

May 2, 2011

Mr. Mark Detterman
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

RECEIVED

11:20 am, Jun 09, 2011
Alameda County
Environmental Health

SUBJECT: SUBSURFACE INVESTIGATION WORK PLAN CERTIFICATION
County File # RO 387
Mel Senna Brake Service
2301 East 12th Street
Oakland, CA

Dear Mr. Detterman:

P&D Environmental, Inc. has prepared the following document:

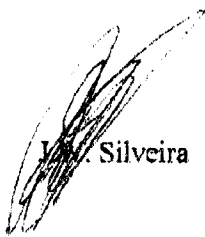
- Subsurface Investigation Work Plan (SB13 Through SB20) dated May 2, 2011 (document 0404.W4).

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 834-9811.

Sincerely,

J.W. Silveira Realty



J.W. Silveira

P&D ENVIRONMENTAL, INC.

55 Santa Clara Avenue, Suite 240

Oakland, CA 94610

(510) 658-6916

May 2, 2011

Work Plan 0404.W4

Mr. Mark Detterman

Alameda County Environmental Health

1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502

**SUBJECT: SUBSURFACE INVESTIGATION WORK PLAN
(SB13 THROUGH SB20)
County File # RO 387
Mel Senna Brake Service
2301 East 12th Street
Oakland, CA**

Dear Mr. Detterman:

P&D Environmental, Inc. (P&D) is pleased to present this subsurface investigation work plan for the subject site. The subsurface investigation will include drilling at eight locations for the collection of groundwater grab samples, analysis of the samples, contacting the property owner at 1091 Cacott Place to determine if any information is available regarding the location of an abandoned well, and surveying of the existing wells at the site. This work plan is written in response to a request set forth in a letter dated December 23, 2010 from the Alameda County Department of Environmental Health (ACDEH) for a subsurface investigation work plan.

A Site Vicinity Map showing proposed soil boring locations and a City of Oakland map showing the locations of underground sanitary sewer and storm drain pipes superimposed on an aerial photograph is attached as Figure 1. All work will be performed under the direct supervision of a professional geologist.

BACKGROUND

The subject site was previously a gas station and vehicle repair facility, and is currently a tire and brake repair facility. The subject site is located in an industrially zoned area and bordered to the northeast by East 12th Street, to the southeast by railroad property, to the northwest by 23rd Avenue and a public park, and to the southwest by a furniture restoration facility.

The locations of sanitary sewer and storm drain trenches in the vicinity of the subject site are shown with groundwater concentrations of TPH-D, TPH-G and benzene in Figures 2, 3 and 4, respectively. Although the groundwater monitoring well concentrations shown on the figures are from June 2, 2007, review of more recent water quality data shows that similar conditions are observed for the more recent water quality data. Additionally, the extent of groundwater contaminants in the area surrounding the groundwater monitoring wells is based on groundwater

samples collected from boreholes which could be positively biased due to sorption of contaminants to sediments in the borehole groundwater grab samples. For this reason the isoconcentration contours are assumed to provide a conservative approximation of the extent of impact to groundwater. Although Halogenated Volatile Organic Compounds (HVOCs) have also been historically intermittently detected in groundwater samples at the site, the only well where HVOCs were detected during the most recent sampling event in February 2011 was EW1. MTBE was not detected in any of the groundwater samples.

A discussion of historical investigations and remediation at the site is provided in P&D's Interim Remedial Action Work Plan dated April 25, 2011. Review of cross sections A-A' and B-B' in P&D's December 15, 2008 Preferential Pathway Survey Report (document 0404.R3) shows that at the intersection of East 12th Street and 23rd Avenue adjacent to the subject site the seasonal range of water levels is always above the bottom of the sanitary sewer trench, and is only periodically above the bottom of the storm drain and municipal water trenches. Review of the report Site Vicinity Map Showing Underground Utilities shows that the sanitary sewer flows northward and that the storm drain flows southward at the street intersection. Historical investigation of groundwater quality in both the sanitary sewer trench and storm drain trench immediately to the southeast of the subject at locations SB8 and SB7, respectively, showed that no petroleum hydrocarbons or HVOCs were detected in the sanitary sewer trench and that none of these compounds were detected in the storm drain trench at concentrations exceeding their respective Table A Environmental Screening Levels, indicating that southward migration of groundwater contaminants is either not occurring or is limited in these trenches.

Review of cross section C-C' in P&D's December 15, 2008 Preferential Pathway Survey Report (document 0404.R3) shows that to the northwest of the west end of 23rd Avenue adjacent to the subject site the seasonal range of water levels is always above the bottom of the sanitary sewer trench, and is not above the bottom of any of the other utility trenches at any time during the season. Review of the report Site Vicinity Map Showing Underground Utilities shows that the sanitary sewer flows northward. Historical investigation of groundwater quality in the sanitary sewer trench immediately to the northwest of the subject at locations SB11 showed that TPH-D, TPH-G and benzene were detected at concentrations of 8,100, 9,100 and 37 ug/L, respectively, with TCE, cis-1,2-DCE and trans-1,2-DCE also detected at concentrations of 30, 9.6 and 11 ug/L, respectively. Although upgradient location SB-3 is shown on the figure as being located in the sanitary sewer pipe trench, the boring log for SB-3 in the November 10, 1999 Tetra Tech EM, Inc. Draft Summary Reports for Additional Site Characterization Work does not show any fill material encountered in the borehole, suggesting that the SB-3 borehole location is approximate only and is not in the sanitary sewer trench.

SCOPE OF WORK

P&D will perform the following tasks.

- Obtain offsite access and permits.
- Health and safety plan and traffic control plan preparation and mark drilling locations with white paint.
- Drill at eight locations for collection of groundwater grab samples.
- Arrange for sample analysis.

May 2, 2011
Work Plan 0404.W4

- Offsite property owner contact for well information.
- Arrange for existing well surveying.
- Report preparation.

Each of these is discussed below in detail.

Obtain Offsite Access And Permits

Access will be requested for access to the railroad right of way located to the southwest of the subject site. Permits will be obtained from the City of Oakland for access to and drilling in the public right-of-way in East 12th Street, and from the Alameda County Public Works Agency (ACPWA) for drilling at all of the proposed drilling locations.

Health and Safety Plan and Traffic Plan Preparation

A health and safety plan will be prepared for the scope of work identified in this work plan. Notification of the scheduled dates of interim remedial action implementation will also be provided to the ACDEH.

Drilling and Groundwater Sample Collection

To evaluate the downgradient extent of impacted groundwater in sanitary sewer trenches in the vicinity of the intersection of East 12th Street and 23rd Avenue, groundwater grab samples will be collected from boreholes drilled in the sewer trench fill materials at locations B19 and B20. Further investigation of the storm drain trenches to the northeast of the site will not be performed because the storm drain is sloped to the southwest resulting in shallower depths of burial to the northeast of the subject site, and also because the storm drain terminates on the east side of East 12th Street (see Figure 1).

To evaluate the presence of groundwater contaminants in the sanitary sewer trench upgradient of SB11 one groundwater grab sample will be collected in the sanitary sewer trench at location SB18 in an effort to determine if the sanitary sewer trench is a preferential pathway for groundwater contaminants from an upgradient source. The downgradient migration of groundwater contaminants in the sanitary sewer trench will be evaluated at proposed location SB20.

To evaluate the extent of contaminated groundwater to the southwest of SB9, groundwater samples will be collected at locations SB13 and SB14. The downgradient extent of impacted groundwater for the site will be investigated at locations SB15, SB16 and SB17.

All drilling will be performed by Vironex, Inc. of Concord, California. Drilling for groundwater sample collection from utility trenches will be performed by hand augering using a 3.5-inch outside diameter stainless steel auger. The location of the buried sanitary sewer pipe will be identified by using a laser to identify the straight line between the two closest manholes for the sanitary sewer at each drilling location that is in the sanitary sewer trench (SB18, SB19 and SB20). The boreholes will be hand augered at locations in the sanitary sewer trenches that are immediately adjacent to the sanitary sewer pipe to the bottom of the pipe, or until groundwater is encountered in the trench. In the event that the presence of trench fill materials such as crushed rock prevent removal of the

trench fill material, a location immediately adjacent to the trench will be hand augered for groundwater sample collection. The anticipated depth to groundwater in the trenches is approximately 5 to 10 feet bgs.

All drilling for groundwater sample collection at the remaining locations SB13 through SB17 will be performed by continuously coring using GeoProbe direct push technology to drive a 2.5-inch outside diameter GeoProbe macrocore barrel sampler lined with transparent PVC sleeves. Based on the historical drilling at locations SB1 through SB12 the anticipated depth of exploration for groundwater sample collection is 15 to 20 feet bgs.

The soil from all of the boreholes will be logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. All soil from the boreholes will be evaluated with a Photoionization Detector (PID) equipped with a 10.6 eV bulb and calibrated using a 100 ppm isobutylene standard. No soil samples will be retained from the boreholes for laboratory analysis.

One sample of groundwater will be collected from each borehole by placing a temporary 1-inch diameter slotted PVC pipe into the borehole and using disposable polypropylene tubing and using low flow sampling techniques to remove the groundwater from the temporary PVC pipe. The groundwater sample will be transferred to 40-millileter VOA vials which will be supplied by the laboratory and will contain hydrochloric acid preservative. The sample bottles will be labeled and placed in a cooler with ice pending delivery to the laboratory. Chain of custody procedures will be observed for all sample handling.

The groundwater levels in the continuously cored boreholes will be measured after drilling completion and after sample collection, and the boreholes will then be filled with neat cement grout using a tremie pipe. All drilling and sample collection equipment will be cleaned with an Alconox solution followed by a clean water rinse or will consist of new materials prior to use in each borehole. Soil and groundwater generated during subsurface investigation will be placed and stored in U.S. Department of Transportation-approved 55-gallon drums at the site in a secure location pending characterization and disposal.

Arrange For Sample Analysis

The groundwater samples collected at the end of the groundwater pump tests will be analyzed at McCampbell Analytical, Inc (McCampbell) of Pittsburg, California for TPH Multi-Range (TPH as Gasoline, TPH as Diesel, and TPH as Bunker Oil) using Modified EPA Method 8015, and for MBTEX and HVOCs using EPA Method 8260B. McCampbell is a State-accredited hazardous waste testing laboratory.

Offsite Property Owner Contact For Well Information

The offsite downgradient property owner at 1031 Calcott Place will be requested to provide information regarding the location and status of the water well identified at the property in P&D's December 8, 2008 Sensitive Receptor Survey Report (document 0404.R2). The requested information may include historical site plans and construction drawings, if available, in an effort to locate the well.

Arrange For Existing Well Surveying

The elevations and locations of the existing wells at the subject site (MW-1 through MW-6 and EW1) will be surveyed vertically and horizontally by a State-licensed surveyor in accordance with State of California Water Resources Control Board (SWRCB) GeoTracker guidelines.

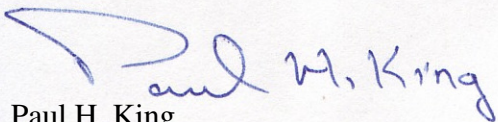
Report Preparation

Upon receipt of the groundwater grab sample laboratory analytical results, a report will be prepared. The report will document the sample collection procedures, field observations, and the sample results. The report will include a site plan showing the sample collection locations, copies of the laboratory reports, tables summarizing the sample results, the results of requests for information regarding the water well at 1031 Calcott Place, the well survey report for the existing wells at the subject site, recommendations based on the sample results, and the stamp of a professional geologist.

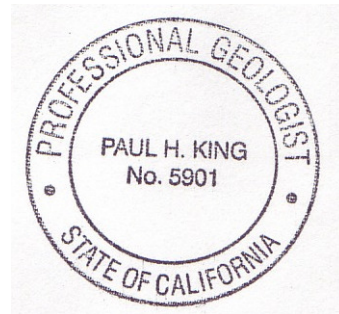
Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King
California Professional Geologist #5901
Expires: 12/31/11

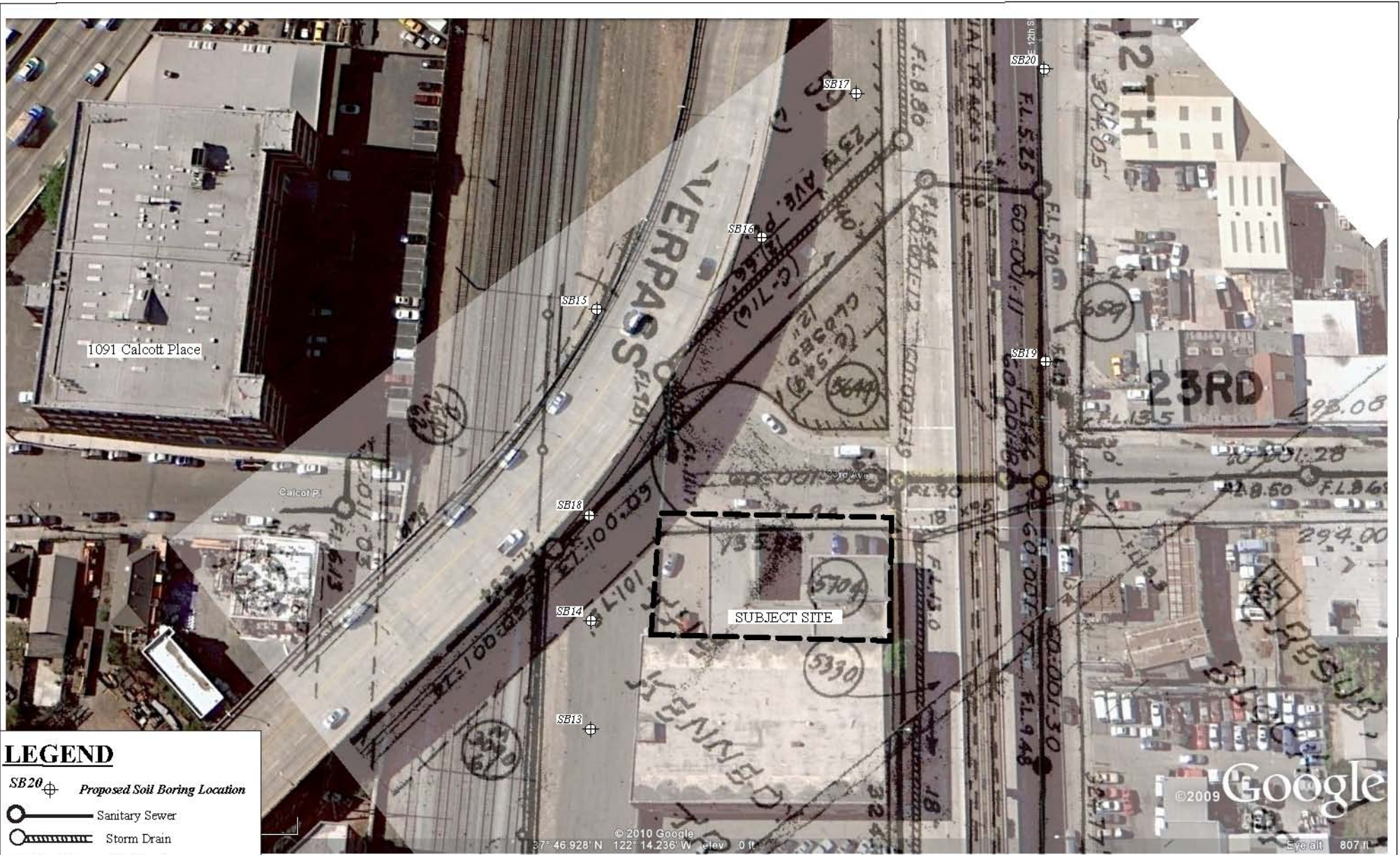


Attachments:

- Figure 1 – Site Vicinity Aerial Photograph Showing Proposed Sample Collection Locations
- Figure 2 – Site Vicinity Aerial Photograph Showing TPH-D in Groundwater
- Figure 3 – Site Vicinity Aerial Photograph Showing TPH-G in Groundwater
- Figure 4 – Site Vicinity Aerial Photograph Showing Benzene in Groundwater

PHK
0404.W4

FIGURES



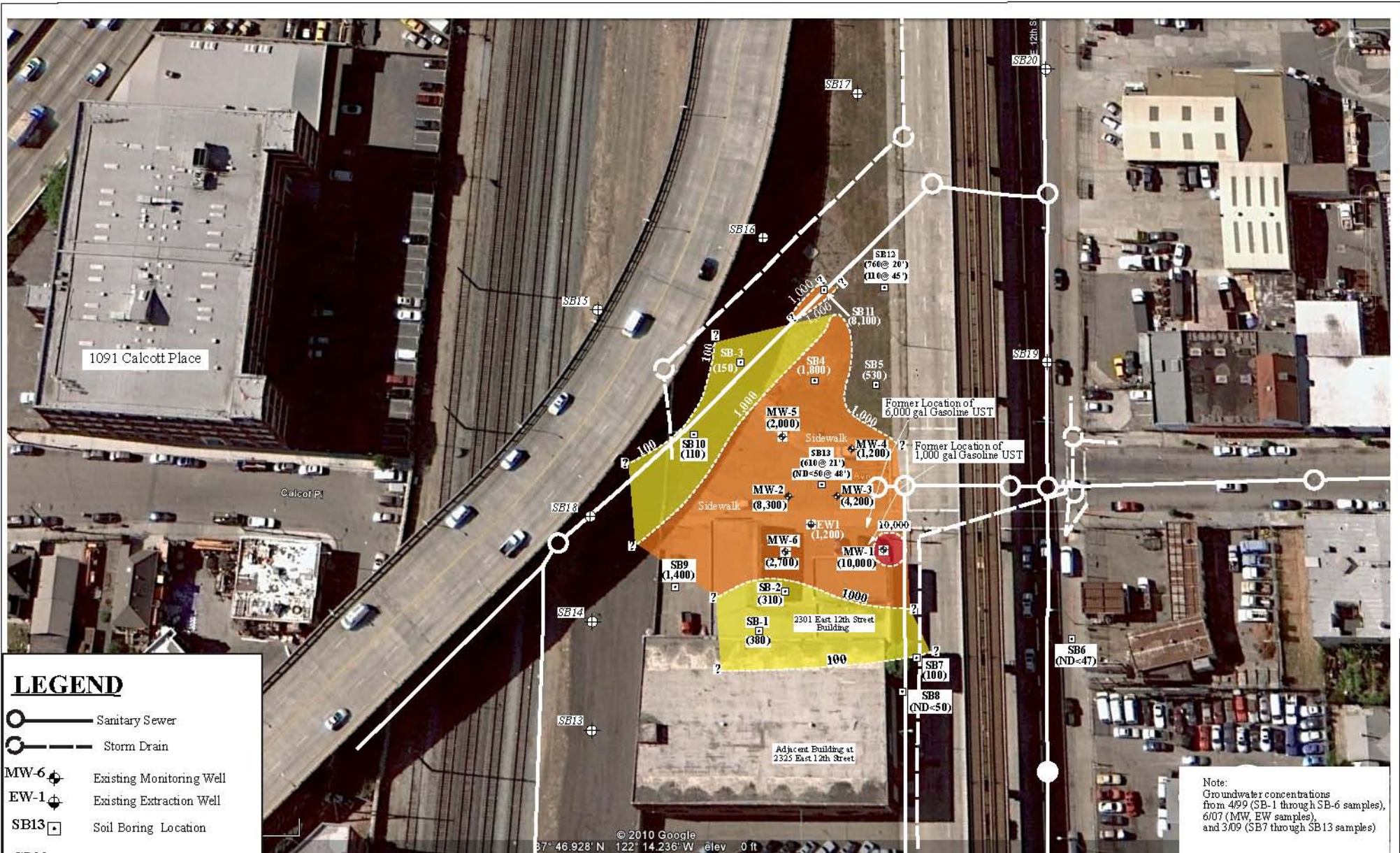
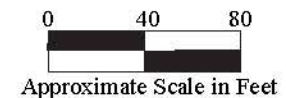


Figure 2
Site Vicinity Aerial Photograph Showing TPH-D in Groundwater
and Proposed Sample Collection Locations
2301 East 23rd Avenue
Oakland, California



Base Map from:
Tetra Tech EM, Inc., Draft Summary
Reports for Additional Site
Characterization Work, dated 11/10/99, and
Google Earth, October 2009

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610



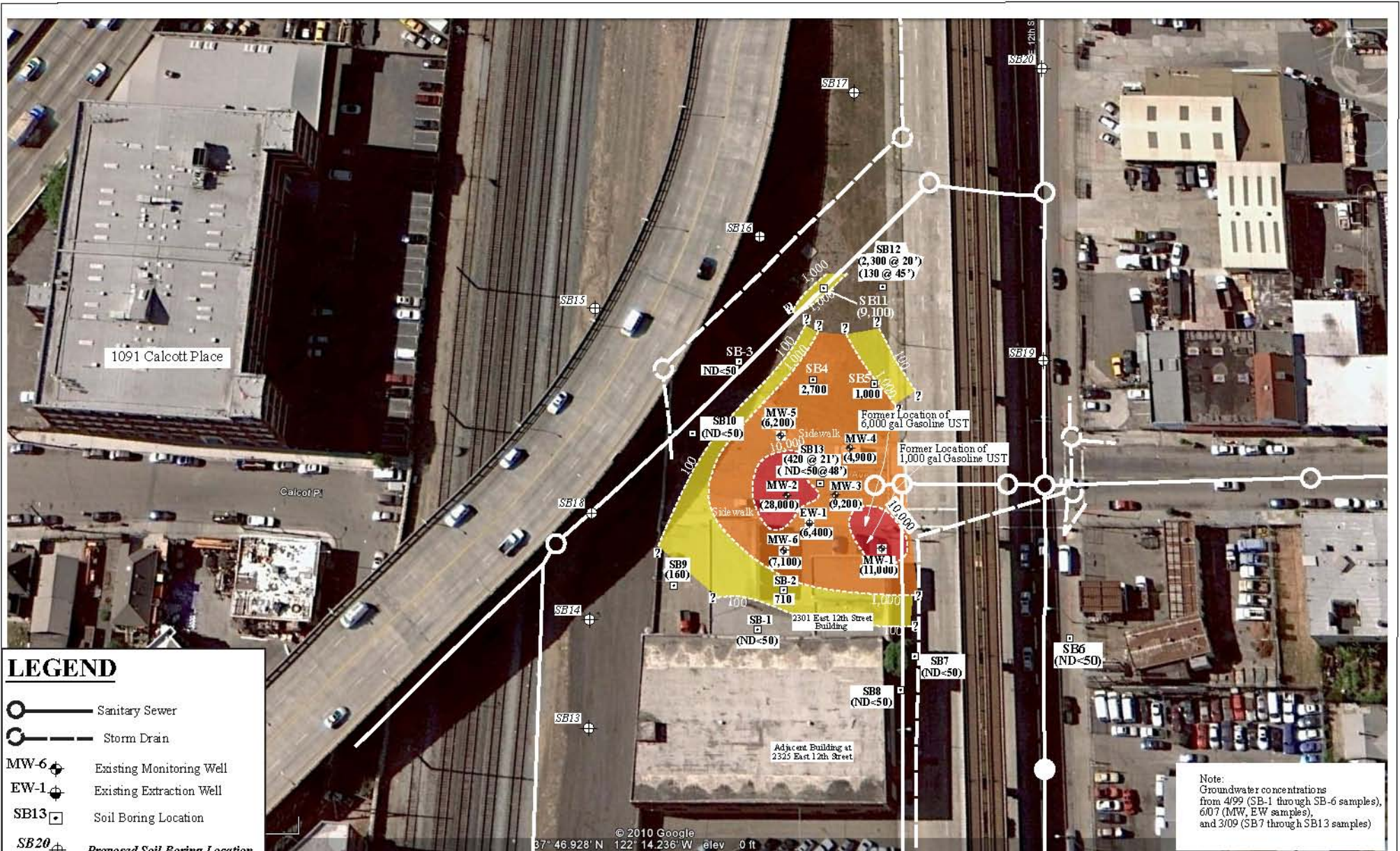


Figure 3
Site Vicinity Aerial Photograph Showing TPH-G in Groundwater
and Proposed Sample Collection Locations
2301 East 23rd Avenue
Oakland, California



Base Map from:
Tetra Tech EM, Inc., Draft Summary
Reports for Additional Site
Characterization Work, dated 11/10/99, and
Google Earth, October 2009

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610

0 40 80
Approximate Scale in Feet

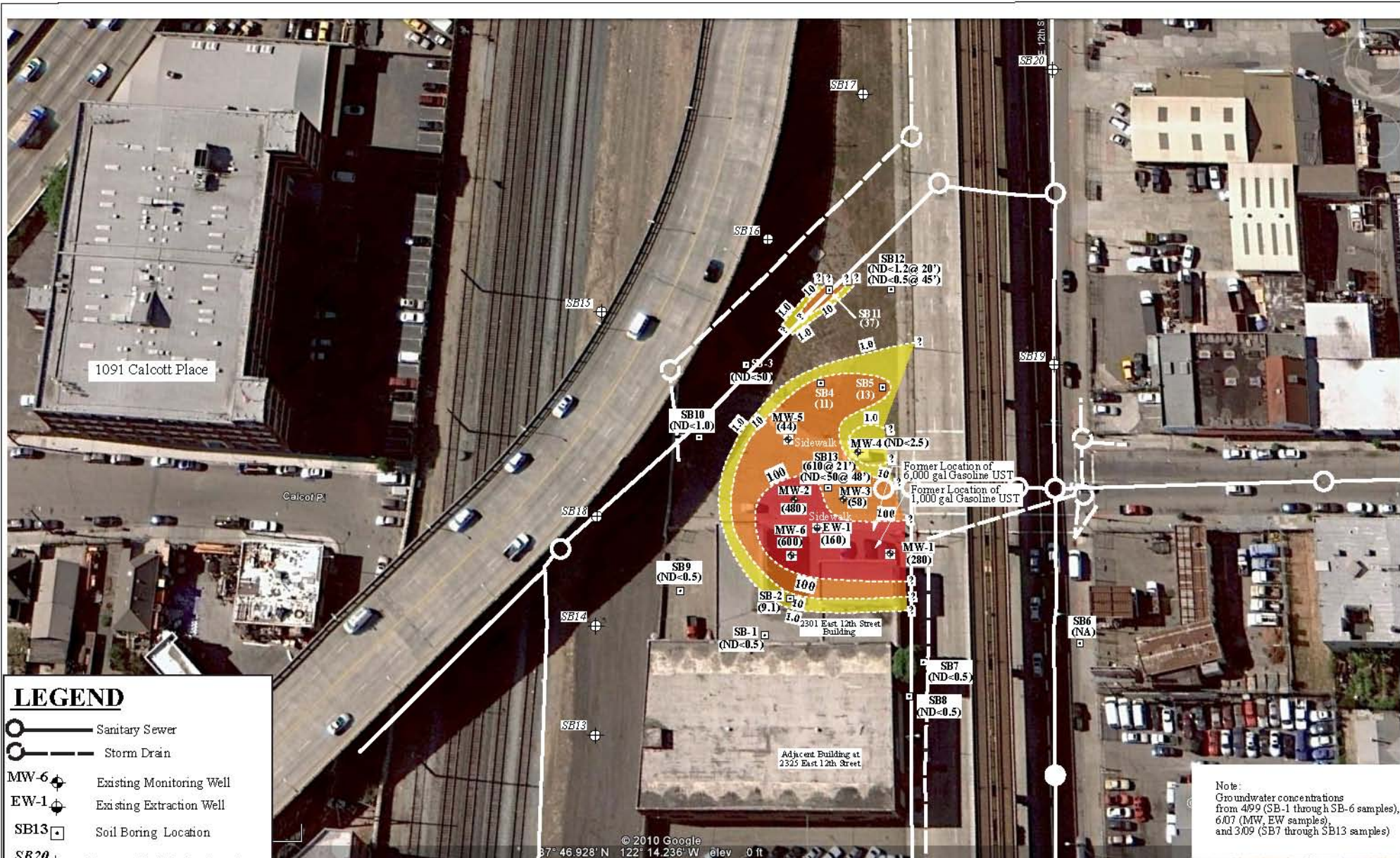


Figure 4
Site Vicinity Aerial Photograph Showing Benzene in Groundwater
and Proposed Sample Collection Locations
2301 East 23rd Avenue
Oakland, California



Base Map from:
Tetra Tech EM, Inc., Draft Summary
Reports for Additional Site
Characterization Work, dated 11/10/99, and
Google Earth, October 2009

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610

