



**HUMAN HEALTH RISK ASSESSMENT WORK PLAN
6701-6707 SHELLMOUND STREET
EMERYVILLE, CALIFORNIA**

OCTOBER, 2016

Prepared by:

**SLR International Corporation
110 11th Street, 2nd Floor
Oakland, CA 94607**

Prepared for:

**PES Environmental, Inc.
1682 Novato Blvd., Suite 100
Novato, CA 94947**



Amanda Bailey
Associate Risk Assessment Scientist
SLR International Corporation

Quality Control Review conducted by:



Mark E. Stelljes, Ph.D.
Director of Risk Assessment and Toxicology
SLR International Corporation

This document was prepared upon request and on behalf of PES Environmental, Inc. No other party should rely on the information contained herein without prior written consent of SLR International Corporation and PES Environmental, Inc. The conclusions, recommendations, and interpretations in this document are based in part on information contained in other documents and sources, as cited in the text. Therefore, this document is also subject to the limitations of the cited documents and sources.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	OVERVIEW OF APPROACH	3
2.0	SITE BACKGROUND	5
2.1	DESCRIPTION OF SITE AND SURROUNDING AREA	5
2.2	GEOLOGY AND HYDROGEOLOGY	6
2.3	INSTITUTIONAL AND ENGINEERING CONTROLS	6
2.4	PLANNED INTERIM REMEDIAL MEASURE	7
3.0	DATA EVALUATION	8
3.1	SITE CHARACTERIZATION	8
3.1.1	Soil Characterization	8
3.1.2	Groundwater Characterization	9
3.1.3	Soil Gas Characterization	10
3.2	RISK ASSESSMENT DATASET	11
4.0	CONCEPTUAL SITE MODEL (CSM)	14
4.1	SUMMARY OF SITE CHARACTERISTICS	14
4.2	HYPOTHETICAL HUMAN RECEPTORS	14
4.3	POTENTIAL EXPOSURE PATHWAYS	15
5.0	TIER 1 EVALUATION	19
5.1	RISK-BASED SCREENING LEVELS	19
5.1.1	Soil ESLs	19
5.1.2	Groundwater ESLs	19
5.1.3	Soil Gas ESLs	20
6.0	QUANTITATIVE RISK EVALUATION	21
6.1	TOXICITY EVALUATION	21
6.2	EXPOSURE ASSESSMENT	22
6.2.1	Exposure Assumptions	22
6.2.2	Exposure Point Concentrations	22
6.3	RISK CHARACTERIZATION	24
6.3.1	Dose Estimation	24
6.3.2	Risk Estimation	25
6.3.3	Risk Estimation for Chemicals Not Identified as COPCs	26
7.0	UNCERTAINTY EVALUATION	27
8.0	REFERENCES	28

LIST OF TABLES

TABLE 1	Summary of Laboratory Analytical Results for Soil – VOCs
TABLE 2	Summary of Laboratory Analytical Results for Soil – SVOCs
TABLE 3	Summary of Laboratory Analytical Results for Soil – PCBs
TABLE 4	Summary of Laboratory Analytical Results for Soil – California Title 22 Metals, STLC, TCLP, and Asbestos
TABLE 5	Summary of Laboratory Analytical Results for Soil – Total Petroleum Hydrocarbons (TPH)
TABLE 6	Summary of Laboratory Analytical Results for Groundwater – VOCs
TABLE 7	Summary of Laboratory Analytical Results for Groundwater - Total and Dissolved California Title 22 Metals
TABLE 8	Summary of Laboratory Analytical Results for Soil Gas
TABLE 9	Summary of Laboratory Analytical Results for Sub-Slab Vapor
TABLE 10	Soil Risk Assessment Dataset - Construction Scenario – VOCs
TABLE 11	Soil Risk Assessment Dataset - Construction Scenario – SVOCs
TABLE 12	Soil Risk Assessment Dataset - Construction Scenario – PCBs
TABLE 13	Soil Risk Assessment Dataset - Construction Scenario – Metals
TABLE 14	Soil Risk Assessment Dataset - Construction Scenario - Total Petroleum Hydrocarbons (TPH)
TABLE 15	Soil Risk Assessment Dataset - Residential Scenario – PCBs
TABLE 16	Soil Risk Assessment Dataset - Residential Scenario – Metals
TABLE 17	Soil Risk Assessment Dataset - Residential Scenario - Total Petroleum Hydrocarbons (TPH)
TABLE 18	Soil Risk Assessment Dataset - Utility/Maintenance Scenario – VOCs
TABLE 19	Soil Risk Assessment Dataset - Utility/Maintenance Scenario – SVOCs
TABLE 20	Soil Risk Assessment Dataset - Utility/Maintenance Scenario – PCBs
TABLE 21	Soil Risk Assessment Dataset - Utility/Maintenance Scenario – Metals
TABLE 22	Soil Risk Assessment Dataset - Utility/Maintenance Scenario - Total Petroleum Hydrocarbons (TPH)
TABLE 23	Groundwater Risk Assessment Dataset – VOCs
TABLE 24	Groundwater Risk Assessment Dataset – Metals
TABLE 25	Soil Gas Risk Assessment Dataset

LIST OF PLATES

PLATE 1	Site Location
PLATE 2	Site Plan and Sample Locations
PLATE 3	Site Plan, Sample Locations, and Proposed Ground Level Development Plan
PLATE 4	Soil Vapor Sample Locations and Proposed Ground Level Development Plan
PLATE 5	Soil Sample Locations and Proposed Ground Level Development Plan

PLATE 6	Groundwater Sample Locations and Proposed Ground Level Development Plan
PLATE 7	Conceptual Site Model
PLATE 8	Cross Section A-A' Showing Soil Sample Locations, Proposed Building Slab, and Utility Alignments
PLATE 9	Cross Section B-B' Showing Soil Sample Locations, Proposed Building Slab, and Utility Alignments
PLATE 10	Cross Section C-C' Showing Soil Sample Locations, Proposed Building Slab, Utility Alignments
PLATE 11	Cross Section D-D' Showing Soil Sample Locations, Proposed Building Slab, Utility Alignments

1.0 INTRODUCTION

This Human Health Risk Assessment (HHRA) Work Plan was prepared by SLR International Corporation (SLR) for PES Environmental, Inc. (PES) on behalf of their client, Anton Emeryville, LLC (Anton), for the property located at 6701-6707 Shellmound Street in Emeryville, California (the site). Anton plans to redevelop the site for multi-use purposes with apartments, leasing offices, common areas, and parking. The HHRA Work Plan was prepared to update a previous HHRA completed by SLR for the site (SLR, 2015). The updates were requested by Alameda County Environmental Health Services (ACEH), and include additional pre-construction subsurface investigation data that were recently collected by PES.

The site is currently listed as an open Spills, Leaks, Investigation and Cleanup (SLIC) case with ACEH as the lead environmental regulatory agency. According to the SLIC database, soil and groundwater were impacted by releases of solvents and non-petroleum hydrocarbons from Mike Roberts Color Production (6707 Bay Street). The site is also listed in the Leaking Underground Storage Tank (LUST) database due to a reported release from former USTs at this same 6707 Bay Street location. The LUST case (ACEH fuel leak case number RO0000548) has been conditionally closed by ACEH under conditions associated with a deed notice. Bay Street is now Shellmound Street.

While the ACEH is the lead environmental regulatory agency for the site, they do not have specific HHRA guidance. Instead, other protocols recommended by the California Environmental Protection Agency (CalEPA) are typically followed. The primary guidance used by ACEH is provided by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), and the proposed HHRA will be conducted generally consistent with their guidance (RWQCB, 2016). Additional CalEPA and U.S. Environmental Protection Agency (USEPA) risk assessment guidance and resources (CalEPA, 2011, 2014, 2015, 2016; USEPA, 1989, 1991, 1992, 2015, 2016a, 2016b, 2016c) will also be used for the HHRA, as relevant and applicable. Where applicable, analytical data will be compared to risk-based screening levels and evaluated for potential risks as recommended by the RWQCB (2016).

The objective of the proposed HHRA is to evaluate potential human health risks associated with exposure to chemicals detected in site media during and post-redevelopment. The proposed HHRA described in this Work Plan will build upon the previous HHRA conducted for the site (SLR, 2015). Specifically, baseline risks will be evaluated for hypothetical receptors that may be exposed to chemicals detected in site media based on the conservative assumption that potential vapor intrusion and soil contact will not be mitigated with engineering or institutional controls. Sampling activities not assessed in the previous HHRA were conducted at the site in 2015 and 2016. These activities are summarized below by sampling event.

The following sampling activities were conducted at the site during a pre-construction subsurface investigation in November and December of 2015 (PES, 2015a):

- A soil gas survey to further address potential vapor intrusion concerns beneath former industrial features, existing buildings, and proposed future building areas including first-floor residential units and common areas;
- Additional confirmation soil gas sampling to assess conditions associated with volatile organic compounds (VOCs) or elevated laboratory detection limits for VOCs reported for soil gas and subslab vapor samples collected in April 2015;
- Shallow soil sampling to assess the condition of soil anticipated to be disturbed during site redevelopment, including: (1) soil to be excavated to accommodate the future building foundation, pavement sections, landscape and surface water infiltration features; and (2) soil within proposed utility trenches. Assessment of soil in these areas provided additional data to facilitate future construction worker safety and proper management of disturbed soil;
- Shallow soil sampling to assess the condition of soil beneath proposed exterior landscaped and play areas to confirm no concerns exist with respect to potential future residential occupant exposure; and
- Confirmation soil sampling within the former UST area to assess soil conditions associated with benzene reported in one soil gas sample collected in April 2015.

Following the November and December 2015 pre-construction subsurface investigation, supplemental investigation activities were conducted in February 2016, primarily in the southwestern portion of the site, to further evaluate the subsurface for the presence and potential sources of VOCs, particularly vinyl chloride. Sampling activities conducted at the site in February 2016 included the following (PES, 2016a):

- Installing and sampling temporary soil vapor probes to further define the presence of vinyl chloride in soil vapor and evaluate potential vadose zone source areas in the southwestern portion of the warehouse building, near the southern property boundary, near the northwestern site boundary, and at one location in the eastern portion of the site to re-assess soil vapor conditions at 10 feet bgs where laboratory reporting limits for vinyl chloride were previously elevated;
- Advancing shallow soil borings within the existing warehouse building and beneath an alleyway between the onsite warehouse and an offsite building to evaluate potential on-site vadose zone soil where elevated concentrations of vinyl chloride were detected in soil vapor during the November and December 2015 investigation; and
- Advancing soil borings to first encountered groundwater to evaluate soil within the vadose zone and potential impact to groundwater.

September 2016 sampling activities were focused on evaluating the subsurface in the area of the northern extant onsite building and included (PES, 2016b):

- Installing and sampling temporary soil vapor probes beneath and in the immediate vicinity of the northern extant onsite building to evaluate soil vapor conditions at multiple depths (approximately 5 and 10 feet bgs); and
- Collecting companion soil samples from soil cores obtained at locations of the temporary soil vapor probes.

The additional data collected in 2015 and 2016 are provided in this RAWP along with older data (Tables 1 through 9). The 2015 and 2016 data, in addition to older data, will be incorporated in the revised HHRA as described in Sections 3.2 and 4.3 of this Work Plan. Current plans for the redevelopment, including soil excavation and removal, at the time of the HHRA will also be considered. The HHRA can serve as a tool to help determine the need for potential controls such as soil management procedures, capping, and vapor mitigation measures.

1.1 OVERVIEW OF APPROACH

The RWQCB provides screening-based guidance for evaluating sites with contaminated media in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (RWQCB, 2016). In that guidance, the RWQCB provides environmental screening levels (ESLs) for use in a tiered approach similar to the tiered risk-based approach outlined by ASTM International in their *Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites* (ASTM, 1995).

In addition to human health risk-based goals, the ESLs also address aesthetic goals (e.g., taste and odor) and environmental protection goals presented in the Water Quality Control Plan for the San Francisco Bay Basin (“Basin Plan”; RWQCB, 2010), including:

Surface Water and Groundwater:

- Protection of drinking water resources;
- Protection of aquatic habitat; and
- Protection against adverse nuisance conditions.

Soil:

- Protection of human health;
- Protection of groundwater;
- Protection of terrestrial biota; and
- Protection against adverse nuisance conditions.

ESLs, which are considered very conservative (i.e., stringent), are not enforceable regulatory cleanup standards. Exceedance of an ESL indicates the potential presence of environmental threats, and suggests, but does not require, a need for additional evaluation. The presence of a chemical at concentrations below ESLs can be assumed to not pose a significant environmental threat (RWQCB, 2016).

The RWQCB (2016) tiered approach consists of the following steps:

- Tier 1 Evaluation – In this conservative screening step, chemical concentrations are directly compared to ESLs selected for the site. Results of this comparison are used to guide decisions regarding the need for a more detailed risk assessment (e.g., Tier 2 evaluation), additional site investigation, or remedial action.
- Tier 2 Evaluation – In this step, ESLs are modified with respect to site-specific data or considerations. Examples cited by the RWQCB include modifying an ESL based on site-specific information (e.g., depth to groundwater or soil geophysical properties) or to meet alternative target risk levels.
- Tier 3 Evaluation – In this step, site-specific screening levels or clean-up levels are developed using alternate models and modeling assumptions.

The approach proposed for this HHRA is consistent with Tier 1 outlined by the RWQCB (2016). Where relevant, chemicals exceeding the Tier 1 ESLs will then be quantitatively evaluated in a baseline risk assessment, which generally corresponds to Tier 3 of the guidance.

Other guidance will also be consulted, as necessary and appropriate, and will be documented in the HHRA report. This Work Plan is organized as follows:

- Section 1.0 - Introduction
- Section 2.0 - Site Background
- Section 3.0 - Data Evaluation
- Section 4.0 - Conceptual Site Model
- Section 5.0 - Tier 1 Evaluation
- Section 6.0 – Quantitative Risk Evaluation
- Section 7.0 - Uncertainty Evaluation
- Section 8.0 - References.

2.0 SITE BACKGROUND

This section describes the site location and use, the adjacent offsite area, and physical characteristics pertinent to the HHRA. Additional information is provided in PES (2015b).

2.1 DESCRIPTION OF SITE AND SURROUNDING AREA

The site is located at 6701, 6705, and 6707 Shellmound Street (previously known as Bay Street), in a mixed industrial, commercial, and residential area of Emeryville in Alameda County, California (Plate 1). The site currently contains a two-story office building and a warehouse building connected by a common lobby area and is used for commercial purposes (Plate 2).

Future plans are for a new multi-story, multi-family residential development to be constructed on the site. Existing buildings and related improvements will be demolished and removed, followed by grading and excavation for new construction. Planned development includes a seven-story at-grade (i.e., no basement levels) structure comprising the majority of the subject property with parking garage, lobby, and amenities spaces occupying the first (on-grade) and second floors of the building. A limited portion of the first and second floors will be developed as residential units. After redevelopment, the entire site will be covered by a combination of the building and associated paved parking and driving areas, with the exception of planter boxes and landscaped areas.

The site is bounded to the west and north by the Ashby Avenue off-ramp from Interstate 80, to the south by a commercial building, and to the east by Shellmound Street and a railroad right-of-way. The site buildings and the adjacent areas are shown on Plates 2 and 3 in PES (2015b). The footprints of the office and warehouse buildings occupy approximately 7,470 and 43,850 square feet, respectively, and both buildings have slab-on-grade foundations. The remainder of the site consists of landscaped areas and asphalt paved parking and driving areas.

According to the United States Geological Survey (USGS) Oakland West, California Quadrangle 7.5-minute series topographic map dated 1993, the site is situated at an elevation of approximately 18 feet above mean sea level. The site is relatively flat, but the vicinity slopes gently to the west/southwest. The nearest surface water body is San Francisco Bay, located approximately 1,000 feet west of the subject property (PES, 2015b).

No potentially sensitive receptors were identified within 0.25 mile (1,320 feet) of the site.

The highly developed and paved nature of the site area and vicinity make it likely that ecological exposure pathways are incomplete. Wildlife present at the site includes common, non-endangered species such as perching birds, small mammals such as mice, and reptiles such as lizards. However, exposure to chemicals in soil is prevented by paving and ongoing disturbance by human activity makes nesting and breeding at the site unlikely. No aquatic resources are present,

which precludes the presence of aquatic receptors. Therefore, this risk assessment will not consider ecological receptors.

2.2 GEOLOGY AND HYDROGEOLOGY

Based on the results of investigations performed on the subject property and in the vicinity, the site is underlain by imported fill material overlying deposits of native silts and clays known locally as Old Bay Mud. Beneath the Old Bay Mud deposits are deposits of stiffer sand, silts, and clays that likely represent alluvial deposits of the Temescal Formation. The land on which the site is located historically consisted of San Francisco Bay tidal mud flats and was below sea level until the mid- to late-1930s, when a levee was built west of the subject property and a highway (Eastshore Highway, now Interstate 80) was constructed on the levee. From that time until the early to mid-1950s the area between the highway and the former shoreline, including the subject property and vicinity, were filled in by non-native soils to create buildable land. The fill material generally consists of coarse-grained sands and gravels that contain varying amounts of fines, and fine-grained silts and clays.

Previous investigations have shown that the fill materials at the site and other similarly filled properties in the vicinity contain residual contamination with related impacts to shallow groundwater. Contamination found and attributed to the non-native fill materials originally used to create the land along the bay-shore area of Emeryville including the site and immediate vicinity includes impacts related to total petroleum hydrocarbons (TPH), VOCs, semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals.

Groundwater was encountered at the site at approximately 11 to 13 feet below ground surface (bgs) in November 2013 (PES, 2015b). In February 2016, shallow groundwater in the southwestern portion of the site was encountered at depths ranging from approximately 12.75 to 13.5 feet bgs (PES, 2016a), and groundwater was not encountered within the total depth explored of 10 feet bgs in September 2016 (PES, 2016b). Historic groundwater data indicate that groundwater depths fluctuated between 5.15 and 11.72 feet bgs in the early 1990s, with both the shallowest and deepest groundwater levels occurring in 1995 (PES, 2015b). At that time, the shallowest groundwater levels were observed in the southwestern portion of the property, with deeper levels generally observed to the north and east. Groundwater flow to the south/southwest has been measured from monitoring well data collected on the subject property with localized flow toward the west in the vicinity of the former underground storage tanks (see Plate 3 of PES, 2015b).

2.3 INSTITUTIONAL AND ENGINEERING CONTROLS

There is an existing deed notice on the subject property. As part of the closure for the former USTs and the related LUST case, a deed notice for the site was provided to the ACEH on February 1, 1995 as a requirement by the ACEH and the RWQCB for closure of the UST case. One requirement under the notice was to conduct an environmental risk assessment if any significant

change in land use is proposed. The subject site land use will be changed from commercial to multi-use under the proposed development plans, triggering the need for an environmental risk assessment. The proposed HHRA will fulfill that requirement.

A City of Emeryville Ordinance (No. 07-006) prohibits extraction of groundwater for drinking, industrial or irrigation purposes, and serves as an additional institutional control that reduces the potential for exposure to groundwater.

In conjunction with redevelopment of the site, Anton plans to work with the ACEH to develop a land use covenant (LUC) to replace the existing deed notice. The LUC document will identify the contamination at the site, restrictions on development and use of the site, restrictions on use of underlying groundwater, and requirements for maintenance of the site cover and notification to ACEH. To address contaminated media that may be encountered during construction and redevelopment activities, Anton also intends to submit an updated Site Management and Contingency Plan (SMP) for ACEH approval. The SMP will provide procedures for handling and management of soil, and potentially groundwater, encountered during construction. The SMP will also provide a post-construction operations and management (O&M) plan to describe procedures to be followed to maintain a cap over subsurface materials. Implementation of these institutional and engineering controls will substantially limit or eliminate exposure to chemicals detected in soil at the site during construction activities and site redevelopment, and in the future. More details of the SMP are provided in PES (2015b).

2.4 PLANNED INTERIM REMEDIAL MEASURE

Based on the results of subsurface investigations which encountered elevated concentrations of VOCs, particularly vinyl chloride, in soil and soil vapor primarily beneath the southwestern portion of the site, implementation of an interim remedial measure (IRM) consisting of soil vapor extraction (SVE), will be implemented to reduce concentrations of VOCs in the subsurface prior to, and possibly during, the initiation of the planned development activities and to reduce potential exposure to site users. A SVE pilot study was conducted in July 2016, and based on the results of the pilot study 19 SVE wells were installed in the southwestern portion of the site. If results of the HHRA indicate that risk and/or hazard estimates resulting from potential soil vapor exposures exceed regulatory target levels, then health risk-based levels will be developed for soil vapor as part of the HHRA to help guide SVE system operation. Pending the completion of a subsurface investigation to be completed on the property immediately south of the site, the SVE system will be operated as needed to reduce VOCs in soil vapor to these health risk-based levels.

3.0 DATA EVALUATION

This section summarizes historical and recent sampling and analysis of soil, groundwater, and soil gas at the site based on PES (2015a, 2015b, 2016a, and 2016b); more detailed information can be found in those documents. Proposed methods for identifying risk assessment datasets for each medium are also described.

3.1 SITE CHARACTERIZATION

As discussed in PES (2015b), the site has been the subject of several investigations and remediation commencing in 1989. Soil and groundwater sampling began at that time, and some limited soil gas sampling was conducted in April 2013. The most recent activities conducted to date at the site include soil and soil gas sampling conducted in February and September of 2016, and groundwater sampling in February of 2016. All sample locations are shown on Plates 2 and 3. The locations of samples collected from specific media are shown on Plates 4 (soil gas), 5 (soil), and 6 (groundwater). The proposed future building footprint is shown on Plates 3 through 6.

On the basis of the results of the multiple investigations and remediation activities, the UST case was granted conditional closure by the ACEH and RWQCB in a letter dated February 1, 1995. The conditional case closure was granted on the basis of the data provided and the execution of a deed notice, as discussed in Section 2.3.

3.1.1 SOIL CHARACTERIZATION

Soil sampling was conducted at the site in 1989 from 10 soil borings, and TPH was identified in shallow soil at the western end of the site near Interstate 80. That same year, soil samples were collected from five additional soil borings, and identified the presence of TPH, PCBs, lead, and methyl isobutyl ketone (MIBK). USTs were removed in October of 1989, and the excavated soil, impacted with MIBK, was placed back into the excavation.

A soil vapor extraction (SVE) system was installed and operated between July and September 1990 to treat MIBK. Soil was sampled in 1991 in the remediated area, and the SVE system was decommissioned in May 1993. Nature and extent sampling was conducted in 1994, and nine additional soil borings were installed. Conditional site closure of the UST portion of the site was granted by the ACEH in December 1996.

In April 2013, five new soil locations were sampled, and PCBs, dichlorodiphenyltrichloroethane (DDT), and metals were detected in most of the samples. In November 2013, PES drilled and sampled 18 soil borings at both exterior and interior locations across the site. Soil results from the fill material underlying the entire site (identified during the continuous cores collected during this event) indicated SVOCs, PCBs, and metals were present above regulatory screening levels.

Additional soil sampling activities were conducted in November and December of 2015 to assess the condition of soil anticipated to be disturbed during site redevelopment, soil beneath proposed exterior landscaped and play areas, and soil within the former UST area. All samples were analyzed for TPH and lead, and most samples were analyzed for PCBs. A subset of the samples was analyzed for other metals, asbestos, and SVOCs, and a smaller subset was analyzed for VOCs. TPH and metals were detected frequently in the 2015 samples. Acetone and phenol were detected at one location each; other VOCs and SVOCs, and asbestos, were not detected.

In February 2016, 56 soil samples were collected and analyzed for VOCs. Samples were collected from 18 locations beneath the existing warehouse building and the alleyway to evaluate potential on-site vadose zone soil in the vicinity of previous sample locations SV22 and SV25 where elevated concentrations of vinyl chloride were detected in soil vapor during the November and December 2015 investigation, and from 5 additional locations in the southwestern portion of the site to evaluate soil within the vadose zone and potential impact to groundwater. VOCs were detected in relatively few of the February 2016 soil samples; acetone was detected in 17 of the 56 samples; other VOCs, including vinyl chloride, were detected in only 7 or fewer samples.

Twelve soil samples were collected in September 2016 from six locations beneath and in the immediate vicinity of the northern extant onsite building and analyzed for VOCs. Acetone was detected in most samples; detections of other VOCs (xylenes, naphthalene, 4-isopropyltoluene, and carbon disulfide) were limited to one to three samples. Soil data collected through September 2016 are summarized in Tables 1 through 5.

3.1.2 GROUNDWATER CHARACTERIZATION

In 1989, four monitoring wells were developed from the soil boreholes and subsequently sampled. Two new monitoring wells were developed in 1990, and all six wells were sampled. Benzene, MIBK, and oil and grease were detected in some of these wells. Groundwater extraction began in October 1990. In 1991, three of the monitoring wells were sampled to evaluate the efficacy of the extraction system, and MIBK was detected in one of these wells. Three additional quarterly monitoring rounds were conducted, after which the treatment system was decommissioned in May 1993 (along with the SVE system).

Nature and extent sampling was conducted for soil in 1994, and two of these borings were developed into monitoring wells and sampled. All other monitoring wells were also sampled at this time. MIBK continued to be detected at concentrations up to 140,000 micrograms per liter (ug/L). Quarterly groundwater monitoring continued through May 1996, at which time conditional soil closure was granted and sampling activities ceased.

In April 2013, ENVIRON collected grab groundwater samples from three new sampling locations (SG-1, SG-4, and SG-5). Depth to groundwater in the borings was as follows: (1) SG-1: 10.75 feet bgs; (2) SG-4: 11.75 feet bgs; and (3) SG-5: 10.29 feet bgs. TPH as diesel (TPHd), and VOCs including benzene, ethylbenzene, naphthalene, and xylenes were detected above regulatory

screening levels. Analysis of groundwater samples collected during the April 2013 investigation also indicated the presence of elevated concentrations (i.e., exceeding California Maximum Contaminant Levels [MCLs] and ESLs) of total metals (antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silver, vanadium, and zinc). In November 2013, PES collected groundwater samples for analysis of dissolved metals from temporary well casings at six exterior locations across the site. Results indicated dissolved arsenic and lead present at concentrations above California MCLs. As discussed in PES' Conceptual Site Model (PES, 2015b), based on a comparison of dissolved lead and other metals results obtained during PES' November 2013 investigation to those obtained during ENVIRON's April 2013 investigation, it appears that the April 2013 metal results were based on analysis of total metals and not representative of dissolved metals groundwater conditions beneath the site.

Six grab groundwater samples were collected from locations in the southwestern portion of the site in February 2016 and analyzed for VOCs and 1,4-dioxane. Benzene was detected in five of the six samples, while other VOCs were detected in one to three samples. Four VOCs (cis-1,2-DCE, vinyl chloride, benzene, and naphthalene) were detected in at least one sample at concentrations above MCLs and/or ESLs. Groundwater data collected through February 2016 are summarized in Tables 6 and 7.

3.1.3 SOIL GAS CHARACTERIZATION

Soil gas samples were collected at 4.5 feet bgs from five locations in April 2013. Benzene was detected at an elevated concentration at one location, but this sample was compromised with ambient air and is likely not representative of subsurface conditions (PES, 2015b). An additional six samples were collected by PES in April 2015, representing two depths (5 and 9.5-10 feet bgs) at each of three locations. Benzene was also detected at an elevated concentration at one location during the 2015 sampling event. At this same time, four subslab samples were collected from beneath the existing building. Four VOCs (tetrachloroethene [PCE], 1,1,1-trichloroethane, styrene, and methyl ethyl ketone) were detected in subslab samples.

Additional soil gas sampling activities were conducted in November and December of 2015 to further address potential vapor intrusion concerns beneath former industrial features, existing buildings, and proposed future building areas including first-floor residential units and common areas; and to assess conditions associated with VOCs or elevated laboratory detection limits for VOCs reported for soil gas and subslab vapor samples collected in April 2015. Samples were collected from a depth of five feet bgs. Samples were also collected from a depth of 10 feet bgs at most locations, and from eight feet bgs at one location. Twenty VOCs were detected in at least one of these samples; four of these (trichloroethene [TCE], vinyl chloride, 1,1,2,2-tetrachloroethane, and benzene) were detected at concentrations above soil gas ESLs protective of vapor intrusion concerns for residents.

Additional soil gas samples were collected from locations across the site and analyzed for VOCs in February and September of 2016. The February 2016 soil gas samples were also analyzed for

1,4-dioxane. Twenty samples were collected in February from depths of 5 feet bgs (14 samples) and 10 feet bgs (6 samples). In September 2016, six samples each were collected from depths of 5 and 10 feet bgs. Detected VOCs were similar in both sampling events. 1,4-Dioxane was not detected in the February 2016 samples. Vinyl chloride was detected in the majority of the February samples. Vinyl chloride was not detected in any of the September samples, although some reporting limits were above residential ESLs due to sample dilutions required as a result of elevated concentrations of other (non-target and target) VOCs.

Soil gas data collected through September 2016 are summarized in Table 8, and subslab data are provided in Table 9.

3.2 RISK ASSESSMENT DATASET

An evaluation of the available soil, groundwater, and soil gas data was conducted to identify data applicable to the HHRA. Some data points may not be applicable according to criteria such as sampling date and location. Criteria evaluated for identifying the risk assessment dataset include (1) sample location, (2) sample depth, (3) sample date, and (4) type of sample. Results of this evaluation are discussed below.

Sample location. With two exceptions, soil samples were collected only from onsite locations. The exceptions are two samples from a single location, one at 1 foot bgs and one at 3 feet bgs, which were collected beyond the site boundary in a ditch to the west of the site. This ditch collected runoff from the asphalt (Plate 2), and the area was excavated to approximately 3 feet bgs in 1989. Also, the sump area on the west side of the warehouse building was excavated to 1 foot bgs in 1989. Samples from soil that has been excavated and removed from the site are not representative of current soil conditions, and will not be included in the risk assessment dataset. With the exception of the sump area and offsite ditch area, no soil has been removed from the site, but VOC remediation occurred in the tank excavation area in 1990. Therefore, VOC soil data collected in the vicinity of the former USTs prior to implementation of the remediation systems in 1990 are not representative of current site conditions. These include the six samples collected in October 1989 from beneath the UST excavation; two samples collected from 4 and 9 feet bgs at location B-8/MW-8, downgradient of the UST area, in January 1990; and four samples of drain residue collected in 1989. All other soil sample locations are relevant for evaluation in the risk assessment dataset, as are all data for non-VOCs. Many sample locations will be covered by the building footprint or parking areas post-development; these data are also included in the risk assessment dataset for evaluation of potential exposures during construction.

Separate soil datasets will also be evaluated, to estimate potential risks to future maintenance/utility workers and future residents. The residential risk assessment datasets will include only samples from the locations that will not be covered by the planned building or by concrete walkways/pavers (Plates 3 through 6). For future maintenance/utility workers, the dataset will be limited to locations of proposed utility trenches. The proposed storm drain and sanitary sewer alignments are shown on Plates 3 through 6.

All groundwater data were collected onsite, and all sample locations are relevant for inclusion in the groundwater risk assessment dataset. All soil gas data (excluding subsurface samples, as discussed further below) will be included in the risk assessment dataset, except for the shroud sample that was collected from SG-2 for quality assurance purposes and is not representative of soil gas conditions.

Sample depth. The soil samples were collected from depths ranging from 0.5 to 30.5 feet bgs. The planned excavation at the site may reach a depth of approximately 12 feet bgs. Therefore, soil samples from 0.5 to 12 feet bgs will be included in the soil risk assessment datasets for potential direct contact with soil by maintenance and construction workers. To evaluate potential post-construction exposures by future residential receptors, soil samples from 0.5 to 2 feet bgs will be included in a separate soil risk assessment dataset. Samples deeper than 12 feet bgs will not be quantitatively addressed in the HHRA.

Sample date. UST removal and remediation activities occurred at the site between 1989 and 1993. As a result, some of the data represent samples from locations where soil and/or groundwater have been remediated. At these locations (near the former USTs), only soil data collected post-remediation are considered to potentially reflect current conditions for VOCs and will be included in the risk assessment dataset for those chemicals. Soil samples SS-1 through SS-6 and B-8/MW-8 will therefore be excluded from the risk assessment dataset for VOCs.

Groundwater extraction and treatment occurred in the early 1990s. Prior to 2013, the most recent groundwater samples that were analyzed for VOCs were collected in 1996, and the most recent metals sample was collected in 1989. Recent groundwater data are likely to be the most representative of current groundwater conditions, particularly for evaluation of potential vapor intrusion for volatile chemicals. Therefore, only groundwater data collected in 2013 and 2016 will be included in the risk assessment dataset.

Soil gas samples were collected in 2013, 2015, and 2016; samples collected in all three years will be included in the risk assessment dataset.

Sample type. Soil samples were collected from soil borings and excavation limits (prior to backfilling), while groundwater samples represent both grab groundwater samples and monitoring well samples. Both types of soil samples will be included in the risk assessment dataset.

Grab groundwater samples are not generally suited for risk assessment purposes because chemical concentrations in grab samples are generally higher than would be anticipated from groundwater wells due to the presence of soil particles from the borehole in the sample, and the lack of equilibrium conditions during sample collection. Therefore, including groundwater data from grab samples in a risk assessment is conservative, particularly for chemicals with low water

solubility and high sorption capacity. However, monitoring well samples have not been collected at the site since 1996 and all of the recent data represent grab groundwater samples. Grab samples will therefore be included in the risk assessment dataset. Grab samples collected in April 2013 were not filtered, while the November 2013 samples were filtered prior to analysis for metals. The filtered samples are more representative of groundwater conditions at the site and will therefore be included in the groundwater risk assessment dataset for metals. Only unfiltered samples were analyzed for VOCs (in April 2013 and February 2016); these samples will therefore be included in the risk assessment dataset for these chemicals. This represents a source of uncertainty that will be discussed in the HHRA report.

All soil gas samples will be included in the risk assessment dataset, except for subslab samples that were collected from beneath an existing building at the site. Future development will include removal of existing buildings, including building foundations, and excavation and grading of shallow soils across the site. Subslab data collected from beneath the existing building are therefore not relevant for evaluation of vapor intrusion to future buildings. The vapor intrusion pathway will therefore be evaluated using soil gas and groundwater data, but not subslab data.

The proposed risk assessment datasets for soil are presented in Tables 10 through 14 (construction scenario), Tables 15 through 17 (residential scenario), and Tables 18 through 22 (utility/maintenance scenario). Note that no VOCs or SVOCs were detected in any soil samples collected from depths less than or equal to 2 feet bgs at locations that will remain uncovered by the building or concrete walkways; the residential soil risk assessment dataset therefore does not include VOCs or SVOCs. The proposed risk assessment dataset for groundwater is presented in Tables 23 (VOCs) and 24 (metals), and the proposed soil vapor risk assessment dataset is presented in Table 25.

4.0 CONCEPTUAL SITE MODEL (CSM)

In this section, potential human receptors and potentially complete exposure pathways are identified at the site. A Conceptual Site Model (CSM) was previously developed to facilitate this process, and was submitted to ACEH (Plate 9 in PES, 2015b and Plate 3 in SLR, 2015). The CSM presented in this Work Plan updates the previous CSM by incorporating additional potentially complete exposure pathways that were previously identified as incomplete or insignificant due to planned engineering and institutional controls, as requested by ACEH. The CSM described in this section presents the relationships between chemical sources and receptors at the site, and identifies potentially complete pathways through which receptors may be exposed to the analytes detected in site media. This is accomplished by considering the site characteristics discussed in Section 2 and summarized below and in PES (2015b), as well as the fate and transport characteristics of analytes identified at the site (Section 3). The updated CSM diagram is presented as Plate 7. The Tier 1 screening analysis that follows then serves to further focus the quantitative risk assessment on chemicals and pathways that require further evaluation.

4.1 SUMMARY OF SITE CHARACTERISTICS

- Vadose zone soil is predominantly silts and clays mixed with fill material known to be impacted with TPH, VOCs, SVOCs, PCBs, and metals. The fill material overlies Old Bay Mud deposits;
- Depth to groundwater ranged from 11 to 13 feet bgs in November 2013, from 12.75 to 13.5 feet bgs in the southwestern portion of the site in February 2016, and greater than at least 10 feet bgs in September 2016; groundwater has historically been encountered at depths as shallow as 5.15 feet bgs;
- Groundwater flows to the south/southwest;
- Groundwater cannot be used for domestic or other purposes based on a LUC and City Of Emeryville ordinance;
- The site will be redeveloped in the future as a seven-story at-grade multi-use building with parking/driving areas and some planters/landscaping. Most residential areas will be above the second floor. The first two floors will include some office and retail space;
- The maximum planned construction excavation depth is 12 feet bgs for utility trenches;
- Detected analytes include VOCs, SVOCs, TPH, PCBs, DDT, and metals in soil, groundwater, and/or soil gas.

Potential receptors and exposure pathways at the site are identified in the following sections and are presented graphically on Plate 7.

4.2 HYPOTHETICAL HUMAN RECEPTORS

“Receptor” is the term used in risk assessments for people who may be exposed to impacted media at or near an evaluated site. Receptors are not actual people. Rather, they represent groups

of people that are associated with various assumed exposure scenarios and are, therefore, termed “hypothetical.” Categories of receptors include: residential, commercial/industrial worker, visitor/trespasser, recreator, and construction/utility worker. When receptors are identified for a risk assessment, these categories are considered in light of current and likely future use of the site and nearby area, and access to the site and impacted media. Only those likely to be the most highly exposed, such as onsite residents and workers, are generally evaluated in a risk assessment. While nearby offsite receptors may be exposed to impacted media (e.g., groundwater), this exposure is generally substantially less than onsite exposures and is not typically quantified. At this site, all receptors are identified as “hypothetical future receptors” because this CSM applies to a future redevelopment scenario. Although the site is currently occupied, site usage will change once redevelopment occurs; in addition, the current site use is commercial, and a future commercial receptor is included in the CSM.

The following hypothetical future onsite receptors were identified as likely present at the site:

- Construction worker receptor;
- Maintenance/utility worker receptor;
- Commercial worker receptor; and
- Residential receptor (adult and child).

The construction worker receptor was assumed to work at the site during redevelopment. This receptor would potentially contact soil at depths down to 12 feet bgs.

The maintenance/utility worker receptor was assumed to work at the site following redevelopment for short periods of time, to maintain underground utility lines and/or landscaping. This receptor would potentially contact soil at depths down to 12 feet bgs, the maximum depth of utility lines planned for the redevelopment.

Retail worker receptors were assumed to work at the site following redevelopment in retail space located on the first two floors. Adult and child residential receptors were assumed to live in units on all floors, but primarily on the third floor and above. All of these hypothetical future onsite receptors are shown on Plate 7.

4.3 POTENTIAL EXPOSURE PATHWAYS

Potentially complete exposure pathways for the hypothetical receptors are identified in this section. An exposure pathway is a mechanism by which receptors are assumed to contact chemicals in site media. USEPA (1989) describes a complete exposure pathway in terms of four components:

- A source and mechanism of chemical release (e.g., release of SVOCs);
- A retention or transport medium (e.g., soil above 12 feet bgs);

- A receptor at a point of potential exposure to a contaminated medium (e.g., construction worker); and
- An exposure route at the exposure point (e.g., inhalation exposure).

If any of these four components is not present, then a potential exposure pathway is considered incomplete and is not evaluated further in a risk assessment. If all four components are present, a pathway is considered potentially complete. Pathways may be potentially complete but insignificant, because the characteristics of the assumed exposure scenario are unlikely to be associated with elevated or unacceptable risks. By contrast, potentially complete and significant pathways represent pathways through which the majority of exposure occurs, and therefore are most likely to be associated with elevated risks. Therefore, these pathways are typically quantified in a risk assessment whereas the former are not.

Exposure to chemicals in soil can occur directly through incidental ingestion and dermal contact and inhalation of dust or indirectly through inhalation of vapors from the subsurface. All receptors were assumed to be exposed to vapors in air originating from the subsurface, as discussed further below. The site redevelopment plans call for the site to be fully paved upon completion except for landscaped areas, which will include a minimum of two feet of clean fill above the site soils (PES, 2015b). However, to evaluate potential conditions without a clean fill cap, residential receptors were assumed to be directly exposed to soil beneath proposed exterior landscaped and play areas. Inhalation of dust or vapors in outdoor air was also identified as a potentially complete exposure pathway for this receptor. Construction and maintenance worker receptors can reasonably be assumed to be exposed directly to chemicals in soil. Exposure to chemicals in dust or vapors is possible during excavation activities. Although monitoring and dust suppression will be conducted as part of planned redevelopment activities, dust or vapor inhalation is considered to represent a potentially complete exposure pathway for invasive workers. Retail workers were assumed to spend the majority of their time indoors while at the site; therefore, no potentially complete soil exposure pathways were identified for this receptor.

First encountered groundwater at the site has historically been as shallow as 5.15 bgs (1995), and more recently ranged from 11 to 13.5 feet bgs (PES, 2015b, 2016a). The maximum depth of the excavation for utility trenches will be approximately 12 feet bgs. The construction of the building foundation system will utilize drilled displacement piers and the building will be constructed with an at grade 24-inch thick concrete slab. Deeper excavations will be limited to those conducted for utility trenches. Therefore, groundwater could be encountered in some locations during utility trench excavations. However, redevelopment activities will require dewatering in the event groundwater is encountered during excavation, and the SMP for the site will also require actions to be taken should groundwater be encountered, so direct contact with groundwater is not anticipated to be a complete exposure pathway. However, in consideration of historically shallow groundwater levels and in order to evaluate potential exposures without planned institutional/engineering controls, this exposure pathway is conservatively identified in the CSM as potentially complete for maintenance/utility workers and construction workers. Groundwater at

the site cannot be used as a domestic water supply, so exposure through domestic use is an incomplete exposure pathway for all receptors.

The new building plans include ground floor residential units on the west and north sides of the building, elevator pits in the center area of the building, and common and amenity areas in the east portion of the building (PES, 2015b). To mitigate for potential accumulation and migration of VOCs and methane in soil gas into these ground floor building areas, a vapor mitigation system may be designed and installed beneath the floor slab underlying these portions of the building. If required, the system will consist of impermeable vapor barriers with passive venting. For the purposes of this CSM, as requested by ACEH, no vapor mitigation measures were assumed. The requirement for the vapor mitigation system will be based on the results of the soil gas sampling conducted during the additional pre-construction investigation and the baseline risk evaluation conducted in the HHRA.

Vapor inhalation may occur from chemicals volatilizing from either groundwater or soil. Vapor inhalation in the indoor environment is typically assumed to be associated with higher exposures than outdoor vapor inhalation. Therefore, all potential vapor inhalation by the commercial and residential receptors was conservatively assumed to occur indoors. Note that outdoor vapor inhalation is incorporated in the soil ESLs, so this pathway, while considered insignificant relative to indoor inhalation, will be included in the Tier 1 soil evaluation. As discussed previously, vapor inhalation for the construction and maintenance/utility worker receptors was assumed to occur outdoors, since these receptors are not expected to work indoors.

On the basis of the discussions provided in the preceding text and as shown on Plate 7, the following exposure pathways were identified as potentially (or theoretically) complete and will be evaluated in Tier 1:

- Future onsite construction worker receptor:
 - Direct contact with soil via ingestion and dermal exposure
 - Dermal contact with groundwater
 - Inhalation of vapors and dusts in outdoor air
- Future onsite maintenance/utility worker receptor:
 - Direct contact with soil via ingestion and dermal exposure
 - Dermal contact with groundwater
 - Inhalation of vapors and dusts in outdoor air

- Future onsite commercial (retail) worker receptor:
 - Inhalation of vapors in indoor air due to subsurface vapor intrusion
- Future onsite residential receptor:
 - Direct contact with soil via ingestion and dermal exposure
 - Inhalation of vapors in indoor air due to subsurface vapor intrusion
 - Inhalation of dusts and vapors in outdoor air.

As discussed in the following section, the Tier 1 evaluation utilizes screening levels, some of which are receptor- and pathway-specific. Therefore, in addition to identifying chemicals that should be further evaluated, Tier 1 also serves to distinguish potentially complete but insignificant pathways from those that are potentially complete and significant.

The Tier 1 screening evaluation encompassing the exposure scenarios identified above is described in the next section.

5.0 TIER 1 EVALUATION

This section describes the Tier 1 human health risk-based screening evaluation that will be conducted for the site. The objectives of this evaluation are to identify:

1. Chemicals of potential concern (COPCs), which are the most toxic and prevalent chemicals at a site and therefore those expected to contribute the majority of potential risk; and
2. Potentially complete pathways that are also significant and therefore expected to contribute the majority of potential risk.

To meet these objectives, the maximum detected concentrations of chemicals in site media will be compared to conservative, generic, risk-based screening levels. These are described in the following section.

5.1 RISK-BASED SCREENING LEVELS

As discussed in Section 1.1, the RWQCB's ESLs (RWQCB, 2016) address environmental protection goals presented in the Water Quality Control Plan for the San Francisco Bay Basin. In addition to being protective of human health and ecological receptors, they are also currently designed to be protective of groundwater and to protect against nuisance conditions. Therefore, not all ESLs are strictly risk-based. Those that are risk-based target a lifetime excess cancer risk of 1×10^{-6} , which is at the low end of the range of risks considered acceptable by USEPA (1×10^{-4} to 1×10^{-6} ; Federal Register 56(20):3535, 1991) and a noncancer hazard quotient (HQ) of 1. Therefore, use of ESLs is conservative. The following sections identify ESLs for use in screening site soil, groundwater, and soil gas data.

5.1.1 Soil ESLs

Using terms and conventions for ESLs assigned by the RWQCB (2016), ESLs for "direct exposure", will be conservatively utilized to identify COPCs in soil. The specific ESLs that will be used in this screening analysis were developed by the RWQCB for residential, commercial/industrial, and construction worker exposure scenarios, based on the goal of protection of human health. The ESLs were developed for cumulative exposure across all exposure pathways, including dermal contact, incidental soil ingestion, and inhalation of vapors and particulates in outdoor air (RWQCB, 2016). Since there are no ESLs specific to an invasive maintenance/utility worker, this receptor will be included in the screen for the construction worker receptor.

5.1.2 Groundwater ESLs

Groundwater ESLs were developed by the RWQCB (2016) based on several goals including:

- Protection of human health;
 - Emission of subsurface vapors to building interiors
 - Ingestion of groundwater as drinking water
 - Dermal contact with water used domestically
 - Inhalation of vapors from water during domestic use
- Protection of aquatic habitat goals; and
- Protection against nuisance concerns (odors, etc.) and general resource degradation.

Based on the goals of the HHRA and the CSM described in Section 4.0 and presented on Plate 7, only values based on the protection of human health for vapor intrusion concerns will be used in the Tier 1 evaluation. Separate ESL values are developed for use with groundwater data collected from depths of less than 10 feet bgs (shallow groundwater) and from depths of 10 feet bgs or greater (deep groundwater). Groundwater was encountered at depths greater than 10 feet bgs in all of the borings from which grab groundwater samples were collected in 2013 and 2016. The deep groundwater ESLs are therefore consistent with the depths of the groundwater samples to be included in the risk assessment dataset, and will be used to identify groundwater COPCs for the vapor intrusion pathway. Dermal exposure is only included in the groundwater ESLs for a residential scenario. All detected chemicals in the groundwater risk assessment dataset will therefore be identified as COPCs for evaluation of the dermal contact pathway for the construction and maintenance/utility worker receptors.

5.1.3 Soil Gas ESLs

Soil gas ESLs were developed by the RWQCB (2016) protective of vapor intrusion for both residential and commercial exposure scenarios. Soil gas ESLs have not been developed for construction or other outdoor workers. Soil gas data will be compared to vapor intrusion screening levels to identify COPCs for the vapor intrusion pathway.

6.0 QUANTITATIVE RISK EVALUATION

As discussed in Section 5, chemicals identified as COPCs based on the Tier 1 evaluation will be retained for further quantitative evaluation in the baseline HHRA. This section describes the toxicity values, exposure assessment, and risk characterization methods proposed for the HHRA. Chemicals not identified as COPCs in Tier 1 will also be evaluated in the risk assessment, as described in Section 6.3.3.

6.1 TOXICITY EVALUATION

Potential toxic effects of chemicals are generally classified as carcinogenic (i.e., cancer-causing), or noncarcinogenic (i.e., noncancer health effects). These endpoints are separately quantified in HHRAs as cancer risks and noncancer health effects, respectively. Toxicity values numerically express the magnitude of potential toxic effects of chemicals. Reference doses (RfDs) and reference concentrations (RfCs) are used to quantify noncancer health effects, and cancer slope factors (SFs) and inhalation unit risks (IURs) are used to quantify cancer risks. Both cancer and noncancer endpoints may be evaluated for carcinogenic chemicals depending on the chemicals' toxic effects and availability of RfDs/RfCs.

Toxicity values are pathway-specific and are provided for both ingestion (RfDs and SFs) and inhalation (RfCs and IURs) pathways, as available and applicable. Noncancer toxicity values are provided by USEPA for chronic and subchronic exposure, which correspond to 7 years or more exposure, and less than 7 years, respectively. Chronic values will be used to evaluate all receptors in the HHRA except for construction workers; subchronic values, where available, will be used to evaluate this receptor since exposures are assumed to occur over a one-year exposure duration. In addition, the Office of Environmental Health Hazard Assessment (OEHHA) of CalEPA has developed reference exposure levels (RELs) for a small number of chemicals. RELs correspond to USEPA reference concentrations for the inhalation pathway; these values will be used preferentially where available.

Cancer-based toxicity values correspond to lifetime exposure and are provided for both the ingestion (SFs) and inhalation (IURs) pathways, as available and applicable by USEPA. CalEPA also provides cancer SFs and IURs. CalEPA values are based on an independent review by OEHHA of the toxicological literature, and are generally more conservative (i.e., higher) than USEPA values. CalEPA values, where available, will be used preferentially.

Toxicity values for chemicals other than TPH will be obtained from the following sources, in the order provided below, for the RA:

- Toxicity Criteria Database (TCDB), an online database maintained by OEHHA (CalEPA, 2016) will be used as the preferred source to obtain toxicity criteria.

- The USEPA's Regional Screening Levels Tables (USEPA, 2016a) will be used to obtain toxicity values not available through CalEPA (2016). This semi-annually updated source includes values from the USEPA's Integrated Risk Information System (IRIS), as well as CalEPA and other USEPA sources.

For TPH, toxicity values from RWQCB (2016) will be used. The noncancer and cancer toxicity values for the COPCs will be compiled at the time of the HHRA to ensure that the most current values are used, and will be presented in the HHRA report.

6.2 EXPOSURE ASSESSMENT

The first part of the exposure assessment is a CSM, which identifies potential human receptors and exposure pathways at the site primarily on the basis of land and groundwater uses, and was discussed in Section 4 and presented graphically on Plate 7. Inputs to the dose estimation, including exposure assumptions and methods that will be used to develop exposure point concentrations (EPCs), are discussed below.

6.2.1 EXPOSURE ASSUMPTIONS

Exposure assumptions are values used to quantify the assumed exposure to chemicals detected in site media for each receptor. Assumptions are either general and correspond to all the hypothetical receptors evaluated (e.g., averaging time), or receptor- and pathway-specific, such as body weight and exposure duration. Exposure assumptions that will be used in this HHRA represent a conservative, reasonable maximum exposure (RME) scenario. The RME scenario is described by USEPA (1989) as the "highest exposure that can be reasonably anticipated to occur." Risk assessments are intended to be conservative to protect human health. RME scenarios are unlikely to occur in real life and describe only the smallest, most highly exposed portion of the population (i.e., 90th to 95th percentile and above). According to USEPA (1992), RME is not intended to be worst case, which would exceed upper percentile exposure. To this end, exposure assumptions should comprise both upper percentile and average values (USEPA, 1992).

Exposure assumptions for use in the RA will be compiled from CalEPA and USEPA guidance documents. CalEPA's HHRA Note 1 (CalEPA, 2014) will be used as the primary source for exposure assumptions. For carcinogens and mutagens, age-adjusted intake rates will be used as described in the RSL User's Guide (USEPA, 2016b). Exposure assumption values, sources, and rationale will be provided in the HHRA report.

6.2.2 EXPOSURE POINT CONCENTRATIONS

EPCs are chemical concentrations in the media to which receptors are assumed to be directly exposed at an assumed point of contact. EPCs are combined mathematically in dose equations with exposure assumptions to estimate exposure doses for each exposure pathway. For a baseline HHRA, USEPA (1989) recommends that EPCs be the lesser of the 95 percent upper confidence

limit of the mean (95UCL) and maximum concentration in the exposure unit. The 95UCL provides a conservative measure of the average concentration to which receptors are likely exposed as they move around a site over the exposure duration.

USEPA's ProUCL Version 5.1 (USEPA, 2016c) will be used to identify appropriate UCL concentrations for COPCs in soil. This software analyzes the data distribution, and estimates and recommends UCLs on the unknown mean, using both distribution-based (i.e., normal and lognormal parametrics) and distribution-free (i.e., non-parametric) methods. Statistics are calculated using several approaches and the program recommends the statistic that best fits the distribution. Using the most recent version of the software, non-detect values are entered at the method detection limit (MDL) or the reporting limit (RL) and identified using an indicator variable column, and several different methods are used to handle non-detects in the UCL calculation process. Use of the one-half MDL or RL method, which has historically been used to estimate concentrations for environmental data sets containing non-detects, is no longer recommended and is only included in the ProUCL software for historical and comparison purposes (USEPA, 2015). Therefore, to calculate soil EPCs using the ProUCL software, non-detect values will be entered as the corresponding RLs and the UCLs will be selected on a chemical-specific basis as recommended by the program.

To be consistent with USEPA guidance, the lesser of the maximum detected concentration and the UCL will be used as the EPC for each soil COPC detected in at least four samples. The ProUCL User's Guide (USEPA, 2015) does not recommend selecting a UCL as the EPC for data sets with only a few detected values (fewer than 4 to 6 values, or 4 to 5 percent detection frequency). Therefore, for chemicals with fewer than four detected values, the maximum concentration will be selected as the EPC. Outputs from the ProUCL software will be provided in an appendix to the HHRA report.

For the construction worker receptor exposure scenario, soil EPCs will incorporate soil samples to the planned excavation depth (including surface samples) across the entire site. For the maintenance/utility worker exposure scenario, only samples to this depth within proposed utility trenches will be used to calculate soil EPCs. For residents, only shallow soil from locations outside of the proposed building footprint will be incorporated for soil EPC calculations. The plans for the development are shown on Plates 3 through 6. Final development plans, including any changes to current plans, will be incorporated in the HHRA Report.

Soil data are typically not evaluated for vapor intrusion; soil gas and groundwater data are considered more appropriate for such evaluations. Soil gas data will be used as the primary line of evidence to evaluate this pathway, as described further below. Soil gas is the medium closest to potential receptors and these data are therefore considered the most relevant for estimating exposure and are given the most weight, consistent with CalEPA (2011) guidance. Soil gas samples collected from depths of five to 10 feet bgs will be used to evaluate vapor intrusion concerns within this depth interval, as recommended by the RWQCB (2016). The groundwater

dataset will be used as a secondary line of evidence to evaluate the vapor intrusion pathway, as described below.

A location-specific evaluation will be conducted to evaluate the vapor intrusion pathway, consistent with CalEPA policy. The maximum detected concentration of each soil gas COPC will be used to calculate indoor air EPCs for the initial evaluation. Indoor air EPCs will be calculated using the CalEPA-modified version of the Johnson and Ettinger (J&E) model. If the maximum detected concentration of a COPC results in a risk or hazard estimate above the regulatory target level, additional locations will be evaluated to identify those that may be associated with elevated risks. The same procedure will be followed using groundwater data, and the results will be compared to those based on soil gas data as a secondary line of evidence.

EPCs will be combined with exposure assumptions and toxicity values to estimate risks, as described in the following section.

6.3 RISK CHARACTERIZATION

Two steps are conducted to characterize risks: (1) dose estimation and (2) risk estimation. These steps are briefly described in the following sections.

6.3.1 DOSE ESTIMATION

To estimate exposure doses, exposure assumptions and EPCs will be combined mathematically in dose equations specific to each exposure pathway. These equations are consistent with those provided in CalEPA and USEPA guidance (CalEPA, 1996, 2015; USEPA, 1989). The estimated dose is also referred to as the chronic daily intake (CDI) or subchronic daily intake (SDI), which correspond to exposures greater than or less than 7 years, respectively (USEPA, 1989).

Exposure doses are separately estimated for cancer effects (CDI_c) and noncancer effects (CDI_n or SDI_n), using the “averaging time” (AT) to differentiate the two endpoints. The averaging time is the time period over which the dose is averaged to yield a “daily intake” in units of milligrams of chemical per kilogram of body weight per day (mg/kg-day). For cancer effects, the carcinogenic averaging time (AT_c) equals an assumed lifetime of 70 years. For noncancer effects, the noncarcinogenic averaging time (AT_n) equals the receptor’s exposure duration.

The general equation to estimate an exposure dose is:

$$\text{Dose} = \frac{\text{EPC} * \text{ED} * \text{EF} * \text{IR}}{\text{BW} * \text{AT}}$$

Where:

- Dose = CDI or SDI in milligrams per kilogram-day (mg/kg-day)
- EPC = medium-specific exposure point concentration (e.g., soil, air)

ED	=	exposure duration (years)
EF	=	exposure frequency (days per year)
IR	=	intake rate (e.g., soil ingestion rate)
BW	=	body weight (kilograms)
AT	=	averaging time (days; ATn or ATc)

Pathway-specific dose equations will be provided in the risk calculation tables.

6.3.2 RISK ESTIMATION

Potential cancer and noncancer health effects will be separately quantified in the HHRA as discussed in the following text.

Noncancer health effects are quantified to provide Hazard Quotients (HQs) and Hazard Indices (HIs) for each receptor. An HQ is a chemical-specific estimate of adverse noncancer health effects for a particular pathway and receptor. HQs are derived by comparing the noncancer exposure dose to the corresponding noncancer reference dose (i.e., ratio of dose to RfD). An HI is the sum of HQs for one pathway or the sum of HIs for all pathways. HQs and HIs are estimated as described below.

- $HQ = CDI_{In} / cRfD$ or $SDI_{In} / sRfD$
- An HQ is estimated for each COPC for a given pathway and receptor
- HQs are summed across chemicals to provide a Hazard Index (HI) representing the total estimated noncancer hazard for each pathway (pathway-specific HI)
- Pathway-specific HIs are then summed across all pathways quantified for each receptor to provide a multipathway HI
- The resulting HI is compared to the agency-recommended target HI of one (1; CalEPA, 1996, 2015; USEPA, 1989). An HI less than or equal to 1 indicates that adverse noncancer health effects are not anticipated for the given receptor under the exposure conditions evaluated.

Cancer risks are estimated for each receptor as described below.

- Theoretical excess risk = $CDI_{c} \times SF$
- An excess risk is estimated for each COPC for a given pathway and receptor
- Chemical-specific risk estimates are summed to provide a pathway-specific total lifetime excess cancer risk (LECR) estimate for each pathway
- Pathway-specific risk estimates are then summed across all pathways quantified for each receptor to provide a multipathway total LECR estimate for each receptor.

For the vapor intrusion pathway, HQ and LECR estimates will be calculated using the CalEPA-modified version of the J&E model, using the exposure assumptions and toxicity values provided therein. Separate versions of the model are provided for the residential and commercial scenarios;

the appropriate model will be used to calculate risk and hazard estimates for each receptor in the HHRA. Modeling spreadsheets will be provided in an appendix to the HHRA report.

Cancer risks are termed “theoretical lifetime excess risks” to distinguish risk results from actual cancer cases such as those recorded for the general population by the Centers for Disease Control. Risk results are entirely theoretical and correspond to the hypothetical exposure scenarios evaluated in the RA. “Excess” means that risk results are additional to the “background” rate of cancer cases in the general population of about 40 percent (two in five persons, according to the American Cancer Society).

USEPA characterizes theoretical LECRs below one in one million (10^{-6}) as not of concern and has stated that estimated risks between 10^{-6} and one in 10,000 (10^{-4}) are “safe and protective of public health” (Federal Register 56(20):3535, 1991). Remedial action is not generally required by USEPA for sites with a theoretical lifetime excess risk of less than 10^{-4} (USEPA, 1991). CalEPA (1996, 2015) generally adopts the conservative target risk of 10^{-6} , the lower end of the USEPA target risk range, for residents. Consistent with CalEPA policy, a target cancer risk of 10^{-6} will be utilized in the HHRA.

6.3.3 RISK ESTIMATION FOR CHEMICALS NOT IDENTIFIED AS COPCS

Chemicals not identified as COPCs in Tier 1 (i.e., chemicals that are detected but only at concentrations below ESLs) will also be evaluated in the risk assessment. This evaluation will utilize ESLs to calculate a ratio for each chemical of the maximum detected concentration to the ESL. For carcinogenic chemicals, separate ESL ratios will be calculated for cancer and noncancer effects. For each effect type (i.e., cancer and noncancer), ESL ratios will be summed across chemicals to calculate cumulative cancer risk and noncancer hazard estimates for each exposure medium. These values will then be added to the cumulative HI and LECR estimates based on the COPCs evaluated in the quantitative risk assessment, to provide cumulative estimates of cancer risks and noncancer hazards across all chemicals detected in each medium.

7.0 UNCERTAINTY EVALUATION

Identifying and understanding uncertainty is an essential element of the risk assessment process. Reasonable steps will be taken to limit uncertainties in the risk assessment. However, risk assessment is an inherently uncertain process due to its predictive nature and reliance on assumptions. In general, for this HHRA, these uncertainties are driven by variability in:

- Chemical monitoring data and assumptions used in evaluating these data, and
- Receptor exposure scenarios.

Key uncertainties associated with each step of the HHRA will be discussed in the HHRA report.

8.0 REFERENCES

- American Society for Testing and Materials (ASTM). 1995. Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites. Designation E1739-95. West Conshohocken, PA. November.
- California Environmental Protection Agency (CalEPA). 2016. Toxicity Criteria Database. Office of Environmental Health Hazard Assessment (OEHHA). Online database. <http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>
- CalEPA. 2015. Preliminary Endangerment Assessment Guidance Manual. Department of Toxic Substances Control (DTSC). January 1994 (Revised October 2015).
- CalEPA. 2014. Human Health Risk Assessment (HHRA) Note Number: 1. Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Hazardous Waste Sites and Permitted Facilities. September 30.
- CalEPA. 2011. Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance). Department of Toxic Substances Control (DTSC). October.
- CalEPA. 1996. Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities. Prepared by the Office of Scientific Affairs. July 1992; reprinted September 1993, corrected and reprinted August 1996.
- Lawrence Berkeley National Laboratory (LBL) Environmental Restoration Program. 2002. Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory. June.
- PES Environmental, Inc. (PES). 2016a. Pre-Construction Subsurface Investigation Report, 6701, 6705, and 6707 Shellmound Street, Emeryville California. April 8.
- PES. 2016b. Northern Extant Onsite Building Investigation Report, 6701, 6705, and 6707 Shellmound Street, Emeryville California. September 30.
- PES. 2015a. Revised Work Plan for Pre-Construction Subsurface Investigation, 6701, 6705, and 6707 Shellmound Street, Emeryville California. August 28.
- PES. 2015b. Conceptual Site Model 6701-6707 Shellmound Street Emeryville California. February 6.

- Regional Water Quality Control Board - San Francisco Bay Region (RWQCB). 2016. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Lookup Tables and User Guide: Derivation and Application of Environmental Screening Levels (ESLs). Interim Final. February.
- RWQCB. 2010. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). December 31.
- SLR International Corporation (SLR). 2015. Human Health Risk Assessment Report, 6701 – 6707 Shellmound Street, Emeryville California. May.
- U.S. Environmental Protection Agency (USEPA). 2016a. Regional Screening Levels Table. May. <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>
- USEPA. 2016b. Regional Screening Level User's Guide. May. <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide-may-2016>
- USEPA. 2016c. ProUCL Version 5.1, A Statistical Software. National Exposure Research Lab, EPA, Las Vegas, Nevada. Updated June 20, 2016. Available for download at: <https://www.epa.gov/land-research/proucl-software>
- USEPA. 2015. ProUCL Version 5.1. User Guide. EPA/600/R-07/041. October.
- USEPA. 1992. Guidance on Risk Characterization for Risk Managers and Risk Assessors. H. Habicht, Office of the Administrator. February 26.
- USEPA. 1991. Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions. Don R. Clay, Office of Solid Waste and Emergency Response. April 22.
- USEPA. 1989. Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A), Interim Final. Office of Emergency and Remedial Response, Washington D.C., EPA/540/1-89/002. July.

TABLES

Table 1
Summary of Laboratory Analytical Results for Soil - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)																
				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chlorobenzene	1,2-DCA	1,2-DCB	1,3-DCB	1,4-DCB	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropylbenzene	4-Isopropyl Toluene	Methylene Chloride
IS1	4/26/1989	Former Drum Area	3.5	-	<30	--	--	--	-	<30	<30	<30	<30	<30	--	--	<30	--	--	<30
		Former Drum Area	7.0	-	<30	--	--	--	-	<30	<30	<30	<30	<30	--	--	<30	--	--	<30
		Former Drum Area	10.5	-	240	--	--	--	-	110	500	<60	<60	<60	--	--	1,800	--	--	<60
IS2	4/26/1989	Former Drum Area	3.0	-	<30	--	--	--	-	<30	<30	<30	<30	--	--	<30	--	--	<30	
		Former Drum Area	8.5	-	140	--	--	--	-	<150	<150	<150	<150	--	--	1,400	--	--	<150	
REAR	8/21/1989	Offsite Excavation	1	<40,000	<8,000	--	--	--	<20,000	-	-	<20,000	<20,000	<20,000	--	--	20,000	--	--	<20,000
REAR	8/21/1989	Offsite Excavation	3	<20,000	<4,000	--	--	--	<8,000	-	-	<10,000	<10,000	<10,000	--	--	20,000	--	--	<10,000
SS-1-E	10/5/1989	UST Confirmation	2' Beneath UST	<200,000	1,300	--	--	--	<80,000	<30	<30	<30	120	260	--	--	40	--	--	<30
SS-2-W	10/5/1989	UST Confirmation	2' Beneath UST	<20	230	--	--	--	<3	<30	<30	<30	<30	<30	--	--	30	--	--	<30
SS-3-E	10/5/1989	UST Confirmation	2' Beneath UST	40	<30	--	--	--	<3	<30	<30	<30	<30	<30	--	--	<30	--	--	<30
SS-4-W	10/5/1989	UST Confirmation	2' Beneath UST	<2,000,000	1,400	--	--	--	<800,000	<30	<30	70	2,000	2,400	--	--	110	--	--	<30
SS-5-E	10/5/1989	UST Confirmation	2' Beneath UST	<400,000	<300	--	--	--	<20,000	<30	<30	<30	<30	<30	--	--	<300	--	--	<30
SS-6-W	10/5/1989	UST Confirmation	2' Beneath UST	<2,000,000	4,600	--	--	--	<800,000	<30	<30	<30	<30	<30	--	--	<1,500	--	--	<30
B-7/MW-7	1/3/1990	Drum Area	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	<10	--	--	<50
			9	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	<10	--	--	250	--	--
B-8/MW-8	1/3/1990	Downgradient of USTs	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	<10	--	--	<50
B-8/MW-8	1/3/1990	Downgradient of USTs	9	<50	<100	--	--	--	<100	<100	<100	<100	<100	<100	--	--	<100	--	--	<500
B-9	1/4/1990	At sump	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	<10	--	--	<50
			9	<50	54	--	--	--	<10	<10	<10	<10	<10	<10	--	--	140	--	--	<50
B-10	1/4/1990	Northwest Parking Lot	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	<10	--	--	<50
			9	<100	<20	--	--	--	<20	<20	<20	<20	<20	<20	--	--	<20	--	--	<100
B-11	1/4/1990	Between office and warehouse	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	<10	--	--	<50
			9	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	<10	--	--	<50
-	4/1/1990	B-12	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
-			9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
-	4/1/1990	B-13	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
-			9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB-1	9/5/1991	Soil Boring in tank area	6	<20	<5	--	--	--	<5	<5	<5	<5	2	<5	--	--	<5	--	--	<5
			8.5	<20	<5	--	--	--	<5	<5	<5	3	4	<5	--	--	<5	--	--	<5
PB-2	9/5/1991	Soil Boring in tank area	5.5	<20	<5	--	--	--	<5	<5	<5	<5	<5	<5	--	--	<5	--	--	<5
			8	<20	5	--	--	--	<5	<5	<5	4	4	<5	--	--	<5	--	--	<5
MW-9	4/13/1994	W of Tank Excavation	8.5	70	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
			15.5	140	4	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
MW-10	4/14/1994	N of Tank Excavation	9.5	30	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
			15.5	320	<10	--	--	--	20	<10	<10	NR	NR	NR	--	--	<10	--	--	40
T-2	4/13/1994	SE tank excavation	6	-	-	--	--	--	-	-	-	-	-	-	--	--	-	--	--	-
			8.5	110	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
T-3	4/13/1994	Bottom tank excavation	8	70	4	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
			14.5	100	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
T-4	4/14/1994	SW tank excavation	9	50	<5	--	--	--	4	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
			14.5	160	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
T-5	4/14/1994	W of tank excavation	5	-	-	--	--	--	-	-	-	-	-	-	--	--	-	--	--	-
			9	20	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
T-6	4/14/1994	NE tank excavation	14.5	<20	12	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
			7.5	100	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
T-7	4/14/1994	NW tank excavation	14	<100	<30	--	--	--	<30	<30	<30	NR	NR	NR	--	--	<30	--	--	<50
			7.5	30	<5	--	--	--	<5	<5	<5	NR	NR	NR	--	--	<5	--	--	<10
SB2	11/07/2013	West of Warehouse	4	<20	<5	--	--	--	<5	<5	<5	<5	<5	<5	--	--	<5	--	--	<20
			7.5	35	<4.7	--	--	--	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	--	--	<4.7	--	--
SB6-4.0	11/07/2013	SB6	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB6-10.0			10.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB7-2.5	11/08/2013	SB7	2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB7-8.0			8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB11-2.0	11/08/2013	SB11	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB11-5.5			5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB13-1.5	11/08/2013	SB13	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB13-10.0			10.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 1
Summary of Laboratory Analytical Results for Soil - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)													Comments
				MEK	MIBK	Naphthalene	Propylbenzene	Toluene	1,2,4-TCB	TCE	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	m,p-Xylenes	o-Xylenes	Total Xylenes	
IS1	4/26/1989	Former Drum Area	3.5	-	-	-	-	60	-	<30	-	-	-	-	-	40	
			7.0	-	-	-	200	-	<30	-	-	-	-	-	-	70	
			10.5	-	-	-	1,300	-	300	-	-	-	-	-	-	11,000	
IS2	4/26/1989	Former Drum Area	3.0	-	-	-	-	250	-	<30	-	-	-	-	-	100	
			8.5	-	-	-	100	-	<150	-	-	-	-	-	-	4,500	
REAR	8/21/1989	Offsite Excavation	1	<40,000	<40,000	-	-	80,000	-	-	-	-	-	-	-	360,000	Not Representative of Final Soil Conditions; Soil Excavated
REAR	8/21/1989	Offsite Excavation	3	<20,000	<20,000	-	-	<4,000	-	-	-	-	-	-	-	77,000	Offsite Location
SS-1-E	10/5/1989	UST Confirmation	2' Beneath UST	<200,000	600,000	-	-	NR	-	<30	-	-	-	-	-	300	Not Representative of Final Soil Conditions; SVE Conducted
SS-2-W	10/5/1989	UST Confirmation	2' Beneath UST	<20	20	-	-	60	-	<30	-	-	-	-	-	50	Not Representative of Final Soil Conditions; SVE Conducted
SS-3-E	10/5/1989	UST Confirmation	2' Beneath UST	<20	<20	<30	-	50	200	<30	-	-	-	-	-	35	Not Representative of Final Soil Conditions; SVE Conducted
SS-4-W	10/5/1989	UST Confirmation	2' Beneath UST	<2,000,000	3,300,000	-	-	NR	-	<30	-	-	-	-	-	1,100	Not Representative of Final Soil Conditions; SVE Conducted
SS-5-E	10/5/1989	UST Confirmation	2' Beneath UST	<40,000	180,000	300	-	NR	<200	<30	-	-	-	-	-	1,000	Not Representative of Final Soil Conditions; SVE Conducted
SS-6-W	10/5/1989	UST Confirmation	2' Beneath UST	<2,000,000	5,000,000	-	-	NR	-	<30	-	-	-	-	-	7,500	Not Representative of Final Soil Conditions; SVE Conducted
B-7/MW-7	1/3/1990	Drum Area	4	<50	<30	<300	-	<10	<300	<10	-	-	-	-	-	<10	
			9	<50	<30	750	-	61	<300	<10	-	-	-	-	-	1,020	
B-8/MW-8	1/3/1990	Downgradient of USTs	4	<50	<30	<300	-	<10	<300	<10	-	-	-	-	-	<10	Not Representative of Final Soil Conditions; SVE Conducted
B-8/MW-8	1/3/1990	Downgradient of USTs	9	<500	8,300	<300	-	<100	<300	<100	-	-	-	-	-	<100	Not Representative of Final Soil Conditions; SVE Conducted
B-9	1/4/1990	At sump	4	<50	<30	<300	-	12	<300	<10	-	-	-	-	-	<10	
			9	<50	<30	8,900	-	26	<300	<10	-	-	-	-	-	380	
B-10	1/4/1990	Northwest Parking Lot	4	<50	<30	<300	-	<10	<300	<10	-	-	-	-	-	43	
			9	<100	<60	-	-	<20	-	<20	-	-	-	-	-	<20	
B-11	1/4/1990	Between office and warehouse	4	<50	<30	<300	-	15	<300	<10	-	-	-	-	-	<10	
			9	<50	<30	<300	-	<10	<300	<10	-	-	-	-	-	<10	
-	4/1/1990	B-12	4	-	-	<300	-	-	<300	-	-	-	-	-	-	-	
-			9	-	-	<300	-	-	<300	-	-	-	-	-	-		
-	4/1/1990	B-13	4	-	-	<300	-	-	<300	-	-	-	-	-	-	-	
-			9	-	-	<300	-	-	<300	-	-	-	-	-	-		
PB-1	9/5/1991	Soil Boring in tank area	6	<20	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
			8.5	<20	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
PB-2	9/5/1991	Soil Boring in tank area	5.5	<20	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
			8	<20	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
MW-9	4/13/1994	W of Tank Excavation	8.5	10	6	-	-	<5	-	<5	-	-	-	-	-	<5	
			15.5	20	<10	<300	-	<5	<300	<5	-	-	-	-	-	<5	
MW-10	4/14/1994	N of Tank Excavation	9.5	<10	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
			15.5	120	11	-	-	<10	-	<10	-	-	-	-	-	<10	
T-2	4/13/1994	SE tank excavation	6	-	-	<300	-	-	<300	-	-	-	-	-	-	-	
			8.5	20	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
T-3	4/13/1994	Bottom tank excavation	8	10	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
			14.5	20	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
T-4	4/14/1994	SW tank excavation	9	8	10	-	-	<5	-	<5	-	-	-	-	-	<5	
			14.5	40	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
T-5	4/14/1994	W of tank excavation	5	-	-	<3,000	-	-	<3,000	-	-	-	-	-	-	-	
			9	<10	<10	<300	-	<5	<300	<5	-	-	-	-	-	<5	
T-6	4/14/1994	NE tank excavation	7.5	10	6	-	-	<5	-	<5	-	-	-	-	-	<5	
			14	<50	<50	-	-	<30	-	<30	-	-	-	-	-	<30	
T-7	4/14/1994	NW tank excavation	7.5	9	<10	-	-	<5	-	<5	-	-	-	-	-	<5	
			14	<500	7800	-	-	<300	-	<300	-	-	-	-	-	500	
SB2	11/07/2013	West of Warehouse	4	<9.9	<9.9	<67	-	<5	-	<5	-	-	-	-	-	<5	
			7.5	<9.5	<9.5	<130	-	<4.7	-	<4.7	-	-	-	-	-	<4.7	
SB6-4.0	11/07/2013	SB6	4.0	-	-	2,900	-	-	-	-	-	-	-	-	-	-	
SB6-10.0			10.0	-	-	<67	-	-	-	-	-	-	-	-	-		
SB7-2.5	11/08/2013	SB7	2.5	-	-	1,500	-	-	-	-	-	-	-	-	-	-	
SB7-8.0			8.0	-	-	28,000	-	-	-	-	-	-	-	-	-		
SB11-2.0	11/08/2013	SB11	2.0	-	-	<1,300	-	-	-	-	-	-	-	-	-	-	
SB11-5.5			5.5	-	-	<670	-	-	-	-	-	-	-	-	-		
SB13-1.5	11/08/2013	SB13	1.5	-	-	260	-	-	-	-	-	-	-	-	-	-	
SB13-10.0			10.0	-	-	2,100	-	-	-	-	-	-	-	-	-		

Table 1
Summary of Laboratory Analytical Results for Soil - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)																	
				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chlorobenzene	1,2-DCA	1,2-DCB	1,3-DCB	1,4-DCB	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropylbenzene	4-Isopropyl Toluene	Methylene Chloride	
SB23-0.5	12/2/2015	SB23	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB28-4.5	12/2/2015	SB-28	4.5	<45	ND	--	--	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	--	ND	
SB29-2.5	12/2/2015	SB29	2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB34-4.0	12/1/2015	SB34	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB42-1	12/2/2015	SB42	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB46-0.5	12/2/2015	SB46	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB48-1.0	12/1/2015	SB48	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV6-0.5	12/1/2015	SV6	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV10-0.5	12/1/2015	SV10	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV14-0.5	12/1/2015	SV14	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV20-0.5	11/30/2015	SV20	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV32-1.0	11/30/2015	SV32	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV32-7.0	11/30/2015	SV-32	7.0	<41	ND	--	--	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	--	ND	
SV33-4.5	11/30/2015	SV-33	4.5	47	ND	--	--	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	--	ND	
SV38-1.0	11/30/2015	SV38	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV47-2.5	12/03/2015	SV-47	2.5	<37	ND	--	--	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	--	ND	
SB50-0.5	2/1/2016	SB50	0.5	< 42	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2	--	--	
SB50-5	2/1/2016		5.0	< 37	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	--	6.2	< 3.7	< 3.7	< 3.7	< 3.7	--	--
SB51-0.5	2/1/2016	SB51	0.5	< 35	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	--	--	
SB51-4.5	2/1/2016		4.5	38	9.8	95	86	4.6	--	--	--	--	--	--	< 3.6	< 3.6	97	90	91	--	--
SB51-10	2/1/2016		10.0	22	< 3.5	6.4	5.6	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	4.2	--	--
SB52-0.5	2/1/2016	SB52	0.5	< 40	< 4	< 4	< 4	< 4	--	--	--	--	--	--	< 4	< 4	< 4	< 4	--	--	
SB52-4.5	2/1/2016		4.5	55	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	--	--	--	--	--	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	--	--
SB53-0.5	2/1/2016	SB53	0.5	< 38	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	--	--	
SB53-5	2/1/2016		5.0	< 31	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	--	--	--	--	--	< 3.1	< 3.1	< 3.1	< 3.1	--	--	
SB53-10	2/1/2016		10.0	< 35	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	--	--	
SB54-0.5	2/2/2016	SB54	0.5	< 14	< 3.4	< 3.4	< 3.4	< 3.4	--	--	--	--	--	--	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	--	
SB54-5	2/2/2016		5.0	< 13	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	--	--	--	--	--	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	--	--
SB55-0.5	2/2/2016	SB55	0.5	< 15	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	--	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	
SB55-5.5	2/2/2016		5.0	35	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	--	--	--	--	--	300 >LR	56	< 4.6	< 4.6	< 4.6	< 4.6	--
SB55-10	2/2/2016		10.0	< 3,200	< 810	< 810	< 810	< 810	< 810	--	--	--	--	--	24,000	8,300	< 810	< 810	< 810	< 810	--
SB56-10	2/4/2016	SB56	10.0	69	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	--	
SB56-13	2/4/2016		13.0	< 1,600	< 390	< 390	< 390	< 390	< 390	--	--	--	--	--	< 390	< 390	< 390	< 390	620	--	--
SB57-10	2/4/2016	SB57	10.0	21	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	--	
SB57-12.5	2/4/2016		12.5	< 1,400	< 350	< 350	< 350	< 350	< 350	--	--	--	--	--	< 350	< 350	< 350	< 350	< 350	< 350	--
SB58-0.5	2/3/2016	SB58	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	
SB58-5	2/3/2016		5.0	36	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--
SB59-0.5	2/3/2016	SB59	0.5	< 12	< 3.0	< 3	< 3	< 3	--	--	--	--	--	--	< 3.0	< 3.0	< 3.0	< 3	< 3	--	
SB59-5	2/3/2016		5.0	19	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	130	19	< 3.7	< 3.7	< 3.7	< 3.7	--
SB59-10	2/3/2016		10.0	< 12,000	< 2,900	< 2900	< 2900	< 2900	< 2900	--	--	--	--	--	73,000	81,000	< 2,900	< 2900	< 2900	< 2900	--
SB59-13.5	2/3/2016		13.5	< 14	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	--	--	--	--	--	99	3.6	< 3.4	< 3.4	< 3.4	< 3.4	--
SB60-0.5	2/3/2016	SB60	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	
SB60-5	2/3/2016		5.0	< 13	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	--	--	--	--	--	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	--
SB61-0.5	2/3/2016	SB61	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	
SB61-5	2/3/2016		5.0	18	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	--	--	--	--	--	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	--
SB61-10	2/3/2016		10.0	< 4,900	< 1,200	< 1200	< 1200	< 1200	< 1200	--	--	--	--	--	< 1,200	< 1,200	< 1,200	< 1,200	< 1,200	< 1,200	--
SB61-12.5	2/3/2016		12.5	< 1,800	< 440	< 440	< 440	< 440	< 440	--	--	--	--	--	< 440	< 440	< 440	< 440	< 440	< 440	--
SV50-0.5	2/2/2016	SV50	0.5	< 14	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	
SV50-4.5	2/2/2016		4.5	27	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--
SV51-0.5	2/2/2016	SV51	0.5	< 16	< 4.0	< 4	< 4	< 4	--	--	--	--	--	--	< 4.0	< 4.0	< 4.0	< 4	< 4	--	
SV51-5	2/2/2016		5.0	34	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	--
SV52-0.5	2/2/2016	SV52	0.5	< 15	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	--	
SV52-5	2/2/2016		5.0	16	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--

Table 1
Summary of Laboratory Analytical Results for Soil - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)													Comments
				MEK	MIBK	Naphthalene	Propylbenzene	Toluene	1,2,4-TCB	TCE	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	m,p-Xylenes	o-Xylenes	Total Xylenes	
SB23-0.5	12/2/2015	SB23	0.5	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SB28-4.5	12/2/2015	SB-28	4.5	ND	ND	--	--	ND	--	ND	--	--	--	--	--	ND	
SB29-2.5	12/2/2015	SB29	2.5	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SB34-4.0	12/1/2015	SB34	4.0	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SB42-1	12/2/2015	SB42	1.0	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SB46-0.5	12/2/2015	SB46	0.5	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SB48-1.0	12/1/2015	SB48	1.0	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SV6-0.5	12/1/2015	SV6	0.5	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SV10-0.5	12/1/2015	SV10	0.5	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SV14-0.5	12/1/2015	SV14	0.5	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SV20-0.5	11/30/2015	SV20	0.5	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SV32-1.0	11/30/2015	SV32	1.0	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SV32-7.0	11/30/2015	SV-32	7.0	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	ND	
SV33-4.5	11/30/2015	SV-33	4.5	ND	ND	--	--	ND	--	ND	--	--	--	--	--	ND	
SV38-1.0	11/30/2015	SV38	1.0	--	--	ND	--	--	ND	--	--	--	--	--	--	--	
SV47-2.5	12/03/2015	SV-47	2.5	ND	ND	--	--	ND	--	ND	--	--	--	--	--	ND	
SB50-0.5	2/1/2016	SB50	0.5	-	--	< 8.5	-	< 4.2	--	< 4.2	< 4.2	< 4.2	< 4.2	-	-	--	
SB50-5	2/1/2016		5.0	-	--	< 7.3	-	< 3.7	--	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	-	-	--
SB51-0.5	2/1/2016	SB51	0.5	-	--	< 7	-	< 3.5	--	< 3.5	< 3.5	< 3.5	< 3.5	-	-	--	
SB51-4.5	2/1/2016		4.5	8.6	--	110	150	59	--	< 3.6	990	370	35	270	110	--	
SB51-10	2/1/2016		10.0	< 7.1	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--	
SB52-0.5	2/1/2016		SB52	0.5	-	--	< 8.1	-	< 4	--	< 4	< 4	< 4	< 4	-	-	--
SB52-4.5	2/1/2016	4.5		-	--	< 7.8	-	< 3.9	--	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	-	-	--
SB53-0.5	2/1/2016	SB53	0.5	-	--	< 7.5	-	< 3.8	--	< 3.8	< 3.8	< 3.8	< 3.8	-	-	--	
SB53-5	2/1/2016		5.0	-	--	< 6.3	-	< 3.1	--	< 3.1	< 3.1	< 3.1	< 3.1	-	-	--	
SB53-10	2/1/2016		10.0	-	--	< 6.9	-	< 3.5	--	< 3.5	< 3.5	< 3.5	< 3.5	-	-	--	
SB54-0.5	2/2/2016	SB54	0.5	< 6.8	--	< 3.4	< 3.4	< 3.4	--	< 3.4	< 3.4	< 3.4	< 6.8	< 3.4	< 3.4	--	
SB54-5	2/2/2016		5.0	< 6.5	--	< 3.3	< 3.3	< 3.3	--	< 3.3	< 3.3	< 3.3	< 6.5	< 3.3	< 3.3	--	
SB55-0.5	2/2/2016	SB55	0.5	< 7.4	--	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	< 7.4	< 3.7	< 3.7	--	
SB55-5.5	2/2/2016		5.0	< 9.1	--	< 4.6	< 4.6	< 4.6	--	< 4.6	< 4.6	< 4.6	60	< 4.6	< 4.6	--	
SB55-10	2/2/2016		10.0	< 1,600	--	< 810	< 810	< 810	--	< 810	< 810	< 810	< 1,600	< 810	< 810	--	
SB56-10	2/4/2016	SB56	10.0	16	--	< 4.2	< 4.2	< 4.2	--	< 4.2	< 4.2	< 4.2	< 8.4	< 4.2	< 4.2	--	
SB56-13	2/4/2016		13.0	< 780	--	< 390	< 390	< 390	--	< 390	< 390	< 390	< 780	< 390	< 390	--	
SB57-10	2/4/2016	SB57	10.0	< 7.6	--	< 3.8	< 3.8	< 3.8	--	< 3.8	< 3.8	< 3.8	< 7.6	< 3.8	< 3.8	--	
SB57-12.5	2/4/2016		12.5	< 710	--	< 350	< 350	< 350	--	< 350	< 350	< 350	< 710	< 350	< 350	--	
SB58-0.5	2/3/2016	SB58	0.5	< 7	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7	< 3.5	< 3.5	--	
SB58-5	2/3/2016		5.0	8.5	--	< 3.6	< 3.6	< 3.6	--	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--	
SB59-0.5	2/3/2016	SB59	0.5	< 6.1	--	< 3.0	< 3	< 3.0	--	< 3.0	< 3	< 3	< 6.1	< 3.0	< 3.0	--	
SB59-5	2/3/2016		5.0	< 7.4	--	< 3.7	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	38	< 3.7	< 3.7	--	
SB59-10	2/3/2016		10.0	< 5,900	--	< 2,900	< 2900	< 2,900	--	20,000	< 2900	< 2900	14,000	< 2,900	< 2,900	--	
SB59-13.5	2/3/2016		13.5	< 6.9	--	< 3.4	< 3.4	< 3.4	--	< 3.4	4.1	< 3.4	26	20	7.5	--	
SB60-0.5	2/3/2016	SB60	0.5	< 7	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7	< 3.5	< 3.5	--	
SB60-5	2/3/2016		5.0	< 6.3	--	< 3.2	< 3.2	< 3.2	--	< 3.2	< 3.2	< 3.2	< 6.3	< 3.2	< 3.2	--	
SB61-0.5	2/3/2016	SB61	0.5	< 7	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7	< 3.5	< 3.5	--	
SB61-5	2/3/2016		5.0	< 7.7	--	< 3.9	< 3.9	< 3.9	--	< 3.9	< 3.9	< 3.9	< 7.7	< 3.9	< 3.9	--	
SB61-10	2/3/2016		10.0	< 2,500	--	9,200	1300	< 1,200	--	< 1,200	< 1200	< 1200	< 2,500	< 1,200	< 1,200	--	
SB61-12.5	2/3/2016		12.5	< 890	--	1,800	< 440	< 440	--	< 440	< 440	< 440	< 890	< 440	< 440	--	
SV50-0.5	2/2/2016	SV50	0.5	< 7.1	--	< 3.6	< 3.6	< 3.6	--	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--	
SV50-4.5	2/2/2016		4.5	< 7.1	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--	
SV51-0.5	2/2/2016	SV51	0.5	< 7.9	--	< 4.0	< 4	< 4.0	--	< 4.0	< 4	< 4	< 7.9	< 4.0	< 4.0	--	
SV51-5	2/2/2016		5.0	7.8	--	< 3.8	< 3.8	< 3.8	--	< 3.8	< 3.8	< 3.8	< 7.6	< 3.8	< 3.8	--	
SV52-0.5	2/2/2016	SV52	0.5	< 7.7	--	< 3.8	< 3.8	< 3.8	--	< 3.8	< 3.8	< 3.8	< 7.7	< 3.8	< 3.8	--	
SV52-5	2/2/2016		5.0	< 7.3	--	4	< 3.7	< 3.7	--	< 3.7	< 3.7	< 3.7	< 7.3	< 3.7	< 3.7	--	

Table 1
Summary of Laboratory Analytical Results for Soil - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)																	
				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chlorobenzene	1,2-DCA	1,2-DCB	1,3-DCB	1,4-DCB	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropylbenzene	4-Isopropyl Toluene	Methylene Chloride	
SV53-0.5	2/2/2016	SV53	0.5	< 13	< 3.3	< 3.3	< 3.3	< 3.3	--	--	--	--	--	--	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	--	
SV53-5	2/2/2016		5.0	18	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	--	--	--	--	--	--	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	--
SV54-0.5	2/4/2016	SV54	0.5	< 13	< 3.3	< 3.3	< 3.3	< 3.3	--	--	--	--	--	--	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	--	
SV54-5	2/4/2016		5.0	40	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	--	--	--	--	--	--	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	--
SV55-0.5	2/2/2016	SV55	0.5	< 14	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	
SV55-5	2/2/2016		5.0	< 14	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--
SV56-0.5	2/2/2016	SV56	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	
SV56-5	2/2/2016		5.0	23	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	--
SV57-0.5	2/2/2016	SV57	0.5	< 16	< 3.9	< 3.9	< 3.9	< 3.9	--	--	--	--	--	--	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	--	
SV57-5	2/2/2016		5.0	< 14	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--
SV58-0.5	2/3/2016	SV58	0.5	< 17	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	--	
SV58-5	2/3/2016		5.0	20	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--
SV58-10	2/3/2016		10.0	< 16	< 4	< 4	< 4	< 4	< 4	--	--	--	--	--	--	< 4	< 4	< 4	< 4	< 4	--
SV60-0.5	2/3/2016	SV60	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	
SV60-5	2/3/2016		5.0	< 14	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--
SV60-10	2/3/2016		10.0	< 1,600	< 400	< 400	610	< 400	< 400	--	--	--	--	--	--	13,000	5,800	< 400	430	590	--
SV61-0.5	2/1/2016	SV61	0.5	< 35	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	
SV61-5	2/1/2016		5.0	< 38	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	-	
SV61-10	2/1/2016		10.0	43	5.2	130	210	39	--	--	--	--	--	--	--	< 3.5	< 3.5	16	450	220	
SV62-5	9/7/2016	SV62	5.0	100	--	--	--	--	< 8.3	--	--	--	--	--	--	--	--	--	--	< 8.3	
SV62-10	9/7/2016		10.0	130	--	--	--	--	--	6.3	--	--	--	--	--	--	--	--	--	--	< 6.2
SV63-5	9/7/2016	SV63	5.0	< 40	--	--	--	--	< 4.0	--	--	--	--	--	--	--	--	--	--	< 4.0	
SV63-10	9/7/2016		10.0	57	--	--	--	--	--	< 3.6	--	--	--	--	--	--	--	--	--	--	7.1
SV64-5	9/7/2016	SV64	5.0	< 57	--	--	--	--	< 5.7	--	--	--	--	--	--	--	--	--	--	< 5.7	
SV64-10	9/7/2016		10.0	48	--	--	--	--	--	< 3.9	--	--	--	--	--	--	--	--	--	--	< 3.9
SV65-5	9/7/2016	SV65	5.0	< 41	--	--	--	--	< 4.1	--	--	--	--	--	--	--	--	--	--	< 4.1	
SV65-10	9/7/2016		10.0	< 51	--	--	--	--	--	< 5.1	--	--	--	--	--	--	--	--	--	--	< 5.1
SV66-5	9/7/2016	SV66	5.0	47	--	--	--	--	< 3.6	--	--	--	--	--	--	--	--	--	--	< 3.6	
SV66-10	9/7/2016		10.0	100	--	--	--	--	--	< 3.9	--	--	--	--	--	--	--	--	--	--	< 3.9
SV67-5	9/12/2016	SV67	5.0	230	--	--	--	--	< 5.2	--	--	--	--	--	--	--	--	--	--	< 5.2	
SV67-10	9/12/2016		10.0	60	--	--	--	--	--	< 3.7	--	--	--	--	--	--	--	--	--	--	< 3.7

Table 1
Summary of Laboratory Analytical Results for Soil - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)												Comments	
				MEK	MIBK	Naphthalene	Propylbenzene	Toluene	1,2,4-TCB	TCE	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	m,p-Xylenes	o-Xylenes		Total Xylenes
SV53-0.5	2/2/2016	SV53	0.5	< 6.6	--	< 3.3	< 3.3	< 3.3	--	< 3.3	< 3.3	< 3.3	< 6.6	< 3.3	< 3.3	--	
SV53-5	2/2/2016		5.0	< 6.4	--	< 3.2	< 3.2	< 3.2	--	< 3.2	< 3.2	< 3.2	< 6.4	< 3.2	< 3.2	--	
SV54-0.5	2/4/2016	SV54	0.5	< 6.7	--	< 3.3	< 3.3	< 3.3	--	< 3.3	< 3.3	< 3.3	< 6.7	< 3.3	< 3.3	--	
SV54-5	2/4/2016		5.0	< 8.6	--	< 4.3	< 4.3	< 4.3	--	< 4.3	< 4.3	< 4.3	< 8.6	< 4.3	< 4.3	--	
SV55-0.5	2/2/2016	SV55	0.5	< 7.1	--	< 3.6	< 3.6	< 3.6	--	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--	
SV55-5	2/2/2016		5.0	< 7.1	--	< 3.6	< 3.6	< 3.6	--	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--	
SV56-0.5	2/2/2016	SV56	0.5	< 7.1	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--	
SV56-5	2/2/2016		5.0	< 8.3	--	< 4.2	< 4.2	< 4.2	--	< 4.2	< 4.2	< 4.2	< 8.3	< 4.2	< 4.2	--	
SV57-0.5	2/2/2016	SV57	0.5	< 7.8	--	< 3.9	< 3.9	< 3.9	--	< 3.9	< 3.9	< 3.9	< 7.8	< 3.9	< 3.9	--	
SV57-5	2/2/2016		5.0	< 7.2	--	< 3.6	< 3.6	< 3.6	--	< 3.6	< 3.6	< 3.6	< 7.2	< 3.6	< 3.6	--	
SV58-0.5	2/3/2016	SV58	0.5	< 8.3	--	< 4.2	< 4.2	< 4.2	--	< 4.2	< 4.2	< 4.2	< 8.3	< 4.2	< 4.2	--	
SV58-5	2/3/2016		5.0	< 7.3	--	< 3.6	< 3.6	< 3.6	--	< 3.6	< 3.6	< 3.6	< 7.3	< 3.6	< 3.6	--	
SV58-10	2/3/2016		10.0	< 8	--	< 4	< 4	< 4	--	< 4	< 4	< 4	< 8	< 4	< 4	--	
SV60-0.5	2/3/2016	SV60	0.5	< 7.1	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--	
SV60-5	2/3/2016		5.0	< 7.1	--	< 3.5	< 3.5	< 3.5	--	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--	
SV60-10	2/3/2016		10.0	< 800	--	890	650	< 400	--	600	2700	2600	3,300	530	710	--	
SV61-0.5	2/1/2016	SV61	0.5	-	--	< 7.1	-	< 3.5	--	< 3.5	< 3.5	< 3.5	< 3.5	-	-	--	
SV61-5	2/1/2016		5.0	-	--	< 7.6	-	< 3.8	--	< 3.8	< 3.8	< 3.8	< 3.8	-	-	--	
SV61-10	2/1/2016		10.0	12	--	17	450	26	--	< 3.5	1900	340	14	13	26	--	
SV62-5	9/7/2016	SV62	5.0	--	--	--	--	--	--	--	--	--	--	--	--	< 17	
SV62-10	9/7/2016		10.0	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV63-5	9/7/2016	SV63	5.0	--	--	--	--	--	--	--	--	--	--	--	--	< 8.1	
SV63-10	9/7/2016		10.0	--	--	--	--	--	--	--	--	--	--	--	--	7.2	
SV64-5	9/7/2016	SV64	5.0	--	--	--	--	--	--	--	--	--	--	--	--	< 11	
SV64-10	9/7/2016		10.0	--	--	--	--	--	--	--	--	--	--	--	--	< 7.8	
SV65-5	9/7/2016	SV65	5.0	--	--	--	--	--	--	--	--	--	--	--	--	< 8.1	
SV65-10	9/7/2016		10.0	--	--	--	--	--	--	--	--	--	--	--	--	< 10	
SV66-5	9/7/2016	SV66	5.0	--	--	--	--	--	--	--	--	--	--	--	--	< 7.2	
SV66-10	9/7/2016		10.0	--	--	--	--	--	--	--	--	--	--	--	--	< 7.7	
SV67-5	9/12/2016	SV67	5.0	--	--	--	--	--	--	--	--	--	--	--	--	< 10	
SV67-10	9/12/2016		10.0	--	--	--	--	--	--	--	--	--	--	--	--	< 7.3	

Notes:

Detections are shown in bold

ft bgs = Feet below ground surface

VOCs = Volatile organic compounds

µg/kg = Micrograms per kilogram

DCB = Dichlorobenzene

MEK = Methyl Ethyl Ketone

MIBK = Methyl Isobutyl Ketone

- = Not analyzed

<## = Not detected at or above the indicated laboratory reporting limit

ND = Not detected

-- = Not detected or not analyzed

NR = Not reported

DCE = Dichloroethene

TCB = Trichlorobenzene

TCE = Trichloroethene

TMB = Trimethylbenzene

Not Representative of Final Soil Conditions

Table 2
Summary of laboratory Analytical Results for Soil - SVOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Boring Location	Sample Number	Depth (Feet bgs)	Date Collected	SVOCs (µg/kg)																				
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (g,h,i) Perylene	Chrysene	Fluoranthene	Fluorene	Isophorene	Indeno (1,2,3-cd) Pyrene	2-Methyl-naphthalene	4-Methyl-phenol	Nitro-benzene	N-Nitrosodi-phenylamine	Phenanthrene	Phenol	Pyrene	Bis (2-ethylhexyl) phthalate
SS-3-E	-	-	10/5/1989	-	-	-	ND(30)	ND(30)	-	ND(30)	-	ND(70)	ND(30)	-	ND(30)	-	ND(30)	200	ND(30)	-	ND(30)	-	ND(30)	ND(300)
SS-5-E	-	-	10/5/1989	-	-	-	ND(200)	ND(200)	-	ND(200)	-	ND(400)	ND(200)	-	ND(200)	-	1,000	ND(200)	ND(200)	-	ND(200)	-	ND(200)	ND(2,000)
B-7/M-7	-	4	1/3/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	1,500	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	390	320	-	ND(300)	-	1,500	ND(300)	ND(300)	-	530	-	380	ND(2,000)
B-8/MW-8	-	4	1/3/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	410	ND(2,000)
B-9	-	4	1/4/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	690	340	-	ND(300)	-	1,100	ND(300)	ND(300)	-	590	-	550	ND(2,000)
B-11	-	4	1/4/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	320	ND(2,000)
	-	9		-	-	-	580	ND(300)	-	ND(300)	-	820	1,100	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	560	-	1,800	ND(2,000)
B-12	-	4	1/4/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	370	ND(2,000)
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)
B-13	-	4	1/4/1990	-	-	-	ND(300)	470	-	ND(300)	-	390	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	920	ND(2,000)
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)
MW-9	-	8.5	4/13/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	15.5		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	ND(300)	400
T-2	-	6	4/13/1994	-	-	-	ND(300)	ND(300)	-	200	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)
	-	8.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T-5	-	5	4/14/1994	-	-	-	ND(3,000)	ND(3,000)	-	ND(3,000)	-	ND(3,000)	ND(3,000)	-	ND(3,000)	-	ND(3,000)	ND(3,000)	ND(3,000)	-	ND(3,000)	-	ND(3,000)	ND(3,000)
	-	9.0		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	-	ND(300)	-	ND(300)	400
	-	14.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB2	SB2-4.0	4	11/7/2013	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(330)	-	ND(330)	ND(67)	-	ND(67)	-	
	SB2-7.5	7.5		ND(130)	270	630	1,200	970	970	360	330	1,400	2,100	210	-	340	ND(130)	ND(660)	-	ND(660)	2,400	-	2,300	-
SB6	SB6-4.0	4	11/7/2013	ND(660)	ND(660)	1,200	2,400	3,000	3,700	1,500	1,400	2,900	4,400	810	-	1,300	ND(660)	ND(3,300)	-	ND(3,300)	5,500	-	4,500	-
	SB6-10.0	10		ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	-	ND(67)	ND(67)	ND(330)	-	ND(330)	ND(67)	-	ND(67)	-
SB7	SB7-2.5	2.5	11/8/2013	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	-	ND(330)	ND(330)	10,000	-	ND(1,700)	450	-	ND(330)	-
	SB7-8.0	8		500	ND(330)	340	340	ND(330)	ND(330)	ND(330)	ND(330)	470	1,100	680	-	ND(330)	9,200	ND(1,600)	-	1,700	2,400	-	1,100	-
SB11	SB11-2.0	2	11/8/2013	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	-	ND(1,300)	ND(1,300)	ND(6,600)	-	ND(6,600)	ND(1,300)	-	1,300	-
	SB11-5.5	5.5		ND(670)	ND(670)	ND(670)	ND(670)	900	990	ND(670)	ND(670)	820	1,800	ND(670)	-	ND(670)	ND(670)	ND(3,300)	-	ND(3,300)	750	-	2,300	-
SB13	SB13-1.5	1.5	11/8/2013	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	-	ND(66)	92	ND(330)	-	ND(330)	ND(66)	-	79	-
	SB13-10.0	10		ND(1,700)	ND(1,700)	ND(1,700)	2,000	ND(1,700)	1,800	ND(1,700)	ND(1,700)	2,100	4,200	ND(1,700)	-	ND(1,700)	2,000	ND(8,300)	-	ND(8,300)	7,500	-	4,000	-
SB23	SB23-0.5	0.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(130)	ND	ND
SB29	SB29-2.5	2.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(130)	ND	ND
SB34	SB34-4.0	4.0	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND
SB42	SB42-1	1.0	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND
SB46	SB46-0.5	0.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND
SB48	SB48-1.0	1.0	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(660)	ND	ND
SV6	SV6-0.5	0.5	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(67)	ND	ND
SV10	SV10-0.5	0.5	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(66)	ND	ND
SV14	SV14-0.5	0.5	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(67)	ND	ND
SV20	SV20-0.5	0.5	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND
SV32	SV32-1.0	1.0	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND
SV32	SV32-7.0	7.0	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(3,300)	ND	ND
SV38	SV38-1.0	1.0	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	ND	ND

Notes:
Detections are shown in bold.
bgs = Below ground surface
µg/kg = Micrograms per kilogram
- = Not applicable / not analyzed or not detected
ND(67) = Not detected at or above the indicated laboratory reporting limit
ND = Not detected
SVOC = semi-volatile organic compound

Table 3
Summary of laboratory Analytical Results for Soil - PCBs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample Number	Depth (feet bgs)	Date Collected	Aroclor-1260 ⁽¹⁾ (mg/kg)	Aroclor-1262 (mg/kg)	Aroclor-1268 (mg/kg)	Total PCBs (mg/kg)	DDT (mg/kg)
SB5	SB5-3.0	3	11/7/2013	10	ND(0.17)	ND(0.17)	10	-
	SB5-8.0	8	11/7/2013	ND(0.012)	0.018	ND(0.012)	0.018	-
	SB5-11.5	11.5	11/7/2013	ND(0.012)	0.014	ND(0.012)	0.014	-
SB6	SB6-4.0	4	11/7/2013	0.57	ND(0.012)	ND(0.012)	0.57	-
	SB6-8.0	8	11/7/2013	ND(0.012)	0.16	ND(0.012)	0.16	-
	SB6-10.0	10	11/7/2013	ND(0.012)	4.8	ND(0.012)	4.8	-
SB7	SB7-2.5	2.5	11/8/2013	1.9	ND(0.082)	ND(0.082)	1.9	-
	SB7-8.0	8	11/8/2013	ND(0.042)	1.5	ND(0.042)	1.5	-
SB11	SB11-2.0	2	11/8/2013	0.38	ND(0.012)	ND(0.012)	0.38	-
	SB11-5.5	5.5	11/8/2013	1.2	ND(0.042)	1.4	2.60	-
SB12	SB12-2.0	2	11/8/2013	2	ND(0.042)	ND(0.042)	2	-
	SB12-5.0	5	11/8/2013	ND(0.041)	1.2	ND(0.041)	1.2	-
	SB12-10.0	10	11/8/2013	ND(0.083)	6.5	ND(0.083)	6.5	-
SB13	SB13-1.5	1.5	11/8/2013	0.27	ND(0.012)	ND(0.012)	0.27	-
	SB13-5.0	5	11/8/2013	0.018	ND(0.012)	ND(0.012)	0.018	-
	SB13-10.0	10	11/8/2013	3.3	ND(0.084)	1.9	5.2	-
SB14	SB14-3.5	3.5	11/9/2013	0.013	ND(0.012)	ND(0.012)	0.013	-
SG-1	-	3.5 - 4.0	4/19/2013	ND(0.5)	-	-	ND(0.5)	0.03
SG-2	-	3.0 - 3.5	4/19/2013	ND(1.0)	-	-	ND(1.0)	0.068
SG-3	-	3.5 - 4.0	4/19/2013	14	-	-	14	0.25
SG-4	-	3.5 - 4.0	4/19/2013	8	-	-	8	0.42
SG-5	-	4.5 - 5.0	4/19/2013	ND(1.0)	-	-	ND(1.0)	ND(0.020)
IS1	IS1-03.5	3.5	4/26/1989	-	-	-	0.4	-
	IS1-07.0	7.0	4/26/1989	-	-	-	0.7	-
	IS1-10.5	10.5	4/26/1989	-	-	-	ND(0.5)	-
IS2	IS2-03.0	3.0	4/26/1989	-	-	-	0.2	-
	IS2-08.5	8.5	4/26/1989	-	-	-	ND(0.5)	-
B-7/MW-7	-	4	1/3/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-8/MW-8	-	4	1/3/1990	ND(1)	-	-	-	-
	-	9		2.3	-	-	2.3	-
B-9	-	4	1/4/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-10	-	4	1/4/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-11	-	4	1/4/1990	2.2	-	-	2.2	-
	-	9		ND(1)	-	-	-	-
B-12	-	4	1/4/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-13	-	4	1/4/1990	3.1	-	-	3.1	-
	-	9		ND(1)	-	-	-	-
Sump	-	Confirmation	1/5/1990	4.2	-	-	4.2	-
SB20	SB20-2.5	2.5	11/30/2015	1.7	-	-	1.7	-
SB21	SB21-0.5	0.5	12/2/2015	1.9	-	-	1.9	-
SB23	SB23-0.5	0.5	12/2/2015	0.49	-	-	0.49	-
SB24	SB24-0.5	0.5	12/2/2015	3.7	-	-	3.7	-
SB25	SB25-1	1.0	12/2/2015	0.8	-	-	0.8	-
SB26	SB26-1.5	1.5	12/2/2015	0.12	-	-	0.12	-
SB27	SB27-2.5	2.5	12/2/2015	0.59	-	-	0.59	-
SB28	SB28-0.5	0.5	12/2/2015	0.61	-	-	0.61	-
	SB28-4.5	4.5	12/2/2015	55	-	-	55	-
SB29	SB29-2.5	2.5	12/2/2015	1.9	-	-	1.9	-
SB31	SB31-2	2.0	12/2/2015	.28 ⁽²⁾	-	-	0.28	-
	SB31-6	6.0	12/2/2015	ND(0.050)	-	-	ND(0.050)	-
SB32	SB32-1.5	1.5	12/3/2015	0.29	-	-	0.29	-
SB34	SB34-4.0	4.0	12/1/2015	0.19	-	-	0.19	-
SB35	SB35-0.5	0.5	12/2/2015	0.62	-	-	0.62	-
SB39	SB39-0.5	0.5	12/2/2015	0.25	-	-	0.25	-
SB40	SB40-1	1.0	12/2/2015	1.9	-	-	1.9	-
SB41	SB41-1	1.0	12/2/2015	2.9	-	-	2.9	-
SB42	SB42-1	1.0	12/2/2015	2.8	-	-	2.8	-
SB43	SB43-1.5	1.5	12/1/2015	1.3	-	-	1.3	-
SB45	SB45-1.5	1.5	12/1/2015	2.8	-	-	2.8	-
SB46	SB46-0.5	0.5	12/2/2015	1.2	-	-	1.2	-
SB48	SB48-1.0	1.0	12/1/2015	8.3	-	-	8.3	-
SV16	SV16-0.5	0.5	12/1/2015	ND(0.049)	-	-	ND(0.049)	-
SV32	SV32-1.0	1.0	11/30/2015	1.8	-	-	1.8	-
	SV32-7.0	7.0	11/30/2015	0.89	-	-	0.89	-
SV33	SV33-0.5	0.5	11/30/2015	4.0	-	-	4.0	-
	SV33-4.5	4.5	11/30/2015	0.86	-	-	0.86	-
SV45	SV45-1.0	1.0	11/30/2015	6.9	-	-	6.9	-
SV47	SV47-6.0	6.0	12/3/2015	ND(0.049)	-	-	ND(0.049)	-

Notes:

Detections are shown in bold.

bgs = below ground surface

mg/kg = milligrams per kilogram

DDT = Dichlorodiphenyltrichlorethane

PCBs= Polychlorinated biphenyls

ND(24) = Compound not detected at or above the indicated laboratory reporting limit

ND = Not detected

- = Not analyzed

1. All 2015 samples were prepped or analyzed beyond the specified holding time.

2. Result exceeded calibration range.

Table 4
Summary of laboratory Analytical Results for Soil - California Title 22 Metals, STLC, TCLP, and Asbestos
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic ¹ (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	STLC Lead (mg/L)	TCLP Lead (mg/L)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	Bulk Asbestos (%v/v)
IS-1	IS-1	3.5	4/26/1989	6.5	ND(2.2)	110	0.05	4.1	20.1	5.6	70	100	-	-	ND(5)	1.2	32.1	-	15.2	-	15.4	200	-
		7		1.4	ND(2.2)	130	ND(0.025)	4.2	21.5	6.4	104	130	-	-	ND(5)	ND(1)	31.5	-	ND(0.1)	-	17.3	48.9	-
		10		1.6	ND(2.2)	255	ND(0.025)	10.2	63.5	11.4	1,042	4,300	-	-	ND(5)	3.7	42.6	-	ND(0.1)	-	17.3	5,400	-
IS-2	IS-2	3	4/26/1989	ND(1)	ND(2.2)	90	ND(0.025)	3.2	18.5	6	56.7	90	-	-	ND(5)	1.2	30.9	-	ND(0.1)	-	15.6	270	-
		8.5		ND(1)	ND(2.2)	35.7	ND(0.025)	1.5	6.6	2.8	13.8	5.3	-	-	ND(5)	ND(1)	15.5	-	ND(0.1)	-	6.7	22.9	-
B-1/MW-1	B-1/MW-1	5.5	7/5/1989	ND(1)	ND(2.2)	92	ND(0.025)	1.4	13	5.7	28	61	-	-	ND(5)	ND(1)	14	-	ND(0.1)	-	15	94	-
		10.5		ND(1)	ND(2.2)	21	ND(0.025)	0.6	12.5	2.6	4	3	-	-	ND(5)	ND(1)	12.7	-	ND(0.1)	-	7	5.4	-
		16		4	ND(2.2)	78	ND(0.025)	12	42	12.4	15.3	160	-	-	ND(5)	2.4	30	-	ND(0.1)	-	32	6,040	-
		20.5		ND(1)	ND(2.2)	61	ND(0.025)	2.4	15	4.5	23	77	-	-	ND(5)	ND(1)	19	-	ND(0.1)	-	12	106	-
		25.5		ND(1)	ND(2.2)	67	ND(0.025)	2	10	8	13	8	-	-	ND(5)	ND(1)	24	-	ND(0.1)	-	12	27	-
		30.5		ND(1)	ND(2.2)	23	ND(0.025)	1.2	9.9	3.6	7.4	4.5	-	-	ND(5)	ND(1)	22	-	ND(0.1)	-	6.7	15	-
B-2	B-2	0.5	7/5/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6		1.2	ND(2.2)	109	ND(0.025)	1.6	11.8	5	92	167	-	-	ND(5)	ND(1)	18.5	-	ND(0.1)	-	9.7	67	-
		10		ND(1)	ND(2.2)	41	ND(0.025)	ND(0.3)	12.7	2.7	22.5	1,360	-	-	ND(5)	ND(1)	12.5	-	ND(0.1)	-	13	532	-
		16		1.2	ND(2.2)	95	ND(0.025)	2.4	43	12	10	11	-	-	ND(5)	ND(1)	79	-	ND(0.1)	-	10	23	-
		20.5		ND(1)	ND(2.2)	35	ND(0.025)	1.4	7.8	1.9	9	8.7	-	-	ND(5)	ND(1)	16.6	-	ND(0.1)	-	17	11	-
R-D1	R-D1		8/18/1989	ND(1)	ND(2.2)	2.1	ND(0.025)	3.6	18.4	0.62	31.0	10.5	-	-	ND(5)	ND(1)	9.2	ND(5)	345	-	ND(0.15)	32.5	-
R-D2	R-D2			ND(1)	ND(2.2)	3.6	ND(0.025)	5.1	85.8	1.1	81.5	46.0	-	-	ND(5)	ND(1)	63.5	ND(5)	95	-	0.52	840	-
R-D3	R-D3			9.2	ND(2.2)	2.2	ND(0.025)	4.2	330	0.68	18.0	155	-	-	ND(5)	ND(1)	30.4	ND(5)	143	-	0.60	2270	-
R-D4	R-D4			42.5	ND(2.2)	1.5	ND(0.025)	25.7	21.0	5.6	40	33.6	-	-	ND(5)	9.6	43.4	ND(5)	ND(0.1)	-	19.1	9930	-
B-5/MW-5	B-5/MW-5	6		8/31/1989	ND(1)	ND(2.2)	29.2	ND(0.025)	0.5	13.5	3.4	13.3	9.7	-	-	ND(5)	ND(1)	18	-	ND(0.1)	-	12	52
		11	1.05		ND(2.2)	167.1	ND(0.025)	2.15	15.2	8.7	64	164	-	-	ND(5)	ND(1)	22	-	ND(0.1)	-	23.4	200	-
		15.5	3.85		ND(2.2)	661	ND(0.025)	4.5	22.4	8.2	200	1,270	-	-	ND(5)	ND(1)	26.8	-	ND(0.1)	-	20	1420	-
		22.5	ND(1)		ND(2.2)	1,150	ND(0.025)	3.8	19	40	44.2	24	-	-	ND(5)	ND(1)	151	-	ND(0.1)	-	58.3	58.6	-
		25.5	ND(1)		ND(2.2)	158	ND(0.025)	3.1	21	12.3	22.6	12	-	-	ND(5)	ND(1)	54	-	ND(0.1)	-	31	42	-
B-6/MW-6	B-6/MW-6	20.5	8/31/1989	ND(1)	ND(2.2)	250	ND(0.025)	3.5	23	19	22.5	15.3	-	-	ND(5)	ND(1)	48	-	ND(0.1)	-	53	47	-
		25.5		ND(1)	ND(2.2)	56.5	ND(0.025)	3.3	25	11	22	15	-	-	ND(5)	ND(1)	54	-	ND(0.1)	-	25	42.6	-
B-7/MW-7	B-7/MW-7	4	1/3/1990	ND(10)	ND(16)	140	0.48	ND(0.7)	32	8.6	27	ND(12)	-	-	ND(0.09)	ND(1)	28	-	ND(0.4)	-	36	79	-
		9		ND(10)	ND(16)	24	0.13	ND(0.7)	21	ND(2)	3.6	ND(12)	-	-	0.088	ND(1)	16	-	ND(0.4)	-	12	310	-
B-8/MW-8	B-8/MW-8	4	1/3/1990	ND(10)	ND(16)	42	0.16	ND(0.7)	27	2.8	18	ND(12)	-	-	ND(0.009)	ND(1)	18	-	ND(0.4)	-	15	75	-
		9		ND(10)	ND(16)	85	0.15	ND(0.7)	9.6	ND(2)	41	24	-	-	0.36	ND(1)	6.8	-	ND(0.4)	-	8.5	120	-
B-9	B-9	4	1/4/1990	ND(10)	ND(16)	140	0.41	ND(0.7)	33	7.4	55	41	-	-	0.45	ND(1)	32	-	ND(0.4)	-	31	120	-
		9		ND(16)	ND(16)	610	0.31	44	180	15	2,300	980	-	-	0.66	27	350	-	ND(0.4)	-	26	6,200	-
B-10	B-10	4	1/4/1990	ND(10)	ND(16)	33	0.05	ND(0.7)	23	ND(2)	39	42	-	-	0.1	ND(1)	10	-	ND(0.4)	-	5	95	-
		9		ND(16)	21	590	0.33	1.3	34	6.9	140	1,500	-	-	0.62	ND(1)	24	-	ND(0.4)	-	28	410	-
B-11	B-11	4	1/4/1990	ND(10)	ND(16)	240	0.36	1	22	5.4	44	72	-	-	0.092	ND(1)	25	-	ND(0.4)	-	21	940	-
		9		ND(10)	ND(16)	160	0.31	0.7	21	3.6	ND(4,500)	55	-	-	0.012	ND(1)	24	-	ND(0.4)	-	17	160	-
B-12	B-12	4	1/4/1990	ND(10)	ND(16)	89	0.23	ND(0.7)	36	3.4	170	120	-	-	ND(0.009)	ND(1)	29	-	ND(0.4)	-	21	150	-
		9		ND(28)	38	540	0.26	7.7	190	28	2,200	3,000	-	-	ND(0.009)	20	110	-	ND(0.4)	-	23	3,600	-
B-13	B-13	4	1/4/1990	ND(10)	ND(16)	160	0.36	ND(0.7)	62	6.5	120	520	-	-	ND(0.009)	ND(1)	42	-	ND(0.4)	-	27	300	-
		9		ND(10)	ND(16)	37	0.15	ND(0.7)	29	2.9	4.9	12	-	-	ND(0.009)	ND(1)	18	-	ND(0.4)	-	15	210	-
Sump	Sump	Confirmation	1/5/1990	ND(10)	ND(16)	180	0.48	ND(0.7)	95	10	49	62	-	-	0.022	ND(1)	135	-	ND(0.4)	-	39	150	-

Table 4
Summary of laboratory Analytical Results for Soil - California Title 22 Metals, STLC, TCLP, and Asbestos
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic ¹ (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	STLC Lead (mg/L)	TCLP Lead (mg/L)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	Bulk Asbestos (%v/v)
MW-9	MW-9	8.5	4/13/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15.5		ND(3)	4.2	190	0.43	ND(0.25)	26	12	30	19	-	-	ND(0.083)	ND(1)	36	-	ND(0.5)	-	27	61	-
MW-10	MW-10	9.5	4/14/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15.5		4.4	19	140	0.21	3.3	59	10	330	250	-	-	0.77	3.1	37	-	1.1	-	24	530	-
T-2	T-2	6	4/13/1994	5.1	9.3	170	0.23	1	25	8.7	2,100	330	-	-	ND(0.087)	1.5	55	-	0.5	-	26	580	-
		8.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T-5	T-5	5	4/14/1994	ND(2.9)	6	130	0.31	0.27	25	9.2	60	61	-	-	0.21	ND(0.98)	28	-	ND(0.49)	-	26	88	-
		9		ND(3)	ND(2.5)	41	ND(0.10)	ND(0.25)	23	4.2	14	1.5	-	-	ND(0.087)	ND(1)	19	-	ND(0.5)	-	15	18	-
		14.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T-7	T-7	7.5	4/14/1994	ND(3)	4.2	150	0.45	0.28	27	10	40	6.1	-	-	ND(0.087)	ND(0.99)	37	-	ND(0.5)	-	27	62	-
		14		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SG-1	SG-1	3.5-4.0	4/19/2013	5.2	11	280	ND(0.5)	1	100	22	480	990	12	ND(0.2)	0.2	4.2	220	--	0.6	-	60	490	-
SG-2	SG-2	3.0-3.5	4/19/2013	1.9	12	160	0.51	0.84	50	11	88	120	4	ND(0.2)	0.36	1.3	63	--	ND(0.5)	-	50	220	-
SG-3	SG-3	3.5-4.0	4/19/2013	8.9	7.3	230	ND(0.5)	0.94	54	9.3	160	830	-	-	0.2	1.3	51	--	ND(0.5)	-	49	240	-
SG-4	SG-4	3.5-4.0	4/19/2013	2.6	6.9	170	ND(0.5)	0.82	68	14	78	130	-	-	0.32	2.9	83	--	ND(0.5)	-	45	440	-
SG-5	SG-5	4.5-5.0	4/19/2013	1	9.9	120	ND(0.5)	0.44	44	7.3	44	75	-	-	0.12	0.5	34	--	ND(0.5)	-	41	97	-
SB1	SB1-1.0	1	11/7/2013	ND(0.51)	5.9	160	0.39	0.94	86	13	52	81	-	-	0.22	ND(0.25)	100	ND(0.51)	ND(0.25)	ND(0.51)	51	190	-
	SB1-5.5	5.5	11/7/2013	-	-	-	-	-	-	-	-	1,300	-	6.1	-	-	-	-	-	-	-	-	-
	SB1-11.75	11.75	11/7/2013	-	-	-	-	-	-	-	-	2,400	-	0.75	-	-	-	-	-	-	-	-	-
SB2	SB2-4.0	4	11/7/2013	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-
	SB2-7.5	7.5	11/7/2013	-	-	-	-	-	-	-	-	120	2.7	-	-	-	-	-	-	-	-	-	-
	SB2-10.75	10.75	11/7/2013	-	-	-	-	-	-	-	-	240	-	-	-	-	-	-	-	-	-	-	-
SB3	SB3-1.5	1.5	11/7/2013	ND(0.46)	3.4	150	0.59	0.44	16	6.9	16	14	-	-	0.39	ND(0.23)	23	ND(0.46)	ND(0.23)	ND(0.46)	26	46	-
	SB3-7.5	7.5	11/7/2013	-	-	-	-	-	-	-	-	340	1.8	1.1	-	-	-	-	-	-	-	-	-
	SB3-11.0	11	11/7/2013	3.3	7.5	810	0.39	4.3	46	10	170	460	-	-	0.17	4.6	38	ND(0.50)	ND(0.25)	ND(0.50)	42	920	-
SB4	SB4-1.5	1.5	11/7/2013	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-
	SB4-5.0	5	11/7/2013	-	-	-	-	-	-	-	-	110	7.5	-	-	-	-	-	-	-	-	-	-
	SB4-10.0	10	11/7/2013	-	-	-	-	-	-	-	-	10,000	-	2.4	-	-	-	-	-	-	-	-	-
SB5	SB5-3.0	3	11/7/2013	-	-	-	-	-	-	-	-	430	7.7	0.27	-	-	-	-	-	-	-	-	-
	SB5-8.0	8	11/7/2013	3.1	6.7	100	0.21	0.77	39	6.3	100	100	-	-	0.19	0.34	38	ND(0.50)	ND(0.25)	ND(0.50)	29	170	-
	SB5-11.5	11.5	11/7/2013	-	-	-	-	-	-	-	-	1,100	-	1.0	-	-	-	-	-	-	-	-	-
SB6	SB6-4.0	4	11/7/2013	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-
	SB6-8.0	8	11/7/2013	-	-	-	-	-	-	-	-	58	-	-	-	-	-	-	-	-	-	-	-
	SB6-10.0	10	11/7/2013	7.5	5.6	140	0.27	1.9	140	16	390	160	-	-	0.13	4.9	190	6.0	ND(0.26)	ND(0.52)	41	270	-
SB7	SB7-2.5	2.5	11/8/2013	0.75	5.0	160	0.25	1.2	34	9.0	74	120	-	-	0.19	0.69	49	0.66	ND(0.23)	ND(0.47)	35	220	-
	SB7-8.0	8	11/8/2013	-	-	-	-	-	-	-	-	250	39	-	-	-	-	-	-	-	-	-	-
	SB7-12.5	12.5	11/8/2013	-	-	-	-	-	-	-	-	2.1	-	-	-	-	-	-	-	-	-	-	-
SB8	SB8-3.5	3.5	11/8/2013	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-
	SB8-8.0	8	11/8/2013	ND(0.51)	2.3	32	ND(0.10)	ND(0.25)	33	4.4	4.7	3.1	-	-	ND(0.016)	ND(0.25)	24	ND(0.51)	ND(0.25)	ND(0.51)	26	19	-
	SB8-12.0	12	11/8/2013	-	-	-	-	-	-	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-
SB9	SB9-4.5	4.5	11/8/2013	ND(0.49)	5.4	120	0.32	0.81	45	10	46	41	-	-	0.12	1.5	38	ND(0.49)	ND(0.24)	ND(0.49)	36	110	-
	SB9-10.0	10	11/8/2013	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-2.0	2	11/8/2013	ND(0.47)	6.9	550	0.33	0.58	38	6.9	27	45	-	-	0.15	0.61	36	ND(0.47)	ND(0.23)	ND(0.47)	34	90	-
	SB10-5.0	5	11/8/2013	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	-	-
	SB10-10.0	10	11/8/2013	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-
SB11	SB11-2.0	2	11/8/2013	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	-	-
	SB11-5.5	5.5	11/8/2013	0.62	9.2	140	0.26	1.2	160	10	260	170	-	-	0.17	21	170	ND(0.54)	ND(0.27)	ND(0.54)	36	300	-
	SB11-11.5	11.5	11/8/2013	-	-	-	-	-	-	-	-	1.7	-	-	-	-	-	-	-	-	-	-	-

Table 4
Summary of laboratory Analytical Results for Soil - California Title 22 Metals, STLC, TCLP, and Asbestos
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic ¹ (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	STLC Lead (mg/L)	TCLP Lead (mg/L)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	Bulk Asbestos (%v/v)
SB12	SB12-2.0	2	11/8/2013	-	-	-	-	-	-	-	-	130	12	1.1	-	-	-	-	-	-	-	-	-
	SB12-5.0	5	11/8/2013	-	-	-	-	-	-	-	-	320	-	-	-	-	-	-	-	-	-	-	-
	SB12-10.0	10	11/8/2013	ND(0.49)	5.9	210	0.27	1.3	31	6.6	44	290	-	-	0.18	0.28	29	ND(0.49)	ND(0.25)	ND(0.49)	30	1,900	-
SB13	SB13-1.5	1.5	11/8/2013	-	-	-	-	-	-	-	-	68	-	-	-	-	-	-	-	-	-	-	-
	SB13-5.0	5	11/8/2013	ND(0.47)	8.4	270	0.42	0.70	23	26	30	54	-	-	0.070	0.37	27	1.6	ND(0.23)	ND(0.47)	45	100	-
	SB13-10.0	10	11/8/2013	-	-	-	-	-	-	-	-	3,300	-	-	-	-	-	-	-	-	-	-	-
SB14	SB14-3.5	3.5	11/9/2013	ND(0.46)	7.7	170	0.54	0.67	140	19	33	11	-	-	0.060	ND(0.23)	190	4.5	ND(0.23)	ND(0.46)	53	63	-
	SB14-8.5	8.5	11/9/2013	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-
	SB14-11.5	11.5	11/9/2013	-	-	-	-	-	-	-	-	250	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-2.5	2.5	11/9/2013	-	-	-	-	-	-	-	-	8.2	-	-	-	-	-	-	-	-	-	-	-
	SB15-7.5	7.5	11/9/2013	3.8	4.6	250	0.27	13	43	6.6	450	870	-	-	0.14	0.43	48	ND(0.50)	ND(0.25)	ND(0.50)	40	1,700	-
	SB15-11.5	11.5	11/9/2013	-	-	-	-	-	-	-	-	130	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-2.5	2.5	11/9/2013	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-
	SB16-7.5	7.5	11/9/2013	-	-	-	-	-	-	-	-	280	14	1.8	-	-	-	-	-	-	-	-	-
	SB16-10.5	10.5	11/9/2013	1.4	11	180	0.34	0.89	53	6.7	51	210	-	-	0.24	ND(0.26)	34	3.4	ND(0.26)	ND(0.52)	41	510	-
SB17	SB17-2.0	2	11/9/2013	ND(0.47)	7.8	150	0.46	0.61	41	12	32	54	-	-	0.12	ND(0.24)	43	ND(0.47)	ND(0.24)	ND(0.47)	53	87	-
	SB17-5.0	5	11/9/2013	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-
	SB17-9.5	9.5	11/9/2013	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-2.0	2	11/9/2013	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-
	SB18-5.0	5	11/9/2013	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-
	SB18-10.0	10	11/9/2013	ND(0.48)	49	640	0.47	5.5	43	13	450	650	-	-	0.41	5.1	190	2.8	ND(0.24)	ND(0.48)	11,000	2,500	-
SB19	SB19-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	210 ^{F2}	-	-	-	-	-	-	-	-	-	-	-	
SB20	SB20-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-
	SB20-2.5	2.5	11/30/2015	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-
SB21	SB21-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-
SB22	SB22-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	9.3	-	-	-	-	-	-	-	-	-	-	-
SB23	SB23-0.5	0.5	12/2/2015	ND	5.2	200	0.57	ND(0.46)	41	11	30	31	-	-	0.98	ND(0.46)	57	ND	ND	ND	30	87	ND
SB24	SB24-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	-	-	-	-
SB25	SB25-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-
SB26	SB26-1.5	1.5	12/2/2015	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-	-
SB27	SB27-2.5	2.5	12/2/2015	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-
SB28	SB28-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-
	SB28-4.5	4.5	12/2/2015	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-
SB29	SB29-2.5	2.5	12/2/2015	ND	6.9	190	0.48	ND(0.45)	45	11	38	35	-	-	0.85	ND(0.45)	48	ND	ND	ND	38	130	ND
SB30	SB30-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-
SB31	SB31-2	2.0	12/2/2015	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-	-
	SB31-6	6.0	12/2/2015	-	-	-	-	-	-	-	-	1,200 ^{F2}	-	-	-	-	-	-	-	-	-	-	-
SB32	SB32-1.5	1.5	12/3/2015	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-
SB34	SB34-4.0	4.0	12/1/2015	ND	5.6	100	0.29	ND(0.34)	78	13	23	9.4	-	-	0.16	ND(1.4)	86	ND	ND	ND	59	56	ND
SB35	SB35-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-	-
SB36	SB36-1.5	1.5	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-
SB37	SB37-0.5	0.5	12/1/2015	-	-	-	-	-	-	-	-	7.9	-	-	-	-	-	-	-	-	-	-	-
SB38	SB38-1.5	1.5	11/30/2015	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-
SB39	SB39-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-	ND
SB40	SB40-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	58	-	-	-	-	-	-	-	-	-	-	-
SB41	SB41-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	86	-	-	-	-	-	-	-	-	-	-	-
SB42	SB42-1	1.0	12/2/2015	ND	6.7	170	ND(0.31)	ND(0.38)	96	16	60	70	-	-	0.28	ND(1.5)	120	ND	ND	ND	43	150	ND(1) ²
SB43	SB43-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-
SB45	SB45-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-
SB46	SB46-0.5	0.5	12/2/2015	ND	7.0	160	0.42	0.45	42	11	78	150	-	-	0.41	ND(1.6)	52	ND	ND	ND	46	240	ND
SB48	SB48-1.0	1.0	12/1/2015	ND	6.0	180	ND(0.31)	0.48	48	13	59	190	-	-	0.83	ND(1.6)	75	ND	ND	ND	58	230	ND ³
SB49	SB49-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-

Table 4
Summary of laboratory Analytical Results for Soil - California Title 22 Metals, STLC, TCLP, and Asbestos
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic ¹ (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	STLC Lead (mg/L)	TCLP Lead (mg/L)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	Bulk Asbestos (%v/v)
SV6	SV6-0.5	0.5	12/1/2015	ND	6.0	160	0.38	0.56	42	18	22	48	-	-	0.18	1.5	63	ND	ND	ND	33	80	ND
SV8	SV8-0.5	0.5	12/3/2015	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-
SV10	SV10-0.5	0.5	12/1/2015	ND	9.0	180	0.43	ND(0.41)	130	20	33	9.3	-	-	0.25	ND(1.6)	170	ND	ND	ND	51	67	ND
SV14	SV14-0.5	0.5	12/1/2015	ND	9.6	220	0.42	ND(0.4)	150	20	36	12	-	-	0.17	ND(1.6)	150	ND	ND	ND	52	94	ND
SV16	SV16-0.5	0.5	12/1/2015	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-
SV20	SV20-0.5	0.5	11/30/2015	ND	4.7	160	0.37	0.18	55	12	26	16	-	-	0.44	ND(0.46)	73	ND	ND	ND	36	72	ND
SV22	SV22-0.5	0.5	11/30/2015	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-
SV32	SV32-1.0	1.0	11/30/2015	ND	5.5	170	ND(0.35)	ND(0.44)	100	15	35	21	-	-	0.37	ND(1.8)	120	ND	ND	ND	53	100	ND
	SV32-7.0	7.0	11/30/2015	ND	7.0	680	ND(0.37)	1.9	44	8.2	190	570	-	-	0.23	3.2	64 ^{F1}	ND	ND	ND	61	790	ND
SV33	SV33-0.5	0.5	11/30/2015	-	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-	-	-	-	-
	SV33-4.5	4.5	11/30/2015	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-
SV38	SV38-1.0	1.0	11/30/2015	ND	3.7	140	ND(0.36)	ND(0.45)	110	17	30	22	-	-	0.33	ND(1.8)	160	ND	ND	ND	74	63	-
SV43	SV43-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-
SV45	SV45-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-
SV47	SV47-1.5	1.5	12/3/2015	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-
	SV47-6.0	6.0	12/3/2015	-	-	-	-	-	-	-	-	350	-	-	-	-	-	-	-	-	-	-	-

Notes:

Detections are shown in bold.

bgs = Below ground surface

mg/kg = Milligrams per kilogram

mg/L = Milligrams per liter

ND(0.24) = Not detected at or above the indicated laboratory reporting limit

ND = Not detected

- = Not analyzed

STLC = Soluble Threshold Limit Concentration

TCLP = Toxicity Characteristic Leaching Procedure

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery was outside acceptance limits.

F2 = Matrix spike/matrix spike duplicate (MS/MSD) relative percent differences exceeded control limits.

1. Background concentration of arsenic in soil in the San Francisco Bay Area, calculated as the 95th percentile of 1,395 data points, is 17 mg/kg (LBL, 2002).

2. As chrysotile asbestos.

3. Insufficient soil volume was available to collect a sample from the 1 to 1.5 foot bgs interval for asbestos analysis. Therefore, the sample for asbestos analysis was collected from the 1.5 to 2 feet bgs interval.

Reference:

Lawrence Berkeley National Laboratory (LBL) Environmental Restoration Program. 2002. Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory. June.

Table 5
Summary of Laboratory Analytical Results for Soil - Total Petroleum Hydrocarbons (TPH)
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Rationale	Sample Depths (feet bgs)	TPH (mg/kg)			
				Oil & Grease	TPH-Gas	TPH-Diesel	TPH-Motor Oil
IS-1	4/26/1989	Former Drum Area	3.5	1,915	<10	46	-
			7.0	3,390	<10	200	-
			10.5	2,185	300	<10	-
IS-2	4/26/1989	Former Drum Area	3.0	1,305	<10	50	-
			8.5	36,535	<10	<10	-
B-1/MW-1	7/5/1989	West of Tanks	5.5	845	<10	12	-
			10.5	<50	<10	<10	-
			16	1,600	<10	63	-
			20.5	80	<10	<10	-
			25.5	95	<10	<10	-
B-2	7/5/1989	West of Office	6.0	1,160	<10	19	-
			10	14,900	20	172	-
			16	<50	<10	<10	-
			20.5	<50	<10	<10	-
			25.0	<50	<10	<10	-
B-3/MW-3	8/28/1989	SE of Tanks	5.0	1,845	<10	30	-
			12.0	95	<10	20	-
			15.0	625	120	260	-
			20.0	<10	<10	<10	-
			25.0	20	<10	<10	-
B-4	8/28/1989	Location unknown	4.5	6,685	<10	<10	-
			10.0	25,470	<10	170	-
			14.5	<10	<10	<10	-
B-5/MW-5	8/31/1989	At trench and drum area	6.0	330	<10	<10	-
			11.0	3,580	25	15	-
			15.5	1,200	20	15	-
			22.5	110	<10	20	-
			25.5	115	<10	<10	-
B-6/MW-6	8/31/1989	NW site boundary	20.5	100	<10	<10	-
			25.5	190	<10	<10	-
SS-1-E	10/5/1989	UST Confirmation	2' Beneath UST	-	12	12	-
SS-2-W	10/5/1989	UST Confirmation	2' Beneath UST	-	<10	11	-
SS-3-E	10/5/1989	UST Confirmation	2' Beneath UST	-	<10	<10	-
SS-4-W	10/5/1989	UST Confirmation	2' Beneath UST	-	240	60	-
SS-5-E	10/5/1989	UST Confirmation	2' Beneath UST	-	115	35	-
SS-6-W	10/5/1989	UST Confirmation	2' Beneath UST	-	460	700	-
B-7/MW-7	1/3/1990	Drum Area	4	9,000	<10	<10	-
			9	8,800	<10	788	-
B-8/MW-8	1/3/1990	Downgradient of USTs	4	2,000	<10	<10	-
			9	20,000	<10	<10	-
B-9	1/4/1990	At sump	4	23,000	<10	<10	-
			9	15,000	<10	5,050	-
B-10	1/4/1990	NW part of site	4	9,500	<10	380	-
			9	6,300	<10	<10	-
B-11	1/4/1990	Between office and warehouse	4	45,000	<10	<10	-
			9	30,400	<10	<10	-
B-12	1/4/1990	N of office	4	12,000	<10	<10	-
			9	38,800	<10	<10	-
B-13	1/4/1990	N part of site	4	9,400	<10	<10	-
			9	3,000	<10	<10	-
Sump	1/5/1990	Sump Excavation	Confirmation	10,500	<10	<10	-
MW-9	4/13/1994	W of Tank Excavation	8.5	-	-	<1	-
			15.5	470	-	-	-
MW-10	4/14/1994	N of Tank Excavation	9.5	-	-	-	-
			15.5	9,400	2	7,300	-
T-1	4/13/1994	S of Tank Excavation	8	-	-	-	-
			14	-	<1	96	-
T-2	4/13/1994	SE of Tank Excavation	6	160	-	40	-
			8.5	-	<1	-	-
T-3	4/13/1994	Bottom of Tank Excavation	8	-	<1	-	-
			14.5	-	-	-	-
T-4	4/14/1994	SW of Tank Excavation	9	-	<1	-	-
			14.5	-	-	-	-
T-5	4/14/1994	W of Tank Excavation	5	710	<1	<10	-
			9	<50	<1	<1	-
			14.5	-	-	-	-
T-7	4/14/1994	NW of Tank Excavation	7.5	68	<1	<10	-
			14	-	160	<20	-

Table 5
Summary of Laboratory Analytical Results for Soil - Total Petroleum Hydrocarbons (TPH)
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Rationale	Sample Depths (feet bgs)	TPH (mg/kg)			
				Oil & Grease	TPH-Gas	TPH-Diesel	TPH-Motor Oil
SG-1	4/19/2013	-	3.5 - 4.0	-	-	43	250
SG-2	4/19/2013	-	3.0 - 3.5	-	-	43	340
SG-3	4/19/2013	-	3.5 - 4.0	-	-	290	1,400
SG-4	4/19/2013	-	3.5 - 4.0	-	-	200	400
SG-5	4/19/2013	-	4.5 - 5.0	-	-	33	290
SB19-0.5	12/2/2015	-	0.5	-	-	24	86
SB20-1.0	11/30/2015	-	1.0	-	-	23	57
SB20-2.5	11/30/2015	-	2.5	-	-	36	110
SB21-0.5	12/2/2015	-	0.5	-	-	110	380
SB22-0.5	12/2/2015	-	0.5	-	-	1.6	< 50
SB23-0.5	12/2/2015	-	0.5	-	-	26	130
SB24-0.5	12/2/2015	-	0.5	-	-	56	180
SB25-1	12/2/2015	-	1.0	-	-	87	410
SB26-1.5	12/2/2015	-	1.5	-	-	27	160
SB27-2.5	12/2/2015	-	2.5	-	-	260	960
SB28-0.5	12/2/2015	-	0.5	-	-	64	190
SB28-4.5	12/2/2015	-	4.5	-	-	200	890
SB29-2.5	12/2/2015	-	2.5	-	-	39	110
SB30-1	12/2/2015	-	1.0	-	-	5.0	< 49
SB31-2	12/2/2015	-	2.0	-	-	35	150
SB31-6	12/2/2015	-	6.0	-	-	110	510
SB32-1.5	12/3/2015	-	1.5	-	-	26	100
SB34-4.0	12/1/2015	-	4.0	-	-	59	290
SB35-0.5	12/2/2015	-	0.5	-	-	130	450
SB36-1.5	11/30/2015	-	1.5	-	-	16	< 50
SB37-0.5	12/1/2015	-	0.5	-	-	2.9	< 50
SB38-1.5	11/30/2015	-	1.5	-	-	11	< 50
SB39-0.5	12/2/2015	-	0.5	-	-	79	210
SB40-1	12/2/2015	-	1.0	-	-	84	300
SB41-1	12/2/2015	-	1.0	-	-	150	490
SB42-1	12/2/2015	-	1.0	-	-	55	170
SB43-1.5	12/1/2015	-	1.5	-	-	200	680
SB45-1.5	12/1/2015	-	1.5	-	-	460	1,900
SB46-0.5	12/2/2015	-	0.5	-	-	62	310
SB48-1.0	12/1/2015	-	1.0	-	-	110	410
SB49-0.5	12/2/2015	-	0.5	-	-	8.2	< 50
SV6-0.5	12/1/2015	-	0.5	-	-	2.2	< 50
SV8-0.5	12/3/2015	-	0.5	-	-	7.2	< 50
SV10-0.5	12/1/2015	-	0.5	-	-	7.4	< 50
SV14-0.5	12/1/2015	-	0.5	-	-	4.8	< 50
SV16-0.5	12/1/2015	-	0.5	-	-	130	380
SV20-0.5	11/30/2015	-	0.5	-	-	34	98
SV22-0.5	11/30/2015	-	0.5	-	-	6.6	< 50
SV32-1.0	11/30/2015	-	1.0	-	-	38	160
SV32-7.0	11/30/2015	-	7.0	-	-	780	5,300
SV33-0.5	11/30/2015	-	0.5	-	-	130	410
SV33-4.5	11/30/2015	-	4.5	-	-	230	1,000
SV38-1.0	11/30/2015	-	1.0	-	-	29	83
SV43-1.0	11/30/2015	-	1.0	-	-	3.7	< 50
SV45-1.0	11/30/2015	-	1.0	-	-	130	600
SV47-1.5	12/3/2015	-	1.5	-	-	7.3	< 49
SV47-2.5	12/3/2015	-	2.5	-	-	16	< 50
SV47-6.0	12/3/2015	-	6.0	-	-	40 ^H	140 ^H

Notes:

Detections are in bold.

Only detected compounds are shown.

bgs = below ground surface

mg/kg: milligrams per kilogram

<#: Not detected at or above laboratory reporting limit shown

TPH: Total Petroleum Hydrocarbons

UST: Underground storage tank

VOC: Volatile Organic Compound

- = Not analyzed / not applicable

H = Sample was prepped or analyzed beyond the specified holding time.

Table 6
 Summary of Laboratory Analytical Results for Groundwater - VOCs
 Human Health Risk Assessment Work Plan
 6701 - 6707 Shellmound Street, Emeryville, California

Well / Location	Date	TPH (μ g/L)		VOCs (μ g/L)																								
		TPH-Diesel	TPH-Motor Oil	Acetone	Benzene	TBA	n-Butyl Benzene	sec-Butyl Benzene	Carbon disulfide	Chloro-benzene	cis-1,2-DCE	Trans-1,2-DCE	1,4-Dioxane	Ethyl-benzene	Isopropyl-benzene	4-Isopropyl-toluene	MEK	MIBK	4-Methyl-2 Pentanol	Naphthalene	n-Propyl benzene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Vinyl Chloride	m,p-Xylene	o-Xylene	Total Xylenes
Sump Well	8/21/89	--	--	<20	<2	--	--	--	--	--	--	<3	--	<3	--	--	<20	<20	NR	--	--	<2	--	--	<4	--	--	<3
MW1	7/6/89	-	-	<20	<2	-	-	-	-	-	-	<3	--	<3	-	-	<20	<20	NR	-	-	<2	-	-	<4	--	--	<3
	9/7/89	-	-	<20	<2	-	-	-	-	-	-	<3	--	<3	-	-	<20	<20	NR	-	-	<2	-	-	<4	--	--	<3
	1/10/90	-	-	NR	<5	-	-	-	-	-	-	<5	--	<5	-	-	NR	NR	NR	-	-	<5	-	-	<30	--	--	<5
	9/5/91	-	-	<20	7	-	-	-	-	-	-	<5	--	<5	-	-	<20	<10	NR	-	-	8	-	-	<10	--	--	3
	5/20/93	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	8/25/93	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	11/18/93	-	-	<40	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	2/25/94	-	-	<10	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	8/8/94	-	-	<10	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	2/9/95	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
5/9/95	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5	
11/13/95	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5	
5/9/96	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5	
MW3	9/7/89	-	-	<20	<2	-	-	-	-	-	<5	--	<3	-	-	<20	<20	NR	-	-	<2	-	-	<4	--	--	<3	
	1/10/90	-	-	NR	<5	-	-	-	-	-	<5	--	<5	-	-	NR	NR	NR	-	-	<5	-	-	<30	--	--	<5	
	9/5/91	-	-	<20	<5	-	-	-	-	-	<5	--	<5	-	-	<20	<10	NR	-	-	<5	-	-	<10	--	--	<5	
	5/20/93	-	-	<20	<5	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5	
	8/25/93	-	-	<20	<5	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5	
	11/18/93	-	-	<20	<5	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5	
	2/25/94	-	-	<20	<5	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5	
8/8/94	-	-	<20	<5	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5		
MW5	9/26/1989 ¹	-	-	-	8	-	-	-	-	-	6	--	6	-	-	-	-	-	5	-	-	-	-	4	--	--	-	
	1/10/90	-	-	-	12	-	-	-	-	<5	<5	--	<5	-	-	-	-	-	-	-	-	<5	-	-	<30	--	--	<5
MW8	1/10/90	-	-	NR	2,100	-	-	-	-	-	<1,000	--	<1,000	-	-	NR	160,000	NR	-	-	<1,000	-	-	<6,000	--	--	<1,000	
	12/10/90	-	-	3,200	160	-	-	-	-	-	<25	--	<25	-	-	10,000	47,000	130,000	-	-	<25	-	-	<150	--	--	<25	
	9/5/91	-	-	<5,000	<10,000	-	-	-	-	-	<5,000	--	<5,000	-	-	<20,000	150,000	NR	-	-	<10,000	-	-	<10,000	--	--	<5,000	
	5/20/93	-	-	<10,000	<3,000	-	-	-	-	-	<3,000	--	<3,000	-	-	<5,000	100,000	NR	-	-	<3,000	-	-	<5,000	--	--	<3,000	
	8/25/93	-	-	<5,000	<1,000	-	-	-	-	-	<1,000	--	<1,000	-	-	<3,000	48,000	NR	-	-	<1,000	-	-	<3,000	--	--	<1,000	
	11/18/93	-	-	<100	<25	-	-	-	-	-	<25	--	<25	-	-	<50	840	NR	-	-	<25	-	-	<50	--	--	<25	
	2/25/94	-	-	<2,000	<500	-	-	-	-	-	<500	--	<500	-	-	<1,000	14,000	NR	-	-	<500	-	-	<1,000	--	--	<500	
	4/21/94	-	-	<2,000	<500	-	-	-	-	-	<500	--	<500	-	-	<1,000	19,000	NR	-	-	<500	-	-	<1,000	--	--	<500	
	5/11/94	-	-	<10,000	<3,000	-	-	-	-	-	<3,000	--	<3,000	-	-	<3,000	140,000	NR	-	-	<3,000	-	-	<5,000	--	--	<3,000	
	8/8/94	-	-	<2,000	<500	-	-	-	-	-	<500	--	<500	-	-	<1,000	61,000	NR	-	-	<500	-	-	<1,000	--	--	<500	
	2/9/95	-	-	40	84	-	-	-	-	-	<5	--	<5	-	-	78	62,000	NR	-	-	<5	-	-	<10	--	--	<5	
5/9/95	-	-	<20	89	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5		
11/13/95	-	-	<200	63	-	-	-	-	-	<50	--	<50	-	-	<100	85,000	NR	-	-	<50	-	-	<100	--	--	<50		
5/9/96	-	-	<1,000	<250	-	-	-	-	-	<250	--	<250	-	-	<500	15,000	NR	-	-	<250	-	-	<500	--	--	<250		

Table 6
 Summary of Laboratory Analytical Results for Groundwater - VOCs
 Human Health Risk Assessment Work Plan
 6701 - 6707 Shellmound Street, Emeryville, California

Well / Location	Date	TPH (µg/L)		VOCs (µg/L)																								
		TPH-Diesel	TPH-Motor Oil	Acetone	Benzene	TBA	n-Butyl Benzene	sec-Butyl Benzene	Carbon disulfide	Chloro-benzene	cis-1,2-DCE	Trans-1,2-DCE	1,4-Dioxane	Ethyl-benzene	Isopropyl-benzene	4-Isopropyl-toluene	MEK	MIBK	4-Methyl-2 Pentanol	Naphthalene	n-Propyl benzene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Vinyl Chloride	m,p-Xylene	o-Xylene	Total Xylenes
MW9	4/21/94	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	120	NR	-	-	<5	-	-	<10	--	--	<5
	8/8/94	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	2/9/95	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	5/9/95	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	11/13/95	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	5/9/96	-	-	<20	<5	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
MW10	4/21/94	-	-	<20	22	-	-	-	-	-	-	<5	--	<5	-	-	<10	23	NR	-	-	<5	-	-	<10	--	--	<5
	8/8/94	-	-	<20	14	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	2/9/95	-	-	<20	6	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	5/9/95	-	-	<20	12	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	11/13/95	-	-	<20	31	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
	5/9/96	-	-	<10	8	-	-	-	-	-	-	<5	--	<5	-	-	<10	<10	NR	-	-	<5	-	-	<10	--	--	<5
SG-1 (10.75)	4/19/2013	920	5,600	-	<0.5	<2.0	<0.5	<0.5	1.1	4.4	<0.5	-	--	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	--	--	<0.5
SG-4 (11.75)	4/19/2013	4,700	12,000	-	2	2.3	<0.5	1.3	3.9	<0.5	0.69	-	--	<0.5	1.1	<0.5	-	-	-	<0.5	<0.5	0.54	<0.5	<0.5	-	--	--	<0.5
SG-5 (10.29)	4/19/2013	58,000	9,500	-	8.1	<20	32	38	<5.0	<5.0	<5.0	-	--	45	67	13	-	-	-	84	87	<3.0	350	24	-	--	--	59
SB51	2/1/2016	-	-	--	3.2	--	--	--	--	--	< 0.50	--	< 10	< 0.50	--	--	--	--	5	--	< 0.50	< 0.50	< 0.50	1.6	-	-	--	
SB56	2/4/2016	-	-	--	5.6	--	--	--	--	--	< 25	--	--	< 25	--	--	--	--	< 100	--	< 25	< 25	< 25	< 25	< 25	< 25	< 25	--
SB57	2/4/2016	-	-	--	3.0	--	--	--	--	--	< 8.3	--	--	< 8.3	--	--	--	--	< 33	--	< 8.3	4	2	< 8.3	5	3	--	
SB59	2/3/2016	-	-	--	< 25	--	--	--	--	--	< 25	--	< 100	< 25	--	--	--	--	< 100	--	< 25	< 25	< 25	< 25	< 25	< 25	< 25	--
SB61	2/3/2016	-	-	--	4.0	--	--	--	--	--	9	--	< 100	< 13	--	--	--	--	< 50	--	< 13	3	< 13	7.3	< 13	< 13	< 13	--
SB62	2/4/2016	-	-	--	3.3	--	--	--	--	--	2	--	--	1	--	--	--	--	3	--	2	3	2	2.8	3	4	--	

Notes:

Detections are in bold.

Only detected compounds are shown.

bgs = below ground surface

DCE = dichloroethene

µg/L = micrograms per liter

<# = Not detected at or above laboratory reporting limit shown

- = Not analyzed

-- = Not analyzed or not detected

NR = Not reported

TBA = t-Butyl alcohol

MIBK = Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)

MEK = Methyl Ethyl Ketone (2-Butanone)

TPH = Total Petroleum Hydrocarbons

VOCs = Volatile Organic Compounds

1. Detections also included: 2,4-dimethylphenol at 6 µg/L

Table 7
Summary of Laboratory Analytical Results for Groundwater - Total and Dissolved California Title 22 Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Location ID	Depth (feet bgs)	Date Collected	Antimony (µg/L)	Arsenic (µg/L)	Barium (µg/L)	Beryllium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Cobalt (µg/L)	Copper (µg/L)	Lead (µg/L)	Mercury (µg/L)	Molybdenum (µg/L)	Nickel (µg/L)	Selenium (µg/L)	Silver (µg/L)	Thallium (µg/L)	Vanadium (µg/L)	Zinc (µg/L)
MW1	-	7/6/1989	ND(40)	ND(88)	600	ND(1.0)	13	64	21	40	63	ND(200)	ND(40)	100	ND(200)	22	ND(88)	60	180
SG-1 ⁽¹⁾	10.75	4/19/2013	ND(50)	210	12,000	-	ND(25)	4,100	820	4,200	2,700	2.7	77	4,600	-	ND(19)	-	2,100	5,900
SG-4 ⁽¹⁾	11.75	4/19/2013	150	650	23,000	-	210	1,400	210	8,300	26,000	130	270	1,600	-	19	-	480	78,000
SG-5 ⁽¹⁾	10.29	4/19/2013	94	1,600	25,000	-	320	1,800	490	34,000	60,000	52	180	2,700	-	53	-	1,900	160,000
GGW-1	10 to 20	11/11/2013	ND(10)	ND(5.0)	250	ND(2.0)	ND(5.0)	8.9	ND(5.0)	ND(5.0)	59	0.28	10	5.4	27	ND(5.0)	ND(10)	71	210
GGW-2	10 to 20	11/11/2013	ND(10)	6.4	280	ND(2.0)	ND(5.0)	8.0	ND(5.0)	9.1	190	0.41	ND(5.0)	8.5	26	ND(5.0)	ND(10)	22	360
GGW-3	10 to 20	11/11/2013	ND(10)	32	340	ND(2.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	17	ND(0.20)	8.7	ND(5.0)	ND(10)	ND(5.0)	ND(10)	ND(5.0)	29
GGW-4	10 to 20	11/11/2013	ND(10)	ND(5.0)	200	ND(2.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	1.3 J	ND(0.20)	10	ND(5.0)	ND(10)	ND(5.0)	ND(10)	ND(5.0)	ND(20)
GGW-5	10 to 20	11/11/2013	ND(10)	ND(5.0)	350	ND(2.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	9.9	0.21	6.6	6.4	ND(10)	ND(5.0)	ND(10)	ND(5.0)	23
GGW-6	10 to 20	11/11/2013	ND(10)	ND(5.0)	94	ND(2.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	3.1 J	ND(0.20)	5.9	ND(5.0)	ND(10)	ND(5.0)	ND(10)	ND(5.0)	ND(20)

Notes:

Detections are shown in bold.

µg/L = Micrograms per liter

bgs = Below ground surface

ND(5.0) = Compound not detected at or above the indicated laboratory reporting limit

- = Not analyzed

J = Estimated value

1. Samples collected in April 2013 were not filtered and represent total metals.

Table 8
 Summary of Laboratory Analytical Results for Soil Gas
 Human Health Risk Assessment Work Plan
 6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Date Sampled	Sample ID	Sample Depth (feet bgs)	Depth to Water (ft bgs)	VOCs (µg/m ³)																				Fixed Gases (% by volume)											
					Acetone	Benzene	Carbon disulfide	Chloroform	Chloro-methane	cis-1,2-DCE	trans-1,2-DCE	Ethyl-benzene	4-Ethyl-toluene	2-Hexanone	2-Butanone (MEK)	Methyl Isobutyl Ketone (MIBK)	Naphthalene	1,1,2,2-PCA	PCE	Toluene	1,1,1-TCA	TCE	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Vinyl chloride	m,p-Xylene	o-Xylene	Xylenes	Other VOCs	1,1-DFA (Leak Check)	Methane	Carbon Dioxide	Oxygen and Argon	Oxygen	Helium	Nitrogen
SV55	2/2/2016	SV55-5	5.0	-	480	79	20	< 8.2	ND	< 8.9	< 8.9	< 9.7	< 11	--	56	< 9.2	--	< 15	< 15	29	< 9.2	< 12	< 22	< 11	< 1200	< 19	< 9.7	--	ND	--	-	-	--	-	< 0.17	--
SV56	2/2/2016	SV56-5	5.0	-	< 2,300	270	< 490	< 290	ND	770	< 310	< 340	< 380	--	< 460	< 320	--	< 540	< 530	< 290	< 320	< 420	< 770	< 380	29000	< 680	< 340	--	ND	--	-	-	--	-	< 0.21	--
SV57	2/2/2016	SV57-5	5.0	-	< 780	190	< 160	< 96	ND	210	< 100	< 110	< 130	--	< 160	< 110	--	< 180	< 180	180	< 110	< 140	< 260	< 130	9400	< 230	< 110	--	ND	--	-	-	--	-	< 0.18	--
SV58	2/3/2016	SV58-5	5.0	-	99	38	18	< 2.6	ND	< 2.8	< 2.8	15	5.9	--	24	< 2.9	--	< 4.9	< 4.9	140	< 2.9	< 3.8	12	5	< 1.8	58	18	--	3.7 (Freon 12)	--	< 0.9	< 0.9	--	24	< 0.38	--
	2/3/2016	SV58-10	10.0	-	220	160	150	< 4.7	ND	18	< 5.1	22	9.9	--	63	< 5.3	--	< 8.9	< 8.8	89	< 5.3	11	15	7.5	6.4	64	22	--	ND	--	35	< 1.2	--	14	0.38	--
SV59	2/3/2016	SV59-5	5.0	-	< 11,000	< 1,200	< 2,300	< 1,400	ND	3300	1700	< 1,600	< 1,900	--	< 2,200	< 1,500	--	< 2,600	< 2,600	< 1,400	< 1,500	< 2,000	< 3,700	< 1,900	120000	< 3,300	< 1,600	--	ND	--	9.4	2.6	--	13	< 0.19	--
	2/3/2016	SV59-10	10.0	-	< 3500	< 380	< 740	< 440	ND	5600	2100	< 520	< 590	--	< 700	< 490	--	< 820	< 810	< 450	< 490	680	< 1,200	< 590	15000	< 1,000	< 520	--	ND	--	39	< 0.96	--	2.6	< 0.19	--
SV60	2/3/2016	SV60-5	5.0	-	< 490	110	< 100	< 61	ND	720	220	< 72	< 82	--	< 98	72	--	< 110	< 110	500	< 68	< 89	< 160	< 82	3100	170	86	--	ND	--	< 0.97	< 0.97	--	24	< 0.19	--
	2/3/2016	SV60-10	10.0	-	< 130,000	< 14,000	< 27,000	< 16,000	ND	98000	41000	< 19,000	< 21,000	--	< 26,000	< 18,000	--	< 30,000	< 29,000	< 16,000	< 18,000	< 23,000	< 43,000	< 21,000	920000	< 38,000	< 19,000	--	ND	--	94	< 0.87	--	0.59	< 0.17	--
SV61	2/4/2016	SV61-5	5.0	-	260	37	< 21	< 12	ND	< 13	< 13	300.0	200	--	25	< 14	--	< 23	< 23	820	< 14	< 18	500	240	< 8.5	1500	530	--	ND	--	< 0.84	< 0.84	--	24.0	0.21	--
	2/4/2016	SV61-10	10.0	-	< 1,800	340	< 380	< 230	ND	< 240	< 240	< 270	380	--	< 360	< 250	--	< 420	< 420	280	< 250	< 330	580	340	7500	1400	410	--	ND	--	25	< 0.86	--	7.3	< 0.17	--
SV62	9/7/2016	SV62-5	5.0	-	590	120	41	17	< 15	< 15	--	55	< 18	< 15	93	< 15	< 39	--	--	250	--	< 20	50	27	< 9.4	390	94	--	ND	--	5.0	< 2.3	--	8.3	0.77	--
	9/7/2016	SV62-10	10.0	-	< 1200	< 130	< 250	< 150	< 170	< 160	--	< 180	< 200	< 170	< 240	< 170	< 420	--	--	< 150	--	< 220	< 400	< 200	< 100	< 350	< 180	--	ND	--	5.6	< 5.0	--	6.1	2.1	--
SV63	9/7/2016	SV63-5	5.0	-	310	27	25	8.7	< 3.7	< 3.5	--	23	4.5	6.8	71	14	< 9.3	--	--	68	--	< 4.8	13	6.3	< 2.3	92	27	--	ND	--	0.22	< 3.3	--	9.0	1.1	--
	9/7/2016	SV63-10	10.0	-	< 740	170	< 160	< 91	< 100	< 99	--	< 110	< 120	< 100	< 150	< 100	< 260	--	--	< 94	--	< 130	< 250	< 120	< 64	620	< 110	< 110	--	ND	--	2.9	< 3.1	--	15	1.0
SV64	9/7/2016	SV64-5	5.0	-	190	12	9.8	< 2.0	< 2.3	< 2.2	--	7.5	< 2.7	2.8	40	3.9	< 5.8	--	--	36	--	< 3.0	6.6	< 2.7	< 1.4	26	7.6	--	ND	--	0.0024	< 2.1	--	17	1.2	--
	9/7/2016	SV64-10	10.0	-	100	19	37	< 6.6	< 7.4	< 7.1	--	8.1	< 8.8	< 7.4	26	< 7.4	< 19	--	--	28	--	< 9.7	< 18	< 8.8	< 4.6	20	< 7.8	--	ND	--	0.0057	< 6.8	--	26	4.0	--
SV65	9/7/2016	SV65-5	5.0	-	200	23	< 6.2	< 3.6	< 4.1	< 3.9	--	6.3	< 4.9	< 4.0	50	7.6	< 10	--	--	17	--	< 5.3	< 9.7	< 4.9	< 2.5	22	7.8	--	ND	--	0.0033	< 6.3	--	14	2.8	--
	9/7/2016	SV65-10	10.0	-	73	83	11	< 3.5	4.6	< 3.7	--	15	< 4.6	< 3.9	19	< 3.9	< 9.9	--	--	21	--	< 5.1	< 9.3	< 4.6	< 0.94	69	31	--	ND	--	0.0027	< 3.5	--	16	1.5	--
SV66	9/7/2016	SV66-5	5.0	-	160	29	8.3	4.2	3.9	14	--	17	< 4.0	< 3.3	30	< 3.3	< 8.6	--	--	86	--	6.1	12	4.1	< 2.1	54	18	--	ND	--	0.0029	< 3.1	--	14	1.7	--
	9/7/2016	SV66-10	10.0	-	190	120	29	< 13	< 15	23	--	< 16	< 18	< 15	57	< 15	< 38	--	--	37	--	< 19	< 36	< 18	< 9.3	37	< 16	--	ND	--	0.60	< 4.5	--	15	2.1	--
SV67	9/12/2016	SV67-5	5.0	-	100	3900	< 12	< 7.3	< 8.2	< 7.9	--	1900	190	< 8.2	15	< 8.2	< 130	--	--	4700	--	50	320	180	< 5.1	3900	760	--	15 (1,1-DCA); 18 (1,2-DCA)	--	0.0091	< 2.0	--	20	< 0.41	--
	9/12/2016	SV67-10	10.0	-	< 59	6.5	< 12	< 7.3	< 8.2	< 7.9	--	< 8.6	< 9.8	< 8.1	< 12	< 8.1	< 21	--	--	< 7.5	--	< 11	< 20	< 9.8	< 5.1	< 17	< 8.6	--	ND	--	0.043	< 2.1	--	20	0.71	--

Notes:
 Detections are in bold.
 Only detected compounds are shown.
 µg/m³ = micrograms per cubic meter
 -## = Not detected at or above laboratory reporting limit shown
 ND = Not detected
 - = Not analyzed or not recorded
 -- = Not analyzed or not detected
 bgs = below ground surface
 CB = Chlorobenzene
 DCA = Dichloroethane
 DCB = Dichlorobenzene
 DCE = Dichloroethane
 DFA = Difluoroethane
 PCE = Tetrachloroethane
 TCE = Trichloroethane
 BC = Benzyl chloride
 Freon 11 = Trichlorofluoromethane
 Freon 12 = Dichlorodifluoromethane
 Freon 21 = Dichlorofluoromethane
 MC = Methylene Chloride
 VA = Vinyl Acetate
 VOCs = Volatile organic compounds

Table 9
Summary of Laboratory Analytical Results for Sub-Slab Vapor
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sub-Slab Port	Sample ID	Date Sampled	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE	Vinyl Chloride	1,1,1-TCA (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene	m,p-Xylene	o-Xylene (µg/m ³)	Styrene (µg/m ³)	MEK (µg/m ³)	MIBK (µg/m ³)	Other VOCs	Methane (%vol)	Carbon Dioxide	Oxygen (%vol)	1,1,-DFA (ppmV)
SSV1	SSV1	4/24/2015	43.8	ND(5.37)	ND(3.97)	ND(2.56)	ND(5.46)	ND(3.19)	ND(3.77)	ND(4.34)	ND(4.34)	ND(4.34)	ND(4.26)	10.2	ND(8.18)	All ND	ND(0.100)	0.462	18.5	ND(10.0)
SSV2	SSV2	4/24/2015	ND(6.78)	ND(5.37)	ND(3.97)	ND(2.56)	6.66	ND(3.19)	ND(3.77)	ND(4.34)	ND(4.34)	ND(4.34)	9.16	15.8	ND(8.18)	All ND	ND(0.100)	< 0.100	19.1	ND(10.0)
SSV3	SSV3	4/24/2015	ND(6.78)	ND(5.37)	ND(3.97)	ND(2.56)	ND(5.46)	ND(3.19)	ND(3.77)	ND(4.34)	ND(4.34)	ND(4.34)	8.82	10.8	ND(8.18)	All ND	ND(0.100)	4.25	8.97	ND(10.0)
SSV4	SSV4	4/24/2015	ND(6.78)	ND(5.37)	ND(3.97)	ND(2.56)	ND(5.46)	ND(3.19)	ND(3.77)	ND(4.34)	ND(4.34)	ND(4.34)	8.18	8.60	ND(8.18)	All ND	ND(0.100)	0.272	17.0	ND(10.0)

Notes:

Detections are shown in bold.

µg/m³ = Micrograms per cubic meter

ND(678) = Not detected at or above the indicated laboratory reporting limit

ND = Not Detected

PCE = Tetrachloroethene

TCE = Trichloroethene

cis-1,2-DCE = cis-1,2-Dichloroethene

MEK = Methyl ethyl ketone

MIBK = Methyl isobutyl ketone

DFA = Difluoroethane

ppmV = parts per million by volume

Table 10
Soil Risk Assessment Dataset - Construction Scenario - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)													
				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chlorobenzene	1,2-DCA	1,2-DCB	1,3-DCB	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropylbenzene
IS1	4/26/1989	Former Drum Area	3.5	-	<30	--	--	--	-	<30	<30	<30	<30	--	--	<30	--
		Former Drum Area	7.0	-	<30	--	--	--	-	<30	<30	<30	<30	--	--	<30	--
		Former Drum Area	10.5	-	240	--	--	--	-	110	500	<60	<60	--	--	1,800	--
IS2	4/26/1989	Former Drum Area	3.0	-	<30	--	--	--	-	<30	<30	<30	<30	--	--	<30	--
		Former Drum Area	8.5	-	140	--	--	--	-	<150	<150	<150	<150	--	--	1,400	--
B-7/MW-7	1/3/1990	Drum Area	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	--	--	<10	--
			9	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	250
B-9	1/4/1990	At sump	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	--	--	<10	--
			9	<50	54	--	--	--	<10	<10	<10	<10	<10	<10	--	--	140
B-10	1/4/1990	Northwest Parking Lot	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	--	--	<10	--
			9	<100	<20	--	--	--	<20	<20	<20	<20	<20	<20	--	--	<20
B-11	1/4/1990	Between office and warehouse	4	<50	<10	--	--	--	<10	<10	<10	<10	<10	--	--	<10	--
			9	<50	<10	--	--	--	<10	<10	<10	<10	<10	<10	--	--	<10
-	4/1/1990	B-12	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
-			9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
-	4/1/1990	B-13	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
-			9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB-1	9/5/1991	Soil Boring in tank area	6	<20	<5	--	--	--	<5	<5	<5	<5	2	--	--	<5	--
			8.5	<20	<5	--	--	--	<5	<5	<5	3	4	--	--	<5	--
PB-2	9/5/1991	Soil Boring in tank area	5.5	<20	<5	--	--	--	<5	<5	<5	<5	<5	--	--	<5	--
			8	<20	5	--	--	--	<5	<5	<5	4	4	--	--	<5	--
MW-9	4/13/1994	W of Tank Excavation	8.5	70	<5	--	--	--	<5	<5	<5	NR	NR	--	--	<5	--
MW-10	4/14/1994	N of Tank Excavation	9.5	30	<5	--	--	--	<5	<5	<5	NR	NR	--	--	<5	--
T-2	4/13/1994	SE tank excavation	6	-	-	--	--	--	-	-	-	-	-	--	--	-	--
			8.5	110	<5	--	--	--	<5	<5	<5	NR	NR	--	--	<5	--
T-3	4/13/1994	Bottom tank excavation	8	70	4	--	--	--	<5	<5	<5	NR	NR	--	--	<5	--
T-4	4/14/1994	SW tank excavation	9	50	<5	--	--	--	4	<5	<5	NR	NR	--	--	<5	--
T-5	4/14/1994	W of tank excavation	5	-	-	--	--	--	-	-	-	-	-	--	--	-	--
			9	20	<5	--	--	--	<5	<5	<5	NR	NR	--	--	<5	--
T-6	4/14/1994	NE tank excavation	7.5	100	<5	--	--	--	<5	<5	<5	NR	NR	--	--	<5	--
T-7	4/14/1994	NW tank excavation	7.5	30	<5	--	--	--	<5	<5	<5	NR	NR	--	--	<5	--
SB2	11/07/2013	West of Warehouse	4	<20	<5	--	--	--	<5	<5	<5	<5	<5	--	--	<5	--
			7.5	35	<4.7	--	--	--	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	--	--	<4.7
SB6-4.0	11/07/2013	SB6	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB6-10.0			10.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB7-2.5	11/08/2013	SB7	2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB7-8.0			8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB11-2.0	11/08/2013	SB11	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB11-5.5			5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB13-1.5	11/08/2013	SB13	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB13-10.0			10.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB23-0.5	12/2/2015	SB23	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB28-4.5	12/2/2015	SB-28	4.5	<45	ND	--	--	--	ND	ND	ND	ND	ND	--	--	ND	--
SB29-2.5	12/2/2015	SB29	2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB34-4.0	12/1/2015	SB34	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB42-1	12/2/2015	SB42	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB46-0.5	12/2/2015	SB46	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB48-1.0	12/1/2015	SB48	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SV6-0.5	12/1/2015	SV6	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SV10-0.5	12/1/2015	SV10	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SV14-0.5	12/1/2015	SV14	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SV20-0.5	11/30/2015	SV20	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SV32-1.0	11/30/2015	SV32	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 10
Soil Risk Assessment Dataset - Construction Scenario - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)												
				4-Isopropyl Toluene	MEK	MIBK	Naphthalene	Propylbenzene	Toluene	TCE	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	m,p-Xylenes	o-Xylenes	Total Xylenes
IS1	4/26/1989	Former Drum Area	3.5	--	-	-	--	--	60	<30	--	--	--	--	--	40
		Former Drum Area	7.0	--	-	-	--	--	200	<30	--	--	--	--	--	70
		Former Drum Area	10.5	--	-	-	--	--	1,300	300	--	--	--	--	--	11,000
IS2	4/26/1989	Former Drum Area	3.0	--	-	-	--	--	250	<30	--	--	--	--	--	100
		Former Drum Area	8.5	--	-	-	--	--	100	<150	--	--	--	--	--	4,500
B-7/MW-7	1/3/1990	Drum Area	4	--	<50	<30	<300	--	<10	<10	--	--	--	--	--	<10
			9	--	<50	<30	750	--	61	<10	--	--	--	--	--	1,020
B-9	1/4/1990	At sump	4	--	<50	<30	<300	--	12	<10	--	--	--	--	--	<10
			9	--	<50	<30	8,900	--	26	<10	--	--	--	--	--	380
B-10	1/4/1990	Northwest Parking Lot	4	--	<50	<30	--	--	<10	<10	--	--	--	--	--	43
			9	--	<100	<60	--	--	<20	<20	--	--	--	--	--	<20
B-11	1/4/1990	Between office and warehouse	4	--	<50	<30	<300	--	15	<10	--	--	--	--	--	<10
			9	--	<50	<30	<300	--	<10	<10	--	--	--	--	--	<10
-	4/1/1990	B-12	4	--	--	--	<300	--	--	--	--	--	--	--	--	--
			9	--	--	--	<300	--	--	--	--	--	--	--	--	--
-	4/1/1990	B-13	4	--	--	--	<300	--	--	--	--	--	--	--	--	--
			9	--	--	--	<300	--	--	--	--	--	--	--	--	--
PB-1	9/5/1991	Soil Boring in tank area	6	--	<20	<10	--	--	<5	<5	--	--	--	--	--	<5
			8.5	--	<20	<10	--	--	<5	<5	--	--	--	--	--	<5
PB-2	9/5/1991	Soil Boring in tank area	5.5	--	<20	<10	--	--	<5	<5	--	--	--	--	--	<5
			8	--	<20	<10	--	--	<5	<5	--	--	--	--	--	<5
MW-9	4/13/1994	W of Tank Excavation	8.5	--	10	6	-	--	<5	<5	--	--	--	--	--	<5
MW-10	4/14/1994	N of Tank Excavation	9.5	--	<10	<10	--	--	<5	<5	--	--	--	--	--	<5
T-2	4/13/1994	SE tank excavation	6	--	-	-	<300	--	-	-	--	--	--	--	--	-
			8.5	--	20	<10	-	--	<5	<5	--	--	--	--	--	<5
T-3	4/13/1994	Bottom tank excavation	8	--	10	<10	--	--	<5	<5	--	--	--	--	--	<5
T-4	4/14/1994	SW tank excavation	9	--	8	10	--	--	<5	<5	--	--	--	--	--	<5
T-5	4/14/1994	W of tank excavation	5	--	-	-	<3,000	--	-	-	--	--	--	--	--	-
			9	--	<10	<10	<300	--	<5	<5	--	--	--	--	--	<5
T-6	4/14/1994	NE tank excavation	7.5	--	10	6	--	--	<5	<5	--	--	--	--	--	<5
T-7	4/14/1994	NW tank excavation	7.5	--	9	<10	--	--	<5	<5	--	--	--	--	--	<5
SB2	11/07/2013	West of Warehouse	4	--	<9.9	<9.9	<67	--	<5	<5	--	--	--	--	--	<5
			7.5	--	<9.5	<9.5	<130	--	<4.7	<4.7	--	--	--	--	--	<4.7
SB6-4.0	11/07/2013	SB6	4.0	--	--	--	2,900	--	--	--	--	--	--	--	--	--
SB6-10.0			10.0	--	--	--	<67	--	--	--	--	--	--	--	--	--
SB7-2.5	11/08/2013	SB7	2.5	--	--	--	1,500	--	--	--	--	--	--	--	--	--
SB7-8.0			8.0	--	--	--	28,000	--	--	--	--	--	--	--	--	--
SB11-2.0	11/08/2013	SB11	2.0	--	--	--	<1,300	--	--	--	--	--	--	--	--	--
SB11-5.5			5.5	--	--	--	<670	--	--	--	--	--	--	--	--	--
SB13-1.5	11/08/2013	SB13	1.5	--	--	--	260	--	--	--	--	--	--	--	--	--
SB13-10.0			10.0	--	--	--	2,100	--	--	--	--	--	--	--	--	--
SB23-0.5	12/2/2015	SB23	0.5	--	--	--	ND	--	--	--	--	--	--	--	--	--
SB28-4.5	12/2/2015	SB-28	4.5	--	ND	ND	--	--	ND	ND	--	--	--	--	--	ND
SB29-2.5	12/2/2015	SB29	2.5	--	--	--	ND	--	--	--	--	--	--	--	--	--
SB34-4.0	12/1/2015	SB34	4.0	--	--	--	ND	--	--	--	--	--	--	--	--	--
SB42-1	12/2/2015	SB42	1.0	--	--	--	ND	--	--	--	--	--	--	--	--	--
SB46-0.5	12/2/2015	SB46	0.5	--	--	--	ND	--	--	--	--	--	--	--	--	--
SB48-1.0	12/1/2015	SB48	1.0	--	--	--	ND	--	--	--	--	--	--	--	--	--
SV6-0.5	12/1/2015	SV6	0.5	--	--	--	ND	--	--	--	--	--	--	--	--	--
SV10-0.5	12/1/2015	SV10	0.5	--	--	--	ND	--	--	--	--	--	--	--	--	--
SV14-0.5	12/1/2015	SV14	0.5	--	--	--	ND	--	--	--	--	--	--	--	--	--
SV20-0.5	11/30/2015	SV20	0.5	--	--	--	ND	--	--	--	--	--	--	--	--	--
SV32-1.0	11/30/2015	SV32	1.0	--	--	--	ND	--	--	--	--	--	--	--	--	--

Table 10
Soil Risk Assessment Dataset - Construction Scenario - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)														
				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chlorobenzene	1,2-DCA	1,2-DCB	1,3-DCB	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropylbenzene	
SV32-7.0	11/30/2015	SV-32	7.0	<41	ND	--	--	--	ND	ND	ND	ND	ND	--	--	ND	--	
SV33-4.5	11/30/2015	SV-33	4.5	47	ND	--	--	--	ND	ND	ND	ND	ND	--	--	ND	--	
SV38-1.0	11/30/2015	SV38	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SV47-2.5	12/03/2015	SV-47	2.5	<37	ND	--	--	--	ND	ND	ND	ND	ND	--	--	ND	--	
SB50-0.5	2/1/2016	SB50	0.5	< 42	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2	
SB50-5	2/1/2016		5.0	< 37	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	6.2	< 3.7	< 3.7	< 3.7
SB51-0.5	2/1/2016	SB51	0.5	< 35	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SB51-4.5	2/1/2016		4.5	38	9.8	95	86	4.6	--	--	--	--	--	< 3.6	< 3.6	97	90	
SB51-10	2/1/2016		10.0	22	< 3.5	6.4	5.6	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SB52-0.5	2/1/2016	SB52	0.5	< 40	< 4	< 4	< 4	< 4	--	--	--	--	--	< 4	< 4	< 4	< 4	
SB52-4.5	2/1/2016		4.5	55	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	--	--	--	--	--	< 3.9	< 3.9	< 3.9	< 3.9
SB53-0.5	2/1/2016	SB53	0.5	< 38	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	
SB53-5	2/1/2016		5.0	< 31	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	--	--	--	--	--	< 3.1	< 3.1	< 3.1	< 3.1
SB53-10	2/1/2016		10.0	< 35	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5
SB54-0.5	2/2/2016	SB54	0.5	< 14	< 3.4	< 3.4	< 3.4	< 3.4	--	--	--	--	--	< 3.4	< 3.4	< 3.4	< 3.4	
SB54-5	2/2/2016		5.0	< 13	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	--	--	--	--	--	< 3.3	< 3.3	< 3.3	< 3.3
SB55-0.5	2/2/2016	SB55	0.5	< 15	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	< 3.7	< 3.7	< 3.7	< 3.7	
SB55-5.5	2/2/2016		5.0	35	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	--	--	--	--	--	300	56	< 4.6	< 4.6
SB55-10	2/2/2016		10.0	< 3,200	< 810	< 810	< 810	< 810	< 810	--	--	--	--	--	24,000	8,300	< 810	< 810
SB56-10	2/4/2016	SB56	10.0	69	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2	
SB57-10	2/4/2016	SB57	10.0	21	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	
SB58-0.5	2/3/2016	SB58	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SB58-5	2/3/2016		5.0	36	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6
SB59-0.5	2/3/2016	SB59	0.5	< 12	< 3.0	< 3	< 3	< 3	--	--	--	--	--	< 3.0	< 3.0	< 3.0	< 3	
SB59-5	2/3/2016		5.0	19	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	130	19	< 3.7	< 3.7
SB59-10	2/3/2016		10.0	< 12,000	< 2,900	< 2900	< 2900	< 2900	< 2900	--	--	--	--	--	73,000	81,000	< 2,900	< 2900
SB60-0.5	2/3/2016	SB60	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SB60-5	2/3/2016		5.0	< 13	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	--	--	--	--	--	< 3.2	< 3.2	< 3.2	< 3.2
SB61-0.5	2/3/2016	SB61	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SB61-5	2/3/2016		5.0	18	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	--	--	--	--	--	< 3.9	< 3.9	< 3.9	< 3.9
SB61-10	2/3/2016		10.0	< 4,900	< 1,200	< 1200	< 1200	< 1200	< 1200	--	--	--	--	--	< 1,200	< 1,200	< 1,200	< 1200
SV50-0.5	2/2/2016	SV50	0.5	< 14	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	
SV50-4.5	2/2/2016		4.5	27	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5
SV51-0.5	2/2/2016	SV51	0.5	< 16	< 4.0	< 4	< 4	< 4	--	--	--	--	--	< 4.0	< 4.0	< 4.0	< 4	
SV51-5	2/2/2016		5.0	34	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8
SV52-0.5	2/2/2016	SV52	0.5	< 15	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8	
SV52-5	2/2/2016		5.0	16	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	--	--	--	--	--	< 3.7	< 3.7	< 3.7	< 3.7
SV53-0.5	2/2/2016	SV53	0.5	< 13	< 3.3	< 3.3	< 3.3	< 3.3	--	--	--	--	--	< 3.3	< 3.3	< 3.3	< 3.3	
SV53-5	2/2/2016		5.0	18	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	--	--	--	--	--	< 3.2	< 3.2	< 3.2	< 3.2
SV54-0.5	2/4/2016	SV54	0.5	< 13	< 3.3	< 3.3	< 3.3	< 3.3	--	--	--	--	--	< 3.3	< 3.3	< 3.3	< 3.3	
SV54-5	2/4/2016		5.0	40	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	--	--	--	--	--	< 4.3	< 4.3	< 4.3	< 4.3
SV55-0.5	2/2/2016	SV55	0.5	< 14	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6	
SV55-5	2/2/2016		5.0	< 14	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6
SV56-0.5	2/2/2016	SV56	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SV56-5	2/2/2016		5.0	23	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2

Table 10
Soil Risk Assessment Dataset - Construction Scenario - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)												
				4-Isopropyl Toluene	MEK	MIBK	Naphthalene	Propylbenzene	Toluene	TCE	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	m,p- Xylenes	o-Xylenes	Total Xylenes
SV32-7.0	11/30/2015	SV-32	7.0	--	ND	ND	ND	--	ND	ND	--	--	--	--	--	ND
SV33-4.5	11/30/2015	SV-33	4.5	--	ND	ND	--	--	ND	ND	--	--	--	--	--	ND
SV38-1.0	11/30/2015	SV38	1.0	--	--	--	ND	--	--	--	--	--	--	--	--	--
SV47-2.5	12/03/2015	SV-47	2.5	--	ND	ND	--	--	ND	ND	--	--	--	--	--	ND
SB50-0.5	2/1/2016	SB50	0.5	-	-	--	< 8.5	-	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	-	-	--
SB50-5	2/1/2016		5.0	-	-	--	< 7.3	-	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	-	-
SB51-0.5	2/1/2016	SB51	0.5	-	-	--	< 7	-	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	-	-	--
SB51-4.5	2/1/2016		4.5	91	8.6	--	110	150	59	< 3.6	990	370	35	270	110	--
SB51-10	2/1/2016		10.0	4.2	< 7.1	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--
SB52-0.5	2/1/2016	SB52	0.5	-	-	--	< 8.1	-	< 4	< 4	< 4	< 4	< 4	-	-	--
SB52-4.5	2/1/2016		4.5	-	-	--	< 7.8	-	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	-	-
SB53-0.5	2/1/2016	SB53	0.5	-	-	--	< 7.5	-	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	-	-	--
SB53-5	2/1/2016		5.0	-	-	--	< 6.3	-	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	-	-	--
SB53-10	2/1/2016		10.0	-	-	--	< 6.9	-	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	-	-	--
SB54-0.5	2/2/2016	SB54	0.5	< 3.4	< 6.8	--	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 6.8	< 3.4	< 3.4	--
SB54-5	2/2/2016		5.0	< 3.3	< 6.5	--	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 6.5	< 3.3	< 3.3	--
SB55-0.5	2/2/2016	SB55	0.5	< 3.7	< 7.4	--	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 7.4	< 3.7	< 3.7	--
SB55-5.5	2/2/2016		5.0	< 4.6	< 9.1	--	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	60	< 4.6	< 4.6	--
SB55-10	2/2/2016		10.0	< 810	< 1,600	--	< 810	< 810	< 810	< 810	< 810	< 810	< 1,600	< 810	< 810	--
SB56-10	2/4/2016	SB56	10.0	< 4.2	16	--	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 8.4	< 4.2	< 4.2	--
SB57-10	2/4/2016	SB57	10.0	< 3.8	< 7.6	--	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 7.6	< 3.8	< 3.8	--
SB58-0.5	2/3/2016	SB58	0.5	< 3.5	< 7	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7	< 3.5	< 3.5	--
SB58-5	2/3/2016		5.0	< 3.6	8.5	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--
SB59-0.5	2/3/2016	SB59	0.5	< 3	< 6.1	--	< 3.0	< 3	< 3.0	< 3.0	< 3	< 3	< 6.1	< 3.0	< 3.0	--
SB59-5	2/3/2016		5.0	< 3.7	< 7.4	--	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	38	< 3.7	< 3.7	--
SB59-10	2/3/2016		10.0	< 2900	< 5,900	--	< 2,900	< 2900	< 2,900	20,000	< 2900	< 2900	14,000	< 2,900	< 2,900	--
SB60-0.5	2/3/2016	SB60	0.5	< 3.5	< 7	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7	< 3.5	< 3.5	--
SB60-5	2/3/2016		5.0	< 3.2	< 6.3	--	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	< 6.3	< 3.2	< 3.2	--
SB61-0.5	2/3/2016	SB61	0.5	< 3.5	< 7	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7	< 3.5	< 3.5	--
SB61-5	2/3/2016		5.0	< 3.9	< 7.7	--	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 7.7	< 3.9	< 3.9	--
SB61-10	2/3/2016		10.0	< 1200	< 2,500	--	9,200	1300	< 1,200	< 1,200	< 1200	< 1200	< 2,500	< 1,200	< 1,200	--
SV50-0.5	2/2/2016	SV50	0.5	< 3.6	< 7.1	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--
SV50-4.5	2/2/2016		4.5	< 3.5	< 7.1	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--
SV51-0.5	2/2/2016	SV51	0.5	< 4	< 7.9	--	< 4.0	< 4	< 4.0	< 4.0	< 4	< 4	< 7.9	< 4.0	< 4.0	--
SV51-5	2/2/2016		5.0	< 3.8	7.8	--	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 7.6	< 3.8	< 3.8	--
SV52-0.5	2/2/2016	SV52	0.5	< 3.8	< 7.7	--	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 7.7	< 3.8	< 3.8	--
SV52-5	2/2/2016		5.0	< 3.7	< 7.3	--	4	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 7.3	< 3.7	< 3.7	--
SV53-0.5	2/2/2016	SV53	0.5	< 3.3	< 6.6	--	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 6.6	< 3.3	< 3.3	--
SV53-5	2/2/2016		5.0	< 3.2	< 6.4	--	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	< 6.4	< 3.2	< 3.2	--
SV54-0.5	2/4/2016	SV54	0.5	< 3.3	< 6.7	--	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 6.7	< 3.3	< 3.3	--
SV54-5	2/4/2016		5.0	< 4.3	< 8.6	--	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 8.6	< 4.3	< 4.3	--
SV55-0.5	2/2/2016	SV55	0.5	< 3.6	< 7.1	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--
SV55-5	2/2/2016		5.0	< 3.6	< 7.1	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 7.1	< 3.6	< 3.6	--
SV56-0.5	2/2/2016	SV56	0.5	< 3.5	< 7.1	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--
SV56-5	2/2/2016		5.0	< 4.2	< 8.3	--	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 8.3	< 4.2	< 4.2	--

Table 10
Soil Risk Assessment Dataset - Construction Scenario - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)														
				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chlorobenzene	1,2-DCA	1,2-DCB	1,3-DCB	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropylbenzene	
SV57-0.5	2/2/2016	SV57	0.5	< 16	< 3.9	< 3.9	< 3.9	< 3.9	--	--	--	--	--	< 3.9	< 3.9	< 3.9	< 3.9	
SV57-5	2/2/2016		5.0	< 14	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6
SV58-0.5	2/3/2016	SV58	0.5	< 17	< 4.2	< 4.2	< 4.2	< 4.2	--	--	--	--	--	< 4.2	< 4.2	< 4.2	< 4.2	
SV58-5	2/3/2016		5.0	20	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	--	--	--	--	--	< 3.6	< 3.6	< 3.6	< 3.6
SV58-10	2/3/2016		10.0	< 16	< 4	< 4	< 4	< 4	< 4	--	--	--	--	--	< 4	< 4	< 4	< 4
SV60-0.5	2/3/2016	SV60	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SV60-5	2/3/2016		5.0	< 14	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5
SV60-10	2/3/2016		10.0	< 1,600	< 400	< 400	610	< 400	< 400	--	--	--	--	--	13,000	5,800	< 400	430
SV61-0.5	2/1/2016	SV61	0.5	< 35	< 3.5	< 3.5	< 3.5	< 3.5	--	--	--	--	--	< 3.5	< 3.5	< 3.5	< 3.5	
SV61-5	2/1/2016		5.0	< 38	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	--	--	--	--	--	< 3.8	< 3.8	< 3.8	< 3.8
SV61-10	2/1/2016		10.0	43	5.2	130	210	39	39	--	--	--	--	--	< 3.5	< 3.5	16	450
SV62-5	9/7/2016	SV62	5.0	100	--	--	--	--	< 8.3	--	--	--	--	--	--	--	--	
SV62-10	9/7/2016		10.0	130	--	--	--	--	--	6.3	--	--	--	--	--	--	--	
SV63-5	9/7/2016	SV63	5.0	< 40	--	--	--	--	< 4.0	--	--	--	--	--	--	--	--	
SV63-10	9/7/2016		10.0	57	--	--	--	--	--	< 3.6	--	--	--	--	--	--	--	
SV64-5	9/7/2016	SV64	5.0	< 57	--	--	--	--	< 5.7	--	--	--	--	--	--	--	--	
SV64-10	9/7/2016		10.0	48	--	--	--	--	--	< 3.9	--	--	--	--	--	--	--	
SV65-5	9/7/2016	SV65	5.0	< 41	--	--	--	--	< 4.1	--	--	--	--	--	--	--	--	
SV65-10	9/7/2016		10.0	< 51	--	--	--	--	--	< 5.1	--	--	--	--	--	--	--	
SV66-5	9/7/2016	SV66	5.0	47	--	--	--	--	< 3.6	--	--	--	--	--	--	--	--	
SV66-10	9/7/2016		10.0	100	--	--	--	--	--	< 3.9	--	--	--	--	--	--	--	
SV67-5	9/12/2016	SV67	5.0	230	--	--	--	--	< 5.2	--	--	--	--	--	--	--	--	
SV67-10	9/12/2016		10.0	60	--	--	--	--	--	< 3.7	--	--	--	--	--	--	--	

Table 10
Soil Risk Assessment Dataset - Construction Scenario - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)													
				4-Isopropyl Toluene	MEK	MIBK	Naphthalene	Propylbenzene	Toluene	TCE	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	m,p-Xylenes	o-Xylenes	Total Xylenes	
SV57-0.5	2/2/2016	SV57	0.5	< 3.9	< 7.8	--	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 7.8	< 3.9	< 3.9	--	
SV57-5	2/2/2016		5.0	< 3.6	< 7.2	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 7.2	< 3.6	< 3.6	--
SV58-0.5	2/3/2016	SV58	0.5	< 4.2	< 8.3	--	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 8.3	< 4.2	< 4.2	--	
SV58-5	2/3/2016		5.0	< 3.6	< 7.3	--	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 7.3	< 3.6	< 3.6	--
SV58-10	2/3/2016		10.0	< 4	< 8	--	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4	< 4	--
SV60-0.5	2/3/2016	SV60	0.5	< 3.5	< 7.1	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--	
SV60-5	2/3/2016		5.0	< 3.5	< 7.1	--	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7.1	< 3.5	< 3.5	--	
SV60-10	2/3/2016		10.0	590	< 800	--	890	650	< 400	600	2700	2600	3,300	530	710	--	
SV61-0.5	2/1/2016	SV61	0.5	-	-	--	< 7.1	-	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	-	-	--	
SV61-5	2/1/2016		5.0	-	-	--	< 7.6	-	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	-	-	--	
SV61-10	2/1/2016		10.0	220	12	--	17	450	26	< 3.5	1900	340	14	13	26	--	
SV62-5	9/7/2016	SV62	5.0	< 8.3	--	--	--	--	--	--	--	--	--	--	--	< 17	
SV62-10	9/7/2016		10.0	< 6.2	--	--	--	--	--	--	--	--	--	--	--	--	< 12
SV63-5	9/7/2016	SV63	5.0	< 4.0	--	--	--	--	--	--	--	--	--	--	--	< 8.1	
SV63-10	9/7/2016		10.0	7.1	--	--	--	--	--	--	--	--	--	--	--	--	7.2
SV64-5	9/7/2016	SV64	5.0	< 5.7	--	--	--	--	--	--	--	--	--	--	--	< 11	
SV64-10	9/7/2016		10.0	< 3.9	--	--	--	--	--	--	--	--	--	--	--	--	< 7.8
SV65-5	9/7/2016	SV65	5.0	< 4.1	--	--	--	--	--	--	--	--	--	--	--	< 8.1	
SV65-10	9/7/2016		10.0	< 5.1	--	--	--	--	--	--	--	--	--	--	--	--	< 10
SV66-5	9/7/2016	SV66	5.0	< 3.6	--	--	--	--	--	--	--	--	--	--	--	< 7.2	
SV66-10	9/7/2016		10.0	< 3.9	--	--	--	--	--	--	--	--	--	--	--	--	< 7.7
SV67-5	9/12/2016	SV67	5.0	< 5.2	--	--	--	--	--	--	--	--	--	--	--	< 10	
SV67-10	9/12/2016		10.0	< 3.7	--	--	--	--	--	--	--	--	--	--	--	--	< 7.3

Notes:

Detections are shown in bold

Only detected compounds are shown.

ft bgs = Feet below ground surface

VOCs = Volatile organic compounds

µg/kg = Micrograms per kilogram

DCB = Dichlorobenzene

MEK = Methyl Ethyl Ketone

MIBK = Methyl Isobutyl Ketone

- = Not analyzed

<## = Not detected at or above the indicated laboratory reporting limit

ND = Not detected (reporting limit not provided)

-- = Not detected or not analyzed

NR = Not reported

DCE = Dichloroethene

TCE = Trichloroethene

TMB = Trimethylbenzene

Table 11
Soil Risk Assessment Dataset - Construction Scenario - SVOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Boring Location	Sample Number	Depth (Feet bgs)	Date Collected	SVOCs (µg/kg)																				
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (g,h,i) Perylene	Chrysene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) Pyrene	2-Methyl-naphthalene	4-Methyl-phenol	N-Nitrosodi-phenylamine	Phenanthrene	Phenol	Pyrene	Bis (2-ethylhexyl) phthalate	1,2,4-TCB	
SS-3-E	-	-	10/5/1989	-	-	-	ND(30)	ND(30)	-	ND(30)	-	ND(70)	ND(30)	-	-	ND(30)	200	-	ND(30)	-	ND(30)	ND(300)	200	
SS-5-E	-	-	10/5/1989	-	-	-	ND(200)	ND(200)	-	ND(200)	-	ND(400)	ND(200)	-	-	1,000	ND(200)	-	ND(200)	-	ND(200)	ND(2,000)	ND(200)	
B-7/M-7	-	4	1/3/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	390	320	-	-	1,500	ND(300)	-	530	-	380	ND(2,000)	ND(300)	
B-8/MW-8	-	4	1/3/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	410	ND(2,000)	ND(300)	
B-9	-	4	1/4/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	690	340	-	-	1,100	ND(300)	-	590	-	550	ND(2,000)	ND(300)	
B-11	-	4	1/4/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
	-	9		-	-	-	580	ND(300)	-	ND(300)	-	820	1,100	-	-	ND(300)	ND(300)	-	560	-	1,800	ND(2,000)	ND(300)	
B-12	-	4	1/4/1990	-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
B-13	-	4	1/4/1990	-	-	-	ND(300)	470	-	ND(300)	-	390	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
	-	9		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(2,000)	ND(300)	
MW-9	-	8.5	4/13/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
T-2	-	6	4/13/1994	-	-	-	ND(300)	ND(300)	-	200	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	ND(300)	
	-	8.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
T-5	-	5	4/14/1994	-	-	-	ND(3,000)	ND(3,000)	-	ND(3,000)	-	ND(3,000)	ND(3,000)	-	-	ND(3,000)	ND(3,000)	-	ND(3,000)	-	ND(3,000)	ND(3,000)	ND(3,000)	
	-	9.0		-	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	400	ND(300)	
SB2	SB2-4.0	4	11/7/2013	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(330)	ND(330)	ND(67)	-	ND(67)	-	-	
	SB2-7.5	7.5		ND(130)	270	630	1,200	970	360	330	1,400	2,100	210	340	ND(130)	ND(660)	ND(660)	2,400	-	2,300	-	-	-	
SB6	SB6-4.0	4	11/7/2013	ND(660)	ND(660)	1,200	2,400	3,000	3,700	1,500	1,400	2,900	4,400	810	1,300	ND(660)	ND(3,300)	ND(3,300)	5,500	-	4,500	-	-	
	SB6-10.0	10		ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(330)	ND(330)	ND(67)	-	ND(67)	-	-	
SB7	SB7-2.5	2.5	11/8/2013	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	ND(330)	10,000	ND(1,700)	450	-	ND(330)	-	-	
	SB7-8.0	8		500	ND(330)	340	340	ND(330)	ND(330)	ND(330)	ND(330)	470	1,100	680	ND(330)	9,200	ND(1,600)	1,700	2,400	-	1,100	-	-	
SB11	SB11-2.0	2	11/8/2013	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(1,300)	ND(6,600)	ND(6,600)	ND(1,300)	-	1,300	-	-	
	SB11-5.5	5.5		ND(670)	ND(670)	ND(670)	ND(670)	900	990	ND(670)	ND(670)	820	1,800	ND(670)	ND(670)	ND(670)	ND(3,300)	ND(3,300)	750	-	2,300	-	-	
SB13	SB13-1.5	1.5	11/8/2013	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	ND(66)	92	ND(330)	ND(330)	ND(66)	-	79	-	-	
	SB13-10.0	10		ND(1,700)	ND(1,700)	ND(1,700)	2,000	ND(1,700)	1,800	ND(1,700)	ND(1,700)	2,100	4,200	ND(1,700)	ND(1,700)	2,000	ND(8,300)	ND(8,300)	7,500	-	4,000	-	-	
SB23	SB23-0.5	0.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(130)	ND	ND	ND	
SB29	SB29-2.5	2.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(130)	ND	ND	ND	
SB34	SB34-4.0	4.0	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND	ND	
SB42	SB42-1	1.0	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND	ND	
SB46	SB46-0.5	0.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND	ND	
SB48	SB48-1.0	1.0	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(660)	ND	ND	ND
SV6	SV6-0.5	0.5	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(67)	ND	ND	ND
SV10	SV10-0.5	0.5	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(66)	ND	ND	ND
SV14	SV14-0.5	0.5	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(67)	ND	ND	ND
SV20	SV20-0.5	0.5	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND	ND
SV32	SV32-1.0	1.0	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(330)	ND	ND	ND
SV32	SV32-7.0	7.0	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND(3,300)	ND	ND	ND
SV38	SV38-1.0	1.0	11/30/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	ND	ND	ND

Notes:

Detections are shown in bold.

Only detected compounds are shown.

bgs = Below ground surface

µg/kg = Micrograms per kilogram

- = Not applicable / not analyzed or not detected

ND(67) = Not detected at or above the indicated laboratory reporting limit

ND = Not detected (reporting limit not provided)

SVOC = semi-volatile organic compound

TCB = trichlorobenzene

Table 12
Soil Risk Assessment Dataset - Construction Scenario - PCBs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample Number	Depth (feet bgs)	Date Collected	Aroclor-1260 ⁽¹⁾ (mg/kg)	Aroclor-1262 (mg/kg)	Aroclor-1268 (mg/kg)	Total PCBs (mg/kg)	DDT (mg/kg)
SB5	SB5-3.0	3	11/7/2013	10	ND(0.17)	ND(0.17)	10	-
	SB5-8.0	8	11/7/2013	ND(0.012)	0.018	ND(0.012)	0.018	-
	SB5-11.5	11.5	11/7/2013	ND(0.012)	0.014	ND(0.012)	0.014	-
SB6	SB6-4.0	4	11/7/2013	0.57	ND(0.012)	ND(0.012)	0.57	-
	SB6-8.0	8	11/7/2013	ND(0.012)	0.16	ND(0.012)	0.16	-
	SB6-10.0	10	11/7/2013	ND(0.012)	4.8	ND(0.012)	4.8	-
SB7	SB7-2.5	2.5	11/8/2013	1.9	ND(0.082)	ND(0.082)	1.9	-
	SB7-8.0	8	11/8/2013	ND(0.042)	1.5	ND(0.042)	1.5	-
SB11	SB11-2.0	2	11/8/2013	0.38	ND(0.012)	ND(0.012)	0.38	-
	SB11-5.5	5.5	11/8/2013	1.2	ND(0.042)	1.4	2.60	-
SB12	SB12-2.0	2	11/8/2013	2	ND(0.042)	ND(0.042)	2	-
	SB12-5.0	5	11/8/2013	ND(0.041)	1.2	ND(0.041)	1.2	-
	SB12-10.0	10	11/8/2013	ND(0.083)	6.5	ND(0.083)	6.5	-
SB13	SB13-1.5	1.5	11/8/2013	0.27	ND(0.012)	ND(0.012)	0.27	-
	SB13-5.0	5	11/8/2013	0.018	ND(0.012)	ND(0.012)	0.018	-
	SB13-10.0	10	11/8/2013	3.3	ND(0.084)	1.9	5.2	-
SB14	SB14-3.5	3.5	11/9/2013	0.013	ND(0.012)	ND(0.012)	0.013	-
SG-1	-	3.5 - 4.0	4/19/2013	ND(0.5)	-	-	ND(0.5)	0.03
SG-2	-	3.0 - 3.5	4/19/2013	ND(1.0)	-	-	ND(1.0)	0.068
SG-3	-	3.5 - 4.0	4/19/2013	14	-	-	14	0.25
SG-4	-	3.5 - 4.0	4/19/2013	8	-	-	8	0.42
SG-5	-	4.5 - 5.0	4/19/2013	ND(1.0)	-	-	ND(1.0)	ND(0.020)
IS1	IS1-03.5	3.5	4/26/1989	-	-	-	0.4	-
	IS1-07.0	7.0	4/26/1989	-	-	-	0.7	-
	IS1-10.5	10.5	4/26/1989	-	-	-	ND(0.5)	-
IS2	IS2-03.0	3.0	4/26/1989	-	-	-	0.2	-
	IS2-08.5	8.5	4/26/1989	-	-	-	ND(0.5)	-
B-7/MW-7	-	4	1/3/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-8/MW-8	-	4	1/3/1990	ND(1)	-	-	-	-
	-	9		2.3	-	-	2.3	-
B-9	-	4	1/4/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-10	-	4	1/4/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-11	-	4	1/4/1990	2.2	-	-	2.2	-
	-	9		ND(1)	-	-	-	-
B-12	-	4	1/4/1990	ND(1)	-	-	-	-
	-	9		ND(1)	-	-	-	-
B-13	-	4	1/4/1990	3.1	-	-	3.1	-
	-	9		ND(1)	-	-	-	-
Sump	-	Confirmation	1/5/1990	4.2	-	-	4.2	-
SB20	SB20-2.5	2.5	11/30/2015	1.7	-	-	1.7	-
SB21	SB21-0.5	0.5	12/2/2015	1.9	-	-	1.9	-
SB23	SB23-0.5	0.5	12/2/2015	0.49	-	-	0.49	-
SB24	SB24-0.5	0.5	12/2/2015	3.7	-	-	3.7	-
SB25	SB25-1	1.0	12/2/2015	0.8	-	-	0.8	-
SB26	SB26-1.5	1.5	12/2/2015	0.12	-	-	0.12	-
SB27	SB27-2.5	2.5	12/2/2015	0.59	-	-	0.59	-
SB28	SB28-0.5	0.5	12/2/2015	0.61	-	-	0.61	-
	SB28-4.5	4.5	12/2/2015	55	-	-	55	-
SB29	SB29-2.5	2.5	12/2/2015	1.9	-	-	1.9	-
SB31	SB31-2	2.0	12/2/2015	0.28	-	-	0.28	-
	SB31-6	6.0	12/2/2015	ND(0.050)	-	-	ND(0.050)	-
SB32	SB32-1.5	1.5	12/3/2015	0.29	-	-	0.29	-
SB34	SB34-4.0	4.0	12/1/2015	0.19	-	-	0.19	-
SB35	SB35-0.5	0.5	12/2/2015	0.62	-	-	0.62	-
SB39	SB39-0.5	0.5	12/2/2015	0.25	-	-	0.25	-
SB40	SB40-1	1.0	12/2/2015	1.9	-	-	1.9	-
SB41	SB41-1	1.0	12/2/2015	2.9	-	-	2.9	-
SB42	SB42-1	1.0	12/2/2015	2.8	-	-	2.8	-
SB43	SB43-1.5	1.5	12/1/2015	1.3	-	-	1.3	-
SB45	SB45-1.5	1.5	12/1/2015	2.8	-	-	2.8	-
SB46	SB46-0.5	0.5	12/2/2015	1.2	-	-	1.2	-
SB48	SB48-1.0	1.0	12/1/2015	8.3	-	-	8.3	-
SV16	SV16-0.5	0.5	12/1/2015	ND(0.049)	-	-	ND(0.049)	-
SV32	SV32-1.0	1.0	11/30/2015	1.8	-	-	1.8	-
	SV32-7.0	7.0	11/30/2015	0.89	-	-	0.89	-
SV33	SV33-0.5	0.5	11/30/2015	4.0	-	-	4.0	-
	SV33-4.5	4.5	11/30/2015	0.86	-	-	0.86	-
SV45	SV45-1.0	1.0	11/30/2015	6.9	-	-	6.9	-
SV47	SV47-6.0	6.0	12/3/2015	ND(0.049)	-	-	ND(0.049)	-

Notes:
Detections are shown in bold.
Only detected compounds are shown.
bgs = below ground surface
mg/kg = milligrams per kilogram
DDT = Dichlorodiphenyltrichlorethane
PCBs = Polychlorinated biphenyls
ND(24) = Compound not detected at or above the indicated laboratory reporting limit
- = Not analyzed
1. All 2015 samples were prepped or analyzed beyond the specified holding time.

Table 13
Soil Risk Assessment Dataset - Construction Scenario - Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
IS-1	IS-1	3.5	4/26/1989	6.5	ND(2.2)	110	0.05	4.1	20.1	5.6	70	100	ND(5)	1.2	32.1	-	15.2	15.4	200
		7		1.4	ND(2.2)	130	ND(0.025)	4.2	21.5	6.4	104	130	ND(5)	ND(1)	31.5	-	ND(0.1)	17.3	48.9
		10		1.6	ND(2.2)	255	ND(0.025)	10.2	63.5	11.4	1,042	4,300	ND(5)	3.7	42.6	-	ND(0.1)	17.3	5,400
IS-2	IS-2	3	4/26/1989	ND(1)	ND(2.2)	90	ND(0.025)	3.2	18.5	6	56.7	90	ND(5)	1.2	30.9	-	ND(0.1)	15.6	270
		8.5		ND(1)	ND(2.2)	35.7	ND(0.025)	1.5	6.6	2.8	13.8	5.3	ND(5)	ND(1)	15.5	-	ND(0.1)	6.7	22.9
B-1/MW-1	B-1/MW-1	5.5	7/5/1989	ND(1)	ND(2.2)	92	ND(0.025)	1.4	13	5.7	28	61	ND(5)	ND(1)	14	-	ND(0.1)	15	94
		10.5		ND(1)	ND(2.2)	21	ND(0.025)	0.6	12.5	2.6	4	3	ND(5)	ND(1)	12.7	-	ND(0.1)	7	5.4
B-2	B-2	0.5	7/5/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6		1.2	ND(2.2)	109	ND(0.025)	1.6	11.8	5	92	167	ND(5)	ND(1)	18.5	-	ND(0.1)	9.7	67
		10		ND(1)	ND(2.2)	41	ND(0.025)	ND(0.3)	12.7	2.7	22.5	1,360	ND(5)	ND(1)	12.5	-	ND(0.1)	13	532
B-5/MW-5	B-5/MW-5	6	8/31/1989	ND(1)	ND(2.2)	29.2	ND(0.025)	0.5	13.5	3.4	13.3	9.7	ND(5)	ND(1)	18	-	ND(0.1)	12	52
		11		1.05	ND(2.2)	167.1	ND(0.025)	2.15	15.2	8.7	64	164	ND(5)	ND(1)	22	-	ND(0.1)	23.4	200
B-7/MW-7	B-7/MW-7	4	1/3/1990	ND(10)	ND(16)	140	0.48	ND(0.7)	32	8.6	27	ND(12)	ND(0.09)	ND(1)	28	-	ND(0.4)	36	79
		9		ND(10)	ND(16)	24	0.13	ND(0.7)	21	ND(2)	3.6	ND(12)	0.088	ND(1)	16	-	ND(0.4)	12	310
B-8/MW-8	B-8/MW-8	4	1/3/1990	ND(10)	ND(16)	42	0.16	ND(0.7)	27	2.8	18	ND(12)	ND(0.009)	ND(1)	18	-	ND(0.4)	15	75
		9		ND(10)	ND(16)	85	0.15	ND(0.7)	9.6	ND(2)	41	24	0.36	ND(1)	6.8	-	ND(0.4)	8.5	120
B-9	B-9	4	1/4/1990	ND(10)	ND(16)	140	0.41	ND(0.7)	33	7.4	55	41	0.45	ND(1)	32	-	ND(0.4)	31	120
		9		ND(16)	ND(16)	610	0.31	44	180	15	2,300	980	0.66	27	350	-	ND(0.4)	26	6,200
B-10	B-10	4	1/4/1990	ND(10)	ND(16)	33	0.05	ND(0.7)	23	ND(2)	39	42	0.1	ND(1)	10	-	ND(0.4)	5	95
		9		ND(16)	21	590	0.33	1.3	34	6.9	140	1,500	0.62	ND(1)	24	-	ND(0.4)	28	410
B-11	B-11	4	1/4/1990	ND(10)	ND(16)	240	0.36	1	22	5.4	44	72	0.092	ND(1)	25	-	ND(0.4)	21	940
		9		ND(10)	ND(16)	160	0.31	0.7	21	3.6	ND(4,500)	55	0.012	ND(1)	24	-	ND(0.4)	17	160
B-12	B-12	4	1/4/1990	ND(10)	ND(16)	89	0.23	ND(0.7)	36	3.4	170	120	ND(0.009)	ND(1)	29	-	ND(0.4)	21	150
		9		ND(28)	38	540	0.26	7.7	190	28	2,200	3,000	ND(0.009)	20	110	-	ND(0.4)	23	3,600
B-13	B-13	4	1/4/1990	ND(10)	ND(16)	160	0.36	ND(0.7)	62	6.5	120	520	ND(0.009)	ND(1)	42	-	ND(0.4)	27	300
		9		ND(10)	ND(16)	37	0.15	ND(0.7)	29	2.9	4.9	12	ND(0.009)	ND(1)	18	-	ND(0.4)	15	210
Sump	Sump	Confirmation	1/5/1990	ND(10)	ND(16)	180	0.48	ND(0.7)	95	10	49	62	0.022	ND(1)	135	-	ND(0.4)	39	150

Table 13
Soil Risk Assessment Dataset - Construction Scenario - Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
MW-9	MW-9	8.5	4/13/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	MW-10	9.5	4/14/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T-2	T-2	6	4/13/1994	5.1	9.3	170	0.23	1	25	8.7	2,100	330	ND(0.087)	1.5	55	-	0.5	26	580
		8.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T-5	T-5	5	4/14/1994	ND(2.9)	6	130	0.31	0.27	25	9.2	60	61	0.21	ND(0.98)	28	-	ND(0.49)	26	88
		9		ND(3)	ND(2.5)	41	ND(0.10)	ND(0.25)	23	4.2	14	1.5	ND(0.087)	ND(1)	19	-	ND(0.5)	15	18
T-7	T-7	7.5	4/14/1994	ND(3)	4.2	150	0.45	0.28	27	10	40	6.1	ND(0.087)	ND(0.99)	37	-	ND(0.5)	27	62
SG-1	SG-1	3.5-4.0	4/19/2013	5.2	11	280	ND(0.5)	1	100	22	480	990	0.2	4.2	220	--	0.6	60	490
SG-2	SG-2	3.0-3.5	4/19/2013	1.9	12	160	0.51	0.84	50	11	88	120	0.36	1.3	63	--	ND(0.5)	50	220
SG-3	SG-3	3.5-4.0	4/19/2013	8.9	7.3	230	ND(0.5)	0.94	54	9.3	160	830	0.2	1.3	51	--	ND(0.5)	49	240
SG-4	SG-4	3.5-4.0	4/19/2013	2.6	6.9	170	ND(0.5)	0.82	68	14	78	130	0.32	2.9	83	--	ND(0.5)	45	440
SG-5	SG-5	4.5-5.0	4/19/2013	1	9.9	120	ND(0.5)	0.44	44	7.3	44	75	0.12	0.5	34	--	ND(0.5)	41	97
SB1	SB1-1.0	1	11/7/2013	ND(0.51)	5.9	160	0.39	0.94	86	13	52	81	0.22	ND(0.25)	100	ND(0.51)	ND(0.25)	51	190
	SB1-5.5	5.5	11/7/2013	-	-	-	-	-	-	-	-	1,300	-	-	-	-	-	-	-
	SB1-11.75	11.75	11/7/2013	-	-	-	-	-	-	-	-	2,400	-	-	-	-	-	-	-
SB2	SB2-4.0	4	11/7/2013	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-
	SB2-7.5	7.5	11/7/2013	-	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-
	SB2-10.75	10.75	11/7/2013	-	-	-	-	-	-	-	-	240	-	-	-	-	-	-	-
SB3	SB3-1.5	1.5	11/7/2013	ND(0.46)	3.4	150	0.59	0.44	16	6.9	16	14	0.39	ND(0.23)	23	ND(0.46)	ND(0.23)	26	46
	SB3-7.5	7.5	11/7/2013	-	-	-	-	-	-	-	-	340	-	-	-	-	-	-	-
	SB3-11.0	11	11/7/2013	3.3	7.5	810	0.39	4.3	46	10	170	460	0.17	4.6	38	ND(0.50)	ND(0.25)	42	920
SB4	SB4-1.5	1.5	11/7/2013	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-
	SB4-5.0	5	11/7/2013	-	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-
	SB4-10.0	10	11/7/2013	-	-	-	-	-	-	-	-	10,000	-	-	-	-	-	-	-
SB5	SB5-3.0	3	11/7/2013	-	-	-	-	-	-	-	-	430	-	-	-	-	-	-	-
	SB5-8.0	8	11/7/2013	3.1	6.7	100	0.21	0.77	39	6.3	100	100	0.19	0.34	38	ND(0.50)	ND(0.25)	29	170
	SB5-11.5	11.5	11/7/2013	-	-	-	-	-	-	-	-	1,100	-	-	-	-	-	-	-
SB6	SB6-4.0	4	11/7/2013	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-
	SB6-8.0	8	11/7/2013	-	-	-	-	-	-	-	-	58	-	-	-	-	-	-	-
	SB6-10.0	10	11/7/2013	7.5	5.6	140	0.27	1.9	140	16	390	160	0.13	4.9	190	6.0	ND(0.26)	41	270
SB7	SB7-2.5	2.5	11/8/2013	0.75	5.0	160	0.25	1.2	34	9.0	74	120	0.19	0.69	49	0.66	ND(0.23)	35	220
	SB7-8.0	8	11/8/2013	-	-	-	-	-	-	-	-	250	-	-	-	-	-	-	-
SB8	SB8-3.5	3.5	11/8/2013	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-
	SB8-8.0	8	11/8/2013	ND(0.51)	2.3	32	ND(0.10)	ND(0.25)	33	4.4	4.7	3.1	ND(0.016)	ND(0.25)	24	ND(0.51)	ND(0.25)	26	19
	SB8-12.0	12	11/8/2013	-	-	-	-	-	-	-	-	3.0	-	-	-	-	-	-	-
SB9	SB9-4.5	4.5	11/8/2013	ND(0.49)	5.4	120	0.32	0.81	45	10	46	41	0.12	1.5	38	ND(0.49)	ND(0.24)	36	110
	SB9-10.0	10	11/8/2013	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-
SB10	SB10-2.0	2	11/8/2013	ND(0.47)	6.9	550	0.33	0.58	38	6.9	27	45	0.15	0.61	36	ND(0.47)	ND(0.23)	34	90
	SB10-5.0	5	11/8/2013	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-
	SB10-10.0	10	11/8/2013	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-
SB11	SB11-2.0	2	11/8/2013	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-
	SB11-5.5	5.5	11/8/2013	0.62	9.2	140	0.26	1.2	160	10	260	170	0.17	21	170	ND(0.54)	ND(0.27)	36	300
	SB11-11.5	11.5	11/8/2013	-	-	-	-	-	-	-	-	1.7	-	-	-	-	-	-	-

Table 13
Soil Risk Assessment Dataset - Construction Scenario - Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
SB12	SB12-2.0	2	11/8/2013	-	-	-	-	-	-	-	-	130	-	-	-	-	-	-	-
	SB12-5.0	5	11/8/2013	-	-	-	-	-	-	-	-	320	-	-	-	-	-	-	-
	SB12-10.0	10	11/8/2013	ND(0.49)	5.9	210	0.27	1.3	31	6.6	44	290	0.18	0.28	29	ND(0.49)	ND(0.25)	30	1,900
SB13	SB13-1.5	1.5	11/8/2013	-	-	-	-	-	-	-	-	68	-	-	-	-	-	-	-
	SB13-5.0	5	11/8/2013	ND(0.47)	8.4	270	0.42	0.70	23	26	30	54	0.070	0.37	27	1.6	ND(0.23)	45	100
	SB13-10.0	10	11/8/2013	-	-	-	-	-	-	-	-	3,300	-	-	-	-	-	-	-
SB14	SB14-3.5	3.5	11/9/2013	ND(0.46)	7.7	170	0.54	0.67	140	19	33	11	0.060	ND(0.23)	190	4.5	ND(0.23)	53	63
	SB14-8.5	8.5	11/9/2013	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-
	SB14-11.5	11.5	11/9/2013	-	-	-	-	-	-	-	-	250	-	-	-	-	-	-	-
SB15	SB15-2.5	2.5	11/9/2013	-	-	-	-	-	-	-	-	8.2	-	-	-	-	-	-	-
	SB15-7.5	7.5	11/9/2013	3.8	4.6	250	0.27	13	43	6.6	450	870	0.14	0.43	48	ND(0.50)	ND(0.25)	40	1,700
	SB15-11.5	11.5	11/9/2013	-	-	-	-	-	-	-	-	130	-	-	-	-	-	-	-
SB16	SB16-2.5	2.5	11/9/2013	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-
	SB16-7.5	7.5	11/9/2013	-	-	-	-	-	-	-	-	280	-	-	-	-	-	-	-
	SB16-10.5	10.5	11/9/2013	1.4	11	180	0.34	0.89	53	6.7	51	210	0.24	ND(0.26)	34	3.4	ND(0.26)	41	510
SB17	SB17-2.0	2	11/9/2013	ND(0.47)	7.8	150	0.46	0.61	41	12	32	54	0.12	ND(0.24)	43	ND(0.47)	ND(0.24)	53	87
	SB17-5.0	5	11/9/2013	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-
	SB17-9.5	9.5	11/9/2013	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-
SB18	SB18-2.0	2	11/9/2013	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-
	SB18-5.0	5	11/9/2013	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-
	SB18-10.0	10	11/9/2013	ND(0.48)	49	640	0.47	5.5	43	13	450	650	0.41	5.1	190	2.8	ND(0.24)	11,000	2,500
SB19	SB19-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	210	-	-	-	-	-	-	-	
SB20	SB20-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-
	SB20-2.5	2.5	11/30/2015	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-
SB21	SB21-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-
SB22	SB22-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	9.3	-	-	-	-	-	-	-
SB23	SB23-0.5	0.5	12/2/2015	ND	5.2	200	0.57	ND(0.46)	41	11	30	31	0.98	ND(0.46)	57	ND	ND	30	87
SB24	SB24-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-
SB25	SB25-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-
SB26	SB26-1.5	1.5	12/2/2015	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-
SB27	SB27-2.5	2.5	12/2/2015	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-
SB28	SB28-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-
	SB28-4.5	4.5	12/2/2015	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-
SB29	SB29-2.5	2.5	12/2/2015	ND	6.9	190	0.48	ND(0.45)	45	11	38	35	0.85	ND(0.45)	48	ND	ND	38	130
SB30	SB30-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-
SB31	SB31-2	2.0	12/2/2015	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-
	SB31-6	6.0	12/2/2015	-	-	-	-	-	-	-	-	1,200 ^{F2}	-	-	-	-	-	-	-
SB32	SB32-1.5	1.5	12/3/2015	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-
SB34	SB34-4.0	4.0	12/1/2015	ND	5.6	100	0.29	ND(0.34)	78	13	23	9.4	0.16	ND(1.4)	86	ND	ND	59	56
SB35	SB35-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-
SB36	SB36-1.5	1.5	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-
SB37	SB37-0.5	0.5	12/1/2015	-	-	-	-	-	-	-	-	7.9	-	-	-	-	-	-	-
SB38	SB38-1.5	1.5	11/30/2015	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-
SB39	SB39-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-
SB40	SB40-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	58	-	-	-	-	-	-	-
SB41	SB41-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	86	-	-	-	-	-	-	-
SB42	SB42-1	1.0	12/2/2015	ND	6.7	170	ND(0.31)	ND(0.38)	96	16	60	70	0.28	ND(1.5)	120	ND	ND	43	150
SB43	SB43-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	-
SB45	SB45-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-
SB46	SB46-0.5	0.5	12/2/2015	ND	7.0	160	0.42	0.45	42	11	78	150	0.41	ND(1.6)	52	ND	ND	46	240
SB48	SB48-1.0	1.0	12/1/2015	ND	6.0	180	ND(0.31)	0.48	48	13	59	190	0.83	ND(1.6)	75	ND	ND	58	230
SB49	SB49-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-

Table 13
Soil Risk Assessment Dataset - Construction Scenario - Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
SV6	SV6-0.5	0.5	12/1/2015	ND	6.0	160	0.38	0.56	42	18	22	48	0.18	1.5	63	ND	ND	33	80
SV8	SV8-0.5	0.5	12/3/2015	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-
SV10	SV10-0.5	0.5	12/1/2015	ND	9.0	180	0.43	ND(0.41)	130	20	33	9.3	0.25	ND(1.6)	170	ND	ND	51	67
SV14	SV14-0.5	0.5	12/1/2015	ND	9.6	220	0.42	ND(0.4)	150	20	36	12	0.17	ND(1.6)	150	ND	ND	52	94
SV16	SV16-0.5	0.5	12/1/2015	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-
SV20	SV20-0.5	0.5	11/30/2015	ND	4.7	160	0.37	0.18	55	12	26	16	0.44	ND(0.46)	73	ND	ND	36	72
SV22	SV22-0.5	0.5	11/30/2015	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-
SV32	SV32-1.0	1.0	11/30/2015	ND	5.5	170	ND(0.35)	ND(0.44)	100	15	35	21	0.37	ND(1.8)	120	ND	ND	53	100
	SV32-7.0	7.0	11/30/2015	ND	7.0	680	ND(0.37)	1.9	44	8.2	190	570	0.23	3.2	64	ND	ND	61	790
SV33	SV33-0.5	0.5	11/30/2015	-	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-
	SV33-4.5	4.5	11/30/2015	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-
SV38	SV38-1.0	1.0	11/30/2015	ND	3.7	140	ND(0.36)	ND(0.45)	110	17	30	22	0.33	ND(1.8)	160	ND	ND	74	63
SV43	SV43-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-
SV45	SV45-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-
SV47	SV47-1.5	1.5	12/3/2015	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-
	SV47-6.0	6.0	12/3/2015	-	-	-	-	-	-	-	-	350	-	-	-	-	-	-	-

Notes:

Detections are shown in bold.

Only detected metals are shown.

bgs = Below ground surface

mg/kg = Milligrams per kilogram

ND(0.24) = Not detected at or above the indicated laboratory reporting limit

ND = Not detected (reporting limit not provided)

- = Not analyzed

Table 14
Soil Risk Assessment Dataset - Construction Scenario - Total Petroleum Hydrocarbons (TPH)
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Sample Depths (feet bgs)	TPH (mg/kg)			
			Oil & Grease	TPH-Gas	TPH-Diesel	TPH-Motor Oil
IS-1	4/26/1989	3.5	1,915	<10	46	-
		7.0	3,390	<10	200	-
		10.5	2,185	300	<10	-
IS-2	4/26/1989	3.0	1,305	<10	50	-
		8.5	36,535	<10	<10	-
B-1/MW-1	7/5/1989	5.5	845	<10	12	-
		10.5	<50	<10	<10	-
B-2	7/5/1989	6.0	1,160	<10	19	-
		10	14,900	20	172	-
B-3/MW-3	8/28/1989	5.0	1,845	<10	30	-
		12.0	95	<10	20	-
B-4	8/28/1989	4.5	6,685	<10	<10	-
		10.0	25,470	<10	170	-
B-5/MW-5	8/31/1989	6.0	330	<10	<10	-
		11.0	3,580	25	15	-
SS-1-E	10/5/1989	2' Beneath UST	-	12	12	-
SS-2-W	10/5/1989	2' Beneath UST	-	<10	11	-
SS-3-E	10/5/1989	2' Beneath UST	-	<10	<10	-
SS-4-W	10/5/1989	2' Beneath UST	-	240	60	-
SS-5-E	10/5/1989	2' Beneath UST	-	115	35	-
SS-6-W	10/5/1989	2' Beneath UST	-	460	700	-
B-7/MW-7	1/3/1990	4	9,000	<10	<10	-
		9	8,800	<10	788	-
B-8/MW-8	1/3/1990	4	2,000	<10	<10	-
		9	20,000	<10	<10	-
B-9	1/4/1990	4	23,000	<10	<10	-
		9	15,000	<10	5,050	-
B-10	1/4/1990	4	9,500	<10	380	-
		9	6,300	<10	<10	-
B-11	1/4/1990	4	45,000	<10	<10	-
		9	30,400	<10	<10	-
B-12	1/4/1990	4	12,000	<10	<10	-
		9	38,800	<10	<10	-
B-13	1/4/1990	4	9,400	<10	<10	-
		9	3,000	<10	<10	-
Sump	1/5/1990	Confirmation	10,500	<10	<10	-
MW-9	4/13/1994	8.5	-	-	<1	-
MW-10	4/14/1994	9.5	-	-	-	-
T-1	4/13/1994	8	-	-	-	-
T-2	4/13/1994	6	160	-	40	-
		8.5	-	<1	-	-
T-3	4/13/1994	8	-	<1	-	-
T-4	4/14/1994	9	-	<1	-	-
T-5	4/14/1994	5	710	<1	<10	-
		9	<50	<1	<1	-
T-7	4/14/1994	7.5	68	<1	<10	-
SG-1	4/19/2013	3.5 - 4.0	-	-	43	250
SG-2	4/19/2013	3.0 - 3.5	-	-	43	340
SG-3	4/19/2013	3.5 - 4.0	-	-	290	1,400
SG-4	4/19/2013	3.5 - 4.0	-	-	200	400
SG-5	4/19/2013	4.5 - 5.0	-	-	33	290
SB19-0.5	12/2/2015	0.5	-	-	24	86
SB20-1.0	11/30/2015	1.0	-	-	23	57
SB20-2.5	11/30/2015	2.5	-	-	36	110
SB21-0.5	12/2/2015	0.5	-	-	110	380
SB22-0.5	12/2/2015	0.5	-	-	1.6	< 50
SB23-0.5	12/2/2015	0.5	-	-	26	130
SB24-0.5	12/2/2015	0.5	-	-	56	180
SB25-1	12/2/2015	1.0	-	-	87	410
SB26-1.5	12/2/2015	1.5	-	-	27	160
SB27-2.5	12/2/2015	2.5	-	-	260	960
SB28-0.5	12/2/2015	0.5	-	-	64	190
SB28-4.5	12/2/2015	4.5	-	-	200	890
SB29-2.5	12/2/2015	2.5	-	-	39	110
SB30-1	12/2/2015	1.0	-	-	5.0	< 49
SB31-2	12/2/2015	2.0	-	-	35	150
SB31-6	12/2/2015	6.0	-	-	110	510
SB32-1.5	12/3/2015	1.5	-	-	26	100
SB34-4.0	12/1/2015	4.0	-	-	59	290
SB35-0.5	12/2/2015	0.5	-	-	130	450
SB36-1.5	11/30/2015	1.5	-	-	16	< 50
SB37-0.5	12/1/2015	0.5	-	-	2.9	< 50
SB38-1.5	11/30/2015	1.5	-	-	11	< 50
SB39-0.5	12/2/2015	0.5	-	-	79	210
SB40-1	12/2/2015	1.0	-	-	84	300
SB41-1	12/2/2015	1.0	-	-	150	490
SB42-1	12/2/2015	1.0	-	-	55	170
SB43-1.5	12/1/2015	1.5	-	-	200	680
SB45-1.5	12/1/2015	1.5	-	-	460	1,900
SB46-0.5	12/2/2015	0.5	-	-	62	310
SB48-1.0	12/1/2015	1.0	-	-	110	410
SB49-0.5	12/2/2015	0.5	-	-	8.2	< 50
SV6-0.5	12/1/2015	0.5	-	-	2.2	< 50
SV8-0.5	12/3/2015	0.5	-	-	7.2	< 50
SV10-0.5	12/1/2015	0.5	-	-	7.4	< 50
SV14-0.5	12/1/2015	0.5	-	-	4.8	< 50
SV16-0.5	12/1/2015	0.5	-	-	130	380
SV20-0.5	11/30/2015	0.5	-	-	34	98
SV22-0.5	11/30/2015	0.5	-	-	6.6	< 50
SV32-1.0	11/30/2015	1.0	-	-	38	160
SV32-7.0	11/30/2015	7.0	-	-	780	5,300
SV33-0.5	11/30/2015	0.5	-	-	130	410
SV33-4.5	11/30/2015	4.5	-	-	230	1,000
SV38-1.0	11/30/2015	1.0	-	-	29	83
SV43-1.0	11/30/2015	1.0	-	-	3.7	< 50
SV45-1.0	11/30/2015	1.0	-	-	130	600
SV47-1.5	12/3/2015	1.5	-	-	7.3	< 49
SV47-2.5	12/3/2015	2.5	-	-	16	< 50
SV47-6.0	12/3/2015	6.0	-	-	40	140

Notes:
Detections are in bold.
Only detected compounds are shown.
bgs = below ground surface
mg/kg: milligrams per kilogram
<50: Not detected at or above laboratory reporting limit shown
TPH: Total Petroleum Hydrocarbons
UST: Underground storage tank
- = Not analyzed / not applicable

Table 15
Soil Risk Assessment Dataset - Residential Scenario - PCBs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample Number	Depth (feet bgs)	Date Collected	Aroclor-1260 ⁽¹⁾ (mg/kg)
SB21	SB21-0.5	0.5	12/2/2015	1.9
SB23	SB23-0.5	0.5	12/2/2015	0.49
SB24	SB24-0.5	0.5	12/2/2015	3.7
SB25	SB25-1	1.0	12/2/2015	0.8
SB26	SB26-1.5	1.5	12/2/2015	0.12
SB40	SB40-1	1.0	12/2/2015	1.9
SB41	SB41-1	1.0	12/2/2015	2.9
SB42	SB42-1	1.0	12/2/2015	2.8
SB43	SB43-1.5	1.5	12/1/2015	1.3
SB45	SB45-1.5	1.5	12/1/2015	2.8
SB46	SB46-0.5	0.5	12/2/2015	1.2
SB48	SB48-1.0	1.0	12/1/2015	8.3

Notes:

Detections are shown in bold.

Only detected compounds are shown.

bgs = below ground surface

mg/kg = milligrams per kilogram

PCBs= Polychlorinated biphenyls

1. All 2015 samples were prepped or analyzed beyond the specified holding time.

Table 16
Soil Risk Assessment Dataset - Residential Scenario - Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
SB1	SB1-1.0	1	11/7/2013	ND(0.51)	5.9	160	0.39	0.94	86	13	52	81	0.22	100	51	190
SB4	SB4-1.5	1.5	11/7/2013	-	-	-	-	-	-	-	-	18	-	-	-	-
SB19	SB19-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	210	-	-	-	-
SB20	SB20-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-
SB21	SB21-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	90	-	-	-	-
SB22	SB22-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	9.3	-	-	-	-
SB23	SB23-0.5	0.5	12/2/2015	ND	5.2	200	0.57	ND(0.46)	41	11	30	31	0.98	57	30	87
SB24	SB24-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	43	-	-	-	-
SB25	SB25-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	140	-	-	-	-
SB26	SB26-1.5	1.5	12/2/2015	-	-	-	-	-	-	-	-	33	-	-	-	-
SB36	SB36-1.5	1.5	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-
SB40	SB40-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	58	-	-	-	-
SB41	SB41-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	86	-	-	-	-
SB42	SB42-1	1.0	12/2/2015	ND	6.7	170	ND(0.31)	ND(0.38)	96	16	60	70	0.28	120	43	150
SB43	SB43-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	160	-	-	-	-
SB45	SB45-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	200	-	-	-	-
SB46	SB46-0.5	0.5	12/2/2015	ND	7.0	160	0.42	0.45	42	11	78	150	0.41	52	46	240
SB48	SB48-1.0	1.0	12/1/2015	ND	6.0	180	ND(0.31)	0.48	48	13	59	190	0.83	75	58	230
SB49	SB49-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	24	-	-	-	-

Notes:

Detections are shown in bold.

Only detected metals are shown.

bgs = Below ground surface

mg/kg = Milligrams per kilogram

ND(0.24) = Not detected at or above the indicated laboratory reporting limit

ND = Not detected (reporting limit not provided)

- = Not analyzed

Table 17
Soil Risk Assessment Dataset - Residential Scenario - Total Petroleum
Hydrocarbons (TPH)
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Sample Depths (feet bgs)	TPH (mg/kg)	
			TPH-Diesel	TPH-Motor Oil
SB19-0.5	12/2/2015	0.5	24	86
SB20-1.0	11/30/2015	1.0	23	57
SB21-0.5	12/2/2015	0.5	110	380
SB22-0.5	12/2/2015	0.5	1.6	< 50
SB23-0.5	12/2/2015	0.5	26	130
SB24-0.5	12/2/2015	0.5	56	180
SB25-1	12/2/2015	1.0	87	410
SB26-1.5	12/2/2015	1.5	27	160
SB36-1.5	11/30/2015	1.5	16	< 50
SB40-1	12/2/2015	1.0	84	300
SB41-1	12/2/2015	1.0	150	490
SB42-1	12/2/2015	1.0	55	170
SB43-1.5	12/1/2015	1.5	200	680
SB45-1.5	12/1/2015	1.5	460	1,900
SB46-0.5	12/2/2015	0.5	62	310
SB48-1.0	12/1/2015	1.0	110	410
SB49-0.5	12/2/2015	0.5	8.2	< 50

Notes:

Detections are in bold.

Only detected compounds are shown.

bgs = below ground surface

mg/kg: milligrams per kilogram

<50: Not detected at or above laboratory reporting limit shown

TPH: Total Petroleum Hydrocarbons

Table 18
Soil Risk Assessment Dataset - Utility/Maintenance Scenario - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Location	Sample Depths (ft bgs)	VOCs (µg/kg)											
				Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Naphthalene	Toluene	Vinyl chloride	Total Xylenes
B-9	1/4/1990	At sump	4	<50	<10	--	--	--	--	--	<10	<300	12	--	<10
			9	<50	54	--	--	--	--	--	140	8,900	26	--	380
-	4/1/1990	B-13	4	--	--	--	--	--	--	--	--	<300	--	--	--
			9	--	--	--	--	--	--	--	--	<300	--	--	--
SB6-4.0	11/07/2013	SB6	4.0	--	--	--	--	--	--	--	--	2,900	--	--	--
SB6-10.0			10.0	--	--	--	--	--	--	--	--	<67	--	--	--
SB23-0.5	12/2/2015	SB23	0.5	--	--	--	--	--	--	--	--	ND	--	--	--
SB28-4.5	12/2/2015	SB-28	4.5	<45	ND	--	--	--	--	--	ND	--	ND	--	ND
SB29-2.5	12/2/2015	SB29	2.5	--	--	--	--	--	--	--	--	ND	--	--	--
SB34-4.0	12/1/2015	SB34	4.0	--	--	--	--	--	--	--	--	ND	--	--	--
SB48-1.0	12/1/2015	SB48	1.0	--	--	--	--	--	--	--	--	ND	--	--	--
SV47-2.5	12/03/2015	SV-47	2.5	<37	ND	--	--	--	--	--	ND	--	ND	--	ND
SB55-0.5	2/2/2016	SB55	0.5	< 15	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 7.4	--
SB55-5.5	2/2/2016		5.0	35	< 4.6	< 4.6	< 4.6	< 4.6	300	56	< 4.6	< 4.6	< 4.6	60	--
SB55-10	2/2/2016		10.0	< 3,200	< 810	< 810	< 810	< 810	24,000	8,300	< 810	< 810	< 810	< 1,600	--
SV56-0.5	2/2/2016	SV56	0.5	< 14	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 7.1	--
SV56-5	2/2/2016		5.0	23	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 8.3	--
SV57-0.5	2/2/2016	SV57	0.5	< 16	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 7.8	--
SV57-5	2/2/2016		5.0	< 14	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 7.2	--

Notes:

Detections are shown in bold

Only detected compounds are shown.

ft bgs = Feet below ground surface

VOCs = Volatile organic compounds

µg/kg = Micrograms per kilogram

<## = Not detected at or above the indicated laboratory reporting limit

ND = Not detected (reporting limit not provided)

-- = Not detected or not analyzed

DCE = Dichloroethene

Table 19
Soil Risk Assessment Dataset - Utility/Maintenance Scenario - SVOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Boring Location	Sample Number	Depth (Feet bgs)	Date Collected	SVOCs (µg/kg)														
				Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (g,h,i) Perylene	Chrysene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) Pyrene	2-Methyl-naphthalene	4-Methyl-phenol	Phenanthrene	Pyrene	1,2,4-TCB
SS-3-E	-	-	10/5/1989	-	ND(30)	ND(30)	-	ND(30)	-	ND(70)	ND(30)	-	-	ND(30)	200	ND(30)	ND(30)	200
B-9	-	4	1/4/1990	-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)
		9		-	ND(300)	ND(300)	-	ND(300)	-	690	340	-	-	1,100	ND(300)	590	550	ND(300)
B-13	-	4	1/4/1990	-	ND(300)	470	-	ND(300)	-	390	ND(300)	-	-	ND(300)	ND(300)	ND(300)	920	ND(300)
		9		-	ND(300)	ND(300)	-	ND(300)	-	ND(300)	ND(300)	-	-	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)
SB6	SB6-4.0	4	11/7/2013	1,200	2,400	3,000	3,700	1,500	1,400	2,900	4,400	810	1,300	ND(660)	ND(3,300)	5,500	4,500	-
	SB6-10.0	10		ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(67)	ND(330)	ND(67)	ND(67)
SB23	SB23-0.5	0.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB29	SB29-2.5	2.5	12/2/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB48	SB48-1.0	1.0	12/1/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Detections are shown in bold.

Only detected compounds are shown.

bgs = Below ground surface

µg/kg = Micrograms per kilogram

- = Not analyzed or not detected

ND(67) = Not detected at or above the indicated laboratory reporting limit

ND = Not detected (reporting limit not provided)

SVOC = semi-volatile organic compound

TCB = trichlorobenzene

Table 20
Soil Risk Assessment Dataset - Utility/Maintenance Scenario - PCBs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample Number	Depth (feet bgs)	Date Collected	Aroclor-1260 ⁽¹⁾ (mg/kg)	Aroclor-1262 (mg/kg)	Total PCBs (mg/kg)
SB6	SB6-4.0	4	11/7/2013	0.57	ND(0.012)	0.57
	SB6-8.0	8	11/7/2013	ND(0.012)	0.16	0.16
	SB6-10.0	10	11/7/2013	ND(0.012)	4.8	4.8
B-9	-	4	1/4/1990	ND(1)	-	-
	-	9		ND(1)	-	-
B-13	-	4	1/4/1990	3.1	-	3.1
	-	9		ND(1)	-	-
SB20	SB20-2.5	2.5	11/30/2015	1.7	-	1.7
SB21	SB21-0.5	0.5	12/2/2015	1.9	-	1.9
SB23	SB23-0.5	0.5	12/2/2015	0.49	-	0.49
SB24	SB24-0.5	0.5	12/2/2015	3.7	-	3.7
SB25	SB25-1	1.0	12/2/2015	0.8	-	0.8
SB26	SB26-1.5	1.5	12/2/2015	0.12	-	0.12
SB27	SB27-2.5	2.5	12/2/2015	0.59	-	0.59
SB28	SB28-0.5	0.5	12/2/2015	0.61	-	0.61
	SB28-4.5	4.5	12/2/2015	55	-	55
SB29	SB29-2.5	2.5	12/2/2015	1.9	-	1.9
SB31	SB31-2	2.0	12/2/2015	0.28	-	0.28
	SB31-6	6.0	12/2/2015	ND(0.050)	-	ND(0.050)
SB32	SB32-1.5	1.5	12/3/2015	0.29	-	0.29
SB34	SB34-4.0	4.0	12/1/2015	0.19	-	0.19
SB39	SB39-0.5	0.5	12/2/2015	0.25	-	0.25
SB43	SB43-1.5	1.5	12/1/2015	1.3	-	1.3
SB45	SB45-1.5	1.5	12/1/2015	2.8	-	2.8
SB48	SB48-1.0	1.0	12/1/2015	8.3	-	8.3
SV47	SV47-6.0	6.0	12/3/2015	ND(0.049)	-	ND(0.049)

Notes:

Detections are shown in bold.

Only detected compounds are shown.

bgs = below ground surface

mg/kg = milligrams per kilogram

PCBs= Polychlorinated biphenyls

ND(24) = Compound not detected at or above the indicated laboratory reporting limit

- = Not analyzed

1. All 2015 samples were prepped or analyzed beyond the specified holding time.

Table 21
Soil Risk Assessment Dataset - Utility/Maintenance Scenario - Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (Feet bgs)	Date Collected	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
B-9	B-9	4	1/4/1990	ND(10)	ND(16)	140	0.41	ND(0.7)	33	7.4	55	41	0.45	ND(1)	32	-	31	120
		9		ND(16)	ND(16)	610	0.31	44	180	15	2,300	980	0.66	27	350	-	26	6,200
B-13	B-13	4	1/4/1990	ND(10)	ND(16)	160	0.36	ND(0.7)	62	6.5	120	520	ND(0.009)	ND(1)	42	-	27	300
		9		ND(10)	ND(16)	37	0.15	ND(0.7)	29	2.9	4.9	12	ND(0.009)	ND(1)	18	-	15	210
SB6	SB6-4.0	4	11/7/2013	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-
	SB6-8.0	8	11/7/2013	-	-	-	-	-	-	-	-	58	-	-	-	-	-	-
	SB6-10.0	10	11/7/2013	7.5	5.6	140	0.27	1.9	140	16	390	160	0.13	4.9	190	6.0	41	270
SB10	SB10-2.0	2	11/8/2013	ND(0.47)	6.9	550	0.33	0.58	38	6.9	27	45	0.15	0.61	36	ND(0.47)	34	90
	SB10-5.0	5	11/8/2013	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-
	SB10-10.0	10	11/8/2013	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-
SB19	SB19-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	210	-	-	-	-	-	-
SB20	SB20-1.0	1.0	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-
	SB20-2.5	2.5	11/30/2015	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-
SB21	SB21-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-
SB22	SB22-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	9.3	-	-	-	-	-	-
SB23	SB23-0.5	0.5	12/2/2015	ND	5.2	200	0.57	ND(0.46)	41	11	30	31	0.98	ND(0.46)	57	ND	30	87
SB24	SB24-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-
SB25	SB25-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-
SB26	SB26-1.5	1.5	12/2/2015	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-
SB27	SB27-2.5	2.5	12/2/2015	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-
SB28	SB28-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-
	SB28-4.5	4.5	12/2/2015	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-
SB29	SB29-2.5	2.5	12/2/2015	ND	6.9	190	0.48	ND(0.45)	45	11	38	35	0.85	ND(0.45)	48	ND	38	130
SB30	SB30-1	1.0	12/2/2015	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-
SB31	SB31-2	2.0	12/2/2015	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-
	SB31-6	6.0	12/2/2015	-	-	-	-	-	-	-	-	1,200	-	-	-	-	-	-
SB32	SB32-1.5	1.5	12/3/2015	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-
SB34	SB34-4.0	4.0	12/1/2015	ND	5.6	100	0.29	ND(0.34)	78	13	23	9.4	0.16	ND(1.4)	86	ND	59	56
SB36	SB36-1.5	1.5	11/30/2015	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-
SB39	SB39-0.5	0.5	12/2/2015	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-
SB43	SB43-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-
SB45	SB45-1.5	1.5	12/1/2015	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-
SB48	SB48-1.0	1.0	12/1/2015	ND	6.0	180	ND(0.31)	0.48	48	13	59	190	0.83	ND(1.6)	75	ND	58	230
SV47	SV47-1.5	1.5	12/3/2015	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-
	SV47-6.0	6.0	12/3/2015	-	-	-	-	-	-	-	-	350	-	-	-	-	-	-

Notes:

Detections are shown in bold.

Only detected metals are shown.

bgs = Below ground surface

mg/kg = Milligrams per kilogram

ND(0.24) = Not detected at or above the indicated laboratory reporting limit

ND = Not detected (reporting limit not provided)

- = Not analyzed

Table 22
Soil Risk Assessment Dataset - Utility/Maintenance Scenario - Total Petroleum Hydrocarbons (TPH)
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample ID	Date	Sample Depths (feet bgs)	TPH (mg/kg)			
			Oil & Grease	TPH-Gas	TPH-Diesel	TPH-Motor Oil
SS-1-E	10/5/1989	2' Beneath UST	-	12	12	-
SS-3-E	10/5/1989	2' Beneath UST	-	<10	<10	-
B-9	1/4/1990	4	23,000	<10	<10	-
		9	15,000	<10	5,050	-
B-13	1/4/1990	4	9,400	<10	<10	-
		9	3,000	<10	<10	-
SB19-0.5	12/2/2015	0.5	-	-	24	86
SB20-1.0	11/30/2015	1.0	-	-	23	57
SB20-2.5	11/30/2015	2.5	-	-	36	110
SB21-0.5	12/2/2015	0.5	-	-	110	380
SB22-0.5	12/2/2015	0.5	-	-	1.6	< 50
SB23-0.5	12/2/2015	0.5	-	-	26	130
SB24-0.5	12/2/2015	0.5	-	-	56	180
SB25-1	12/2/2015	1.0	-	-	87	410
SB26-1.5	12/2/2015	1.5	-	-	27	160
SB27-2.5	12/2/2015	2.5	-	-	260	960
SB28-0.5	12/2/2015	0.5	-	-	64	190
SB28-4.5	12/2/2015	4.5	-	-	200	890
SB29-2.5	12/2/2015	2.5	-	-	39	110
SB30-1	12/2/2015	1.0	-	-	5.0	< 49
SB31-2	12/2/2015	2.0	-	-	35	150
SB31-6	12/2/2015	6.0	-	-	110	510
SB32-1.5	12/3/2015	1.5	-	-	26	100
SB34-4.0	12/1/2015	4.0	-	-	59	290
SB36-1.5	11/30/2015	1.5	-	-	16	< 50
SB39-0.5	12/2/2015	0.5	-	-	79	210
SB43-1.5	12/1/2015	1.5	-	-	200	680
SB45-1.5	12/1/2015	1.5	-	-	460	1,900
SB48-1.0	12/1/2015	1.0	-	-	110	410
SV47-1.5	12/3/2015	1.5	-	-	7.3	< 49
SV47-2.5	12/3/2015	2.5	-	-	16	< 50
SV47-6.0	12/3/2015	6.0	-	-	40	140

Notes:

Detections are in bold.

Only detected compounds are shown.

bgs = below ground surface

mg/kg: milligrams per kilogram

<##: Not detected at or above laboratory reporting limit shown

TPH: Total Petroleum Hydrocarbons

UST: Underground Storage Tank

- = Not analyzed

Table 23
Groundwater Risk Assessment Dataset - VOCs
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Well / Location	Date	TPH (µg/L)		VOCs (µg/L)																		
		TPH-Diesel	TPH-Motor Oil	Benzene	TBA	n-Butyl Benzene	sec-Butyl Benzene	Carbon disulfide	Chloro-benzene	cis-1,2-DCE	Ethyl-benzene	Isopropyl-benzene	4-Isopropyl-toluene	Naphthalene	n-Propyl benzene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Vinyl Chloride	m,p-Xylene	o-Xylene	Total Xylenes
SG-1 (10.75')	4/19/2013	920	5,600	<0.5	<2.0	<0.5	<0.5	1.1	4.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	--	--	<0.5
SG-4 (11.75')	4/19/2013	4,700	12,000	2	2.3	<0.5	1.3	3.9	<0.5	0.69	<0.5	1.1	<0.5	<0.5	<0.5	0.54	<0.5	<0.5	-	--	--	<0.5
SG-5 (10.29')	4/19/2013	58,000	9,500	8.1	<20	32	38	<5.0	<5.0	<5.0	45	67	13	84	87	<3.0	350	24	-	--	--	59
SB51	2/1/2016	-	-	3.2	--	--	--	--	--	< 0.50	< 0.50	--	--	5	--	< 0.50	< 0.50	< 0.50	1.6	-	-	--
SB56	2/4/2016	-	-	5.6	--	--	--	--	--	< 25	< 25	--	--	< 100	--	< 25	< 25	< 25	< 25	< 25	< 25	--
SB57	2/4/2016	-	-	3.0	--	--	--	--	--	< 8.3	< 8.3	--	--	< 33	--	< 8.3	4	2	< 8.3	5	3	--
SB59	2/3/2016	-	-	< 25	--	--	--	--	--	< 25	< 25	--	--	< 100	--	< 25	< 25	< 25	< 25	< 25	< 25	--
SB61	2/3/2016	-	-	4.0	--	--	--	--	--	9	< 13	--	--	< 50	--	< 13	3	< 13	7.3	< 13	< 13	--
SB62	2/4/2016	-	-	3.3	--	--	--	--	--	2	1	--	--	3	--	2	3	2	2.8	3	4	--

Notes:

Detections are in bold.

Only detected compounds are shown.

DCE = dichloroethene

µg/L = micrograms per liter

<## = Not detected at or above laboratory reporting limit shown

- = Not analyzed

-- = Not analyzed or not detected

TBA = t-Butyl alcohol

TPH = Total Petroleum Hydrocarbons

VOCs = Volatile Organic Compounds

Table 24
Groundwater Risk Assessment Dataset - Metals
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Location ID	Depth (feet bgs)	Date Collected	Arsenic (µg/L)	Barium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Lead (µg/L)	Mercury (µg/L)	Molybdenum (µg/L)	Nickel (µg/L)	Selenium (µg/L)	Vanadium (µg/L)	Zinc (µg/L)
GGW-1	10 to 20	11/11/2013	ND(5.0)	250	8.9	ND(5.0)	59	0.28	10	5.4	27	71	210
GGW-2	10 to 20	11/11/2013	6.4	280	8.0	9.1	190	0.41	ND(5.0)	8.5	26	22	360
GGW-3	10 to 20	11/11/2013	32	340	ND(5.0)	ND(5.0)	17	ND(0.20)	8.7	ND(5.0)	ND(10)	ND(5.0)	29
GGW-4	10 to 20	11/11/2013	ND(5.0)	200	ND(5.0)	ND(5.0)	1.3	ND(0.20)	10	ND(5.0)	ND(10)	ND(5.0)	ND(20)
GGW-5	10 to 20	11/11/2013	ND(5.0)	350	ND(5.0)	ND(5.0)	9.9	0.21	6.6	6.4	ND(10)	ND(5.0)	23
GGW-6	10 to 20	11/11/2013	ND(5.0)	94	ND(5.0)	ND(5.0)	3.1	ND(0.20)	5.9	ND(5.0)	ND(10)	ND(5.0)	ND(20)

Notes:

Detections are shown in bold.

Only detected metals are shown.

µg/L = Micrograms per liter

bgs = Below ground surface

ND(5.0) = Compound not detected at or above the indicated laboratory reporting limit

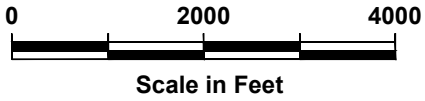
Table 25
Soil Gas Risk Assessment Dataset
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Date Sampled	Sample ID	Sample Depth (feet bgs)	VOCs (µg/m³)																								
				Acetone	Benzene	Carbon disulfide	Chloroform	Chloro-methane	cis-1,2-DCE	trans-1,2-DCE	Ethyl-benzene	4-Ethyl-toluene	2-Hexanone	2-Butanone (MEK)	Methyl Isobutyl Ketone (MIBK)	Naphthalene	1,1,2,2-PCA	PCE	Toluene	1,1,1-TCA	TCE	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Vinyl chloride	m,p-Xylene	o-Xylene	Xylenes < 13	Other VOCs
SG-1	4/22/2013	SG-1	4.5	< 7.2	8.6	ND	ND	< 1.6	< 3.0	ND	< 3.3	< 3.7	--	< 6.7	ND	--	ND	< 5.2	3.4	ND	< 4.1	< 11	< 3.7	ND	ND	ND	< 13	ND
SG-2	4/22/2013	SG-2	4.5	< 13	< 4.5	ND	ND	< 2.9	< 5.6	ND	< 6.1	13	--	< 12	ND	--	ND	< 9.6	< 5.3	ND	< 7.6	37	16	ND	ND	ND	< 24	ND
SG-3	4/22/2013	SG-3	4.5	< 38	73	ND	ND	< 8.3	24	ND	< 17	< 20	--	< 35	ND	--	ND	30	18	ND	< 21	< 59	< 20	ND	ND	ND	< 69	ND
SG-4	4/22/2013	SG-4	4.5	19	37	ND	ND	2.4	< 2.9	ND	4.6	< 3.6	--	7.7	ND	--	ND	< 4.9	16	ND	9.6	< 11	< 3.6	ND	ND	ND	21.8	ND
SG-5	4/22/2013	SG-5	4.5	19	9.5	ND	ND	< 1.7	< 3.3	ND	6.2	< 4.0	--	< 7.3	ND	--	ND	< 5.6	6.1	ND	9.1	< 12	< 4.0	ND	ND	ND	38	ND
SV1	4/24/2015	SV1-5.0	5.0	-	6.68	ND	ND	< 2.07	< 3.97	ND	< 4.34	-	--	28.6	ND	--	ND	< 6.78	6.41	ND	< 5.37	< 4.92	< 4.92	ND	ND	ND	34.2	ND
SV1	4/24/2015	SV1-10.0	10.0	-	5.72	ND	ND	-	< 3.97	ND	< 4.34	-	--	< 5.89	ND	--	ND	< 6.78	6.86	ND	< 5.37	< 4.92	< 4.92	ND	ND	ND	31.6	ND
SV2	4/24/2015	SV2-5.0	5.0	-	76.3	ND	ND	-	< 79.3	ND	< 86.8	-	--	< 118	ND	--	ND	< 136	< 75.4	ND	< 107	< 98.3	< 98.3	ND	ND	ND	< 86.8	ND
SV2	4/24/2015	SV2-9.5	9.5	-	19.6	ND	ND	-	< 7.93	ND	< 8.68	-	--	37.0	ND	--	ND	< 13.6	14.0	ND	< 10.7	< 9.83	< 9.83	ND	ND	ND	< 8.68	ND
SV3	4/24/2015	SV3-5.0	5.0	-	< 6.39	ND	ND	-	< 7.93	ND	< 8.68	-	--	28.9	ND	--	ND	< 13.6	< 7.54	ND	< 10.7	< 9.83	< 9.83	ND	ND	ND	< 8.68	ND
SV3	4/24/2015	SV1-9.5	9.5	-	< 63.9	ND	ND	-	< 79.3	ND	< 86.8	-	--	< 118	ND	--	ND	< 13.6	< 7.54	ND	< 10.7	< 9.83	< 9.83	ND	ND	ND	< 8.68	ND
SV5	12/2/2015	SV5-5	5.0	120	12	3.9	7.2	ND	< 1.6	< 1.6	2.6	< 2.0	--	55	< 1.6	--	< 2.7	8.9	< 1.6	< 2.1	8.5	3.2	< 1.0	25	3.8	ND	ND	ND
SV5	12/2/2015	SV5-10.0	10.0	76	< 2.1	< 4.2	10	ND	< 2.7	< 2.7	< 2.9	< 3.3	--	43	< 2.8	--	< 4.6	2.9	< 2.8	< 3.6	< 6.6	< 3.3	< 1.7	< 5.8	< 2.9	ND	ND	ND
SV6	12/2/2015	SV6-5	5.0	270	31	120	21	ND	5.4	< 2.7	3.2	< 3.4	--	73	< 2.8	--	< 4.7	16	< 2.8	< 3.7	< 6.7	< 3.4	< 1.7	9.3	< 3.0	ND	3.9 (Freon 21)	ND
SV6	12/2/2015	SV6-10.0	10.0	37	< 2.9	< 5.7	< 3.4	ND	< 3.6	< 3.6	< 4.0	< 4.5	--	12	< 3.8	--	< 6.3	< 6.2	< 3.5	< 3.7	< 4.9	< 9	< 4.5	< 2.3	< 8.0	< 4.0	ND	4.8 (Freon 21)
SV7	12/2/2015	SV7-10	10.0	< 9,400	< 1,000	< 2,000	< 1,200	ND	< 1,300	< 1,300	< 1,400	< 1,600	--	< 1,900	88,000	--	< 2,200	< 2,100	< 1,200	< 1,300	< 1,700	< 3,100	< 1,600	< 810	< 2,700	< 1,400	ND	ND
SV8	12/3/2015	SV8-5	5.0	76	11	33	< 1.5	2.9	7.0	9.1	< 1.7	< 2.0	--	4.0	< 1.6	--	< 2.7	7.8	13	< 1.6	< 2.1	< 3.9	< 2.0	110	5.4	1.9	ND	3.2 (MC)
SV8	12/3/2015	SV8-10.0	10.0	200	4.8	18	< 4.6	ND	< 5.0	< 5.0	< 5.5	< 6.2	--	35	< 5.2	--	< 8.7	< 8.6	9.7	< 5.2	< 6.8	< 12	< 6.2	7.8	< 11	< 5.5	ND	ND
SV9	12/2/2015	SV9-5	5.0	500	8.2	< 11	< 6.7	ND	< 7.3	< 7.3	< 8.0	< 9.0	--	100	840	--	< 13	< 12	23	< 7.5	< 9.9	< 18	< 9.0	< 4.7	20	< 8.0	ND	ND
SV9	12/2/2015	SV9-10.0	10.0	160	< 2.6	< 5.0	< 2.9	ND	< 3.2	< 3.2	< 3.5	< 3.9	--	48	140	--	< 5.5	< 5.4	3.9	< 3.3	< 4.3	< 7.9	< 3.9	< 2.0	7.5	3.9	ND	ND
SV10	12/2/2015	SV10-5	5.0	630	30	< 19	< 11	ND	22	< 12	< 13	< 15	--	67	300	--	< 21	< 21	26	< 12	< 16	< 30	< 15	< 7.8	< 26	< 13	ND	ND
SV10	12/2/2015	SV10-10.0	10.0	180	150	< 7.7	< 4.5	ND	4.8	< 4.9	< 5.3	< 6.1	--	41	68	--	< 8.5	59	11	< 5.0	< 6.6	< 12	7.1	< 3.1	< 11	5.9	ND	ND
SV11	12/3/2015	SV11-5	5.0	330	84	170	< 8.8	ND	43	< 9.5	< 10	< 12	--	81	< 9.8	--	< 16	< 16	13	< 9.8	< 13	< 24	< 12	< 6.1	27	< 10	ND	ND
SV11	12/3/2015	SV11-10.0	10.0	770	900	< 38	< 23	ND	< 24	< 24	< 27	< 30	--	140	< 25	--	< 42	< 42	85	< 25	< 33	< 61	< 30	< 16	< 53	< 27	ND	ND
SV12	12/3/2015	SV12-5	5.0	300	40	63	< 7.1	ND	< 7.7	< 7.7	< 8.4	< 9.6	--	37	< 8.0	--	< 13	< 13	15	< 8.0	< 10	< 19	< 9.6	< 5.0	< 17	< 8.4	ND	ND
SV12	12/3/2015	SV12-10.0	10.0	190	7.1	26	< 5.7	ND	< 6.2	< 6.2	< 6.7	< 7.6	--	58	< 6.4	--	< 11	< 11	7.8	< 6.4	< 8.3	< 15	< 7.6	< 4.0	< 13	< 6.7	ND	ND
SV13	12/2/2015	SV13-5	5.0	380	17	31	< 10	ND	< 11	< 11	< 12	< 14	--	65	< 12	--	< 20	< 19	48	< 12	< 15	< 28	< 14	< 7.3	160	< 12	ND	ND
SV13	12/2/2015	SV13-10.0	10.0	420	36	44	< 6.7	ND	< 7.3	< 7.3	8.4	< 9.0	--	55	< 7.5	--	< 13	< 12	67	< 7.5	< 9.8	< 18	< 9.0	< 4.7	27	< 8.5	ND	ND
SV14	12/2/2015	SV14-5	5.0	590	83	140	< 14	ND	< 15	< 15	< 17	< 19	--	96	< 16	--	< 26	< 26	32	< 16	< 21	< 38	< 19	< 9.8	< 33	< 17	ND	ND
SV14	12/2/2015	SV14-10.0	10.0	530	610	< 24	< 14	ND	< 15	< 15	28	< 19	--	64	< 16	--	< 26	< 26	71	< 16	< 20	< 37	< 19	< 9.7	110	23	ND	ND
SV15	12/2/2015	SV15-5	5.0	2,400	39	71	< 33	ND	< 36	< 36	< 40	< 45	--	56	310	--	< 63	< 62	< 34	< 37	< 49	< 90	< 45	< 23	< 79	< 40	ND	ND
SV15	12/2/2015	SV15-8	8.0	460	120	190	< 9.5	ND	24	< 10	19	< 13	--	< 15	< 11	--	< 18	< 18	49	< 11	< 14	< 25	< 13	< 6.6	54	22	ND	ND
SV16	12/2/2015	SV16-5	5.0	630	59	28	< 17	ND	< 18	< 18	< 20	< 22	--	64	< 19	--	< 31	< 31	43	< 19	< 25	< 45	< 22	< 12	< 40	< 20	ND	ND
SV16	12/2/2015	SV16-10.0	10.0	590	< 5.6	< 11	< 6.4	ND	13	< 10	8.9	< 8.7	--	77	< 7.0	--	< 12	< 12	20	< 7.2	< 9.5	< 17	< 8.7	5.4	27	8.5	ND	9 (1,1-DCA)
SV17	12/1/2015	SV17-5	5.0	400	130	120	31	ND	< 10	< 10	24	< 13	--	93	< 11	--	< 18	< 18	120	< 11	< 14	< 26	< 13	< 6.7	130	26	ND	ND
SV17	12/1/2015	SV17-10.0	10.0	< 290	4,200	< 62	< 36	ND	< 39	< 39	< 43	< 49	--	< 58	< 40	--	< 120	< 67	180	< 40	< 53	< 97	< 49	< 25	< 86	< 43	ND	ND
SV18	12/2/2015	SV18-5	5.0	780	210	120	< 9.4	ND	29	< 10	< 11	< 13	--	100	< 11	--	< 18	< 17	32	< 10	< 14	< 25	< 13	83	43	< 11	ND	ND
SV18	12/2/2015	SV18-10.0	10.0	380	84	280	< 6.1	20	< 6.6	< 6.6	8.9	< 8.2	--	72	< 6.8	--	< 11	< 11	39	< 6.8	< 8.9	< 16	< 8.2	57	27	9.2	ND	ND
SV19	12/1/2015	SV19-5	5.0	760	300	66	< 10	ND	14	< 11	< 12	< 14	--	150	< 11	--	< 19	< 19	59	< 11	< 15	< 28	< 14	650	68	13	ND	ND
SV19	12/1/2015	SV19-10.0	10.0	180	760	110	< 11	ND	170	< 12	< 13	< 14	--	44	< 12	--	< 20	< 20	53	< 12	34	< 29	< 14	47	45	12	ND	ND
SV20	12/1/2015	SV20-5	5.0	960	120	120	< 31	ND	< 33	< 33	< 37	< 41	--	110	< 35	--	< 58	< 57	58	< 35	< 45	< 83	< 41	23	< 73	< 37	ND	ND
SV20	12/1/2015	SV20-10.0	10.0	230	110	60	< 7.3	ND	25	< 7.9	9.9	< 9.7	--	54	< 8.1	--	< 14	< 13	65	< 8.1	< 11	< 19	< 9.7	19	40	11	ND	7.9 (MC)
SV21	12/1/2015	SV21-5	5.0	620	62	120	23	ND	70	< 12	< 13	< 14	--	83	< 12	--	< 20	< 20	54	< 12	17	< 29	< 14	48	< 26	< 13	ND	ND
SV21	12/1/2015	SV21-10.0	10.0	290	42	260	< 7.6	ND	75	< 8.2	< 9.0	< 10	--	64	< 8.5	--	< 14	< 14	48	< 8.5	20	< 29	< 10	140	67	< 9	ND	ND
SV22	12/1/2015	SV22-5	5.0	< 11,000	< 1,200	< 2,400	< 1,400	ND	< 1,500	< 1,500	< 1,600	< 1,900	--	< 2,200	< 1,500	--	< 2,600	< 2,600	< 1,400	< 1,500	< 2,000	< 3,700	< 1,900	83,000	< 3,300	< 1,600	ND	ND
SV22	12/1/2015	SV22-10.0	10.0	< 5,200	< 560	< 1,100	< 640	ND	1,500	1,200	< 760	< 860	--	< 1,000														

Table 25
Soil Gas Risk Assessment Dataset
Human Health Risk Assessment Work Plan
6701 - 6707 Shellmound Street, Emeryville, California

Sample Location	Date Sampled	Sample ID	Sample Depth (feet bgs)	VOCs (µg/m ³)																								
				Acetone	Benzene	Carbon disulfide	Chloroform	Chloro-methane	cis-1,2-DCE	trans-1,2-DCE	Ethyl-benzene	4-Ethyl-toluene	2-Hexanone	2-Butanone (MEK)	Methyl Isobutyl Ketone (MIBK)	Naphthalene	1,1,2,2-PCA	PCE	Toluene	1,1,1-TCA	TCE	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylene	o-Xylene	Xylenes	Other VOCs
SV44	12/1/2015	SV44-5	5.0	220	50	60	< 2.4	ND	< 2.6	< 2.6	30	6.9	--	49	< 2.7	17	< 4.6	< 4.5	17	< 2.7	< 3.6	16	3.7	< 1.7	22	13	ND	ND
	12/1/2015	SV44-10	10.0	130	5.6	26	< 3.2	ND	< 3.5	< 3.8	< 3.8	< 4.3	--	28	< 3.6	--	< 6.0	< 5.9	4.7	< 3.6	< 4.7	< 8.6	< 4.3	3.1	< 7.6	< 3.8	ND	ND
SV45	12/1/2015	SV45-5	5.0	540	51	45	22	ND	6.6	< 6.8	10	< 8.4	--	110	< 7.0	--	< 12	< 12	14	< 7.0	< 9.2	< 17	< 8.4	< 4.4	50	15	ND	ND
	12/1/2015	SV45-10	10.0	170	16	7.7	4.9	ND	9.5	< 2.9	6.0	< 3.5	--	76	< 2.9	--	< 4.9	< 4.9	8.3	< 2.9	< 3.9	9.7	4.4	< 1.8	33	12	ND	3.4 (BC)
SV47	12/3/2015	SV47-5	5.0	250	13	22	< 3.9	ND	8.8	< 4.2	< 4.6	< 5.2	--	38	< 4.3	--	< 7.2	< 7.2	24	5.7	< 5.7	< 10	< 5.2	< 2.7	11	< 4.6	ND	ND
SV7R	2/4/2016	SV7R-10	10.0	43	18	< 6.9	< 4.1	ND	< 4.4	< 4.4	5.3	< 5.4	--	17.0	250	--	< 7.6	< 7.5	39	< 4.5	< 6.0	< 11	< 5.4	< 2.8	22	9.1	--	8.8 (Freon 12), 4.2 (MC)
SV48	2/1/2016	SV48-5	5.0	200	34	< 6.7	< 3.9	ND	< 4.2	< 4.2	36	12	--	21	< 4.4	--	< 7.3	< 7.2	210	< 4.4	< 5.7	27	12	< 2.7	150	52	--	ND
	2/1/2016	SV48-10	10.0	150	14	80	< 2.8	ND	8.2	< 3	9.2	5.3	--	44	< 3.1	--	< 5.2	< 5.1	64	< 3.1	< 4.1	11	3.9	3.2	39	12	--	5.8 (CB)
SV49	2/1/2016	SV49-5	5.0	90	59	6.6	< 2.7	ND	14	< 2.9	14	4.5	--	37	< 3	--	< 5.1	< 5.0	28	< 3	6.5	9.9	5	< 1.9	57	24	--	ND
SV50	2/2/2016	SV50-5	5.0	270	210	33	< 14	ND	< 16	< 16	160	20	--	40	220	--	< 27	< 27	1600	< 16	< 21	< 39	< 19	200	580	160	--	ND
SV51	2/2/2016	SV51-5	5.0	< 650	160	< 140	< 81	ND	< 87	< 87	< 96	< 110	--	< 130	< 90	--	< 150	< 150	260.0	< 90	< 120	< 220	< 110	6500.0	< 190	< 96	--	ND
SV52	2/2/2016	SV52-5	5.0	150	130	< 14	< 8	ND	72	< 8.6	< 9.5	< 11	--	38	< 8.9	--	< 15	< 15	53	< 8.9	< 12	< 21	< 11	220	33	10	--	ND
SV53	2/2/2016	SV53-5	5.0	140	79	55	2.1	2.6	24	3.2	20	5.8	--	32	< 1.6	--	< 2.7	3.2	200	1.8	13	11	5.5	110	75	25	--	3.3 (1,1-DCE), 3.9 (Freon 12), 4.1 (MC), 3.5 (Freon 11), 6.6 (VA)
SV54	2/1/2016	SV54-5	5.0	< 670	200	< 140	< 82	ND	< 89	< 89	< 98	< 110	--	< 130	< 92	--	< 150	< 150	< 85	< 92	< 120	< 220	< 110	5,100	< 200	< 98	--	ND
SV55	2/2/2016	SV55-5	5.0	480	79	20	< 8.2	ND	< 8.9	< 8.9	< 9.7	< 11	--	56	< 9.2	--	< 15	< 15	29	< 9.2	< 12	< 22	< 11	1200	< 19	< 9.7	--	ND
SV56	2/2/2016	SV56-5	5.0	< 2,300	270	< 490	< 290	ND	770	< 310	< 340	< 380	--	< 460	< 320	--	< 540	< 530	< 290	< 320	< 420	< 770	< 380	29000	< 680	< 340	--	ND
SV57	2/2/2016	SV57-5	5.0	< 780	190	< 160	< 96	ND	210	< 100	< 110	< 130	--	< 160	< 110	--	< 180	< 180	180	< 110	< 140	< 260	< 130	9400	< 230	< 110	--	ND
SV58	2/3/2016	SV58-5	5.0	99	38	18	< 2.6	ND	< 2.8	< 2.8	15	5.9	--	24	< 2.9	--	< 4.9	< 4.9	140	< 2.9	< 3.8	12	5	< 1.8	58	18	--	3.7 (Freon 12)
	2/3/2016	SV58-10	10.0	220	160	150	< 4.7	ND	18	< 5.1	22	9.9	--	63	< 5.3	--	< 8.9	< 8.8	89	< 5.3	11	15	7.5	6.4	64	22	--	ND
SV59	2/3/2016	SV59-5	5.0	< 11,000	< 1,200	< 2,300	< 1,400	ND	3300	1700	< 1,600	< 1,900	--	< 2,200	< 1,500	--	< 2,600	< 2,600	< 1,400	< 1,500	< 2,000	< 3,700	< 1,900	120000	< 3,300	< 1,600	--	ND
	2/3/2016	SV59-10	10.0	< 3500	< 380	< 740	< 440	ND	5600	2100	< 520	< 590	--	< 700	< 490	--	< 820	< 810	< 450	< 490	680	< 1,200	< 590	15000	< 1,000	< 520	--	ND
SV60	2/3/2016	SV60-5	5.0	< 490	110	< 100	< 61	ND	720	220	< 72	< 82	--	< 98	72	--	< 110	< 110	500	< 68	< 89	< 160	< 82	3100	170	86	--	ND
	2/3/2016	SV60-10	10.0	< 130,000	< 14,000	< 27,000	< 16,000	ND	98000	41000	< 19,000	< 21,000	--	< 26,000	< 18,000	--	< 30,000	< 29,000	< 16,000	< 18,000	< 23,000	< 43,000	< 21,000	920000	< 38,000	< 19,000	--	ND
SV61	2/4/2016	SV61-5	5.0	260	37	< 21	< 12	ND	< 13	< 13	300.0	200	--	25	< 14	--	< 23	< 23	820	< 14	< 18	500	240	< 8.5	1500	530	--	ND
	2/4/2016	SV61-10	10.0	< 1,800	340	< 380	< 230	ND	< 240	< 240	< 270	380	--	< 360	< 250	--	< 420	< 420	280	< 250	< 330	580	340	7500	1400	410	--	ND
SV62	9/7/2016	SV62-5	5.0	590	120	41	17	< 15	< 15	--	55	< 18	< 15	93	< 15	< 39	--	--	250	--	< 20	50	27	< 9.4	390	94	--	ND
	9/7/2016	SV62-10	10.0	< 1200	< 130	< 250	< 150	< 170	< 160	--	< 180	< 200	< 170	< 240	< 170	< 420	--	--	< 150	--	< 220	< 400	< 200	< 100	< 350	< 180	--	ND
SV63	9/7/2016	SV63-5	5.0	310	27	25	8.7	< 3.7	< 3.5	--	23	4.5	6.8	71	14	< 9.3	--	--	68	--	< 4.8	13	6.3	< 2.3	92	27	--	ND
	9/7/2016	SV63-10	10.0	< 740	170	< 160	< 91	< 100	< 99	--	< 110	< 120	< 100	< 150	< 100	< 260	--	--	< 94	--	< 130	< 250	< 120	< 64	620	< 110	--	ND
SV64	9/7/2016	SV64-5	5.0	190	12	9.8	< 2.0	< 2.3	< 2.2	--	7.5	< 2.7	2.8	40	3.9	< 5.8	--	--	36	--	< 3.0	6.6	< 2.7	< 1.4	26	7.6	--	ND
	9/7/2016	SV64-10	10.0	100	19	37	< 6.6	< 7.4	< 7.1	--	8.1	< 8.8	< 7.4	26	< 7.4	< 19	--	--	28	--	< 9.7	< 18	< 8.8	< 4.6	20	< 7.8	--	ND
SV65	9/7/2016	SV65-5	5.0	200	23	< 6.2	< 3.6	< 4.1	< 3.9	--	6.3	< 4.9	< 4.0	50	7.6	< 10	--	--	17	--	< 5.3	< 9.7	< 4.9	< 2.5	22	7.8	--	ND
	9/7/2016	SV65-10	10.0	73	83	11	< 3.5	4.6	< 3.7	--	15	< 4.6	< 3.9	19	< 3.9	< 9.9	--	--	21	--	< 5.1	< 9.3	< 4.6	< 0.94	69	31	--	ND
SV66	9/7/2016	SV66-5	5.0	160	29	8.3	4.2	3.9	14	--	17	< 4.0	< 3.3	30	< 3.3	< 8.6	--	--	86	--	6.1	12	4.1	< 2.1	54	18	--	ND
	9/7/2016	SV66-10	10.0	190	120	29	< 13	< 15	23	--	< 16	< 18	< 15	57	< 15	< 38	--	--	37	--	< 19	< 36	< 18	< 9.3	37	< 16	--	ND
SV67	9/12/2016	SV67-5	5.0	100	3900	< 12	< 7.3	< 8.2	< 7.9	--	1900	190	< 8.2	15	< 8.2	< 130	--	--	4700	--	50	320	180	< 5.1	3900	760	--	15 (1,1-DCA); 18 (1,2-DCA)
	9/12/2016	SV67-10	10.0	< 59	6.5																							

PLATES

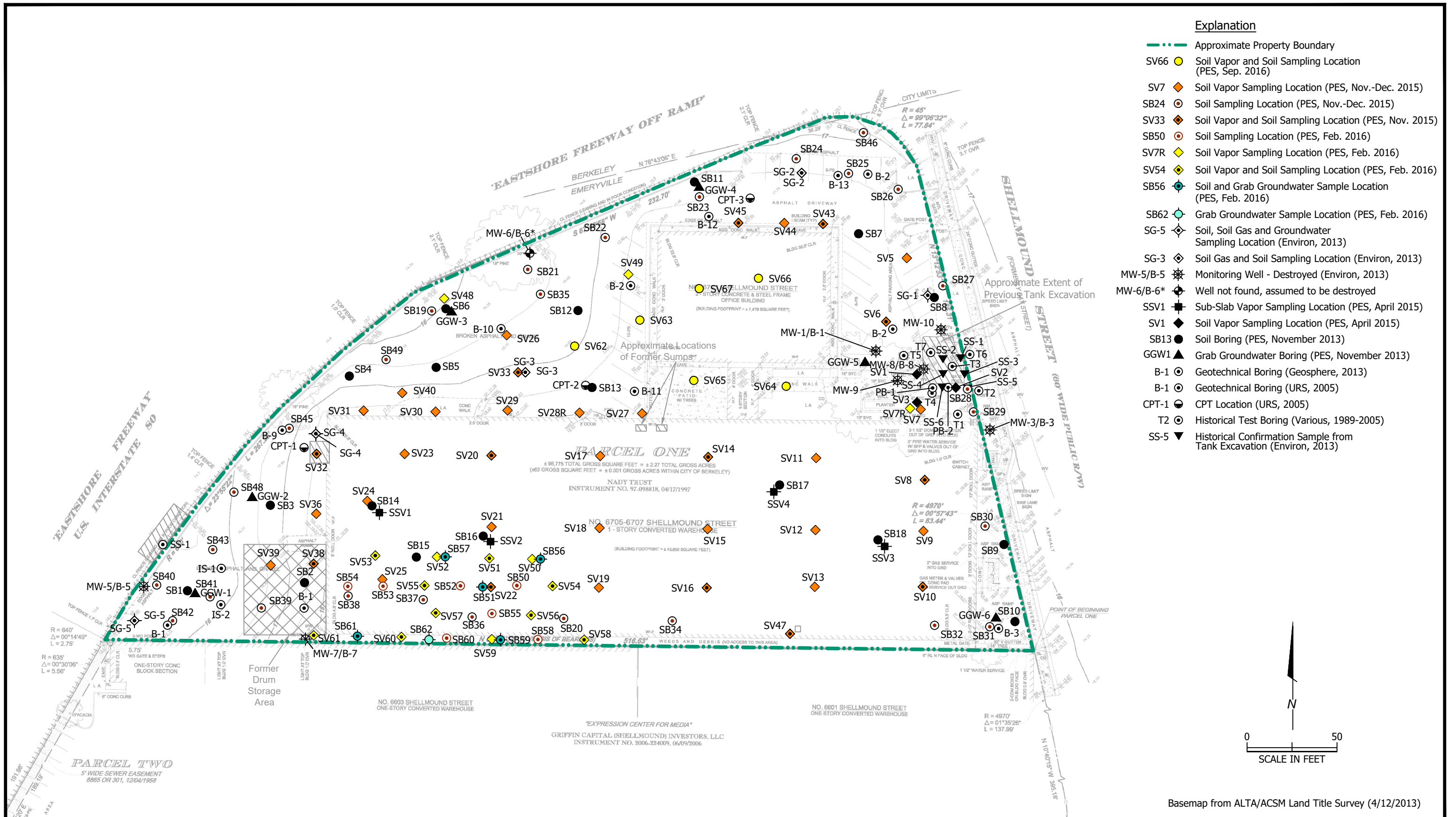


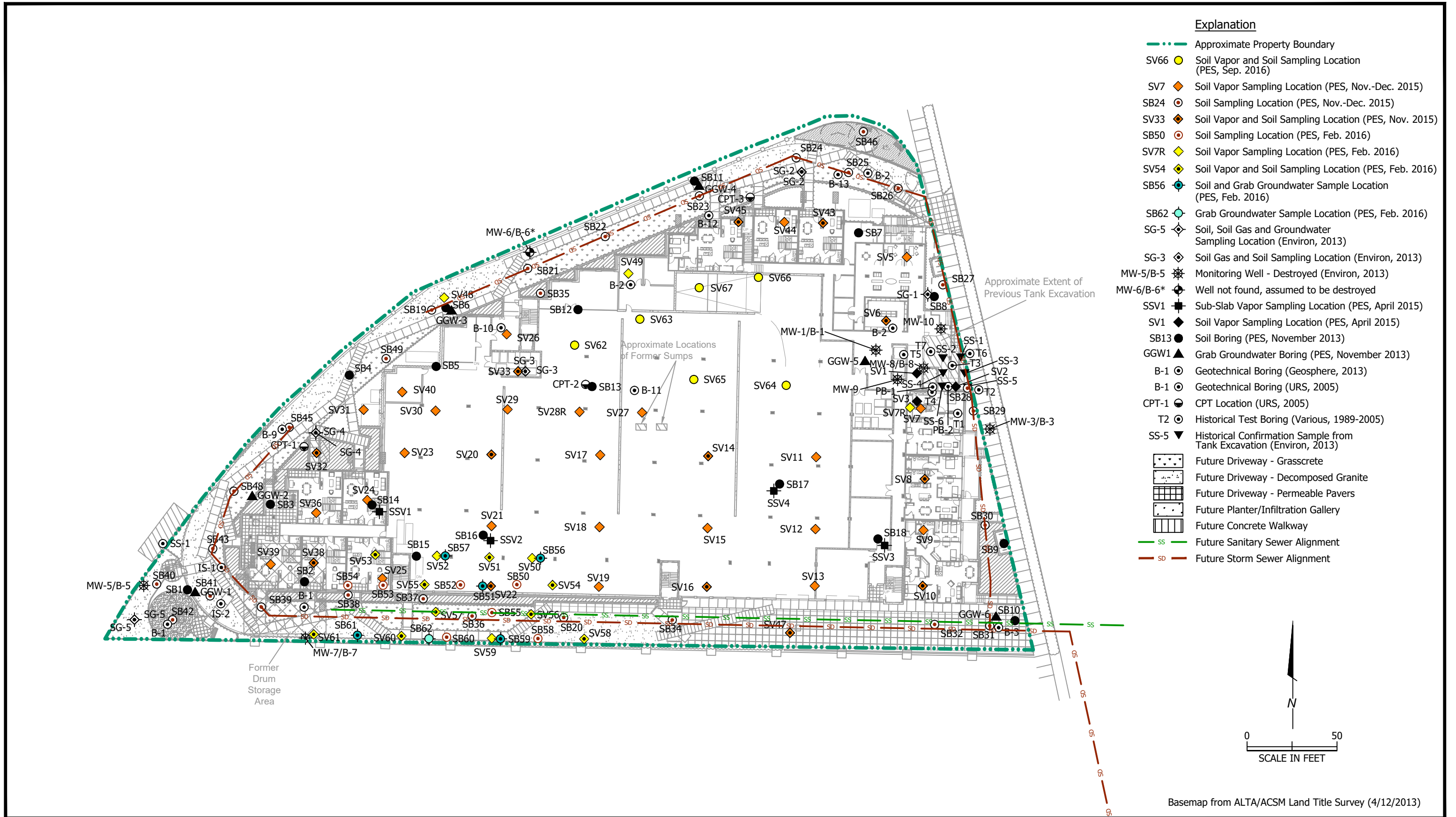
U.S.G.S. Topo Map - Oakland West, California, 7.5-minute quadrangle. 1997



Site Location Map
 Human Health Risk Assessment Work Plan
 6701, 6705, and 6707 Shellmound Street
 Emeryville, California

PLATE
1





Explanation

- - - Approximate Property Boundary
- SV66 ● Soil Vapor and Soil Sampling Location (PES, Sep. 2016)
- SV7 ◆ Soil Vapor Sampling Location (PES, Nov.-Dec. 2015)
- SV33 ◆ Soil Vapor and Soil Sampling Location (PES, Nov. 2015)
- SV7R ◆ Soil Vapor Sampling Location (PES, Feb. 2016)
- SV54 ◆ Soil Vapor and Soil Sampling Location (PES, Feb. 2016)
- SG-5 ◆ Soil, Soil Gas and Groundwater Sampling Location (Environ, 2013)
- SG-3 ◆ Soil Gas and Soil Sampling Location (Environ, 2013)
- SSV1 ■ Sub-Slab Vapor Sampling Location (PES, April 2015)
- SV1 ◆ Soil Vapor Sampling Location (PES, April 2015)
- Future Driveway - Grasscrete
- Future Driveway - Decomposed Granite
- Future Driveway - Permeable Pavers
- Future Planter/Infiltration Gallery
- Future Concrete Walkway
- SS Future Sanitary Sewer Alignment
- SD Future Storm Sewer Alignment
- Soil Vapor Sampling Grid and Existing Building Footprint



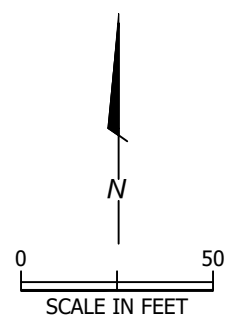
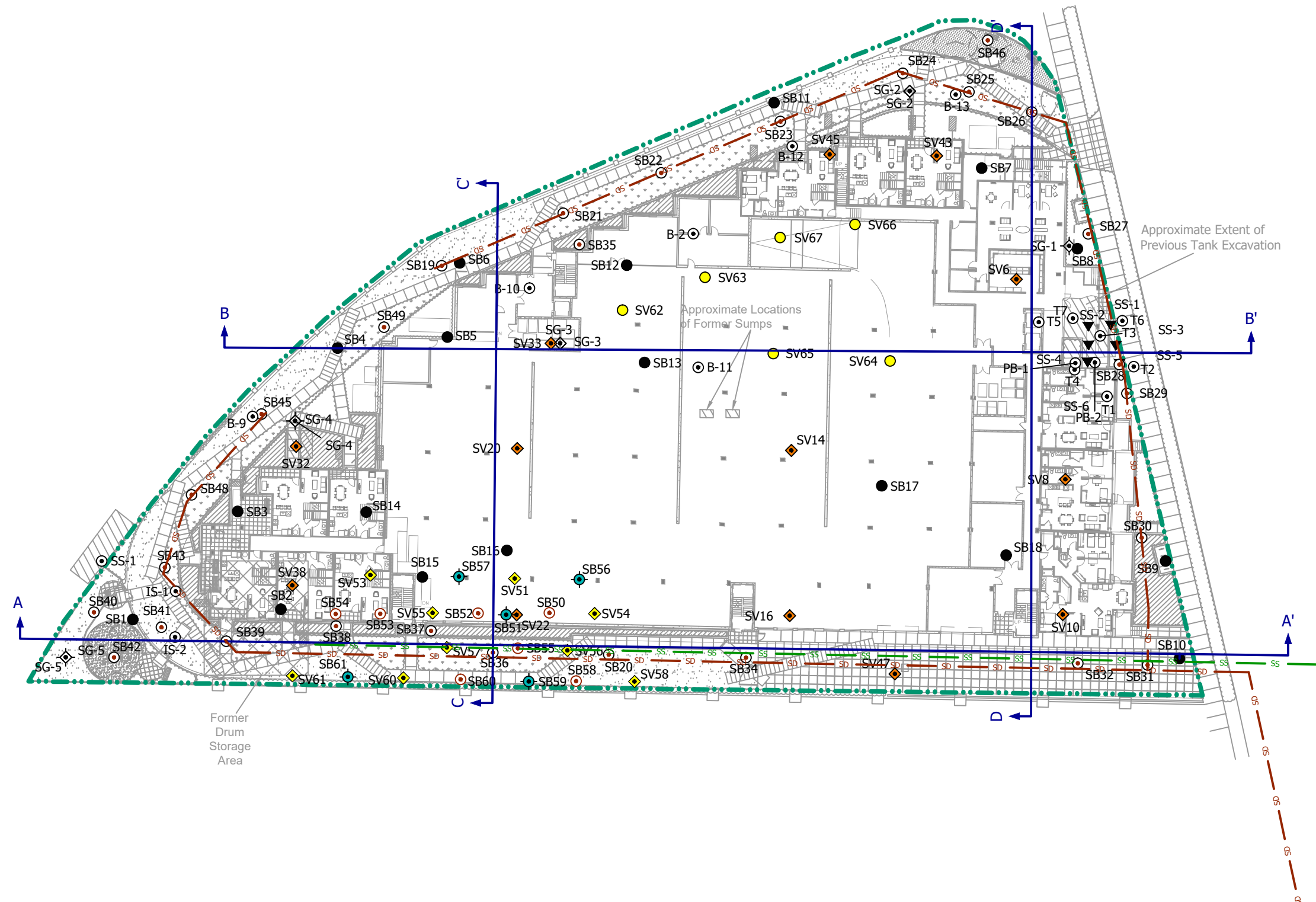
Soil Vapor Sample Locations and Proposed Ground Level Development Plan
 Human Health Risk Assessment Work Plan
 6701, 6705, and 6707 Shellmound Street
 Emeryville, California



DRAFT

Explanation

- Approximate Property Boundary
- SV66 ● Soil Vapor and Soil Sampling Location (PES, Sep. 2016)
- SB24 ○ Soil Sampling Location (PES, Nov.-Dec. 2015)
- SV33 ◆ Soil Vapor and Soil Sampling Location (PES, Nov. 2015)
- SB50 ○ Soil Sampling Location (PES, Feb. 2016)
- SV54 ◆ Soil Vapor and Soil Sampling Location (PES, Feb. 2016)
- SB56 ● Soil and Grab Groundwater Sample Location (PES, Feb. 2016)
- SG-5 ◆ Soil, Soil Gas and Groundwater Sampling Location (Environ, 2013)
- SG-3 ◆ Soil Gas and Soil Sampling Location (Environ, 2013)
- SB13 ● Soil Boring (PES, November 2013)
- T2 ○ Historical Test Boring (Various, 1989-2005)
- SS-5 ▼ Historical Confirmation Sample from Tank Excavation (Environ, 2013)
- Future Driveway - Grasscrete
- Future Driveway - Decomposed Granite
- Future Driveway - Permeable Pavers
- Future Planter/Infiltration Gallery
- Future Concrete Walkway
- SS Future Sanitary Sewer Alignment
- SD Future Storm Sewer Alignment
- ↑ A ↑ A' Hydrogeologic Cross Section Location (Arrows show direction of view)



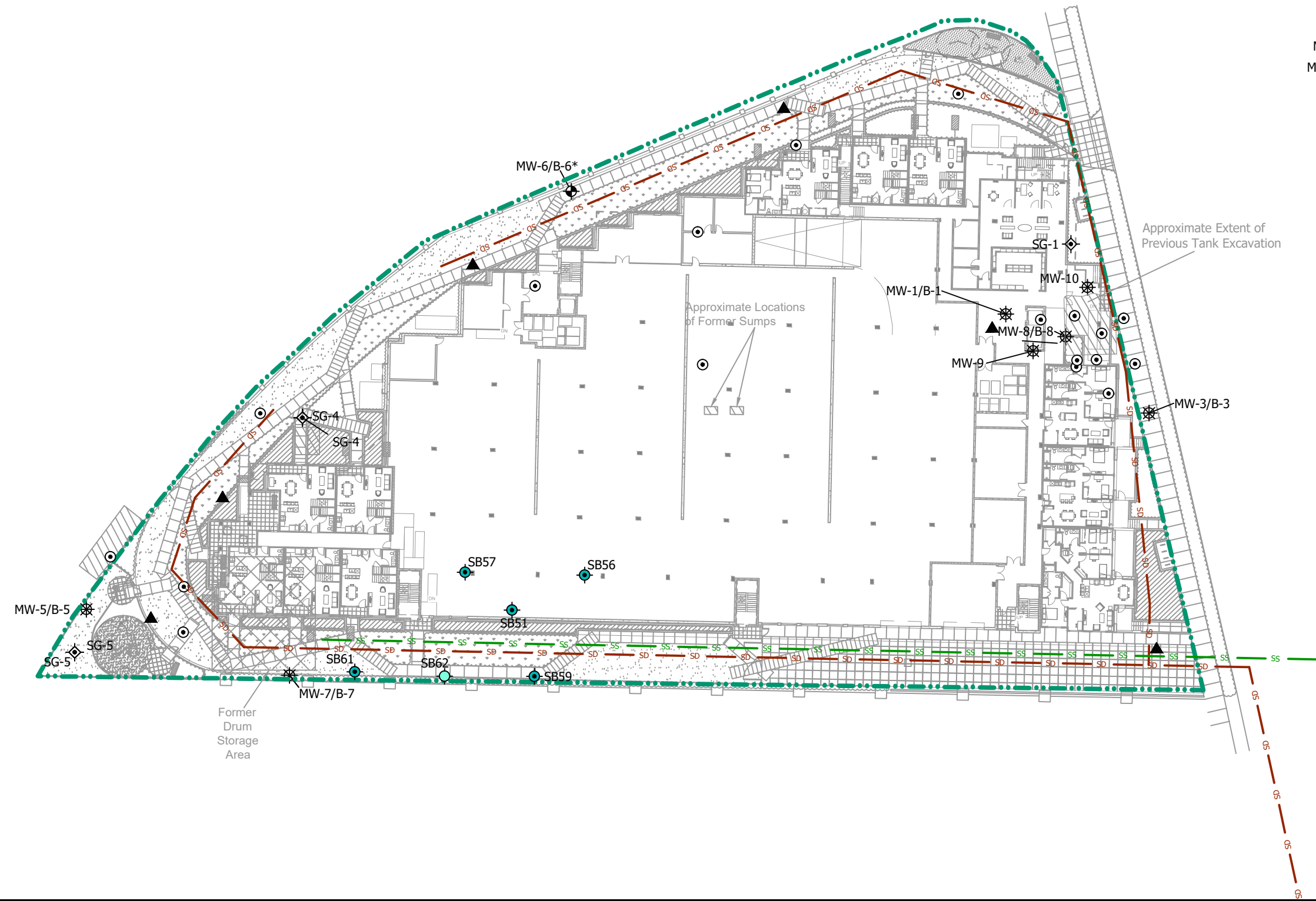
Basemap from ALTA/ACSM Land Title Survey (4/12/2013)



Soil Sample Locations and Proposed Ground Level Development Plan
 Human Health Risk Assessment Work Plan
 6701, 6705, and 6707 Shellmound Street
 Emeryville, California

PLATE
5

- Explanation**
- Approximate Property Boundary
 - SB56 Soil and Grab Groundwater Sample Location (PES, Feb. 2016)
 - SB62 Grab Groundwater Sample Location (PES, Feb. 2016)
 - SG-5 Soil, Soil Gas and Groundwater Sampling Location (Environ, 2013)
 - SG-3 Soil Gas and Soil Sampling Location (Environ, 2013)
 - MW-5/B-5 Monitoring Well - Destroyed (Environ, 2013)
 - MW-6/B-6* Well not found, assumed to be destroyed
 - GGW1 Grab Groundwater Boring (PES, November 2013)
 - Future Driveway - Grasscrete
 - Future Driveway - Decomposed Granite
 - Future Driveway - Permeable Pavers
 - Future Planter/Infiltration Gallery
 - Future Concrete Walkway
 - SS— Future Sanitary Sewer Alignment
 - SD— Future Storm Sewer Alignment



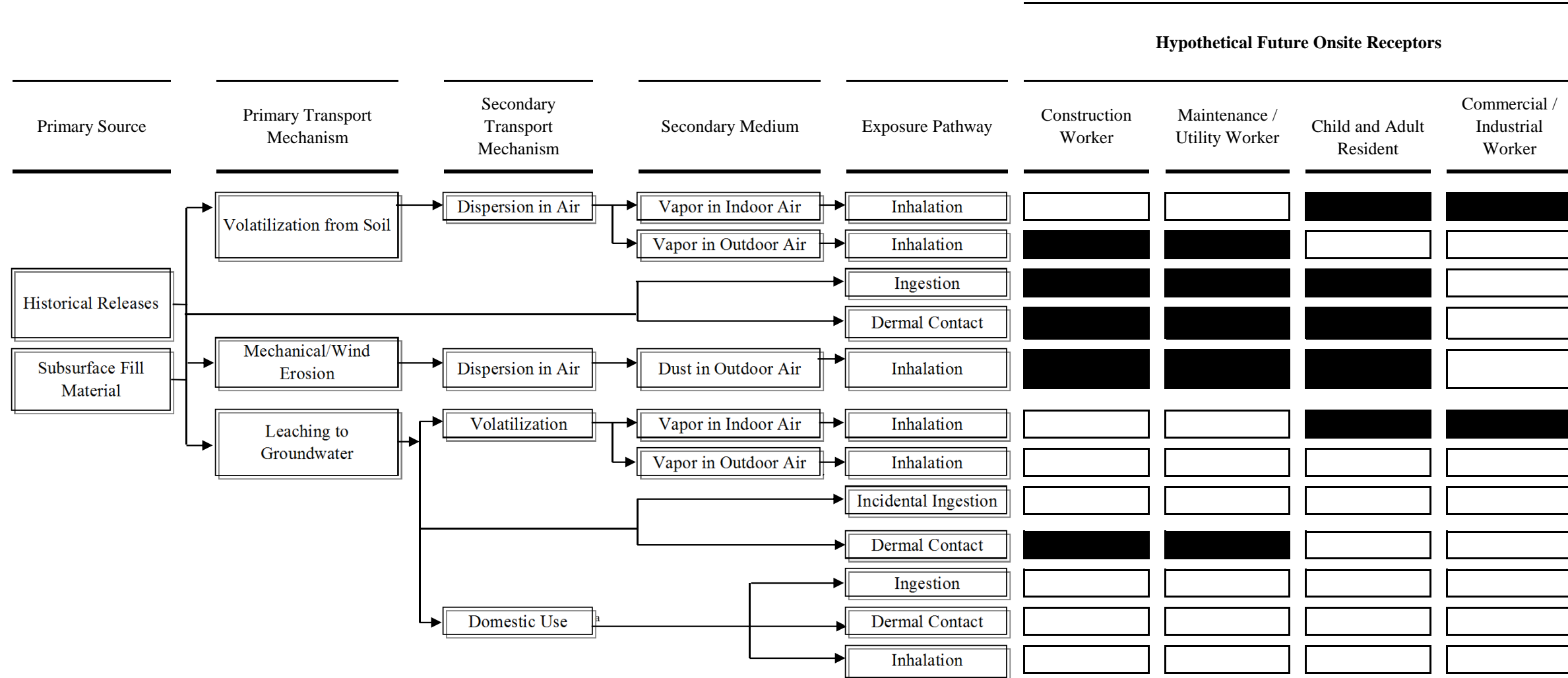
Basemap from ALTA/ACSM Land Title Survey (4/12/2013)



**Groundwater Sample Locations and Proposed
Ground Level Development Plan**
Human Health Risk Assessment Work Plan
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE
6

Plate 7
Conceptual Site Model Diagram
Human Health Risk Assessment Work Plan
6701, 6705, and 6707 Shellmound Street
Emeryville, California

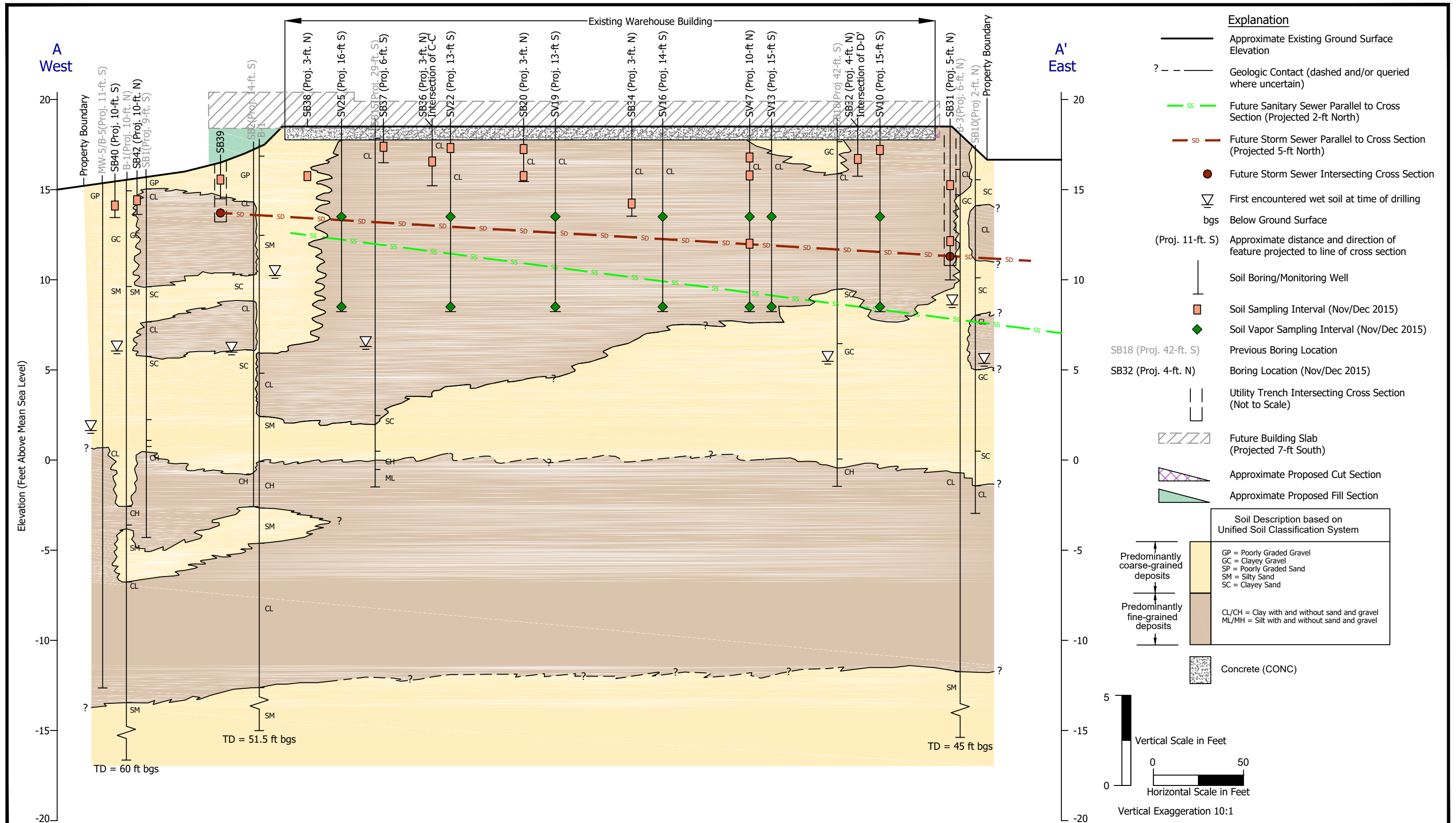


Key:

- █ Exposure pathway is considered potentially complete and will be evaluated in Tier 1
- Pathway is incomplete

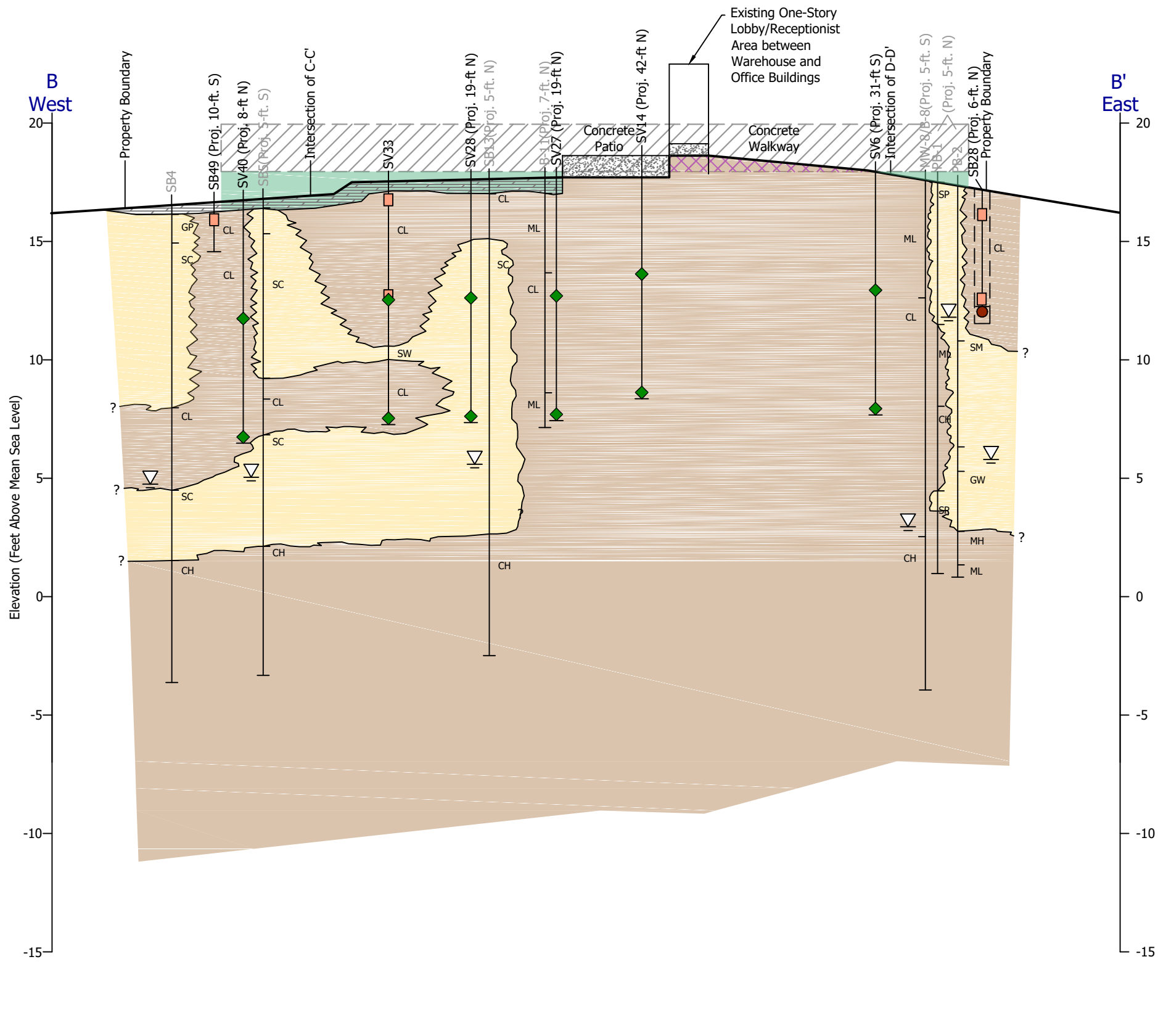
Footnotes:

^a City of Emeryville Ordinance No. 07-006 prohibits extraction of groundwater for drinking, industrial or irrigation purposes. Domestic water in Emeryville is supplied by the East Bay Municipal Utility District.



Cross Section A-A' Showing Soil Sample Locations, Proposed Building Slab, and Utility Alignments
 Human Health Risk Assessment Work Plan
 6701, 6705, and 6707 Shellmound Street
 Emeryville, California

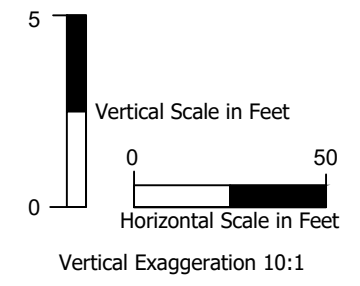




- Explanation**
- Approximate Existing Ground Surface Elevation
 - ? - - - Geologic Contact (dashed and/or queried where uncertain)
 - Future Storm Sewer Intersecting Cross Section
 - ▽ First encountered wet soil at time of drilling
 - bgs Below Ground Surface
 - (Proj. 5-ft. S) Approximate distance and direction of feature projected to line of cross section
 - ⊥ Soil Boring/Monitoring Well
 - Soil Sampling Interval (Nov/Dec 2015)
 - ◆ Soil Vapor Sampling Interval (Nov/Dec 2015)
 - SB5 (Proj. 5-ft. S) Previous Boring Location
 - SV6 (Proj. 25-ft. S) Boring Location (Nov/Dec 2015)
 - || Utility Trench Intersecting Cross Section (Not to Scale)
 - ▨ Future Building Slab
 - ▨ Approximate Proposed Cut Section
 - ▨ Approximate Proposed Fill Section

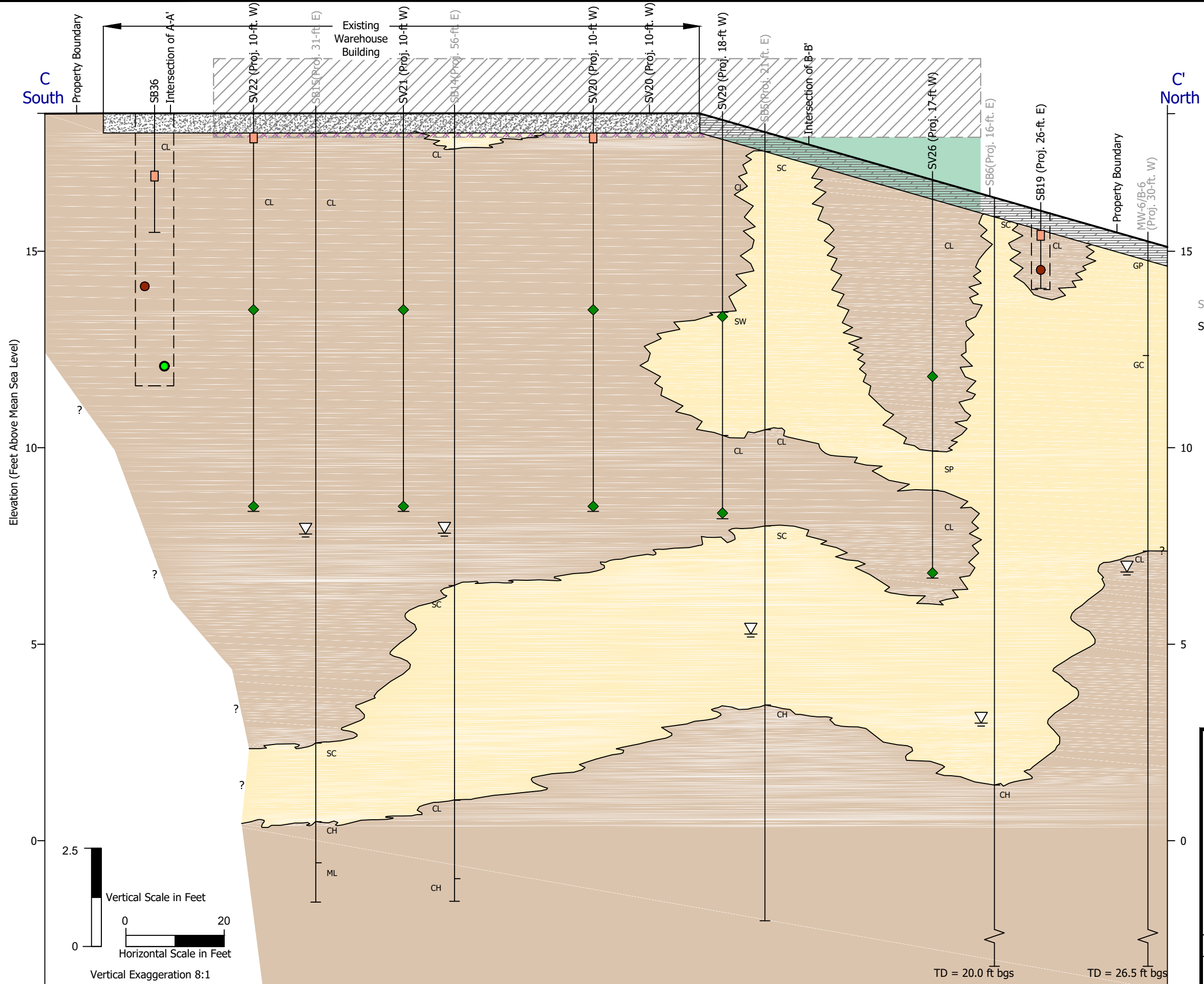
Soil Description based on Unified Soil Classification System	
Predominantly coarse-grained deposits	GP = Poorly Graded Gravel GC = Clayey Gravel SP = Poorly Graded Sand SM = Silty Sand SC = Clayey Sand
Predominantly fine-grained deposits	CL/CH = Clay with and without sand and gravel ML/MH = Silt with and without sand and gravel

- ▨ Asphalt (AS)
- ▨ Concrete (CONC)

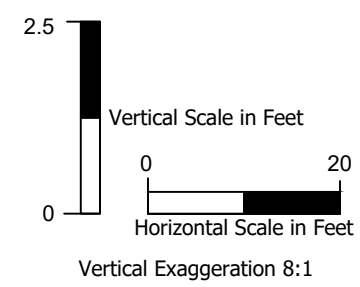


Cross Section B-B' Showing Soil Sample Locations, Proposed Building Slab, and Utility Alignments
 Human Health Risk Assessment Work Plan
 6701, 6705, and 6707 Shellmound Street
 Emeryville, California





- Explanation**
- Approximate Existing Ground Surface Elevation
 - ? - - - Geologic Contact (dashed and/or queried where uncertain)
 - Future Sanitary Sewer Intersecting Cross Section
 - Future Storm Sewer Intersecting Cross Section
 - ▽ First encountered wet soil at time of drilling
 - bgs Below Ground Surface
 - (Proj. 31-ft. E) Approximate distance and direction of feature projected to line of cross section
 - Soil Boring/Monitoring Well
 - Soil Sampling Interval (Nov/Dec 2015)
 - ◆ Soil Vapor Sampling Interval (Nov/Dec 2015)
 - SB5 (Proj. 5-ft. S) Previous Boring Location
 - SV6 (Proj. 25-ft. S) Boring Location (Nov/Dec 2015)
 - Utility Trench Intersecting Cross Section (Not to Scale)
 - ▨ Future Building Slab
 - ▨ Approximate Proposed Cut Section
 - ▨ Approximate Proposed Fill Section
- | Soil Description based on Unified Soil Classification System | |
|--|---|
| Predominantly coarse-grained deposits | GP = Poorly Graded Gravel
GC = Clayey Gravel
SP = Poorly Graded Sand
SM = Silty Sand
SC = Clayey Sand |
| Predominantly fine-grained deposits | CL/CH = Clay with and without sand and gravel
ML/MH = Silt with and without sand and gravel |
- ▨ Asphalt (AS)
 - ▨ Concrete (CONC)

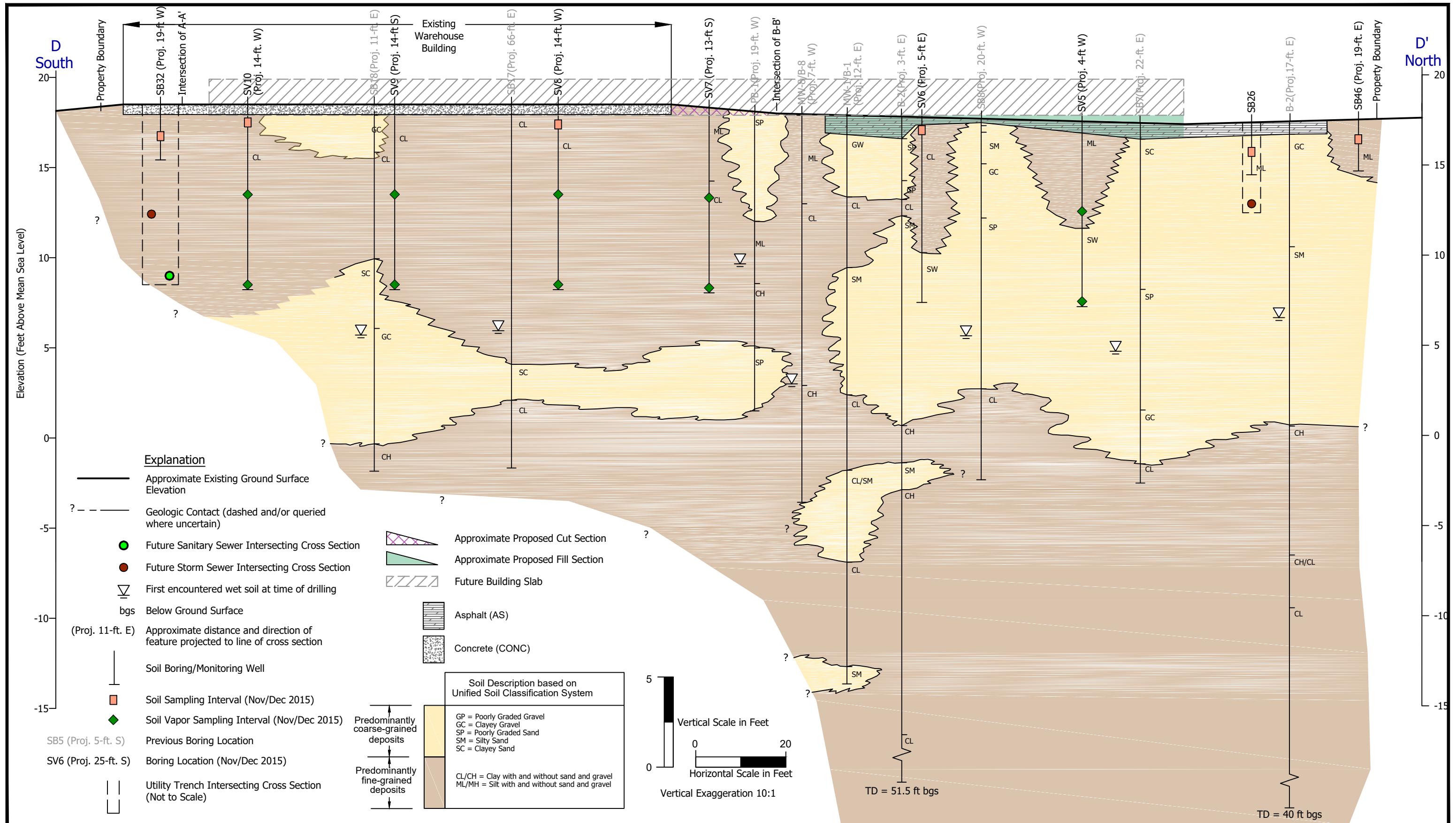


SLR

Cross Section C-C' Showing Soil Sample Locations, Proposed Building Slab, Utility Alignments
 Human Health Risk Assessment Work Plan
 6701, 6705, and 6707 Shellmound Street
 Emeryville, California

PLATE
10

1448.001.01.021 144800101021_HHRAWP_8-11 **DRAFT** 10/16
 JOB NUMBER DRAWING NUMBER REVIEWED BY DATE



Cross Section D-D' Showing Soil Sample Locations, Proposed Building Slab, Utility Alignments
Human Health Risk Assessment Work Plan
6701, 6705, and 6707 Shellmound Street
Emeryville, California