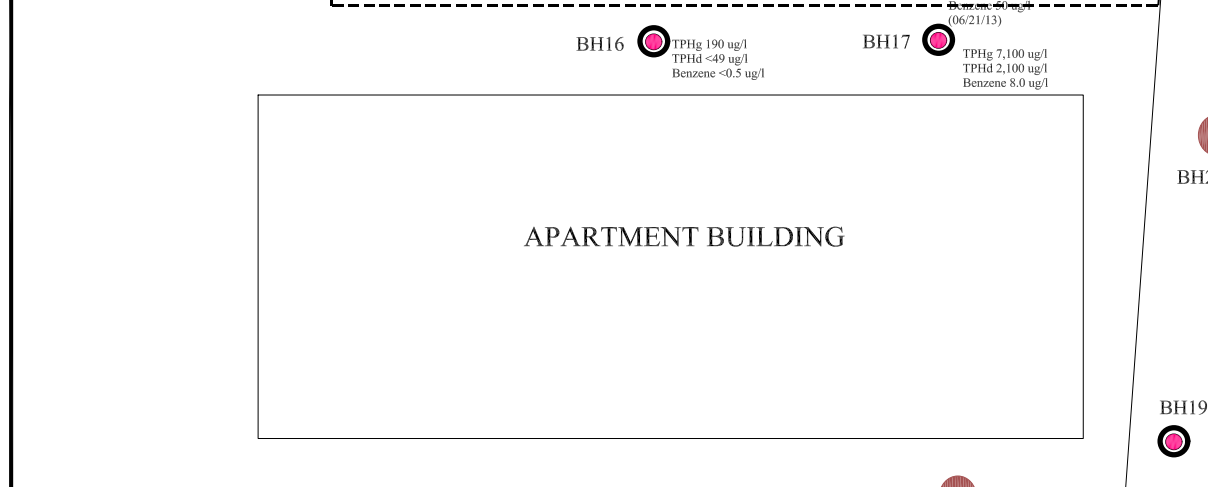
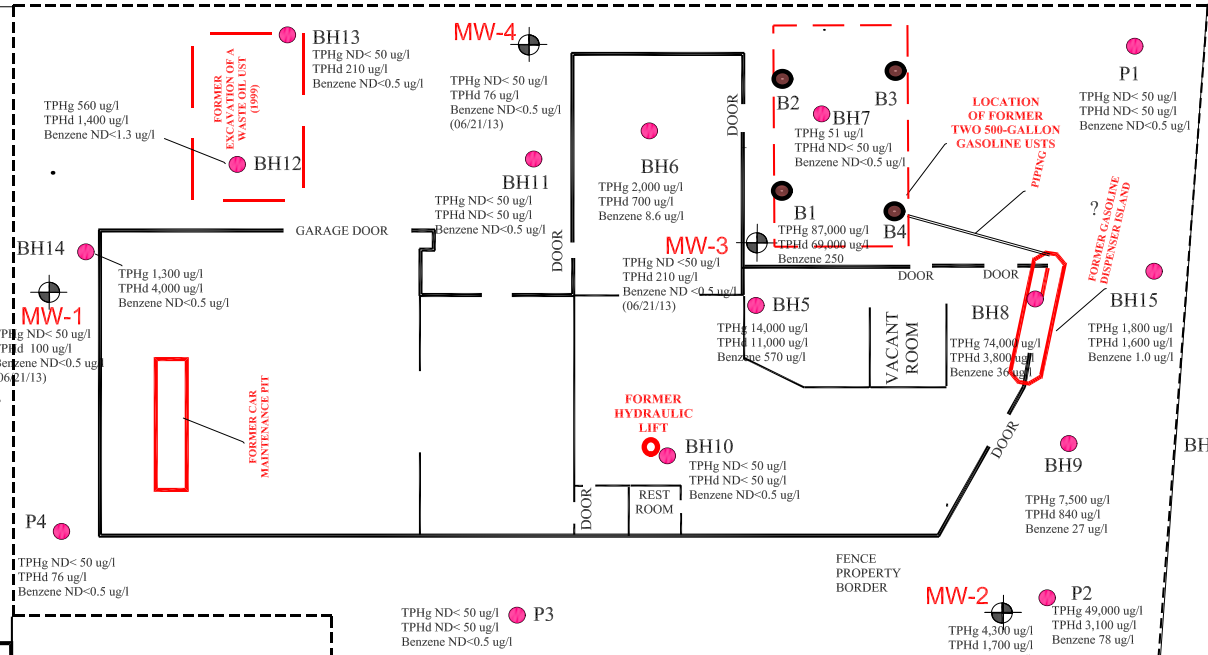
### OCTOBER 2013

DEPICTION OF TPH-G, TPH-D  
AND BENZENE IN GROUNDWATER  
2145 35TH AVENUE, OAKLAND, CALIFORNIA



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

SIDEWALK



SIDEWALK

## 35TH AVENUE

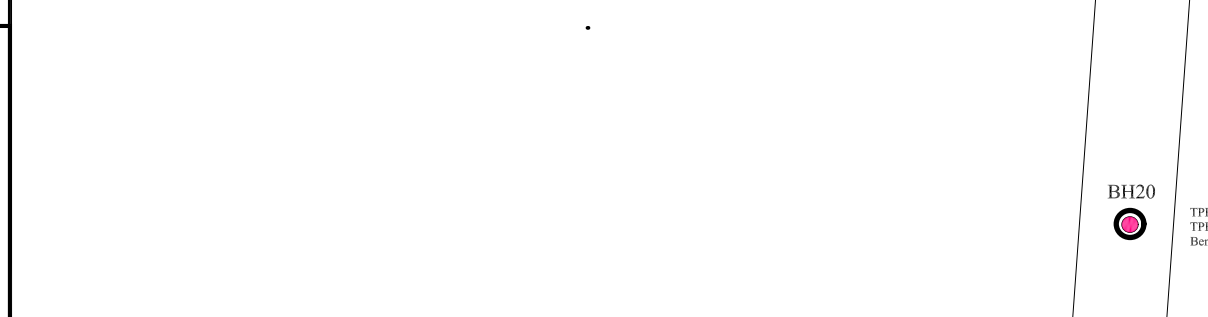
SIDEWALK

RESIDENTIAL HOUSES

RESIDENTIAL HOUSES

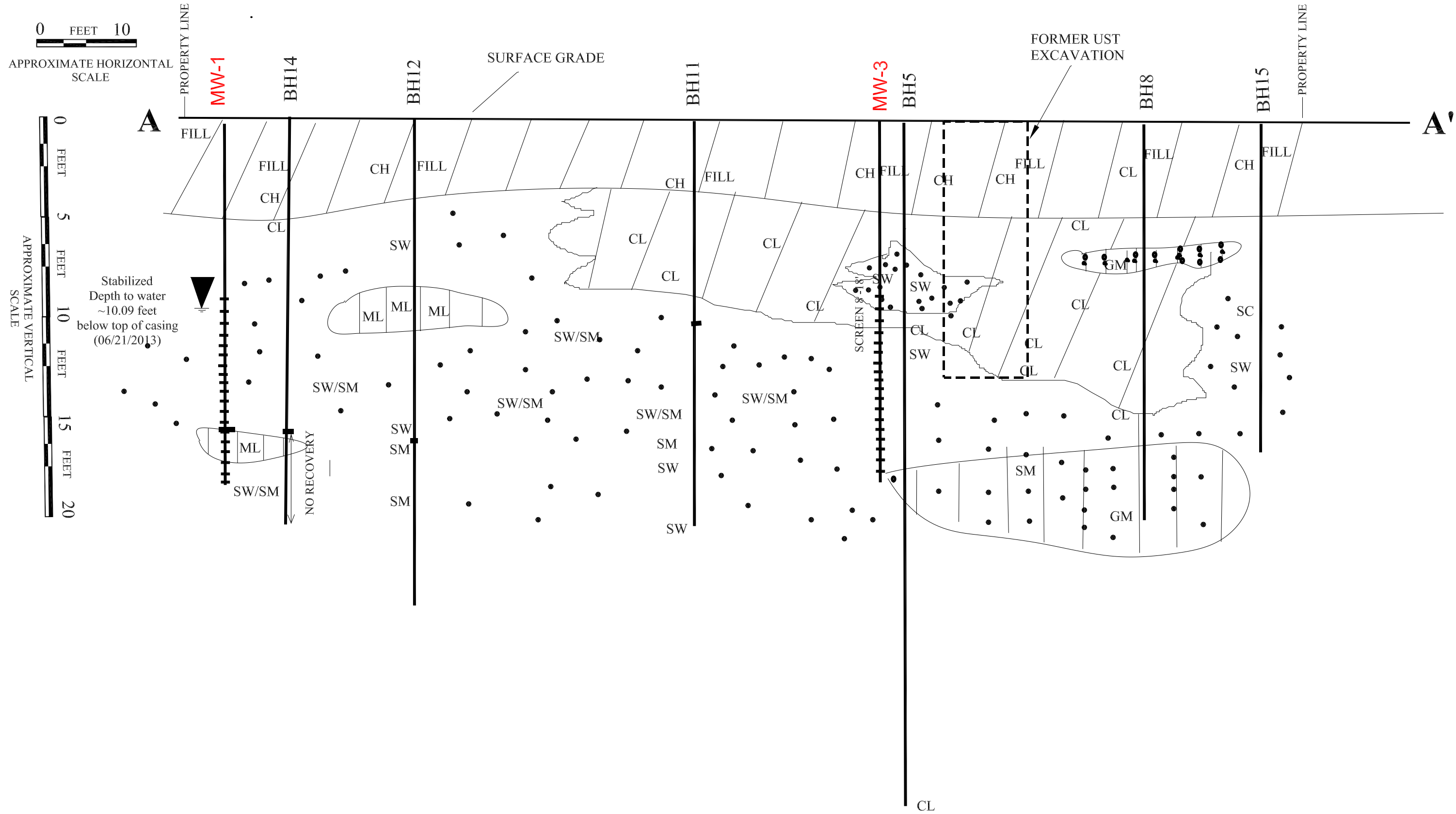
RESIDENTIAL HOUSES

SCHOOL PARKING LOT









1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

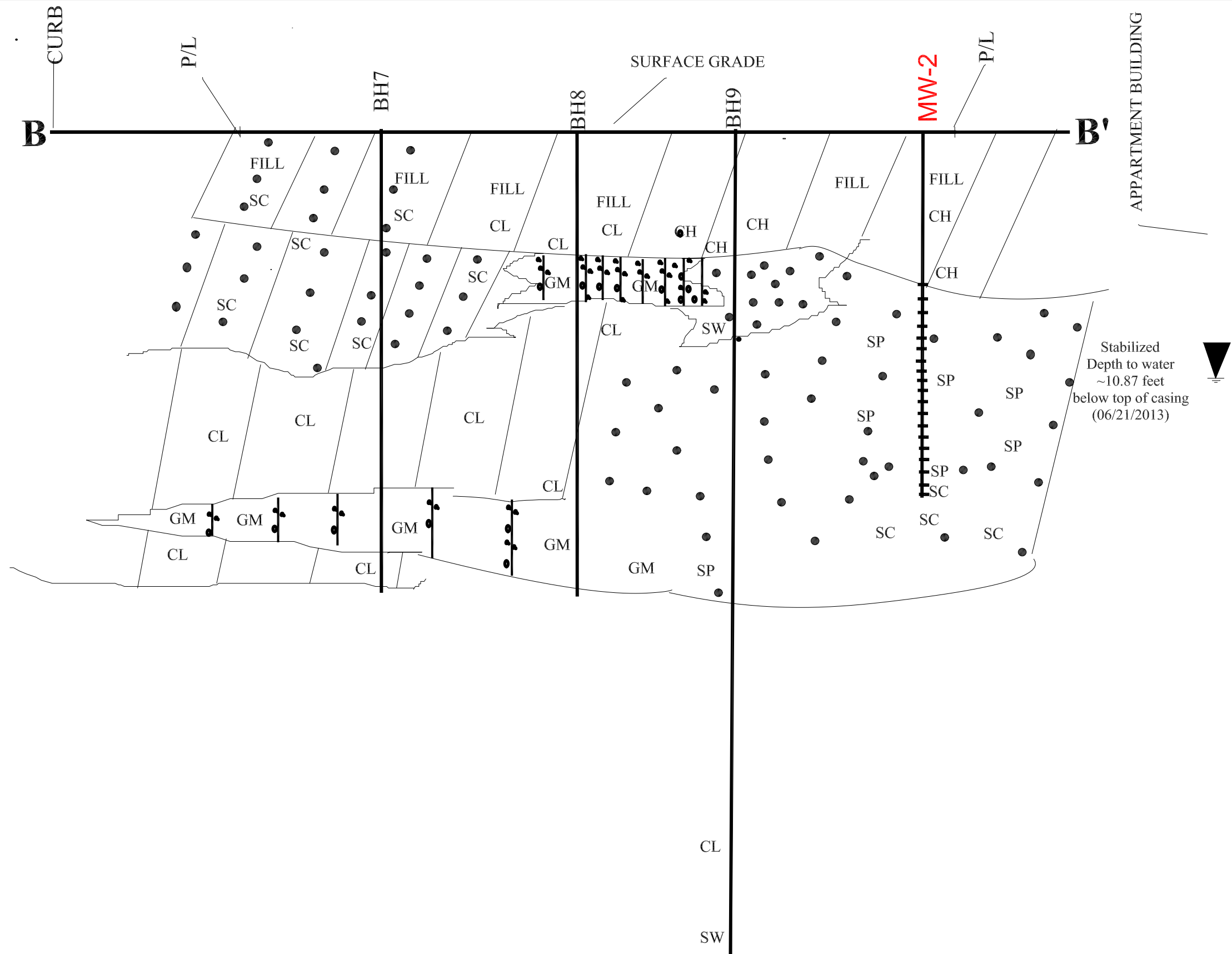
CROSS SECTION AA'  
(SEE FIGURE 5)  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 6

OCTOBER 2013

0 FEET 10

0 FEET 5 FEET 10 FEET 15 FEET 20  
APPROXIMATE VERTICAL SCALE



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

CROSS SECTION BB'  
(SEE FIGURE 5)  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 7

OCTOBER 2013



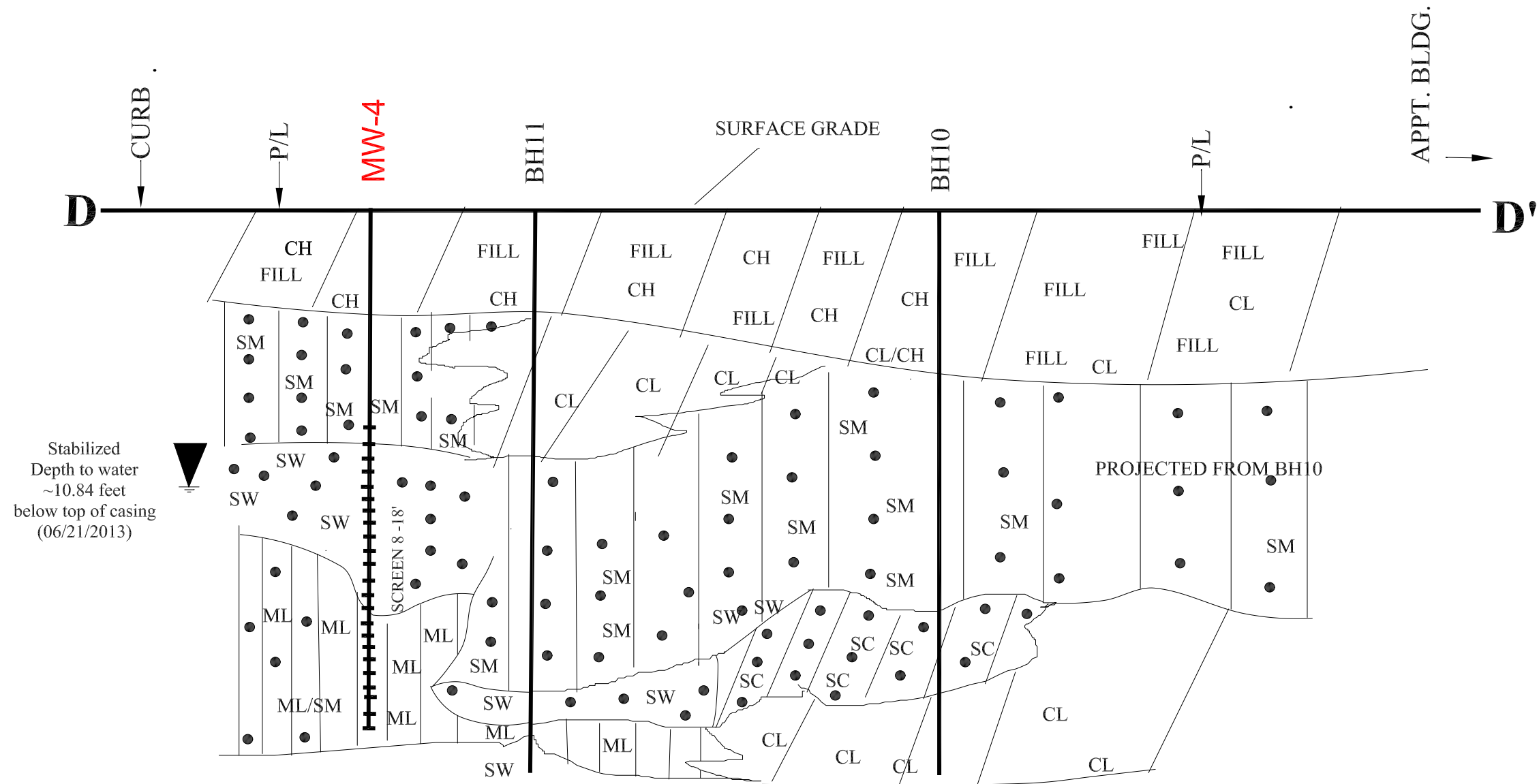
1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

CROSS SECTION CC'  
(SEE FIGURE 5)  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 8  
OCTOBER 2013

0 FEET 10  
APPROXIMATE HORIZONTAL  
SCALE

0 FEET  
5 FEET  
10 FEET  
15 FEET  
20 FEET  
APPROXIMATE VERTICAL  
SCALE



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

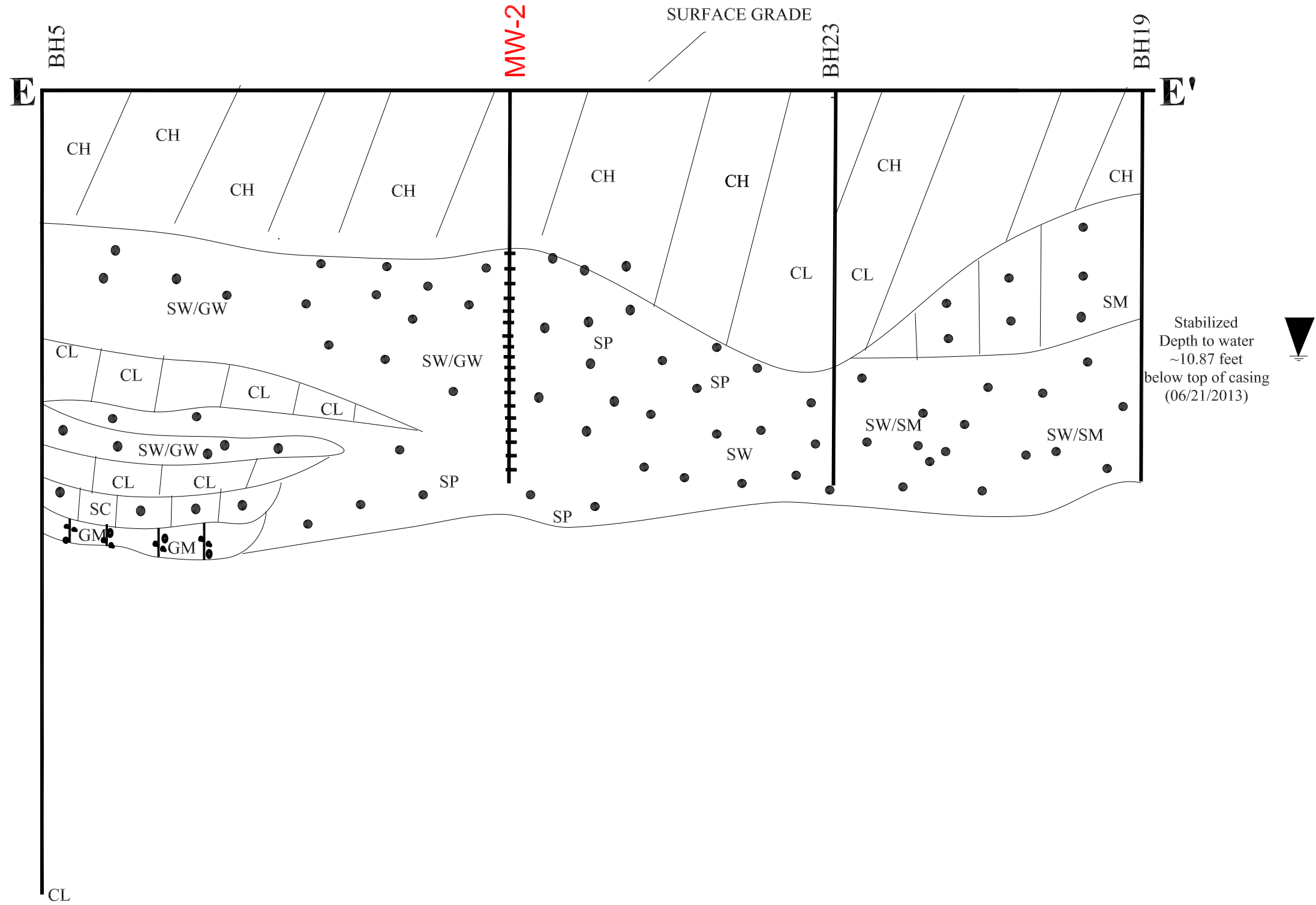
CROSS SECTION DD'  
(SEE FIGURE 5)  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 9

OCTOBER 2013

0 FEET 10

0 FEET 5 FEET 10 FEET 15 FEET 20  
APPROXIMATE VERTICAL SCALE



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

CROSS SECTION EE'  
(SEE FIGURE 5)  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 10

OCTOBER 2013



RESIDENTIAL  
HOUSES

SALISBURY STREET

SIDEWALK

0 FEET 10  
APPROXIMATE SCALE

SUBJECT  
SITE

RESIDENTIAL  
HOUSE

MW-1  
(84.12')  
07/21/2013

FORMER  
EXCAVATION OF A  
WASTE OIL UST  
(1999)

MW-4  
(84.07')  
07/21/2013

MW-3  
(83.66')  
07/21/2013

FORMER  
HYDRAULIC  
LIFT

LOCATION  
OF FORMER  
TWO 500-GALLON  
GASOLINE USTS

FORMER GASOLINE  
DISPENSER ISLAND

MW-2  
(83.56')  
03/21/2013

35TH AVENUE

CALCULATED GROUNDWATER  
FLOW DIRECTION (12/10/13)  
(GRADIENT 0.76%)

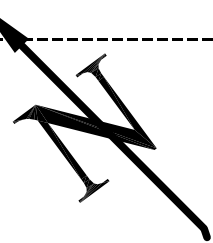
CALCULATED GROUNDWATER  
FLOW DIRECTION (07/21/13)  
(GRADIENT 0.71%)

CALCULATED GROUNDWATER  
FLOW DIRECTION (03/21/13)  
(GRADIENT 0.00089 OR 0.89%)

CALCULATED GROUNDWATER  
FLOW DIRECTION (12/06/12)  
(GRADIENT 0.024 OR 2.4%)

CALCULATED GROUNDWATER  
FLOW DIRECTION (07/18/12)  
(GRADIENT 0.0076 OR 0.76%)

APPROXIMATE TOPOGRAPHIC SLOPE



NOTE:  
(84.33')  
03/21/2013  
GROUNDWATER  
ELEVATION AND DATE  
OF MEASUREMENT

FENCE  
PROPERTY  
BORDER

APARTMENT BUILDING



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

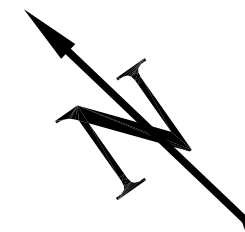
WELL LOCATIONS AND  
GROUNDWATER FLOW DIRECTION AND GRADIENT  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 11  
DECEMBER 2013

RESIDENTIAL HOUSES

# SALISBURY STREET

CALCULATED GROUNDWATER FLOW DIRECTION



0 FEET 20  
APPROXIMATE SCALE

SUBJECT SITE

RESIDENTIAL HOUSE

RESIDENTIAL HOUSE

RESIDENTIAL HOUSE

-  DRILLED MONITORING WELLS
  -  BORINGS DRILLED IN 2012
  -  BORINGS DRILLED IN 2007
  -  BORINGS DRILLED IN JULY 2013
  -  BORINGS DRILLED IN SEPTEMBER 2013
- TPHg 560 ug/l  
TPHd 1,400 ug/l  
Benzene ND<1.3 ug/l
- Concentrations in Groundwater

## FIGURE 12

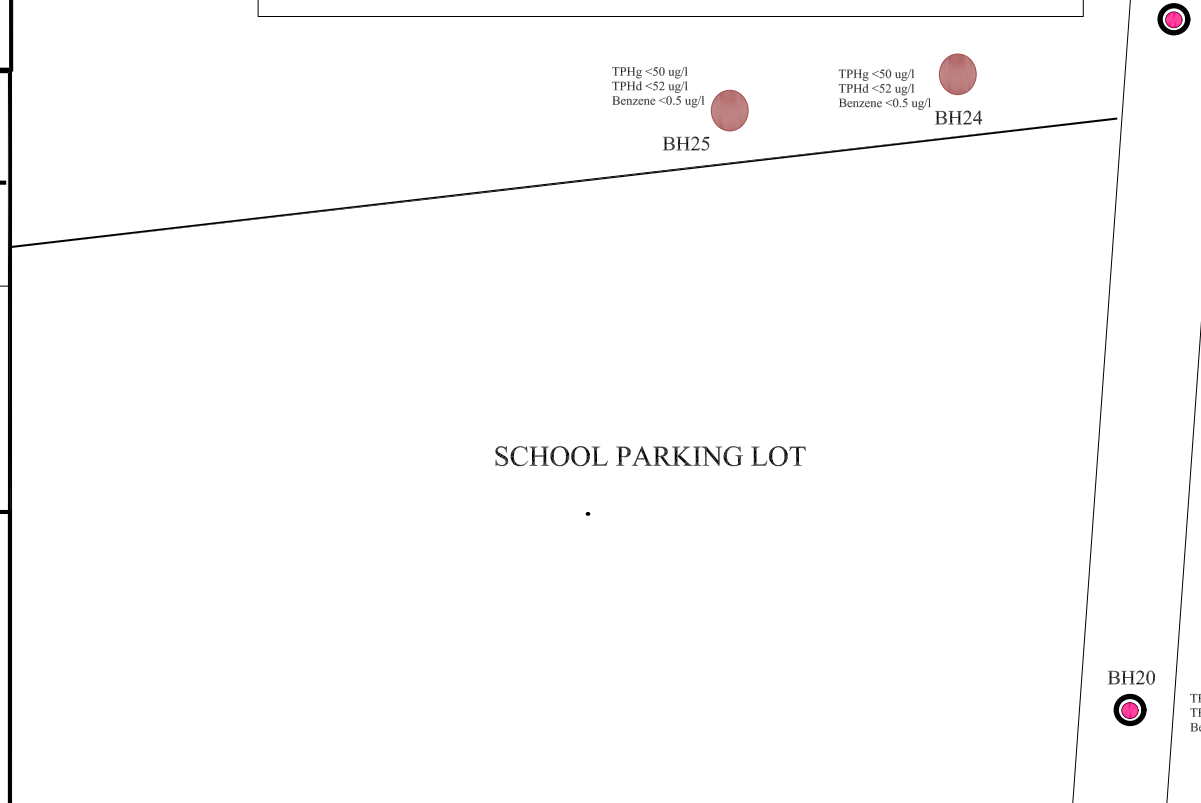
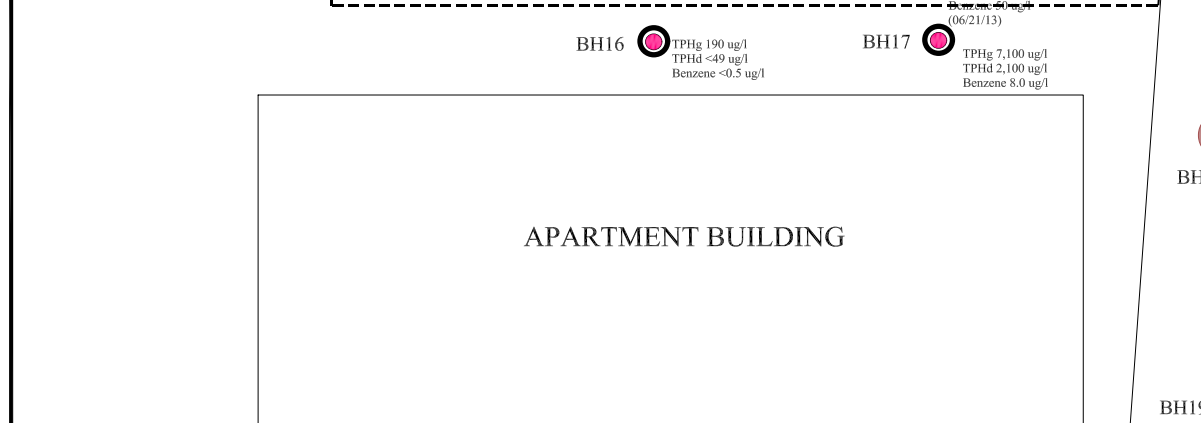
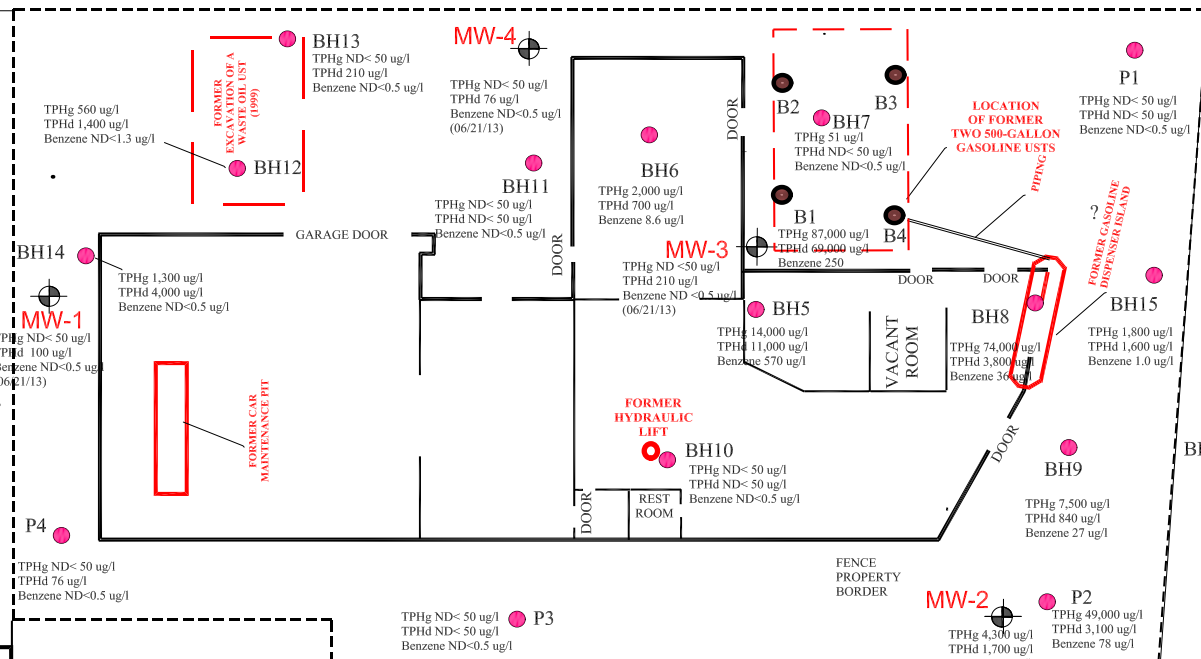
### OCTOBER 2013

DEPICTION OF TPH-G, TPH-D AND BENZENE IN GROUNDWATER  
2145 35TH AVENUE, OAKLAND, CALIFORNIA



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

SIDEWALK



SIDEWALK

# 35TH AVENUE

SIDEWALK

RESIDENTIAL HOUSES

RESIDENTIAL HOUSES

RESIDENTIAL HOUSES

BH18  
TPHg 1,800 ug/l  
TPHd 650 ug/l  
Benzene 1.6 ug/l

BH23  
TPHg <50 ug/l  
TPHd <52 ug/l  
Benzene <0.5 ug/l

BH19  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH20  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH21  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH22  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH16  
TPHg 190 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH17  
TPHg 7,100 ug/l  
TPHd 2,100 ug/l  
Benzene 8.0 ug/l

BH25  
TPHg <50 ug/l  
TPHd <52 ug/l  
Benzene <0.5 ug/l

BH24  
TPHg <50 ug/l  
TPHd <52 ug/l  
Benzene <0.5 ug/l

BH13  
TPHg ND< 50 ug/l  
TPHd 210 ug/l  
Benzene ND<0.5 ug/l

BH12  
TPHg 560 ug/l  
TPHd 1,400 ug/l  
Benzene ND<1.3 ug/l

BH11  
TPHg ND< 50 ug/l  
TPHd ND< 50 ug/l  
Benzene ND<0.5 ug/l

BH14  
TPHg ND< 50 ug/l  
TPHd 100 ug/l  
Benzene ND<0.5 ug/l

MW-1  
TPHg ND< 50 ug/l  
TPHd 100 ug/l  
Benzene ND<0.5 ug/l

P4  
TPHg ND< 50 ug/l  
TPHd 76 ug/l  
Benzene ND<0.5 ug/l

MW-4  
TPHg ND< 50 ug/l  
TPHd 76 ug/l  
Benzene ND<0.5 ug/l

BH6  
TPHg 2,000 ug/l  
TPHd 700 ug/l  
Benzene 8.6 ug/l

MW-3  
TPHg ND< 50 ug/l  
TPHd 210 ug/l  
Benzene ND<0.5 ug/l

BH5  
TPHg 14,000 ug/l  
TPHd 11,000 ug/l  
Benzene 570 ug/l

BH10  
TPHg ND< 50 ug/l  
TPHd ND< 50 ug/l  
Benzene ND<0.5 ug/l

P3  
TPHg ND< 50 ug/l  
TPHd ND< 50 ug/l  
Benzene ND<0.5 ug/l

BH7  
TPHg 51 ug/l  
TPHd ND< 50 ug/l  
Benzene ND<0.5 ug/l

B1  
TPHg 87,000 ug/l  
TPHd 60,000 ug/l  
Benzene 250

BH8  
TPHg 74,000 ug/l  
TPHd 3,800 ug/l  
Benzene 360 ug/l

BH9  
TPHg 7,500 ug/l  
TPHd 27 ug/l  
Benzene 27 ug/l

MW-2  
TPHg 4,300 ug/l  
TPHd 1,700 ug/l  
Benzene <50 ug/l

P2  
TPHg 49,000 ug/l  
TPHd 3,100 ug/l  
Benzene 78 ug/l

B2  
TPHg 51 ug/l  
TPHd ND< 50 ug/l  
Benzene ND<0.5 ug/l

B3  
TPHg 51 ug/l  
TPHd ND< 50 ug/l  
Benzene ND<0.5 ug/l

B4  
TPHg 87,000 ug/l  
TPHd 60,000 ug/l  
Benzene 250

BH15  
TPHg 1,800 ug/l  
TPHd 1,600 ug/l  
Benzene 1.0 ug/l

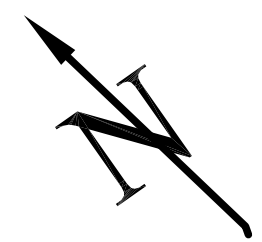
P1  
TPHg ND< 50 ug/l  
TPHd ND< 50 ug/l  
Benzene ND<0.5 ug/l



RESIDENTIAL HOUSES

# SALISBURY STREET

CALCULATED GROUNDWATER FLOW DIRECTION



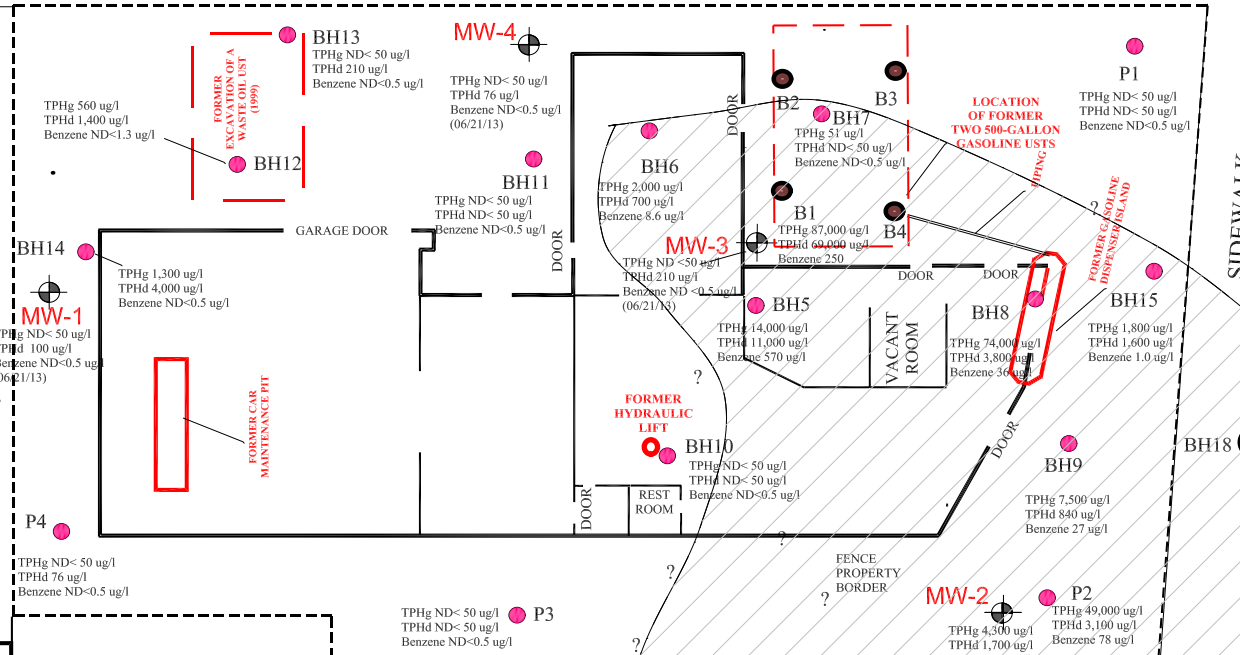
SIDEWALK

0 FEET 20  
APPROXIMATE SCALE

SUBJECT SITE

RESIDENTIAL HOUSE

RESIDENTIAL HOUSE



35TH AVENUE

SIDEWALK

RESIDENTIAL HOUSES

RESIDENTIAL HOUSES

RESIDENTIAL HOUSES

DRILLED MONITORING WELLS IN 2012

BORINGS DRILLED IN 2012

BORINGS DRILLED IN 2007

BORINGS DRILLED IN JULY 2013

BORINGS DRILLED IN SEPTEMBER 2013

TPHg 560 ug/l  
TPHd 1,400 ug/l  
Benzene ND<1.3 ug/l

Concentrations in Groundwater

## FIGURE 13

### OCTOBER 2013

PROJECTED PETROLEUM HYDROCARBON PLUME  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

SCHOOL PARKING LOT

PROJECTED HYDROCARBON PLUME IN SHALLOW WATER



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

BH20  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH22  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH19  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH21  
TPHg <50 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH23  
TPHg <50 ug/l  
TPHd <52 ug/l  
Benzene <0.5 ug/l

BH25  
TPHg <50 ug/l  
TPHd <52 ug/l  
Benzene <0.5 ug/l

BH24  
TPHg <50 ug/l  
TPHd <52 ug/l  
Benzene <0.5 ug/l

BH16  
TPHg 190 ug/l  
TPHd <49 ug/l  
Benzene <0.5 ug/l

BH17  
TPHg 7,100 ug/l  
TPHd 2,100 ug/l  
Benzene 8.0 ug/l

P2  
TPHg 4,300 ug/l  
TPHd 1,700 ug/l  
Benzene <0.5 ug/l

MW-2  
TPHg 4,300 ug/l  
TPHd 1,700 ug/l  
Benzene <0.5 ug/l

BH9  
TPHg 7,500 ug/l  
TPHd 840 ug/l  
Benzene 27 ug/l

BH18  
TPHg 1,800 ug/l  
TPHd 650 ug/l  
Benzene 1.6 ug/l

BH8  
TPHg 74,000 ug/l  
TPHd 3,800 ug/l  
Benzene 360 ug/l

BH5  
TPHg 14,000 ug/l  
TPHd 11,000 ug/l  
Benzene 570 ug/l

BH1  
TPHg 87,000 ug/l  
TPHd 60,000 ug/l  
Benzene 250 ug/l

MW-3  
TPHg ND <50 ug/l  
TPHd 210 ug/l  
Benzene ND <0.5 ug/l

BH6  
TPHg 2,000 ug/l  
TPHd 700 ug/l  
Benzene 8.6 ug/l

BH7  
TPHg 51 ug/l  
TPHd ND <50 ug/l  
Benzene ND <0.5 ug/l

BH11  
TPHg ND <50 ug/l  
TPHd ND <50 ug/l  
Benzene ND <0.5 ug/l

MW-4  
TPHg ND <50 ug/l  
TPHd 76 ug/l  
Benzene ND <0.5 ug/l

BH13  
TPHg ND <50 ug/l  
TPHd 210 ug/l  
Benzene ND <0.5 ug/l

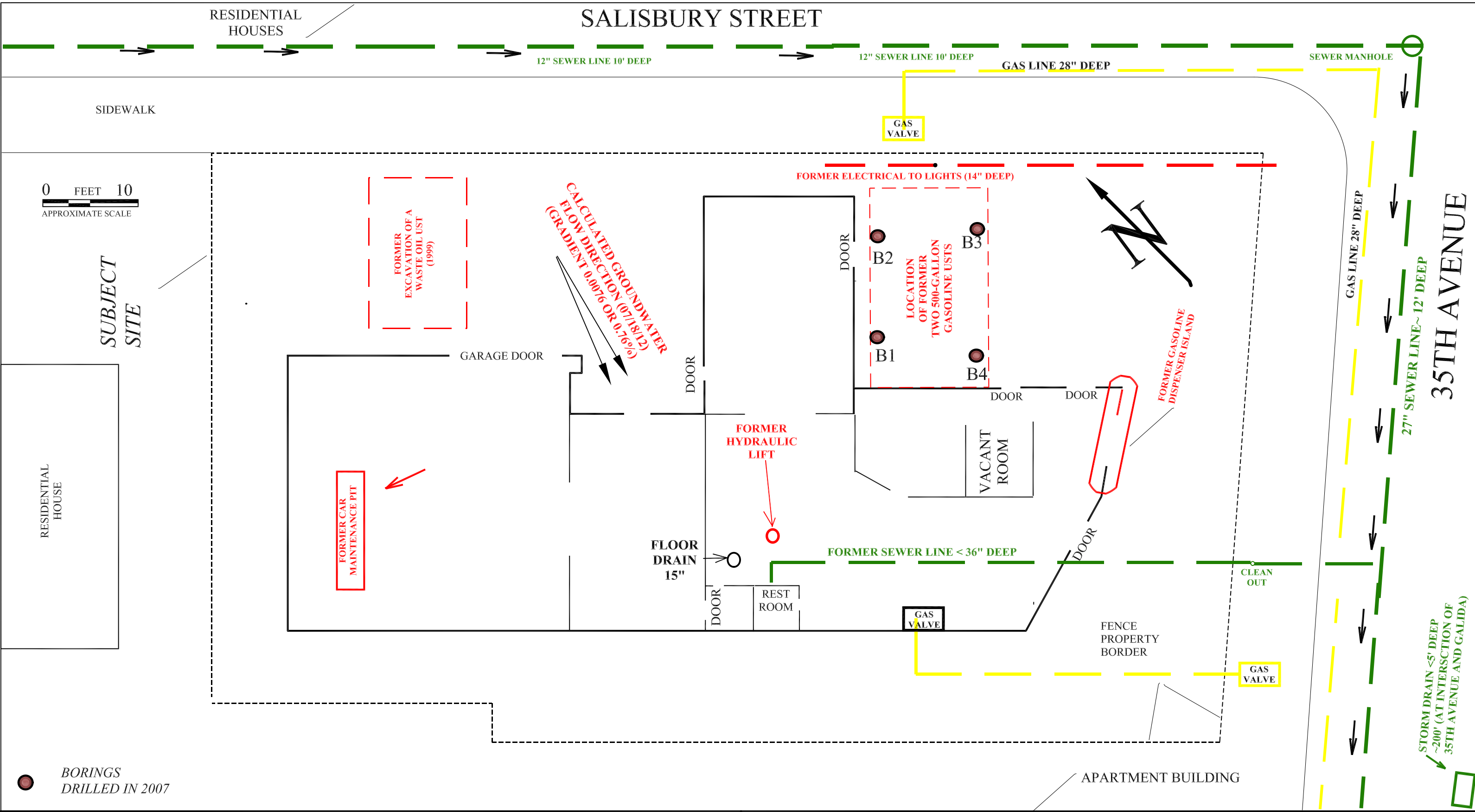
BH12  
TPHg 560 ug/l  
TPHd 1,400 ug/l  
Benzene ND <1.3 ug/l

BH14  
TPHg ND <50 ug/l  
TPHd 100 ug/l  
Benzene ND <0.5 ug/l

MW-1  
TPHg ND <50 ug/l  
TPHd 100 ug/l  
Benzene ND <0.5 ug/l

P4  
TPHg ND <50 ug/l  
TPHd 76 ug/l  
Benzene ND <0.5 ug/l

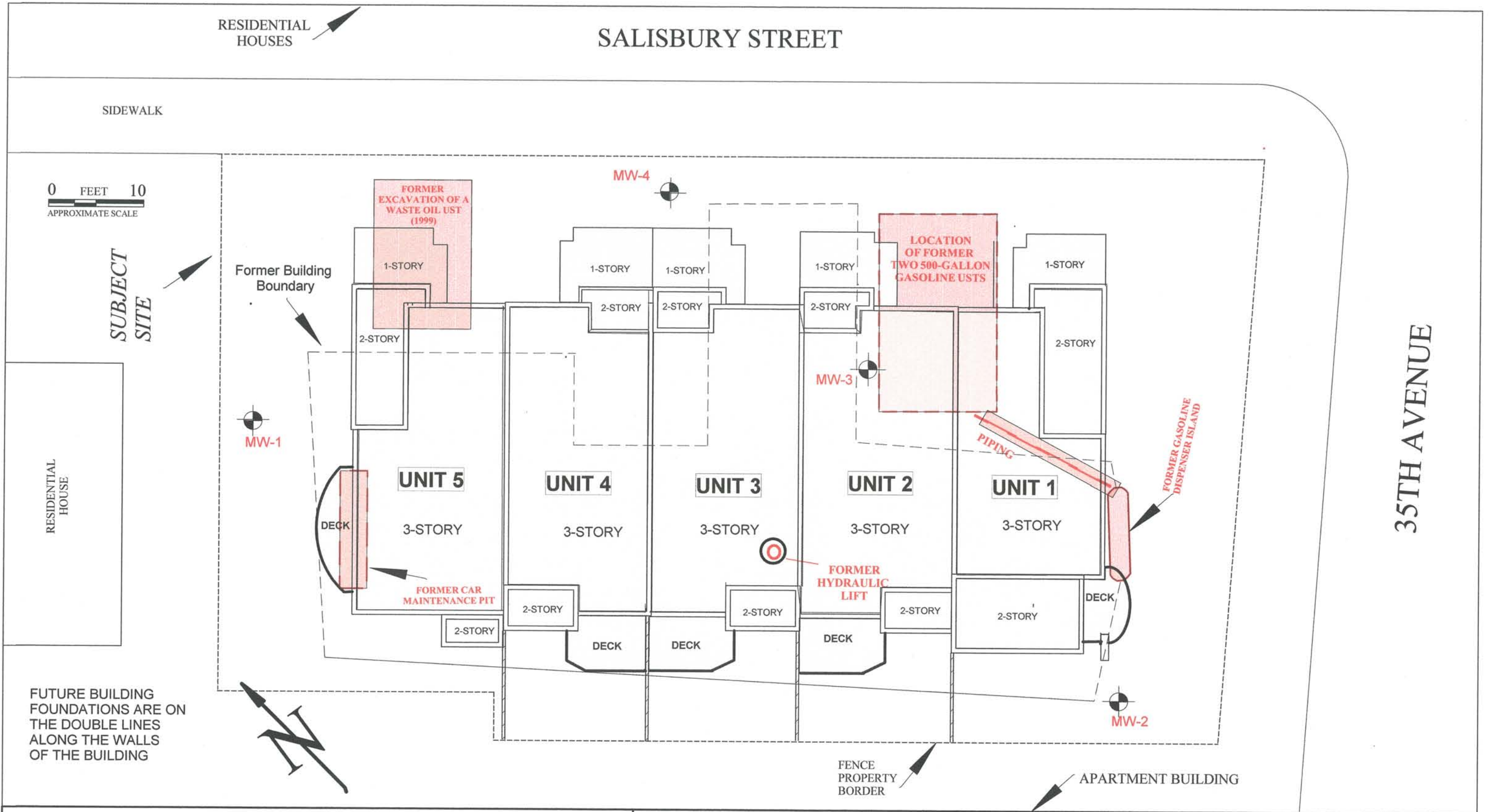
P3  
TPHg ND <50 ug/l  
TPHd ND <50 ug/l  
Benzene ND <0.5 ug/l



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

SUBSURFACE UTILITY MAP  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 14  
OCTOBER 2013

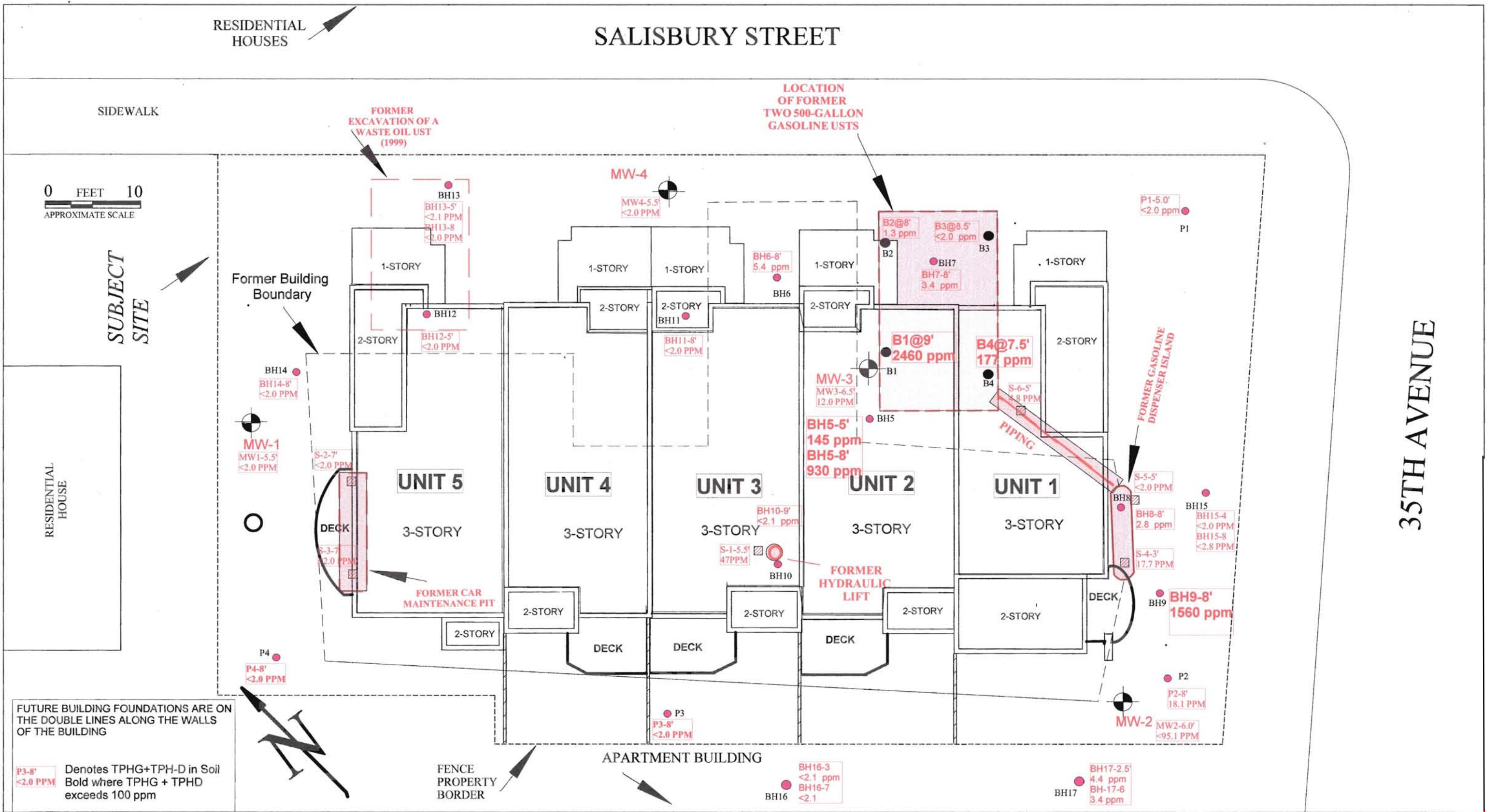


1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

FUTURE SITE PLAN  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 15  
FEBRUARY 2014



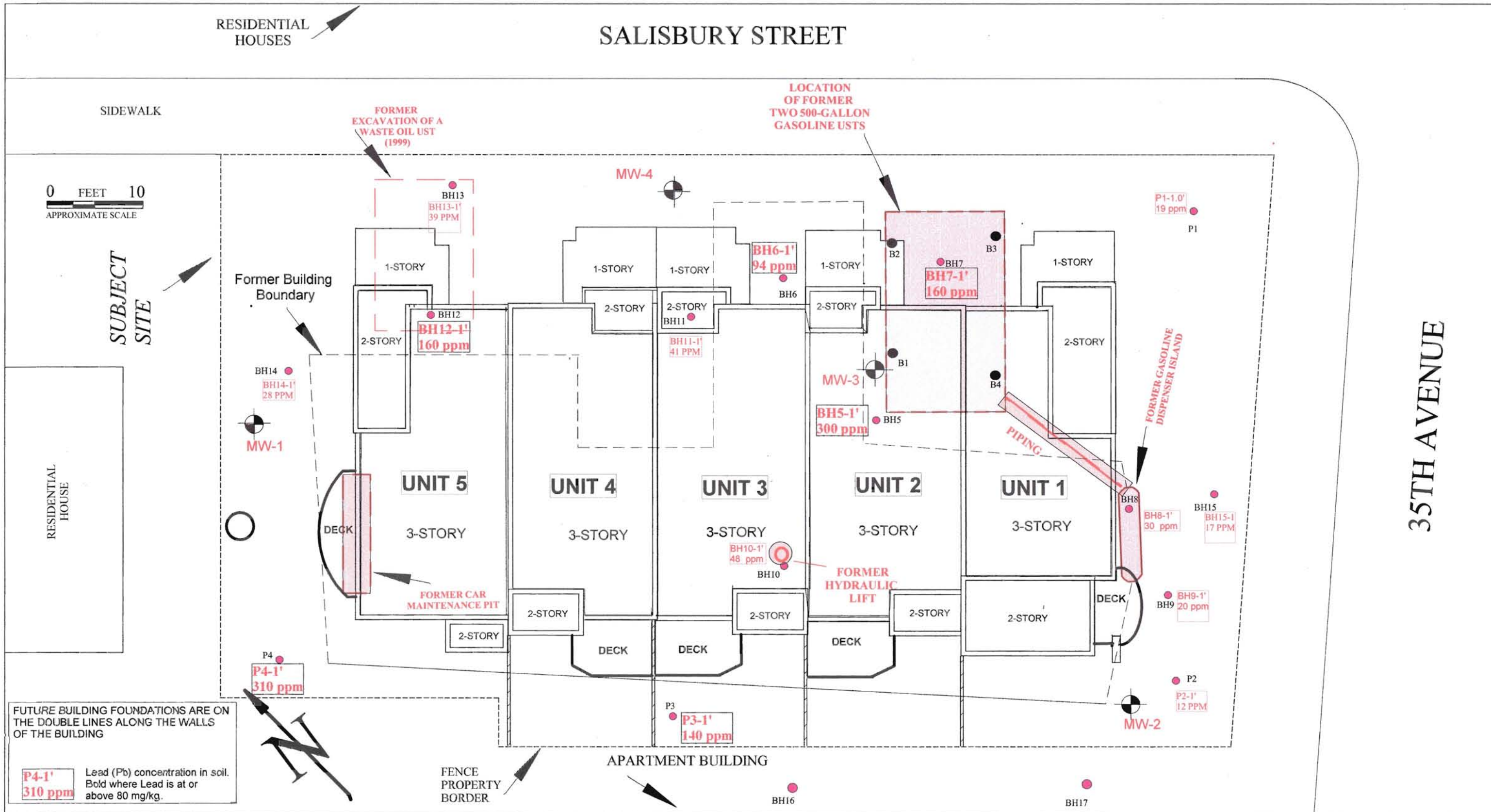


1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

FUTURE SITE PLAN  
DEPICTION OF TPH-G + TPH-D IN SHALLOW SOIL  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 16  
FEBRUARY 2014



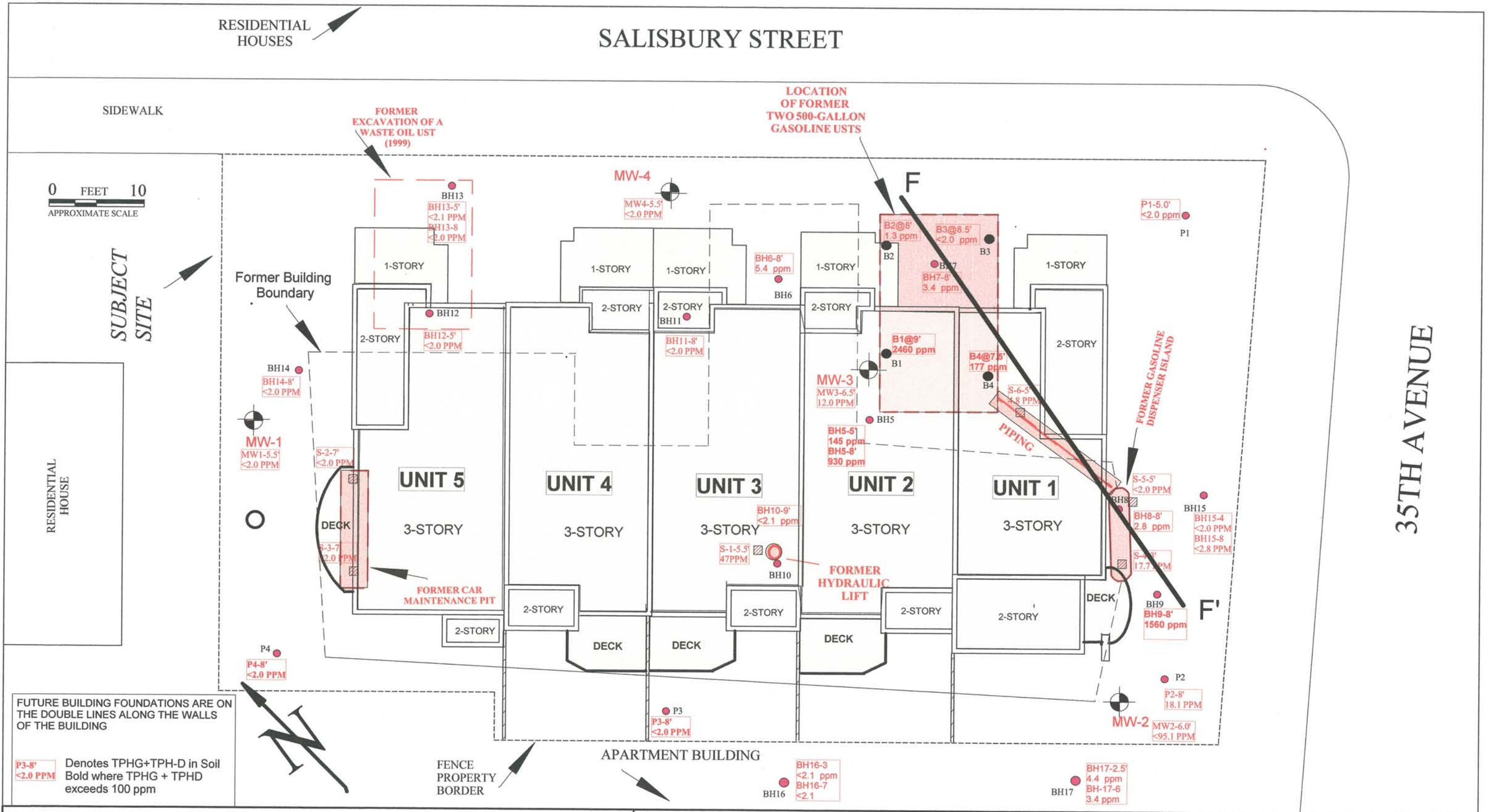


1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

FUTURE SITE PLAN  
DEPICTION OF LEAD (PB) IN SHALLOW SOIL  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 17  
FEBRUARY 2014





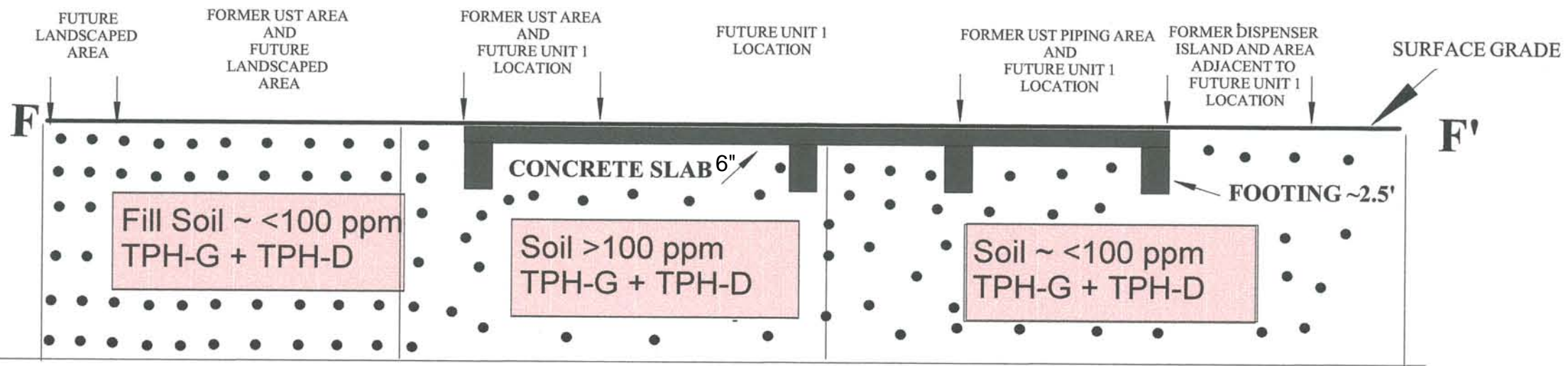
1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

**FUTURE SITE PLAN**  
**DEPICTION OF CROSS SECTION FF' LOCATION**  
**2145 35TH AVENUE, OAKLAND, CALIFORNIA**

**FIGURE 18**  
**FEBRUARY 2014**

0 FEET 5 FT  
APPROXIMATE HORIZONTAL SCALE

0 FEET  
5 FEET  
10 FEET  
15 FEET  
20 FEET  
APPROXIMATE VERTICAL SCALE



Note:

Boundaries are approximate



1485 BAYSHORE BOULEVARD, SUITE 374  
SAN FRANCISCO, CA 94124

CROSS SECTION FF'  
(SEE FIGURE 18)  
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE 19

OCTOBER 2013

## TABLES



TABLE 1  
WELL DATA AND GROUNDWATER ELEVATIONS  
2145 35<sup>th</sup> Avenue  
Oakland, California

DATE	WELL INFORMATION	MW-1	MW-2	MW-3	MW-4
07/18/2012	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	10.13	10.92	11.01	10.85
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.08	83.51	83.60	84.06
12/06/2012	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	7.98	10.40	10.40	9.25
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	86.23	84.03	84.21	85.66
03/21/2013	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	9.88	10.77	10.83	10.66
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.33	83.66	83.78	84.25
06/21/2013	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	10.09	10.87	10.95	10.84
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.12	83.56	83.66	84.07
12/10/2013	Casing Diameter (in)	2	4	4	2
	Total Well Depth (ft)	18	16	18	18
	Depth to Water (ft)	9.84	10.70	10.79	10.64
	Top of Casing Elevation	94.21	94.43	94.61	94.91
	Top of Water Elevation	84.37	83.73	83.82	84.27

Table 2 – Contaminants of Concerns

COCs	Maximum Concentration in Soil (mg/kg)	Maximum Concentration in Groundwater Samples from the Monitoring Wells (µg/l)
TPH as Gasoline	2,100	5,000
TPH as Stoddard Solvent	1,200	3,900
TPH as Diesel	870	2,300
TPH as Motor Oil	570	<300
Benzene	<2.5	92
Toluene	<2.5	42
Ethylbenzene	54	460
Total Xylenes	27.5	189.4
Naphthalene	7.5	120*
Cadmium	0.54	<5.0
Chromium	810	<5.0
Lead	310	<5.0
Nickel	1,000	9.7
Zinc	130	<20
Volatile Organics by EPA Method 8260	Only benzene derivatives and Naphthalene are detected. No chlorinated hydrocarbons are detected.	Only benzene derivatives and Naphthalene are detected. No chlorinated hydrocarbons are detected.

\*Remaining PAHs were not detected

**TABLE 3**  
**SOIL CUMULATIVE SUMMARY OF CHEMICAL ANALYSES FOR TPH-G, TPHss, TEPH, PCBs, BTEX, MTBE AND**  
**NAPHTHALENE**  
**2145 35<sup>th</sup> Avenue**  
**Oakland, California**

Sample ID	Description	Date Sampled	TPH as Gasoline (mg/kg) <sup>(1)</sup>	TPH as Stoddard Solvent (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TPH as Diesel (mg/kg)	TPH as Motor Oil (mg/kg)	TPH as Hydraulic Oil (mg/kg)	Naphthalene (mg/kg)	PCBs <sup>(2)</sup> (mg/kg)
<b>Soil Confirmation Samples Collected in 2007 from Under the Former Gasoline UST</b>														
B1@9'	Boring 1 at 9 feet bgs	02/23/07	2,100	1,200	<0.25	<0.25	28	<0.5	NA	360	27	NA <sup>(3)</sup>	NA	NA
B2@8'	Boring 2 at 8 feet bgs	02/23/07	<1.0	<1.0	<0.0051	<0.0051	<0.0051	<0.0102	NA	1.3	<5.0	NA	NA	NA
B3@8.5'	Boring 3 at 8.5 feet bgs	02/23/07	<1.0	<1.0	<0.0051	<0.0051	<0.0051	<0.0102	NA	<1.0	<5.0	NA	NA	NA
B4@7.5'	Boring 4 at 7.5 feet bgs	02/23/07	17	9.7	<0.0048	<0.0048	<0.0048	<0.0096	NA	160	40	NA	NA	NA
<b>Soil Confirmation Samples Collected in 2012 from Under the Former Hydraulic Lift, Car Maintenance Pit, Dispenser Island, and Piping</b>														
S-1-5.5'	Soil sample at 5.5 feet bgs from the hydraulic lift excavation	01/11/12	NA	NA	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	47 (Y) <sup>(4)</sup>	260	330	<0.0047	0.027
S-2-7.0	Soil sample at 7.0 feet bgs from under the former maintenance pit (east side)	01/13/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	NA	<0.0048	NA
S-3-7.0	Soil sample at 7.0 feet bgs from under the former maintenance pit (west side)	01/13/12	<1.0	<1.0	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	NA	<0.0047	NA
S-4-3.0	Soil sample at 3.0 feet bgs from under the former dispenser island and piping	01/13/12	5.7 (Y)	2.5 (Y)	<0.25	<0.25	<0.25	<0.5	<0.25	12 (Y)	<5.0	NA	0.630	NA
S-5-5.0	Soil sample at 5.0 feet bgs from under the former dispenser island and piping	01/13/12	<1.1	<1.1	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<0.99	<5.0	NA	<0.0047	NA
S-6-5.0	Soil sample at 5.0 feet bgs from under the former dispenser island and piping	01/13/12	<1.1	<1.1	<0.01	<0.01	<0.01	<0.02	<0.01	3.7 (Y)	8.2	NA	<0.010	NA
<b>Soil Samples Collected in 2012 from Borings P1 Through P4 and Borings BH5 through BH15</b>														
P1-5	Soil at 5' from boring P1	01/25/12	<0.93	<0.93	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	NA	<0.0048	NA
P1-14	Soil at 14' from boring P1	01/25/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	NA	<0.0048	NA
P2-8	Soil at 8' from boring P2	01/25/12	1.1 (Y)	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	17 (Y)	<5.0	NA	0.047	NA

Sample ID	Description	Date Sampled	TPH as Gasoline (mg/kg) <sup>(1)</sup>	TPH as Stoddard Solvent (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TPH as Diesel (mg/kg)	TPH as Motor Oil (mg/kg)	TPH as Hydraulic Oil (mg/kg)	Naphthalene (mg/kg)	PCBs <sup>(2)</sup> (mg/kg)
P2-12	Soil at 12' from boring P2	01/25/12	NA	630	<1.0	<1.0	<1.0	<2.0	<1.0	140 (Y)	26	NA	6.50	NA
P2-16	Soil at 16' from boring P2	01/25/12	<1.0	<1.0	<0.005	<0.005	<0.005	<0.010	<0.005	<1.0	<5.0	NA	<0.0005	NA
P2-20	Soil at 20' from boring P2	01/25/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	NA	<0.0048	NA
P3-8	Soil at 8' from boring P3	01/25/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.99	<5.0	NA	<0.0048	NA
P3-12	Soil at 12' from boring P3	01/25/12	<0.98	<0.98	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	NA	<0.0047	NA
P4-8	Soil at 8' from boring P4	01/25/12	<0.93	<0.93	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.99	<5.0	NA	<0.0048	NA
P4-12	Soil at 12' from boring P4	01/25/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	NA	<0.0048	NA
BH5-5	Soil at 5' from boring BH5	02/06/12	<b>120</b>	<b>82</b>	<0.049	<0.049	0.360	0.280	<0.049	25	<5.0	NA	0.630	NA
BH5-8	Soil at 8' from boring BH5	02/06/12	<b>720</b>	<b>480</b>	<0.25	<0.25	6.4	6.15	<0.25	<b>210</b>	<5.0	NA	5.0	NA
BH5-12	Soil at 12' from boring BH5	02/06/12	310	<b>210</b>	<0.0048	<0.0048	1.3	0.198	<0.0048	<b>240</b>	<5.0	NA	1.8	NA
BH5-30	Soil at 30' from boring BH5	02/06/12	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	NA	<0.0049	NA
BH6-8	Soil at 8' from boring BH6	01/25/12	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	4.4 (Y)	<5.0	NA	<0.0049	NA
BH6-12	Soil at 12' from boring BH6	01/25/12	530 (Y)	480	<0.050	<0.050	<0.050	<0.010	<0.050	240 (Y)	9.2	NA	0.840	NA
BH6-16	Soil at 16' from boring BH6	01/25/12	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	2.1 (Y)	<5.0	NA	<0.0049	NA
BH7-8	Soil at 8' from boring BH7	01/25/12	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	2.4 (Y)	<5.0	NA	<0.0049	NA
BH7-12	Soil at 12' from boring BH7	01/25/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	2.3 (Y)	<5.0	NA	<0.0048	NA
BH8-8	Soil at 8' from boring BH8	01/25/12	1.0 (Y)	<0.92	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	1.8 (Y)	<5.0	NA	0.014	NA
BH8-12	Soil at 12' from boring BH8	01/25/12	33 (Y)	63	<0.025	<0.025	<0.025	<0.050	<0.025	62 (Y)	7.3	NA	0.710	NA
BH8-16	Soil at 16' from boring BH8	01/25/12	<1.1	<1.1	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	3.2 (Y)	<5.0	NA	<0.0049	NA
BH9-8	Soil at 8' from boring BH9	02/06/12	<b>710</b>	<b>480 (Y)</b>	<0.250	<0.250	2.000	1.950	<0.250	<b>870</b>	<25	NA	5.8	NA
BH9-16	Soil at 16' from boring BH9	02/06/12	<0.96	<0.96	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	NA	0.0057	NA
BH9-30	Soil at 30' from boring BH9	02/06/12	<0.93	<0.93	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	1.3 (Y)	<5.0	NA	<0.0049	NA
BH10-9*	Soil at 9' from boring BH10	02/06/12	<1.1	<1.1	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	<0.0049	<0.086
BH10-12*	Soil at 12' from boring BH10	02/06/12	8.8 (Y)	5.9	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	160 (Y)	570	790	<0.0048	<0.086
BH11-8	Soil at 8' from boring BH11	02/08/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	NA	<0.0048	NA
BH11-12	Soil at 12' from boring BH11	02/08/12	<0.94	<0.94	<0.0044	<0.0044	<0.0044	<0.0088	<0.0044	1.6 (Y)	<5.0	NA	<0.0044	NA
BH12-5	Soil at 5' from boring BH12	02/06/12	<0.99	<0.99	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	NA	<0.0049	NA
BH12-12	Soil at 12' from boring BH12	02/06/12	<0.98	<0.98	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	NA	<0.0047	NA
BH12-30	Soil at 30' from boring BH12	02/06/12	<0.92	<0.92	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	NA	<0.0049	NA
BH13-5	Soil at 5' from boring BH13	02/08/12	<1.1	<1.1	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	NA	<0.0049	NA
BH13-8	Soil at 8' from boring BH13	02/08/12	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	NA	<0.0049	NA
BH14-8	Soil at 8' from boring BH14	02/08/12	<0.93	<0.93	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	9.3 (Y)	38	NA	<0.0047	NA
BH15-4	Soil at 4' from boring BH15	02/08/12	<0.95	<0.95	<0.005	<0.005	<0.005	<0.010	<0.005	<0.99	<5.0	NA	<0.005	NA
BH15-8	Soil at 8' from boring BH15	02/08/12	<1.1	<1.1	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	1.7 (Y)	<5.0	NA	0.016	NA
BH15-12	Soil at 12' from boring BH15	02/08/12	960 (Y)	810 (Y)	<0.250	<0.250	<0.250	<0.500	<0.250	130	22	NA	7.5	NA
BH15-16	Soil at 16' from boring BH15	02/08/12	<1.1	<1.1	<0.005	<0.005	<0.005	<0.010	<0.005	<1.0	<5.0	NA	<0.005	NA
<b>Soil Samples Collected in 2012 from The Well Borings</b>														
MW1-5.5	Soil at 5.5' from well boring MW-1	07/03/12	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	<0.0049	NA

Sample ID	Description	Date Sampled	TPH as Gasoline (mg/kg) <sup>(1)</sup>	TPH as Stoddard Solvent (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TPH as Diesel (mg/kg)	TPH as Motor Oil (mg/kg)	TPH as Hydraulic Oil (mg/kg)	Naphthalene (mg/kg)	PCBs <sup>(2)</sup> (mg/kg)
MW1-15.0	Soil at 15' from well boring MW-1	07/03/12	<1.0	<1.0	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	<5.0	<0.0047	NA
MW2-6.0	Soil at 6' from well boring MW-2	07/03/12	1.1 (Y)	<1.0	<0.0047	<0.0047	0.0058	<0.0094	<0.0047	94.0(Y)	15	63.0(Y)	<0.0047	NA
MW2-11.0	Soil at 11' from well boring MW-2	07/03/12	1,400	1,000(Y)	<2.5	<2.5	54.0	27.5	<2.5	630(Y)	63	240(Y)	7.2	NA
MW2-16.0	Soil at 16' from well boring MW-2	07/03/12	<0.96	<0.96	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<0.99	<5.0	<5.0	<0.0046	NA
MW3-6.5	Soil at 6.5' from well boring MW-3	07/03/12	<1.0	<1.0	<0.005	<0.005	<0.005	<0.01	<0.005	11.0(Y)	<5.0	12.0(Y)	<0.005	NA
MW3-11.0	Soil at 11' from well boring MW-3	07/03/12	<60(Y)	44	<0.046	<0.046	<0.046	<0.092	<0.046	37.0(Y)	<5.0	17.0(Y)	1.9	NA
MW4-5.5	Soil at 5.5' from well boring MW-4	07/03/12	<1.0	<1.0	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	<5.0	<0.0048	NA
MW4-10.0	Soil at 10' from well boring MW-4	07/03/12	<0.93	<0.93	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	<5.0	<0.0048	NA
MW1-5.5	Soil at 5.5' from well boring MW-1	07/03/12	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	<0.0049	NA
<b>Soil Samples Collected in 2013 from Borings BH16 Through BH25</b>														
BH16-3	Soil at 3' from boring BH16	07/03/13	<1.1	<1.1	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	<0.0049	NA
BH16-7	Soil at 7' from boring BH16	07/03/13	<1.1	<1.1	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	<0.0049	NA
BH16-10.5	Soil at 10.5' from boring BH16	07/03/13	<0.97	<0.97	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	<5.0	<0.0047	NA
BH16-16	Soil at 16' from boring BH16	07/03/13	<0.99	<0.99	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	<5.0	<0.0047	NA
BH16-20	Soil at 20' from boring BH16	07/03/13	<1.1	<1.1	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<1.0	<5.0	<5.0	<0.0050	NA
BH17-2.5	Soil at 2.5' from boring BH17	07/03/13	<1.1	<1.1	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	3.4(Y)	5.1	8.5	<0.0047	NA
BH17-6	Soil at 6' from boring BH17	07/03/13	1.4(Y)	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	0.0093	NA
BH17-9	Soil at 9' from boring BH17	07/03/13	590(Y)	410(Y)	<1.0	<1.0	2.8	<2.0	<1.0	21(Y)	6.7	16	4.4	NA
BH17-11	Soil at 11' from boring BH17	07/03/13	130(Y)	88	<0.024	<0.024	0.066	0.070	<0.024	2.4(Y)	<5.0	<5.0	0.61	NA
BH17-15.5	Soil at 15.5' from boring BH17	07/03/13	<1.1	<1.1	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	<5.0	<0.0048	NA
BH18-2.5	Soil at 2.5' from boring BH18	07/03/13	<1.0	<1.0	<0.0044	<0.0044	<0.0044	<0.0088	<0.0044	<1.0	<5.0	<5.0	<0.0044	NA
BH18-7.5	Soil at 7.5' from boring BH18	07/03/13	<0.96	<0.96	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	<5.0	<0.0047	NA
BH18-10.5	Soil at 10.5' from boring BH18	07/03/13	<1.0	<1.0	<0.0044	<0.0044	<0.0044	<0.0088	<0.0044	<1.0	<5.0	<5.0	<0.0044	NA
BH18-16	Soil at 16' from boring BH18	07/03/13	<1.0	<1.0	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	<0.0049	NA
BH19-7.5	Soil at 7.5' from boring BH19	07/02/13	<0.97	<0.97	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	<5.0	<0.0048	NA
BH19-11.5	Soil at 11.5' from boring BH19	07/02/13	<1.0	<1.0	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	<5.0	<0.0047	NA
BH19-16	Soil at 16' from boring BH19	07/02/13	<0.93	<0.93	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<1.0	<5.0	<5.0	<0.0046	NA
BH20-11	Soil at 11' from boring BH20	07/02/13	<0.94	<0.94	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	2.5(Y)	18	17(Y)	0.0093	NA
BH20-21	Soil at 21' from boring BH20	07/02/13	<1.1	<1.1	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	<5.0	<0.0047	NA
BH21-11	Soil at 11' from boring BH21	07/02/13	<1.1	<1.1	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	1.6(Y)	<5.0	<5.0	<0.0048	NA
BH21-21.5	Soil at 21.5' from boring BH21	07/02/13	<0.98	<0.98	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.99	<5.0	<5.0	<0.0050	NA
BH22-11.5	Soil at 11.5' from boring BH22	07/02/13	<1.1	<1.1	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	<5.0	<0.0048	NA
BH22-22	Soil at 22' from boring BH22	07/02/13	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.99	<5.0	<5.0	<0.0050	NA
BH23-4	Soil at 4' from boring BH23	09/27/13	<0.97	<0.97	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<1.0	<5.0	<5.0	<0.0050	NA
BH23-8	Soil at 8' from boring BH23	09/27/13	<0.95	<0.95	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<0.99	<5.0	<5.0	0.0049	NA
BH23-11	Soil at 11' from boring BH23	09/27/13	<1.1	<1.1	<0.0045	<0.0045	<0.0045	<0.090	<0.0049	<0.99	<5.0	<5.0	<0.0045	NA
BH24-4	Soil at 4' from boring BH24	09/27/13	<0.93	<0.93	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<1.0	<5.0	<5.0	<0.0050	NA
BH24-8	Soil at 8' from boring BH24	09/27/13	<0.96	<0.96	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	0.0049	NA
BH24-12	Soil at 12' from boring BH24	09/27/13	<1.1	<1.1	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<1.0	<5.0	<5.0	<0.0050	NA
BH24-16	Soil at 16' from boring BH24	09/27/13	<0.92	<0.92	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<1.0	<5.0	<5.0	<0.0048	NA
BH25-4	Soil at 4' from boring BH25	09/27/13	<1.1	<1.1	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	<1.0	<5.0	<5.0	0.0049	NA

Sample ID	Description	Date Sampled	TPH as Gasoline (mg/kg) <sup>(1)</sup>	TPH as Stoddard Solvent (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TPH as Diesel (mg/kg)	TPH as Motor Oil (mg/kg)	TPH as Hydraulic Oil (mg/kg)	Naphthalene (mg/kg)	PCBs <sup>(2)</sup> (mg/kg)
BH25-8	Soil at 8' from boring BH25	09/27/13	<0.99	<0.99	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<1.0	<5.0	<5.0	<0.0046	NA
BH25-12	Soil at 12' from boring BH25	09/27/13	<1.1	<1.1	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<1.0	<5.0	<5.0	<0.0046	NA
BH25-16	Soil at 16' from boring BH25	09/27/13	<0.92	<0.92	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<1.0	<5.0	<5.0	<0.0047	NA
Low-Threat UST Case Closure Policy Residential, Direct Contact and Outdoor Air Exposure, 0 to 5 feet bgs <sup>(5)</sup> Or Direct Exposure Soil Screening Levels, Residential Exposure Scenario, Table K-1 <sup>(6)</sup>			100 <sup>(5)</sup>	100 <sup>(5)</sup>	1.9 <sup>(5)</sup>	1,000 <sup>(6)</sup>	21 <sup>(5)</sup>	600 <sup>(6)</sup>	390 <sup>(6)</sup>	100 <sup>(6)</sup>	10,000 <sup>(6)</sup>	10,000 <sup>(6)</sup>	9.7 <sup>(5)</sup>	0.22 <sup>(6)</sup>
Low-Threat UST Case Closure Policy Residential, Criteria for Volatilization to Outdoor Air, 5 to 10 feet bgs <sup>(5)</sup> Or Direct Exposure Soil Screening Levels, Residential Exposure Scenario, Table K-1 <sup>(6)</sup>			100 <sup>(5)</sup>	100 <sup>(5)</sup>	2.8 <sup>(5)</sup>	1,000 <sup>(6)</sup>	32 <sup>(5)</sup>	600 <sup>(6)</sup>	390 <sup>(6)</sup>	100 <sup>(5)</sup>	10,000 <sup>(6)</sup>	10,000 <sup>(6)</sup>	9.7 <sup>(5)</sup>	0.22 <sup>(6)</sup>
Petroleum Vapor Intrusion to Indoor Air, Scenario 3, Figure A, Benzene in groundwater < 100 µg/l, Low-Threat UST Case Closure Policy			100 <sup>(7)</sup>	100 <sup>(7)</sup>	NA	NA	NA	NA	NA	100 <sup>(7)</sup>	NA	NA	NA	NA
Low-Threat UST Case Closure Policy Utility Worker Soil Screening Levels, Table 1, Page 8			NA	NA	14	NA	314	NA	NA	NA	NA	NA	219	NA

<sup>(1)</sup> mg/kg = Milligrams per kilogram

<sup>(2)</sup> PCBs = Polychlorinated Biphenyls

<sup>(3)</sup> NA = Not applicable or sample not analyzed for the specific indicated compound

<sup>(4)</sup> (Y) = Sample exhibits chromatographic pattern which does not resemble standard

<sup>(5)</sup> = Low-Threat Underground Storage Tank Case Closure Policy

<sup>(6)</sup> = Direct Exposure Soil Screening Levels, Residential Exposure Scenario, (Table K-1), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - November 2007, (Revised May 2013).

<sup>(7)</sup> = Total TPH (TPH-G and TPH-D combined) is less than 100 mg/kg throughout the entire depth of the bioattenuation zone.

**Bold** = Concentration presented in bold where such a value is at or exceeds one of the environmental screening levels (ESLs) or the Low-Threat UST Closure Policy Criteria.

**TABLE 5**  
**GROUNDWATER CUMULATIVE SUMMARY OF CHEMICAL ANALYSES FOR TPH, TEPH, PCBs, BTEX, MTBE, AND**  
**NAPHTHALENE**  
**2145 35<sup>th</sup> Avenue, Oakland, California**

Sample ID	Date Sampled	TPH <sup>(1)</sup> as Gasoline  (µg/l) <sup>(2)</sup>	TPH as Stoddard Solvent  (µg/l)	Benzene  (µg/l)	Toluene  (µg/l)	Ethyl benzene  (µg/l)	Total Xylenes  (µg/l)	MTBE  (µg/l)	TEPH <sup>(3)</sup> as Diesel  (µg/l)	TEPH as Motor Oil  (µg/l)	TEPH as Hydraulic Oil  (µg/l)	Naphthalene  (µg/l)	PCBs  (µg/l)
P1-W	01/25/2012	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<50	<300	NA <sup>(4)</sup>	<2.0	NA
P2-W	01/25/2012	49,000	32,000 (Y) <sup>(5)</sup>	78	19	89	80	<3.6	3,100 Y	<300	NA	680	NA
P3-W	01/25/2012	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<50	<300	NA	<2.0	NA
P4-W	01/25/2012	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	76 Y	<300	NA	<2.0	NA
BH5-W*	02/06/2012	14,000	11,000	<b>570***</b>	130	1,600	787	<5.0	11,000	<300	NA	400	NA
BH5-W1**	02/06/2012	900	730 (Y)	2.9	1.1	43	18.7	<0.5	350	<300	NA	4.7	NA
BH6-W	01/25/2012	2,000	1,300	8.6	<0.5	1.3	<1.0	<0.5	700 (Y)	<300	NA	17	NA
BH7-W	01/25/2012	51 Y <sup>(5)</sup>	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<50	<300	NA	<2.0	NA
BH8-W	01/25/2012	74,000	48,000	36	21	130	44	<6.3	3,800 (Y)	<300	NA	1,200	NA
BH9-W	02/06/2012	7,500	6,100 (Y)	27	11	340	164.4	<2.5	840	<300	NA	69	NA
BH10-W	02/06/2012	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<50	<300	<300	<2.0	<4.5
BH11-W	02/08/2012	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<50	<5.0	NA	<2.0	NA
BH12-W	02/06/2012	560 (Y)	460 (Y)	<1.3	<1.3	<1.3	<2.6	<1.3	1,400 (Y)	<300	NA	<5.0	NA
BH13-W	02/08/2012	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	210 (Y)	<380	NA	<2.0	NA
BH14-W	02/08/2012	1,300 (Y)	910 (Y)	<0.5	<0.5	<0.5	<1.0	<0.5	4,000 (Y)	<5.0	NA	<2.0	NA
BH16-W	07/03/2013	190 (Y)	130 (Y)	<0.5	<0.5	0.8	1.2	<0.5	<49	<290	<290	<2.0	NA
BH17-W	07/03/2013	7,100 (Y)	5,000(Y)	8.0	3.0	140	340	<1.0	2,100(Y)	<290	610 (Y)	110	NA
BH18-W	07/03/2013	1,800 (Y)	1,300(Y)	1.6	<0.5	<0.5	1.0	<0.5	650 (Y)	<290	<290	<2.0	NA
BH19-W	07/02/2013	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<49	<290	<290	<2.0	NA
BH20-W	07/02/2013	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<49	<290	<290	<2.0	NA
BH21-W	07/02/2013	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<49	<290	<290	<2.0	NA
BH22-W	07/02/2013	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<49	<290	<290	<2.0	NA
BH23-W	09/27/2013	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<52	<310	<310	<2.0	NA
BH24-W	09/27/2013	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<52	<310	<310	<2.0	NA
BH25-W	09/27/2013	<50	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<52	<310	<310	<2.0	NA
Low-Threat UST Case Closure Policy. Petroleum Intrusion to Indoor Air (Appendix 3, Figure A)		NA	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA

<sup>(1)</sup>TPH = Total volatile petroleum hydrocarbons by EPA Method 8015B

- <sup>(2)</sup> (µg/l) = Microgram per liter  
<sup>(3)</sup> TEPH = Total extractable petroleum hydrocarbons by EPA Method 8015B  
<sup>(4)</sup> NA = Not applicable or sample not analyzed for the specific indicated compound  
<sup>(5)</sup> (Y) = Sample exhibits chromatographic pattern which does not resemble standard

**Bold** = Concentration presented in bold where such a value is at or exceeds the indicated environmental screening level (ESL) listed

\* Groundwater sample BH5-W was collected from first encountered water at approximately 12 feet bgs.

\*\* Groundwater sample BH5-W1 was collected deeper at approximately 25 feet bgs.

\*\*\* Benzene level was later confirmed by installing monitoring wells onsite. None of the benzene levels in the four monitoring wells exceeded 100 µg/l.



**TABLE 6**  
**GROUNDWATER CUMULATIVE SUMMARY OF CHEMICAL ANALYSES FOR LUFT FIVE METALS**  
 2145 35<sup>th</sup> Avenue, Oakland, California

Sample ID	Description	Date Sampled	Cadmium (Cd) (µg/l) <sup>(1)</sup>	Chromium (Cr) (µg/l)	Lead (Pb) (µg/l)	Nickel (Ni) (µg/l)	Zinc (Zn) (µg/l)
P1-W	Shallow groundwater sample from boring P1	01/25/2012	<5.0	<5.0	<5.0	21	<20
P2-W	Shallow groundwater sample from boring P2	01/25/2012	<5.0	<5.0	<5.0	<5.0	<20
P3-W	Shallow groundwater sample from boring P3	01/25/2012	<5.0	<5.0	<5.0	<5.0	<20
P4-W	Shallow groundwater sample from boring P4	01/25/2012	<5.0	<5.0	<5.0	23	<20
BH5-W	Shallow groundwater sample from boring BH5	02/06/2012	<5.0	<5.0	<5.0	9.7	<20
BH5-W1	Groundwater sample from boring BH5 at ~25' bgs <sup>(2)</sup>	02/06/2012	<5.0	<5.0	<5.0	10	<20
BH6-W	Shallow groundwater sample from boring BH6	01/25/2012	<5.0	<5.0	<5.0	20	<20
BH7-W	Shallow groundwater sample from boring BH7	01/25/2012	<5.0	<5.0	<5.0	21	<20
BH8-W	Shallow groundwater sample from boring BH8	01/25/2012	<5.0	<5.0	<5.0	34	<20
BH9-W	Shallow groundwater sample from boring BH9	02/06/2012	<5.0	<5.0	<5.0	13	<20
BH10-W	Shallow groundwater sample from boring BH10	02/06/2012	<5.0	<5.0	<5.0	6.4	<20
BH11-W	Shallow groundwater sample from boring BH11	02/08/2012	<5.0	<5.0	<5.0	9.9	<20
BH12-W	Shallow groundwater sample from boring BH12	02/06/2012	<5.0	<5.0	<5.0	9.2	31
BH13-W	Shallow groundwater sample from boring BH13	02/08/2012	<5.0	<5.0	<5.0	12	<20
BH14-W	Shallow groundwater sample from boring BH14	02/08/2012	<5.0	<5.0	<5.0	13	<20
BH15-W	Shallow groundwater sample from boring BH15	02/08/2012	<5.0	<5.0	<5.0	9.5	<20
Final Groundwater Screening Levels, groundwater is a current or potential drinking water resource <sup>(3)</sup>			5.0 (drinking water)	50 (drinking water)	15 (drinking water)	100 (drinking water)	5,000 (drinking water)

<sup>(1)</sup> (µg/l) = Microgram per liter or part per billion

<sup>(2)</sup> bgs = Below Ground Surface

<sup>(3)</sup> = Tier 1 Environmental Screening Levels (ESLs), Groundwater Screening Levels, Groundwater is Current or Potential Source of Drinking Water (Table F-1a), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final - (Revised May 2013).

**Bold** = Concentration presented in bold where such a value is at or exceeds one of the environmental screening levels (ESLs) listed

**Note 1:** Reporting limits of some compounds listed in the above table are higher than their respective ESLs

**Note 2:** Analysis for LUFT Five Metals was discontinued in 2013 with the permission of Alameda County Environmental Health Agency due to insignificant levels detected.

**TABLE 7**  
**SUMMARY OF CHEMICAL ANALYSES**  
**GROUNWATER SAMPLES COLLECTED FROM THE MONITORING WELLS**  
**PETROLEUM HYDROCARBONS, BTEX, and MTBE**  
**2145 35<sup>th</sup> Avenue, Oakland, California**

Sample ID	Date Sampled	TPH-G <sup>(1)</sup> (µg/l) <sup>(2)</sup>	TPH-ss <sup>(3)</sup> (µg/l)	TPH-D <sup>(4)</sup> (µg/l)	TPH as Motor Oil (µg/l)	TPH as Hydraulic Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl benzene (µg/l)	Total Xylenes (µg/l)	MTBE <sup>(5)</sup> (µg/l)	Naphthalene (µg/l)
MW-1	07/09/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	12/06/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	03/21/2013	<50	<50	<49	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	06/21/2013	<50	<50	100 (Y) <sup>(6)</sup>	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	12/10/2013	<50	<50	<49	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
MW-2	07/09/2012	3,800	3,900 (Y)	1,200 (Y)	<300	660 (Y)	82	42	350	189.4	<0.5	44
	12/06/2012	5,000	3,300 (Y)	2,300	<300	1,500 (Y)	92	42	460	179.6	<0.5	62
	03/21/2013	4,500	3,000	1,800 Y	<290	1,000(Y)	77	31	230	115.4	<1.7	25
	06/21/2013	4,300	2,900	1,700 (Y)	<290	1,100 (Y)	50	24	210	96	<1.7	21
	12/10/2013	3,300	2,300 (Y)	1,500 (Y)	<290	710 (Y)	40	21	140	63	<1.7	6.7
MW-3	07/09/2012	85Y	86Y	180 (Y)	<300	<300	0.8	<0.5	<0.5	<1.0	<0.5	<2.0
	12/06/2012	1,200	800Y	2,000	<300	1,600 (Y)	36	0.8	9.2	1.1	<0.5	120
	03/21/2013	130 (Y)	91Y	140 (Y)	<290	<290	1.8	<0.5	<0.5	<1.0	<0.5	<2.0
	06/21/2013	<50	<50	210 (Y)	<290	340 (Y)	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	12/10/2013	<50	<50	54 (Y)	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
MW-4	07/09/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	12/06/2012	<50	<50	<50	<300	<300	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	03/21/2013	<50	<50	<49	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	06/21/2013	<50	<50	76 (Y)	<290	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
	12/10/2013	<50	<50	<51	<310	<310	<0.5	<0.5	<0.5	<1.0	<0.5	<2.0
Groundwater Screening Levels, Low-Threat Underground Storage Tank Case Closure Policy, Appendix 3, Figure A <sup>(7)</sup>		NA <sup>(7)</sup>	NA	NA	NA	NA	100	NA	NA	NA	NA	NA

TPH-G<sup>(1)</sup> = Total petroleum hydrocarbons as gasoline by EPA Method 8015B  
(µg/l)<sup>(2)</sup> = Microgram per liter  
TPH-ss<sup>(3)</sup> = Total petroleum hydrocarbons as Stoddard solvent by EPA Method 8015B  
TPH-D<sup>(4)</sup> = Total petroleum hydrocarbons as diesel by EPA Method 8015B  
MTBE<sup>(5)</sup> = Methyl Tertiary Butyl Ether  
(Y)<sup>(6)</sup> = Sample exhibits chromatographic pattern which does not resemble standard;

NA<sup>(7)</sup> = Not Applicable

TABLE 8  
SUMMARY OF CHEMICAL ANALYSES  
GROUNWATER SAMPLES COLLECTED FROM THE MONITORING WELLS  
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)  
2145 35<sup>th</sup> Avenue  
Oakland, California

Sample ID	Date Sampled	Naphthalene (µg/l) <sup>(1)</sup>	Acenaphthylene (µg/l)	Acenaphthene (µg/l)	Fluorene (µg/l)	Phenanthrene (µg/l)	Anthracene (µg/l)	Fluoranthene (µg/l)	Pyrene (µg/l)	Benzo (a) Anthracene (µg/l)	Chrysene (µg/l)	Benzo (b) Fluoranthene (µg/l)	Benzo (k) Fluoranthene (µg/l)	Benzo (a) pyrene (µg/l)	Indeno (1,2,3-cd) pyrene (µg/l)	Dibenz (a,h) Anthracene (µg/l)	Benzo (g,h,i) Perylene (µg/l)
MW-1	07/09/2012	<2.0	N/A <sup>(2)</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	06/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	07/09/2012	<b>44</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	<b>62</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	<b>27</b>	<0.3	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	06/21/2013	<b>21</b>	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	6.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-3	07/09/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	<b>120</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	0.6	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
	06/21/2013	<2.0	N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-4	07/09/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/06/2012	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	03/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	06/21/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/10/2013	<2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Groundwater Screening Levels, non-drinking water resource (Final Groundwater Screening Level) <sup>(3)</sup>		8.2	30	23	3.9	4.6	0.73	8.0	2.0	0.027	0.35	0.056	0.40	0.014	0.056	0.25	0.10

\*Stopped analyzing for full suite PAHs due to the fact only Naphthalene was detected in previous sampling and analysis.

(µg/l) <sup>(1)</sup> = Microgram per liter

N/A <sup>(2)</sup> = Not applicable or not analyzed for.

<sup>(3)</sup> = Tier 1 Environmental Screening Levels (ESLs), Groundwater Screening Levels, Groundwater is not Current or Potential Source of Drinking Water (Table F-1b), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final (Revised May 2013).

**Bold** = Concentration presented in bold where such a value is at or exceeds one of the environmental screening levels (ESLs) listed

TABLE 9  
SUMMARY OF CHEMICAL ANALYSES  
GROUNWATER SAMPLES COLLECTED FROM THE MONITORING WELLS  
LUFT FIVE METALS  
2145 35<sup>th</sup> Avenue  
Oakland, California

Sample ID	Date Sampled	Cadmium (Cd) (µg/l) <sup>(1)</sup>	Chromium (Cr) (µg/l)	Lead (Pb) (µg/l)	Nickel (Ni) (µg/l)	Zinc (Zn) (µg/l)
MW-1	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
	12/06/2012	<5.0	<5.0	<5.0	7.6	<20
	03/21/2013	N/A <sup>(2)</sup>	N/A	<5.0	5.5	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
MW-2	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
	12/06/2012	<5.0	<5.0	<5.0	<5.0	<20
	03/21/2013	N/A	N/A	<5.0	<5.0	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
MW-3	07/09/2012	<5.0	<5.0	<5.0	<5.0	<20
	12/06/2012	<5.0	<5.0	<5.0	6.1	<20
	03/21/2013	N/A	N/A	<5.0	5.1	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
MW-4	07/09/2012	<5.0	<5.0	<5.0	6.6	<20
	12/06/2012	<5.0	<5.0	<5.0	9.7	<20
	03/21/2013	N/A	N/A	<5.0	8.7	NA
	06/21/2013*	N/A	N/A	N/A	N/A	N/A
Groundwater Screening Levels, drinking water Toxicity <sup>(3)</sup>		5.0	50	15	100	5,000

\*Stopped analyzing for LUFT 5 metals due to non-detected to non-significant levels in the water.

(µg/l) <sup>(1)</sup> = Microgram per liter

N/A <sup>(2)</sup> = Not applicable or not analyzed for the indicated compound Tier 1 Environmental Screening Levels (ESLs), Groundwater (3)

(3) = Screening Levels, Groundwater is Current or Potential Source of Drinking Water

(Table F-3), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Prepared by: California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, Interim Final (Revised May 2013).

Table 10 – Potential Exposure Pathways

Potential Pathway	Potential Receptors	Comments
Vapor intrusion to indoor air (inhalation route)	Occupants of the future building onsite	Complete pathway. Needs soil gas survey.
Contaminant leaching from soil to groundwater	End users of groundwater and terrestrial (nonhuman) receptors	Complete pathway.
Shallow groundwater leaching to deeper groundwater	Groundwater and end users of groundwater	Incomplete pathway due to the fact the subsurface investigation did not identify leaching of water or contamination below 30 feet bgs.
Shallow groundwater possible discharging to surface water	Nearby Creek and Ultimately ecological receptors	Incomplete pathway due to the fact that Peralta Creek is located approximately 700 feet from the site. Extent of petroleum hydrocarbon plume is less than 100 feet from the site. No other surface water discharge is observed from the site.
Direct contact with the soil and outdoor air.	Onsite workers and others	Complete pathway. Contaminants detected are below the corresponding LTCP limits.
Gross contamination concerns (nuisance, odors, etc.) and general resource degradation.	Human, other receptors	Complete pathway. No odor or nuisance exists onsite.







**APPENDIX**  
**BORING LOGS**

## Log of Exploratory Boring

**Brighton Environmental Consulting**

**Boring No. B1    Sheet 1 of 1**

Client: Campos	Date begin: 2/23/07	Hole diameter: 2-1/4"	Total depth of boring: 20'
Site: 2145 35th Avenue, Oakland	Date finish: 2/23/07	Local agency: ACPWA	Local permit no. W2007-0172
Logged by: Allen J. Waldman, PG 6323		Installed temporary slotted PVC casing to collect groundwater sample.	
Drilling Co.: Precision Sampling, Inc.		Backfilled boring with neat cement.	
Driller: Roberto		Drill rig model: Geoprobe 7720DT	
Drilling method: Direct-push with Macro-Core sampler (MC)		Depth to first encountered water: 12'	

		Pocket Penetrometer (tsf)	PID reading (ppmv)	Sampler Type	Recovery (ft/ft)	Sample Interval	Depth (ft)	Soil/Rock Symbol	Graphic Log	Soil/Rock Description
				MC	4/4.5	↑	2	FILL		CONCRETE (5")
							4			FILL-SANDY CLAY (SC): mottled very dark gray (10YR 3/1) to yellowish brown (10YR 5/4), damp, no odor.
				MC	5/5	X	6			@5': some asphalt.
		44					8	CL		@6': CLAY with SAND (CL), brown (10YR 5/3), medium plasticity, 15% fine sand, damp, no odor.
							10	CL		@9': CLAY (CL), dark gray (5Y 4/1), medium plasticity, slightly silty, soft, moist, strong petroleum odor.
		900		MC	4/5	↓	12	SM		@10.2: SILTY SAND (SM), dark gray (5Y 4/1), 15-30% low plasticity fines, 70-85% fine sand, moist, strong petroleum odor.
							14	GM		@11.5': wet.
							16	CL		@12': SILTY GRAVEL (GM), dark gray (5Y 4/1), 15% low plasticity fines, 35% fine to coarse sand, 50% fine gravel, wet.
				MC	4.1/5	↓	18			@13.2': CLAY (CL), yellowish brown (10YR 5/4), medium plasticity, slightly silty, moist, no petroleum odor, oxide staining throughout, sharp contact with overlying gravel.
							20			Bottom of Boring = 20'






## Log of Exploratory Boring

**Brighton Environmental Consulting**

**Boring No. B2 Sheet 1 of 1**

Client: Campos	Date begin: 2/23/07	Hole diameter: 2-1/4"	Total depth of boring: 15'
Site: 2145 35th Avenue, Oakland	Date finish: 2/23/07	Local agency: ACPWA	Local permit no. W2007-0172
Backfilled boring with neat cement.			
Logged by: Allen J. Waldman, PG 6323			
Drilling Co.: Precision Sampling, Inc.			
Driller: Roberto      Drill rig model: Geoprobe 7720DT			
Drilling method: Direct-push with Macro-Core sampler (MC)      Depth to first encountered water: 10'			

		Pocket Penetrometer (tsf)	PID reading (ppmv)	Sampler Type	Recovery (ft/ft)	Sample Interval	Depth (ft)	Soil/Rock Symbol	Graphic Log	Soil/Rock Description
				MC	4.5/4.5	↑	2	FILL		CONCRETE (4")
		0					4			FILL-SANDY CLAY (SC): very dark gray (10YR 3/1), stiff, damp.
		2.5					6			
				MC	5/5	X	8	CL		@7': CLAY (CL), grayish brown (10YR 5/2), medium plasticity, slightly mottled by oxidation, trace rootlets (<1mm), moist.
		0					10	▽		@10': wet.
							12	SC		@11': CLAYEY SAND (SC), mottled dark gray (5Y 4/1) with greenish tint to yellowish brown (2.5Y 5/4), 45% low-plasticity fines, 55% fine sand, wet.
				MC	3.5/5	↓	14			@12.5': mottling absent, slightly coarser grained sand, fewer fines and more silty, wet.
							16			
										Bottom of Boring = 15'



## Log of Exploratory Boring

**Brighton Environmental Consulting** **Boring No. B4**    **Sheet 1 of 1**

Client: Campos Date begin: 2/23/07 Hole diameter: 2-1/4"    Total depth of boring: 15'

Site: 2145 35th Avenue, Oakland Date finish: 2/23/07 Local agency: ACPWA    Local permit no. W2007-0172

Backfilled boring with neat cement

Logged by: Allen J. Waldman, PG 6323

Drilling Co.: Precision Sampling, Inc.

Driller: Roberto Drill rig model: Geoprobe 7720DT

Drilling method: Direct-push with Macro-Core sampler (MC) Depth to first encountered water: 12'

			Pocket Penetrometer (tsf)	PID reading (ppmv)	Sampler Type	Recovery (ft/ft)	Sample Interval	Depth (ft)	Soil/Rock Symbol	Graphic Log	Soil/Rock Description
					MC	4.5/4.5	↑	2	FILL		CONCRETE (5")
							↓	4			FILL-SANDY CLAY (SC): mottled very dark gray (10YR 3/1) to yellowish brown (10YR 5/4), damp, no odor.
					MC	3/5	↑	6			@7": CLAY (CL), dark gray (5Y 4/1) with greenish tint, medium
			2.0	>10,000			↓	8	CL		plasticity, medium stiff, damp to moist, strong petroleum odor.
					MC	4.5/5	↑	10			
							↓	12	▽		@12": CLAYEY SAND (SC), dark gray (5Y 4/1), 40% medium
			0				↓	14	GC		plasticity fines, fine to medium sand, strong petroleum odor., wet.
							↓	16			@13": CLAYEY GRAVEL with SAND (GC), dark gray (5Y 4/1), up to 30% fines (varying percentages in layered sequences), fine to coarse sand, ~50% gravel, wet, strong petroleum odor.
											Bottom of Boring = 15'



DRILLING DATE: 02/06/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING  
BH-5**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				Dark gray to black Silty Clay (CL/CH), medium stiff, moist (fill materials, ~ 10% gravel, slight odor of petroleum hydrocarbons) ~ Base of fill	0' to 2'		Fill to ~ 5'
2							
3				Dark gray to black Silty Clay (CL), medium stiff, moist (little or no gravel, odor of petroleum hydrocarbons and staining start at 4' of depth)	2' to 5'		
4							
5		BH5-5					
6				Gray gravel sand mixture (SW/GW), medium dense, moist to damp (odor of petroleum hydrocarbons and staining start at 4' of depth)	5' to 8'		First groundwater was at ~ 16' to 18' bgs
7							
8		BH5-8					
9				Gray Sandy Clay (CL), medium stiff, moist (odor of petroleum hydrocarbons and staining)	8' to 11'		
10							
11				Gray gravel sand mixture (SW/GW), medium dense, wet to damp (odor of HC)	11' to 12'		
12		BH5-12					
13				Gray Sandy Clay (CL), medium stiff, moist to damp (<5% gravel, odor of HC)	12' to 13'		
14							
15				Gray Clayey Fine Sand (SC), dense, moist (odor of petroleum hydrocarbons and staining)	13' to 16'		
16							
17				Gray gravel sand mixture (GM), medium dense, wet (abrupt contact at 18')	16' to 18'		
18							
19				Light brown fine Sand (SP/SW), dense, moist (oxidized orange, No odor of HC)	18' to 22'		
20							
21							
22							
23				Light brown Sandy Clay (CL), stiff, wet (No odor of petroleum hydrocarbons or staining)	12' to 25'	0 ppm	Second groundwater was at ~ 25' to 30' bgs
24							
25							
26							
27				CONTINUE ON NEXT PAGE			



DRILLING DATE: 02/06/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING  
 BH-5  
 (Continued)**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
28 29 30 31 32 33		BH5-30		Light brown Clay (CL) stiff, moist, with soft fine wet sand, (no odor of HC) (27.5 to 28.0 feet and 30.0 to 32.0 feet, scattered black charcoal organic fine "blebs" slightly mottled blue gray)	25' to 33'	0 ppm	
34 35				Brown fine gravelly Clay (CL) stiff to hard, slightly moist (No odor of HC or staining)	33' to 35.5'	0 ppm	
36 [unlabeled depth markers]				BOTTOM OF BORING at 35.5' (Refusal)  Boring was grouted after sampling.			



DRILLING DATE: 01/25/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING  
 BH-6**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				Dark gray to black gravelly sand (SW), loose, moist (~20% gravel and 80% sand, nor odor of HC)	0' to 2'	0 ppm	Fill to ~ 2'
2				~ Base of fill			
3				Dark gray Clayey Sand (SC), medium dense, moist (~ 10 % gravel, no odor of HC or staining)	2' to 15'	0 ppm	
4							
5							
6							
7							
8		BH6-8					
9							
10							
11							
12		BH6-12					
13							
14							
15							
16		BH6-16		Brown Sandy Clay (CL), medium stiff, moist to wet (No odor of HC or staining)	15' to 18'		
17							
18							
19				Brown Clayey Sand (SC), dense, wet (No odor of HC or staining)	18' to 20'		
20							
				BOTTOM OF BORING at 20' Note: Boring was grouted to surface.			



DRILLING DATE: 01/25/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING  
 BH-7**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2 3 4 5				Dark gray to black Clayey Sand (SC), medium dense, moist (< 5 % gravel, no odor of HC or staining)  ~ Base of fill	0' to 5'	0 ppm	Fill to ~ 5'
6 7 8 9		BH7-8		Brown gravelly Clayey Sand (SC), medium dense, moist (~ 20 % gravel, no odor of HC or staining)	5' to 9'		
10 11 12 13 14 15 16 17 18 19 20		BH7-12		Brown Sandy Clay (CL), medium stiff, moist (<5% gravel, no odor of HC or staining)	9' to 20'		
				BOTTOM OF BORING at 20' Note: Boring was grouted to surface.			



DRILLING DATE: 01/25/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING  
 BH-8**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2 3 4 5				Dark gray to black gravelly Sandy Clay (CL), medium stiff, moist (~ 20 % gravel, no odor of HC)	0' to 5'	0 ppm	Fill to ~ 5'
6 7				Brown gravel sand mixture (GM), medium dense, moist (no odor of HC or staining)	5' to 7'		
8 9 10 11 12		BH8-8 BH8-12		Gray Sandy Clay (CL), medium stiff, moist (~ 10% gravel, no odor of HC)	7' to 12'		
13 14 15				Gray Sandy Clay (CL), medium stiff, moist (< 5% gravel, slight odor of HC and staining noticed )	12' to 15'		
16 17 18 19 20		BH8-16		Gray gravel sand mixture (GM), medium dense, wet (slight odor of HC and staining noticed)	15' to 20'		
				BOTTOM OF BORING at 20' Note: Boring was grouted to surface.			





DRILLING DATE: 02/06/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
BH-9**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2 3 4				Black Silty Clay (CH), stiff, slightly moist (fill materials, ~ 10% sand and gravel, poor recovery, no odor of petroleum hydrocarbons)	0' to 4'		Fill to ~ 8.5' ~15% recovery'
5 6 7 8		BH9-8		Dark olive gray Gravelly Sand (SW), medium dense, moist (clay ~ 10-15%, gravel 10% to 15% 1.5 " diameter, red rock fragments, poor recovery, odor of petroleum hydrocarbons) ~ Base of fill	5' to 8.5'		
9 10 11 12 13 14 15 16 17 18		BH9-16		Gray Clayey gravelly Sand (SP), variably dense, moist (lenses of medium to coarse gravel and clay/silt, with overall 0-20% gravel, 0-20% Clay-Silt, wet at 17'-18" with abrupt contact at 18')	8.5' to 18'		~90% recovery'
19 20 21				Light brown, mottled blue gray, silty Clay (CL), very stiff, moist ( scattered black organic "blebs")	18' to 21'		~100% recovery'
22 23 24 25				Light brown, Silty Clay/ Clayey Silt (CL), very stiff, moist (5-10% fine sand, minor scattered black organic "blebs". ~ 24.3' to 24.5', encountered medium coarse sandy silt lense)	21' to 25.5'		
26 27				CONTINUE ON NEXT PAGE			
PROJECT NAME: Salisbury Avenue Associates, LLC					SHEET 1 OF 2		



DRILLING DATE: 02/06/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING BH-9 (Continued)**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
28 29 30 31 32		BH9-30		Light brown Silty Clay (CL), very stiff, moist to damp (5% to 10% fine sand, scattered black charcoal organic fine "blebs")	25.5' to 32.0'	0 ppm	
33 34 35 36 37				Tan to light brown fine gravelly medium coarse Sand (SW) very dense, slightly moist (gravel subangular to subrounded ~ 20% to 30%)	32' to 37.5'	0 ppm	
38 [unlabeled depth markers]				BOTTOM OF BORING at 37.5' (Refusal) Note: Boring was grouted to surface.			



DRILLING DATE: 02/06/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
BH-10**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2 3				Dark gray to black Silty Clay (CH), medium stiff, moist (mixed with ~ 10% coarse sand and hard broken rock, no odor of HC)	0' to 3'	0 ppm	Fill to ~ 5.5'  Poor Recovery 0'-4' due to hard rock fragments
4 5				Gray Silty Clay (CL/CH), medium stiff, moist (with ~ 10% sand, no odor of HC) ~ Base of fill	3' to 5.5'		
6 7				Brown (with orange oxidation) Clayey, Silty Sand (SM), medium dense, moist (~ 25% clay and silt, no odor of HC)	5.5' to 7'		
8 9 10 11 12 13		BH10-9 BH10-12		Gray Clayey Silty Fine Sand (SM), medium dense, moist (~ 35% to 40 % clay and silt, odor of HC)	7' to 13'		
14 15				Brown Silty Clayey Sand (SC), dense, moist (rock fragments ~1.5" diameter, no odor of HC)	13' to 15.5'		
16 17 18 19 20				Gray to brown Silty Clay (CL), hard, moist (no odor of HC)	15.5' to 20'		
				BOTTOM OF BORING at 20' Note: Boring was grouted to surface.			



DRILLING DATE: 02/08/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
BH-11**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2 3				Black Clay (CH), soft, moist ( $< 5\%$ fine to coarse sand, lighter color and increasing sand with depth, no odor of HC)  ~ Base of possible fill	0' to 3.1'	0 ppm	Possible Fill to ~ 3.1'
4 5 6 7 8 9 10		BH11-8		Brown Silty Sandy Clay (CL), stiff, moist (scattered brown organics, angular, fine to medium sand, increases from 10 to 40% at base, no odor of HC)	3.1' to 9.8'	0 ppm	
11 12 13 14 15		BH11-12		Brown to gray brown Silty Sand (SM), dense, moist (Silt variably 10-25%, sand lenses 11.6'- 12.0', 12.3'- 12.6', 13.1' - 15.1', no odor of HC)	9.8' to 15.2'	0 ppm	
16 17				Brown gravelly, medium coarse Sand (SW), dense, moist (up to 1" gravel, no odor of HC, no free water)	15.2' to 17.0'		
18 19				Brown and blue gray Clayey Silt (ML), stiff to very stiff, moist, mottled, laminated (no odor of HC)	17.0' to 19.2'		
20				Light brown, fine to coarse Sand (SW), dense, moist (mottled blue gray, no odor of HC, free water in boring after completion)	19.2' to 20.0'		
				BOTTOM OF BORING at 20'			
PROJECT NAME: Salisbury Avenue Associates, LLC					SHEET 1 OF 1		



DRILLING DATE: 02/06/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
BH-12**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2 3				Dark gray to black silty Clay (CH), medium stiff, moist (no odor of HC)  ~ Base of fill (disturbed possible fill)	0' to 3.0'		
4 5 6 7		BH12-5		Light brown gravelly sand (SW), medium to coarse grained dense, moist (~ 5 to 20% gravel, no odor of HC)	3.0' to 7.0'		
8 9				Olive green Clayey Sandy Silt (ML), moist, very stiff, (no odor of HC)	7.0' to 9.0'	0 ppm	
10 11 12 13 14 15		BH12-12		Brown Gravelly Sand (SW), dense, moist (silty, gravel variable 5-25%, slight odor of HC, stained blue-gray 11' to 12')	9.0' to 15.0'		
16				Light brown silty fine Sand (SM), dense, moist (< 1% gravel, no odor of HC)	15.0' to 16.0'		
17				Light brown Gravel Sand mixture (GM), dense, moist (no odor of HC)	16.0' to 17.0'		
18				Light brown silty Sand (SM), dense, moist (no odor of HC)	17.0' to 18.0'		
19 20				Brown, Clayey Fine Sand (SC), very dense, moist Mottled blue gray (no odor of HC)	18.0' to 20.0'		
21 22 23 24 25 26 27				Light brown Fine Sandy Silty Clay (CL), very stiff, moist, (20' to 22' scattered black organics, no odor of HC, mottled blue gray with light brown)  CONTINUE ON NEXT PAGE	20.0' to 30.0'	0 ppm	



DRILLING DATE: 02/06/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
 BH-12  
 (Continued)**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
28 29 30		BH12-30		Light brown Fine Sandy Silty Clay (CL), very stiff, moist, (20' to 22' scattered black organics, no odor of HC, mottled blue gray with light brown)	20.0' to 30.0'	0	
				BOTTOM OF BORING at 30.0' (Refusal)  Boring was grouted after sampling.		ppm	



DRILLING DATE: 02/08/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
 BH-13**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				Black Clay (CH), soft, moist (~ 5% sand, no odor of HC)	0' to 1.5'		
2				Olive brownn Silty Clay (CL), medium stiff, moist (~ 10% fine sand, no odor of HC)	1.5' to 5.0'		
3							
4							
5		BH13-5					
6				Brown Sand (SW), medium dense, moist (primarily fine-medium with minor coarse sand, 10% 1/2" maximum angular to sub-angular gravel, variable, 1 to 8" lenses of variable grain size medium to coarse wet sand 13.4 to 13.8' and 14.9 to 15.7')	5.0' to 16.0'		
7							
8		BH13-8					
9							
10							
11							
12							
13							
14							
15							
16							
17				BOTTOM OF BORING at 16.0' Note: Boring was grouted to surface.			
18							
19							
20							

0 ppm



DRILLING DATE: 02/08/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
 BH-14**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				Black Clay (CH), soft, moist (Mixed black clay (CH) and brown clay (CL) at 0 - 0.5' no odor of HC)	0' to 2.5'		Fill to ~ 0.5'
2							
3				Olive brown Silty Clay (CL), soft, moist (~ 5% to 10 % fine sand, no odor of HC)	2.5.' to 5.8'	0 ppm	
4							
5							
6							
7				Brown Silty Sand and Sand (SW/SM), dense, moist (brown fine gravelly sand lenses 11.1' to 12.0', 14.0' to 14.5', and 15.0' to 15.4', abrupt contact at 15.4)	5.8' to 15.4'		0 ppm
8							
9							
10							
11							
12							
13							
14				Gray fine to medium angular Gravel (GW) (SW/SM), dense/very hard, moist			
15							
16					15.4' to 15.6'		
17				Gray (light brown /tan at 16') Clayey Silt (ML)	15.6' to 16.0'		No Recovery 16-20'
18				stiff, moist			
19							
20							
21				BOTTOM OF BORING at 20' Note: Boring was grouted to surface.			
22				No free water while drilling.			
23							
24							
25							





DRILLING DATE: 02/08/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, REA

**LOG OF BORING  
BH-15**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2 3				Black Clay (CH), soft to stiff, moist (5% fine to coarse angular sand, no odor of HC)	0' to 3.0'		
4 5		BH15-4		Black Sandy Clay (CH), stiff, moist (15 to 20% sand, no odor of HC)	3.0' to 4.8'	3.6 ppm	
6 7 8 9		BH15-8		Blue gray Clayey Sand (SC), dense, slightly moist (moderate odor of HC)	4.8' to 9.5'	1.9 ppm	
10 11 12		BH15-12		Blue to gray fine to medium Sand (SW). medium dense, moist (<10% coarse sand, lenses 1 to 4" thick, strong odor of HC)	9.5' to 12.3'	350 ppm	
13 14 15 16		BH15-16		Blue gray silty fine to medium Sand (SM), dense, moist (<10% coarse sand, strong odor of HC. 15.5' to 16.0' light brown to tan silty fine sand (SM) SM/SW, slight odor of HC)	12.3' to 16.0'	0.2 ppm	
17 18 19 20 21 22 23 24 25				BOTTOM OF BORING at 16' Note: Boring was grouted to surface.			



DRILLING DATE: 01/25/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING P1**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	Temporary Casing	COMMENTS
1				Dark gray to black Clayey Sand (SC), medium dense, moist (less than 10% gravel, no odor of petroleum hydrocarbons, fill materials to ~ 5')  ~ Base of fill	0' to 5'	0 ppm		Temporary Street Box Cover
2								
3								
4								
5		PI-5						
6				Brown Sandy Clay (CL), medium stiff, moist (less than 5% gravel, no odor of petroleum hydrocarbons or staining)	5' to 14'		(Top of Casing was surveyed before grouting boring)	
7								
8								
9								
10								
11								
12								
13								
14		PI-14					Measured Depth to Water 11.85'	
15				Gray Clayey Sand (SC), medium dense, moist (less than 5% gravel, no odor of petroleum hydrocarbons or staining)	14' to 16'			(Initial water was at ~ 13'; then, water stabilized at 11.85')
16								
17				Brown Clayey Sand (SC), medium dense, wet (no odor of petroleum hydrocarbons or staining)	16' to 20'			
18								
19								
20								
				BOTTOM OF BORING at 20'				
				Note: Boring was grouted to surface, following removal of temporary casing.				



DRILLING DATE: 01/25/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING P2**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	Temporary Casing	COMMENTS
1				Dark gray to black Clayey Sand (SC), medium dense, moist (less than 10% gravel, slight odor of petroleum hydrocarbons, fill to ~ 5")  ~ Base of fill	0' to 5'	0 ppm		Temporary Street Box Cover
2								
3								
4								
5								
6		P2-8		Same as above, except decreased gravel and color turned brown.	5' to 9'			(Top of Casing was surveyed before grouting boring)
7								
8								
9								
10		P2-12		Brown Clayey Sand (SC), medium dense, moist (less than 5% gravel, slight odor of petroleum hydrocarbons)	9' to 16'			Measured Depth to Water 10.9'
11								
12								
13		P2-16		Dark gray Clayey Sand (SC), dense, wet (No odor of petroleum hydrocarbons or staining)	16' to 18'		Initial water was at ~ 12'; then, water stabilized at 10.90')	
14								
15				Dark gray Clay (CL), stiff, moist (no odor of petroleum hydrocarbons or staining)	18' to 20'			
16								
17		P2-20		BOTTOM OF BORING at 20' Note: Boring was grouted to surface, following removal of temporary casing.				
18								
19								
20								



DRILLING DATE: 01/25/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING P3**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	Temporary Casing	COMMENTS
1				Dark gray to black Sandy Clay (CL), medium stiff, moist (less than 10% gravel, no odor of petroleum hydrocarbons, fill to ~ 5')  ~ Base of fill	0' to 5'	0 ppm		Temporary Street Box Cover  Temporary 1" PVC Casing
2								
3								
4								
5								
6				Same as above, except decreased gravel and color turned brown.	5' to 11'			(Top of Casing was surveyed before grouting boring)  Measured Depth to Water 9.5'
7								
8		P3-8		Yellow to brown Sandy Clay (CL), medium stiff, moist (less than 5% gravel, no odor of petroleum hydrocarbons)	11' to 13'	0 ppm		(Initial water was at ~ 13'; then, water stabilized at 9.5')
9								
10				Dark gray to black Sandy Clay (CL), medium stiff wet (no odor of petroleum hydrocarbons or staining)	13' to 18'	0 ppm		
11								
12		P3-12						
13								
14				Yellow to brown Sandy Clay (CL), medium stiff, wet (less than 5% gravel, no odor of petroleum hydrocarbons)	18' to 20'	0 ppm		
15								
16								
17				BOTTOM OF BORING at 20'  Note: Boring was grouted to surface, following removal of temporary casing.				
18								
19								
20								



DRILLING DATE: 01/25/2012  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, REA  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING P4**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	Temporary Casing	COMMENTS	
1				Dark gray to black Clayey Sand (SC), medium dense, moist (less than 10% gravel, no odor of petroleum hydrocarbons, fill to ~ 4')	0' to 4'			Temporary Street Box Cover	
2									
3									
4				~ Base of fill					Temporary 1" PVC Casing
5				Brown Clayey Sand (SC), medium dense, moist (less than 5% gravel, no odor of petroleum hydrocarbons)				(Top of Casing was surveyed before grouting boring)	
6									
7									
8		P4-8							
9									
10						4' to 14'	0 ppm		Measured Depth to Water 10.11'
11									
12		P4-12							(Initial water was at ~ 13'; then, water stabilized at 10.11')
13									
14									
15				Brown Clayey Sand (SC), medium dense, wet (less than 5% gravel, no odor of petroleum hydrocarbons)	14' to 16'	0 ppm			
16									
17									
18									
19				Brown Clayey Sand (SC), medium dense, moist (less than 5% gravel, no odor of petroleum hydrocarbons)	16' to 20'	0 ppm			
20									
				BOTTOM OF BORING Note: Boring was grouted to surface, following removal of temporary casing.					



DRILLING DATE: 07/03/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, QSP/QSD  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING**  
**BH-16**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				0.0' to 1.0' Concrete slab and gravel	0.0' to 1.0'		
2		BH16-3		Black Silty Clay (CH), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	1.0' to 5.0'	4.5 ppm	
3							
4							
5							
6							
7		BH16-7		Brown Sandy Clay (CL), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	5.0' to 11.0'	1.1 ppm	
8							
9							
10		BH16-10.5				1.2 ppm	
11							
12				Brown Sand (SW), medium dense, moist to wet (No odor of petroleum hydrocarbons or stain)	11.0' to 14.0'		
13							
14							
15		BH16-16		Brown Silty Clay (CL), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	14.0' to 16.0'	1.2 ppm	First Encountered Groundwater
16							
17				Brown Silty Clay (CL), medium stiff, moist 16.0' to 18.0' and wet 18.0' to 20.0' (No odor of petroleum hydrocarbons or stain)	16.0' to 20.0'		
18							
19							
20							
21				BOTTOM OF BORING at 20'			
22							
23							
24							
25							



DRILLING DATE: 07/03/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, QSP/QSD  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING**  
**BH-17**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				0.0' to 1.0' Concrete slab and gravel	0.0' to 1.0'		
2		BH17-2,5		Black Silty Clay (CH), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	1.0' to 5.0'		
3							
4							
5		BH17-6		Brown Sandy Clay (CL), medium stiff, moist (slight odor of petroleum hydrocarbons)	5.0' to 7.0'		
6							
7		BH17-9		Dark Gray Sand (SW), medium dense, moist (odor of petroleum hydrocarbons)	7.0' to 12.0'		
8							
9							
10							
11		BH17-11		Dark Gray Sand (SW), medium dense (odor of petroleum hydrocarbons)	12.0' to 16.0'		
12							
13		BH17-15,5		Dark Gray Sand (SW), medium dense (~30% 1/8" gravel), moist 12.0' to 14.0' and wet 14.0' to 16.0'. Increased gravel presence @ 14.0' to 16.0'. (odor of petroleum hydrocarbons)	12.0' to 16.0'		
14							
15							
16							
17				BOTTOM OF BORING at 16.0'			
18							
19							
20							
21							
22							
23							
24							
25							

First Encountered Groundwater











DRILLING DATE: 07/03/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, QSP/QSD  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING**  
**BH-18**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				0.0' to 1.0' Concrete slab and gravel	0.0' to 1.0'		First Encountered Groundwater 
2		BH18-2.5		Black Silty Clay (CH), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	1.0' to 5.0'	0.9 ppm	
3							
4							
5							
6							
7		BH18-7.5		Black Silty Sand (SM), medium dense, moist (no odor of petroleum hydrocarbons)	5.0' to 8.0'	0.6 ppm	
8							
9							
10		BH18-10.5		Dark gray to black Sand (SW), (with ~20% gravel) medium dense moist, (No odor of petroleum hydrocarbons or stain)	8.0' to 11.0'	1.1 ppm	
11							
12				Dark Gray Sandy/ Silty Clay (CL), medium stiff, moist (no odor of petroleum hydrocarbons or stain)	11.0' to 12.0'		
13		BH18-15.5		Dark Gray to Black Sand (SW), (with ~20% fine gravel), medium dense moist (no odor of petroleum hydrocarbons or stain)	12.0' to 16.0'	2.3 ppm	
14							
15							
16							
17				BOTTOM OF BORING at 16.0'			
18							
19							
20							
21							
22							
23							
24							
25							





DRILLING DATE: 07/02/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, QSP/QSD

**LOG OF BORING**  
**BH-19**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				0.0' to 1.0' Concrete slab and gravel	0.0' to 1.0'		
2				Black Clay (CH), firm, moist (10% medium-coarse sand, naturally-occurring residual soil, grades down to alluvium, increasing sand, light brown organics) (No odor of petroleum hydrocarbons or stain)	1.0' to 5.0'	5.2 ppm	Possible Fill to ~ 1.5'
3							
4							
5							
6				Black Silty Sand (SM), dense, moist, (Abundant orange-brown organics, sand medium to coarse w/ fine. Coarse sand lens between 6.5' and 7.5') (No odor of petroleum hydrocarbons or stain),	5.0' to 7.5'		
7		BH19-7.5					
8				Brown Silty Sand (SM) (fine to medium), dense, moist, (Abundant red-brown organics) (No odor of petroleum hydrocarbons or stain),	7.5' to 10.0'		
9							
10				Black Sand (SW), sub-angular, Medium to Coarse, dense, wet. 3" to 6" lenses varying grain size. Fine gravel 10.2'-10.8' and 12.5'-12.8'. (13.0' to 13.2' - wood (redwood?)) (No odor of petroleum hydrocarbons or stain).	10.0' to 13.2'		
11							
12		BH19-11.5					
13				Black Silty Sand (SM), loose, wet. (Sand fine-medium, Silt 10-30%) (No odor of petroleum hydrocarbons or stain),	13.2' to 16.0'		
14							
15							
16		BH19-16					
17				BOTTOM OF BORING at 16.0'		8.0 ppm	First Encountered Groundwater 
18							
19							
20							
21							
22							
23							
24							
25							



DRILLING DATE: 07/02/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, QSP/QSD

**LOG OF BORING**  
**BH-20**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS	
1				0.0' to 1.0' Concrete slab and gravel	0.0' to 1.0'	8.4 ppm	Fill to ~ 3.0'	
2				Fill Sand to 3' (SW) (not logged)				
3						6.4 ppm		
4				Blue gray and brown mottled Silty Silty Clay (CL), stiff, moist. Sand fine to angular/sub-angular coarse; color blue-gray overall. (No odor of petroleum hydrocarbons or stain)	3.0' to 8.0'			
5								
6								
7								6.3 ppm
8						4.5 ppm		
9				Brown, mottled gray Silty Sand (SM), dense, slightly moist (3-6" lenses sand, silty sand, silt. Sand fine to coarse, distinctive lenses throughout, trace fine gravel commonly sub-rounded. (No odor of petroleum hydrocarbons or stain)	8.0' to 13.50'			
10								
11		BH20-11						
12								
13								
14								
15				Orange-brown, mottled gray clayey silt (ML) with 5-10% fine sand very stiff, moist (trace black organics-1-2" fine to medium grained sand lenses) (No odor of petroleum hydrocarbons or stain)	13.5' to 16.5.0'			
16								2.0 ppm
17				Brown, slightly mottled gray Silty/ Sandy Clay (CL) very stiff, moist (1 to 2" fine to med-sandy lenses and disseminated fine to med sand) (No odor of petroleum hydrocarbons or stain)	16.5' to 18.50'			
18								
19				Brown fine Sand (SP), dense, wet (No odor of petroleum hydrocarbons or stain)	18.5' to 21.0'			
20								
21		BH20-21						
22				BOTTOM OF BORING at 21.0'				
23								
24								
25								

First Encountered Groundwater



DRILLING DATE: 07/02/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, QSP/QSD

**LOG OF BORING**  
**BH-21**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				0.0' to 1.0' Concrete slab and gravel	0.0' to 1.0'	6.9 ppm	Fill to ~ 3.0'
2				Fill Sand to 3' (SW) (not logged) (No odor of petroleum hydrocarbons or stain)			
3							
4					Brown/ tan mottled Clayey Silt (ML), with ~10% fine sand, firm to stiff, moist (scattered dark black organics roots) (No odor of petroleum hydrocarbons or stain)	3.0' to 8.0'	
5							
6							
7							
8							
9				No Recovery		1.1 ppm	
10					8.0' to 12.0'		
11							
12							
13				Brown, mottled gray Silty Clay (CL) (with 5 to 10% fine sand) very stiff to hard, moist; medium to coarse sub-angular sand lens at ~12.5' to 12,8'; 14.5 to 15.5' fine grading down to coarse clayey, silty sand lens. (No odor of petroleum hydrocarbons or stain).	12.0' to 18.5'	1.1 ppm	
14							
15							
16							
17							
18							
19				Brown, slightly mottled gray Clayey Silt (ML) (5-10% fine sand), very stiff, moist. 2" medium coarse sand lens at 20' (very moist to wet). (No odor of petroleum hydrocarbons or stain)	18.5' to 21.0'	1.1 ppm	
20							
21							
22				Brown fine, medium sub angular sand (SW) (5-10% silt), medium dense, wet (No odor of petroleum hydrocarbons or stain).	21.0' to 23.5'		
23							
24				Brown fine Sand (SP), (10% silt), dense, very moist (No odor or stain)	23.5' to 24.5'	1.1 ppm	
25				Brown fine Sandy Silt (ML), 10 to 15% fine sand, dense, very moist (No odor or stain)	24.5' to 25.0'		
				BOTTOM OF BORING at 25.0'			

First Encountered Groundwater





DRILLING DATE: 07/02/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: David Hoexter, PG, CEG, REA  
 CHECKED BY: Sami Malaeb, PE, QSP/QSD

**LOG OF BORING**  
**BH-22**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1 2				Brown Sand (SW) (with 5-10% silt, 5% gravel fine to coarse, dense, dry No odor of petroleum hydrocarbons or stain)	0.0' to 2.8'		Fill to ~2.8'
3 4 5				Brown/ tan Sandy Silt (ML) (fine sand 20%), stiff, moist (finely laminated) (No odor of petroleum hydrocarbons or stain)	2.8' to 5.0'	0.0 ppm	
6 7 8 9 10 11 12				Orange-brown, mottled blue-gray, Silty Clay (CL), very stiff to hard, moist. Abundant black organics, evenly disseminated, not laminated (grades to 5% fine sand at 8'. No sand lenses) (No odor of petroleum hydrocarbons or stain)	8.0' to 12.5'		First Encountered Groundwater 
13 14 15 16 17				Brown Clayey Silt (ML), 5-10% fine sand, continued orange-brown, mottled blue-gray, stiff, moist (minor black organics) (No odor of petroleum hydrocarbons or stain)	12.5' to 17.5'		
18 19 20				Brown mottled gray Silt (ML), 5-10% fine sand, stiff, moist. Minor Black organics. Trace localized cream colored caliche (?) (No odor of petroleum hydrocarbons or stain)	18.5' to 20.5'		
21 22 23				Brown with decreased gray mottling, interbedded silty fine sand and fine sandy silt (SM/SL), firm, moist, burried soil horizon 20-20.5'; minor black orgnics. abundant roots/grass, wet. (No odor of petroleum hydrocarbons or stain)	20.5' to 22.0'		
24 25				BOTTOM OF BORING at 23.0'			



DRILLING DATE: 09/27/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, QSP/QSD  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING**  
**BH-23**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				7.0" concrete and 11.0" Clayey Gravel/Sand mixture (GC), moist, (No odor of petroleum hydrocarbons or stain)	0.0 ' to 1.5'	0.0 ppm	Fill to ~ 1.5'
2				Black Clay (CH), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	1.5' to 5.0'	0.0 ppm	
3							
4		BH23-4		Black Sandy Clay to Clayey Sand (CL to SC), medium stiff, moist (increasingly brown to black from 11.0' and 13.0', no odor of petroleum hydrocarbons or stain)	5.0' to 11.0'	0.0 ppm	
5							
6							
7							
8		BH23-8					
9							
10							
11		BH23-11					
12				Brown Sand (SW) with ~10% gravel, medium dense, wet (No odor of petroleum hydrocarbons or stain)	13.0 ' to 15.0'	0.0 ppm	First Encountered Groundwater 
13							
14				Brown Clayey Sand (SC) medium dense, moist (No odor of petroleum hydrocarbons or stain)	15.0 ' to 16.0'	0.0 ppm	
15							
16				BOTTOM OF BORING at 16.0'			
17							
18							
19							
20							
21							
22							
23							
24							
25							



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**LOG OF BORING**  
**BH-24**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				2.0" concrete top and 4.0" sand	0.0' to 0.5'		
2				Black Clay (CH), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	0.5' to 6.0'	0.0 ppm	
3							
4		BH24-4					
5							
6							
7				Dark Brown Clay (CL) with ~ 5% gravel and coarse sand, medium stiff, moist (little to no gravel from 7.0' to 10.0', no odor of petroleum hydrocarbons or stain)	6.0' to 10.0'	0.0 ppm	
8		BH24-8					
9							
10							
11				Dark Brown to Black Clayey Gravel/Sand mixture (GC), medium dense, moist to wet (No odor of petroleum hydrocarbons or stain)	10.0' to 12.0'		
12		BH24-12					
13				Gray Clay (CL) with ~ 5% gravel and coarse sand, medium stiff, moist (No odor of petroleum hydrocarbons)	12.0' to 13.0'		
14				Dark Gray Clayey Sand (SC) medium dense, moist to wet (No odor of petroleum hydrocarbons, color indicates bio-attenuated petroleum hydrocarbons)	13.0' to 16.0'	0.0 ppm	
15		BH24-16					
16							
17				BOTTOM OF BORING at 16.0'			
18							
19							
20							
21							
22							
23							
24							
25							

First Encountered Groundwater



Color indicates bio-attenuated petroleum hydrocarbons between 13.0' and 16.0'



DRILLING DATE: 09/27/2013  
 DRILLING METHOD: Direct Push  
 DRILLING RIG TYPE: Geoprobe Limited Access

DRILLING LOCATION: 2145 35th Avenue, Oakland, CA  
 LOGGED BY: Sami Malaeb, PE, QSP/QSD  
 CHECKED BY: David Hoexter, PG, CEG, REA

**LOG OF BORING**  
**BH-25**

DEPTH (FEET)	SAMPLE DEPTH	SAMPLE NAME	GRAPHIC LOG	DESCRIPTION AND CLASSIFICATION	LITHOLOGY DESCRIPTION DEPTH	PID READING	COMMENTS
1				Grass Area with Clayey Sand (SC), loose to medium dense, moist (with organics, no odor of petroleum hydrocarbons or stain)	0.0' to 1.0'		
2				Black Clay (CH), medium stiff, moist (No odor of petroleum hydrocarbons or stain)	1.0' to 4.0'	0.0 ppm	
3							
4		BH25-4					
5				Dark Brown Sandy Clay (CL), medium stiff, moist no odor of petroleum hydrocarbons or stain	4.0' to 7.0'		
6							
7							
8		BH25-8		Dark Brown Clayey Sand (SC) medium dense, moist (No odor of petroleum hydrocarbons or stain)	7.0' to 8.0'	0.0 ppm	
9				No recovery	8.0' to 10.0'		
10							
11				Dark Brown to Black Clayey Sand (SC) medium dense, moist (No odor of petroleum hydrocarbon or stain)	10.0' to 13.0'		First Encountered Groundwater
12		BH25-12					
13							
14				Greenish Gray Clayey Sand (SC) medium dense, wet (No odor of petroleum hydrocarbons, color indicates bio-attenuated petroleum hydrocarbons)	13.0' to 16.0'	0.0 ppm	Color indicates bio-attenuated petroleum hydrocarbons between 13.0' and 16.0'
15							
16		BH25-16					
17				BOTTOM OF BORING at 16.0'			
18							
19							
20							
21							
22							
23							
24							
25							