

**RECEIVED**

By Alameda County Environmental Health at 3:23 pm, Feb 18, 2014

February 6, 2014

Ms. Dylan Roe  
Alameda County Health Care Services  
Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**RE: Additional Soil & Water Investigation Report**

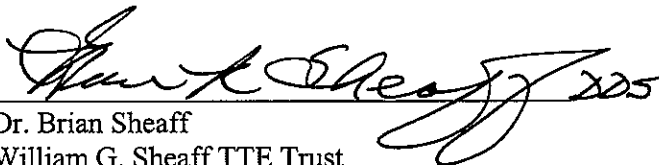
**SITE: Sheaff's Garage**  
**5930 College Avenue, Oakland, California**  
**ACHCSA Fuel Leak Case No. RO0000377**  
**GGE Project 2014**

Dear Ms. Roe:

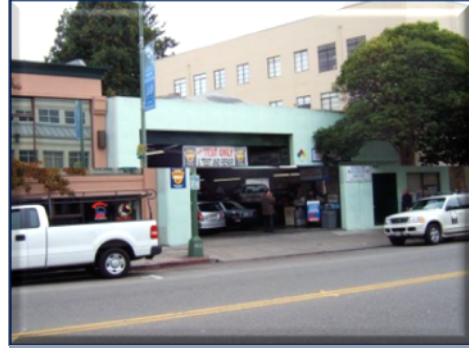
Upon my authorization, Golden Gate Environmental, Inc. has prepared the attached *Additional Soil & Water Investigation Report* for the additional subsurface investigation and sampling activities conducted at the above-referenced property between August and October 2013. GGTR has uploaded an electronic copy of the document to the State Water Resources Control Board's GeoTracker Database System, as well as the Alameda County Health Care Services Agency FTP Site. Should you have any questions, please contact Mr. Brent Wheeler, Project Engineer of Golden Gate Environmental at (415) 512-1555 at your convenience.

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

Respectfully Submitted,

  
Dr. Brian Sheaff  
William G. Sheaff TTE Trust

Distribution: (1) Addressee



**Sheaffs Garage**  
**5930 College Avenue, Oakland, California**  
**ACHCSA Site # RO0000377**

## **ADDITIONAL SOIL AND WATER INVESTIGATION REPORT**

Date of Report: February 6, 2014

***Prepared For:***

**Dr. Brian Sheaff**

**William G. Sheaff Trust**  
**1945 Parkside Avenue**  
**Concord, California 94519**

***Prepared By:***

**Golden Gate Environmental, Inc.**

**GGE Project No. 2014**



**1455 Yosemite Avenue, San Francisco, CA 94124 Phone: 415-970-9088 Fax: 415-970-9089**

**North Bay Office: 121 Rafael Drive, San Rafael, CA 94901 Phone: 415-460-6124 Fax: 415-460-6125**

---

## TABLE OF CONTENTS

TITLE PAGE	
TABLE OF CONTENTS	
ABBREVIATIONS & ACRONYMS	
<b>INTRODUCTION</b>	<b>1</b>
SITE LOCATION	2
SITE DESCRIPTION	2
SITE HISTORY	3
CURRENT USES OF ADJACENT PROPERTIES	3
<b>ENVIRONMENTAL HISTORY</b>	<b>4</b>
UNDERGROUND TANK REMOVAL 1996	4
PRELIMINARY SUBSURFACE INVESTIGATION 1998-1999	6
QUARTERLY GROUNDWATER MONITORING 2000 TO 2002	6
ADDITIONAL SUBSURFACE INVESTIGATION 2002	6
PREFERENTIAL MIGRATION PATHWAY SURVEY 2003	7
ADDITIONAL SITE CHARACTERIZATION 2005	8
CONTINUED QUARTERLY GROUNDWATER MONITORING 2003 TO PRESENT	10
CONDITIONS AT NEARBY LUST SITES	10
<b>GROUNDWATER MONITORING &amp; SAMPLING: OCT. 2013</b>	<b>15</b>
GROUNDWATER MONITORING AND SAMPLING	15
WATER SAMPLE ANALYTICAL METHODS	16
GROUNDWATER MONITORING RESULTS	16
RESULTS OF GROUNDWATER SAMPLING AND LABORATORY ANALYSIS	17
<b>ADDITIONAL SITE CHARACTERIZATION</b>	<b>18</b>
SCOPE/SEQUENCE OF PROPOSED WORK ACTIVITIES	18
PRE-FIELD ACTIVITIES	19
GENERAL FIELD ACTIVITIES	19
PCE SOURCE AREA INVESTIGATION	20
SOIL GAS ASSESSMENT	21
VERTICAL PROFILE CONTAMINATION CHARACTERIZATION	25
<b>REVISED SITE CONCEPTUAL MODEL</b>	<b>26</b>
RESULTS OF SITE CHARACTERIZATION	26
NATURE & EXTENT OF CONTAMINATION	27
<b>RISK EVALUATION</b>	<b>33</b>
SCREENING LEVEL COMPARISON	33
IDENTIFICATION OF CONTAMINANTS OF CONCERN	35
LOW THREAT CLOSURE ASSESSMENT	35
<b>RECOMMENDATION</b>	<b>38</b>
BACKFILLING ACTIVITIES	38
<b>WASTE MANAGEMENT</b>	<b>39</b>

---

<b>GEOTRACKER ELECTRONIC SUBMITTAL .....</b>	<b>39</b>
<b>LIMITATIONS .....</b>	<b>39</b>
<b>REPORT DISTRIBUTION .....</b>	<b>40</b>
<b>CERTIFICATION .....</b>	<b>41</b>
<b>REFERENCES .....</b>	<b>42</b>

## FIGURES

Figure 1 -	Site Location Map
Figure 2 -	Site Vicinity Map
Figure 3 -	Site Plan
Figure 4 -	Geologic Map
Figure 5 -	Local Map of Storm Conduits
Figure 6 -	Subsurface Utility Map
Figure 7 -	TPH as Gasoline in Soil at Depth of 7-12 Feet
Figure 8 -	TPH as Gasoline in Soil at Depth of 13-20 Feet
Figure 9 -	Groundwater Data Diagram
Figure 10 -	Cross Section A-A'
Figure 11 -	TPH Gasoline in Groundwater
Figure 12 -	CPT Sounding

## PHOTOGRAPHS

Photographs Page 1
Photographs Page 2
Photographs Page 3
Photographs Page 4

## TABLES

TABLE 1A	Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents
TABLE 1B	Results of Soil Sample Analysis for Volatile Organic Compounds
TABLE 1C	Results of Soil Sample Analysis for LUFT-5 Metals
TABLE 2A	Historical Results of Grab Groundwater Hydrocarbon Sample Analysis
TABLE 2B	Historical Results of Grab Groundwater Volatile Organic Compound Analysis
TABLE 2C	Results of Grab Groundwater Sample Analysis for LUFT5 Metals
TABLE 3A	Historical Results of Groundwater Sample Analysis & Fluid-Level Data
TABLE 3B	2004 -2013 Groundwater Sampling Results for VOCs

APPENDIX A – CERTIFIED LABORATORY ANALYTICAL REPORTS

APPENDIX B – BORING LOGS

APPENDIX C – FIELD DATA SHEETS

APPENDIX D – MISCELLANEOUS DOCUMENTATION

---

## ABBREVIATIONS AND ACRONYMS

1,2-DCE	1,2-Dichloroethylene or 1,2-Dichloroethene
ACEH	Alameda County Environmental Health
ACHCSA	Alameda County Health Care Services Agency
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
CalEPA	California Environmental Protection Agency
CAP	Corrective Action Plan
CPT	Cone Penetration Testing
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CHHSL	California Human Health Screening Level
COC	contaminant of concern
COPC	Contaminant of potential concern
DTSC	California Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
ESL	Environmental Screening Level (Regional Water Quality Control Board)
J&E	Johnson & Ettinger Model
HASP	Health and Safety Plan
HERD	Human and Ecological Risk Division (Cal/EPA)
HSC	California Health and Safety Code
HVOC	Halogenated volatile organic compounds
LOP	Local Oversight Program
LUST	Leaking Underground Storage Tank
MTBE	Methyl tert butyl ether
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
msl	mean sea level
PCE	Perchloroethylene, Tetrachloroethene or Tetrachloroethylene (Perc)
PRG	Preliminary Remediation Goal (U.S. Environmental Protection Agency)
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SBT	Soil Behavior Type used in logs of CPT borings
SWRCB	State Water Resources Control Board
TCE	Trichloroethylene or Trichloroethene
TCLP	Toxicity characteristic leaching procedure
TOC	Top of casing in monitor wells
TPHg	total petroleum hydrocarbons as gasoline
TPHd	total petroleum hydrocarbons as diesel
USA	Underground Service Alert
UST	Underground storage tank
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
$\mu\text{g}/\text{kg}$	micrograms per kilogram
$\mu\text{g}/\text{L}$	Micrograms per liter
VOC	Volatile organic compounds



**Golden Gate Environmental, Inc.**  
**GGE Project No. 2014**



**SHEAFFS GARAGE**

**5930 College Avenue, Oakland, CA**  
**ACHCSA Site No. RO0000377**

**ADDITIONAL SOIL AND WATER INVESTIGATION REPORT**

Report Date: February 6, 2013

---

**INTRODUCTION**

Golden Gate Environmental, Inc. (GGE) is pleased to submit this Additional Soil and Water Investigation Report for the additional investigation activities at the property located at 5930 College Avenue in Oakland, California (Site). The work was performed in response to the August 3, 2010 and June 10, 2011 letters issued by Alameda County Environmental Health (ACEH) requesting additional characterization at the Site. ACEH refers to the fuel leak case at the Site by the historical business name "Sheaffs Garage" and as fuel leak case No. RO0000377. Under the Regional Water Quality Control Board's Local Oversight Program (LOP), the ACEH is the lead regulatory agency for the fuel leak case at the Site. Figure 1 is a *Site Location Map* showing the general location of the subject property. Figure 2 is a *Site Vicinity Map* showing land use of the surrounding neighborhood. Figure 3 is a *Site Plan* showing the approximate location of the former underground storage tanks (UST), historical soil borings, and existing groundwater monitoring field points (MW-1, MW-2, MW-3 and piezometer PW-1).

This report includes updated sections for the Site Conceptual Model (SCM) based upon the recent results of deep CPT sounding and additional investigation testing. The SCM is an integral part of the decision making process used in this report to evaluate the Site for low threat closure. In general accordance with the technical comments presented in the aforementioned letters, this report describes the procedures and results from the following additional site characterization activities: 1) further definition of the vertical extent of the hydrocarbon-affected soil and groundwater, 2) investigation for potential source areas of PCE groundwater contamination in the rear courtyard, and 3) investigation for the presence of soil gas contamination beneath the subject building. The investigation activities were performed in general accordance with the State Water Resources Control Board's Leaking Underground Fuel Tank (LUFT) manual and the TRI-Regional Board Staff Recommendation for

---

**1455 Yosemite Avenue, San Francisco, CA 94124 Phone: 415-970-9088 Fax: 415-970-9089**

North Bay Office: 121 Rafael Drive, San Rafael, CA 94901 Phone: 415-460-6124 Fax: 415-460-6125

Preliminary Evaluation and Investigation of Underground Tank Sites. A copy of the ACEH correspondence is presented in Appendix D - Miscellaneous Documentation.

## Site Location

The Site is a commercial property located at 5930 College Avenue along the east side of College Avenue between Harwood Street and Chabot Road in Oakland, California. The Site lies approximately 0.2 mile (1,000 feet) north of Highway 24 and about two miles east of Interstate 80 and the San Francisco Bay. The elevation of the Site is approximately 195 feet above Mean Sea Level. The property is relatively flat lying with the local topographic relief directed toward the west-southwest in the general direction of the San Francisco Bay as shown on Figure 1, Site Location Map. The topographic map of Figure 1 depicts the area of the subject property as dense urban development. Figure 2, Site Vicinity Map, shows the mixed-use commercial-residential character of the surrounding neighborhood. Commercial-retail corridors are located along main thoroughfares such as College Avenue with residential neighborhoods situated between the corridors. The character of the Site's neighborhood has remained consistent since the 1950s. Photographs of the Site are presented in the attached Photographs Page 1.

## Site Description

The property is currently 100% occupied by Stauder Automotive Service for the maintenance and repair of automobiles. The building is a small single-story industrial-style building constructed in 1952. The Site is approximately 5,500 square feet in area with about 75% utilized by an industrial-style garage building and 25% used as an exterior paved storage yard/parking lot. Two underground storage tanks (UST) were formerly located beneath the sidewalk at the southwest corner of the Site. No active USTs, fuel storage, or fuel distribution system currently exist onsite. Most of the building consists of open work / storage area. The photograph on the cover page shows the open space configuration of the building.

Source of Water:	Municipal – 100% imported surface water
Sewage Disposal:	Municipal to sewage treatment plant
Storm water	Catch basin drains to storm water conduits under nearby streets that discharge to San Francisco Bay
Solid Waste Disposal:	Municipal
Year of Construction:	circa 1952
Occupant	Stauder Automotive Service – 100%
Access to Property:	Driveway/roll-up doorway from College Avenue

A sidewalk borders the western side of the building along College Avenue. The wall of a commercial-retail building constructed in 1978 abuts the subject building on the north. A narrow corridor-walkway runs along the southern wall of the subject building separating a multi-story apartment building with ground floor retail and parking. The rear of the property contains a paved parking and storage yard. Two residence backyards adjoin the subject property along the southern and western borders. The property is completely paved with asphalt or concrete with the building constructed on a concrete slab.

## Site History

Sanborn® Fire Insurance Maps with coverage of the Site are available for the years 1911, 1950, 1952, 1959, 1960, 1966, 1967, and 1969. Aerial photographs are available for the years 1939, 1946, 1959, 1965, 1982, and 1993. According to the 1911 Sanborn map, the subject property and adjacent properties along the College Avenue between Harwood Avenue and Chabot Road (59th Street) were vacant lots. The neighborhood in 1911 appeared to be developing residential. The 1939-1946 aerial photographs show the Site as a vacant lot. The 1950 Sanborn map shows the subject property as a vacant lot and the adjacent property to the south was occupied by the existing 12-unit apartment building. Historic gasoline stations were located at the corner of Chabot Road and College Avenue and adjacent to the Site on the north. Historic gasoline stations (most recently Shell and Unocal 76) are present at the corner of College and Claremont Avenues north of the Site.

In 1952, an auto repair facility called Sheaffs Service Garage was constructed at the Site. Historical research shows that auto repair shops have continuously occupied the Site since construction in 1952. Between 1960 and 1969, the Site and neighboring properties appeared to remain unchanged. During this period, the neighborhood appeared to be residential with commercial corridors along major streets such as College Avenue. The 1965 aerial photograph clearly shows that the subject building with the rear storage yard in the existing configuration. The property located at the northeast corner of Chabot Road and College Avenue was occupied by a gasoline station from approximately 1939 to 1965. A gasoline station also formerly existed at the northwest corner of Chabot Road and College Avenue at the current Dreyers Grand Ice Cream building. The adjacent property to the north was formerly occupied by Chevron Service Station #209339 prior to 1968 and was replaced with the existing commercial-retail development (College Square) circa 1978. In the 1982 aerial photograph, the neighborhood appears as currently existing. Figure 2 is a Site Vicinity Map showing land use of the surrounding neighborhood.

## Current Uses of Adjacent Properties

The following table summarizes the adjacent land use surrounding the subject property. The surrounding properties are also shown on Figure 2, Site Vicinity Map.

<i>Compass Direction from Site</i>	<i>Description of Adjoining Land Use</i>
North	College Square commercial-retail property / former Chevron gasoline service station (pre-1968)
Northwest	College Avenue with church beyond / Shell gasoline station at corner of Claremont Avenue
Northeast	Residence and backyard
East	Residence backyard and patio
Southeast	Residence backyard and open courtyard
South	Multi-family Residential building with ground floor garage and residence backyard
West-Southwest	Commercial building / Dreyers Grand Ice Cream

A multi-story commercial-residential building is adjacent to the Site on the south at 5916-20 College Avenue. This building contains a parking garage and a retail store (T-Mobile) on the ground floor with 12 multi-family apartments on upper floors. To the south and east of the Site is an older single-family residential neighborhood with residence backyards adjoining the Site's rear paved parking



area. The surface channel of Harwood Branch creek is located within residential backyards about one block east and up-gradient of the Site. On the west, an Alameda County Flood Control District cutoff storm water conduit (90" diameter) associated with Harwood Branch creek is located within College Avenue.

The adjacent property to the north was formerly occupied by Chevron Service Station #209339 from 1938 to 1968 and was replaced with a commercial-retail development in 1978 called College Square. College Square is currently occupied by a restaurant (Barclays Restaurant & Pub) and office space (5940 College Avenue). This commercial development's ground floor retail space and parking garage are approximately 3-4 feet below the grade of the subject property. A sump pump pit is located near the location of Gettler-Ryan well GR-MW1.

## ENVIRONMENTAL HISTORY

The following discussion presents a summary of site characterization activities performed at the Site. For additional detail and supporting documentation refer to the original documents cited below. Figure 4, Geologic Map, shows the location of the Site with respect to regional and local geologic conditions. Bedrock is expected to occur at a shallow depth (<100 feet) in the vicinity of the Site. Figure 5, titled *Map of Local Storm Water Conduits* shows the location of the Site in relation to nearby underground storm water conduits that appear to impact the Site's groundwater flow direction and gradient. Figure 6, titled *Subsurface Utility Map* shows the location of known utility corridors at the Site.

## Underground Tank Removal 1996

Two underground storage tanks (UST) were formerly located beneath the sidewalk at the southwest corner of the Site (see Site Plan). The USTs were not in service when first observed in 1996. The following table presents a summary of the tank designations, size, type of construction and historical contents:

Designation	Construction	Diameter (Feet)	Length (Feet)	Volume (Gallons)	Contents
<b>Tank 1 (T1)</b>	Steel	4	7	675	Gasoline
<b>Tank 2 (T2)</b>	Steel	4	3.5	340	Waste Oil

In August 1996, Golden Gate Tank Removal, Inc. (GGTR) removed the two USTs under permit from the City of Oakland Fire Department. GGTR removed the residual fuel from the subsurface product piping, thoroughly flushed and drained the piping then capped both ends (the piping was subsequently removed in 2002).

Obvious gasoline impacted soil was present on the sidewalls and bottom of the former UST cavity of Tank 1. On October 2, 1996, GGTR over-excavated the gasoline-contaminated soil to the extent feasible considering the adjacent building foundation, multiple utility conduits, and a large tree. GGTR was unable to completely remove the contaminated soil because of these constraints. The

over-excavation confirmation soil samples, as shown on the following table, reveal residual gasoline contamination of the final excavation limits. The tank removal and over-excavation activities are documented in the GGTR document titled *Tank Removal Report* dated October 11, 1996.

Analytical results of soil samples collected during the UST removal and over-excavation activities are summarized in the following table.

### Summary of UST Removal Confirmation Soil Sampling

Sample Location	Sample ID	Depth (fbg)	Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	TPH-D (mg/Kg)	B/T/E/X (mg/Kg)
North end T1 Excavation	7189-T1-N	8	8/6/1996	6000.00	--	--	19/240/76/470
South end T2 Excavation	7189-T1-S	8		8100.00	--	--	16/240/72/530
Center of T1 Excavation	7189-T1-C	10		1200.00	--	--	9.1/68/10/79
Center of T2 Excavation	7189-T2-C	8		560.00	16000.00	ND	2.7/16/3.3/33
T1 Soil Stockpile	7189-SP1	--		ND	--	ND	ND/ND/ND/ND
T2 Soil Stockpile	7189-SP2	--		1.30	14000.00	ND	ND/ND/ND/0.020
Over-Excav. T1 & T2	7189-OE-1	10.5	10/2/1996	14001.00	1700.00	ND	9.8/81/14/110 <sup>1</sup>
Over-Excav. T1 & T2	7189-OE-2	10.5		8401.00	320.00	ND	3.3/51/12/91 <sup>1</sup>
Over-Excav. T1 & T2	7189-OE-3	10.5		ND	21.00	ND	ND/0.01/ND/0.027
Over-Excav. T1 & T2	7189-OE-4	10.5		4301.00	240.00	ND	0.93/18/4.6/41 <sup>1</sup>
Over-Excav. T1 & T2	7189-OE-5	10.5		14001.00	1100.00	ND	2.2/40/14/120 <sup>1</sup>

**Table Notes:**

*TPH-G = Total Petroleum Hydrocarbons as Gasoline*

*TRPH = Total Recoverable Petroleum Hydrocarbons*

*TPH-D = Total Petroleum Hydrocarbons as Diesel*

*BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (Total)*

*fbg = feet below grade surface*

*mg/Kg = milligrams per Kilogram*

The confirmation soil sample recovered from beneath the center of the waste oil tank T2 additionally contained a PCE concentration of 0.024 mg/kg, with non-detectable (<0.005 mg/Kg) TCE and cis-1,2-DCE. The laboratory analysis of soil samples from the following subsequent exploratory borings in the vicinity of the former USTs (B10 at 11 fbg, B-12 at 10 and 15 fbg, B21 at 9.5 fbg, and B22 at 10 fbg) were all non-detectable for PCE, TCE and cis-1,2-DCE. Significant PCE contamination is not associated with the former waste oil UST location.

---

## Preliminary Subsurface Investigation 1998-1999

On May 6, 1998, three soil borings B1, B2 and B3 were advanced south, east, and west of the former UST cavity at the locations shown on Figure 3, Site Plan. The soil sample collected in boring B2 at approximately 9 fbg contained 2800 mg/kg of TPH as gasoline and 13 mg/kg benzene. All other soil boring sample concentrations were either insignificant or below the respective laboratory reporting limit. Grab groundwater samples collected in each borehole between 6.5 and 8.5 fbg contained a maximum of 1,000,000 micrograms per liter ( $\mu\text{g/l}$ ) TPH-G (B3), 30,000  $\mu\text{g/l}$  benzene (B2), and 18000  $\mu\text{g/l}$  MTBE (B3). Additional details are presented in the June 17, 1998 GGTR report titled *Soil & Groundwater Investigation Report*. Based on review of the preliminary soil and grab groundwater sample results, the ACEH in their letter dated April 20, 1999, requested additional work to further assess the extent of contamination in soil and groundwater in the vicinity of the former USTs.

In June/October 1999, GGTR advanced additional soil borings B4 to B6 to approximately 20 fbg and converted each to respective 2-inch-diameter groundwater monitoring wells, MW-1 thru MW-3. Soil samples collected from each associated boring contained a maximum of 280 mg/kg TPH-G and 4 mg/kg benzene (B4 @ 9 fbg). Representative well samples collected in MW-1 in June and September 1998 contained maximum concentrations of 290,000  $\mu\text{g/l}$  of TPH as gasoline, 28,000  $\mu\text{g/l}$  of benzene, and 1900  $\mu\text{g/l}$  of MTBE. Samples collected in each well in October 1999, contained a maximum of 85,000  $\mu\text{g/l}$  of TPH as gasoline, 20,000  $\mu\text{g/l}$  of benzene, and 1100  $\mu\text{g/l}$  of MTBE (MW-1). The locations of the soil borings/monitor wells are shown on Figure 3, Site Plan. Additional details are presented in the GGTR document titled *Soil & Groundwater Investigation Report* dated October 22, 1999. The results of the laboratory analyses of soil and groundwater samples are summarized on the attached Tables 1-3.

## Quarterly Groundwater Monitoring 2000 to 2002

The ACEH in their letter dated November 4, 1999, requested that all onsite wells be sampled on a quarterly basis. Gettler-Ryan was conducting a separate groundwater investigation adjacent to the Site at 5940 College Avenue (College Square) where a Chevron gasoline station historically existed prior to 1968. The ACEH requested in their March 1, 2001 letter, that joint groundwater monitoring be performed with the adjacent former Chevron station case in collaboration with Gettler-Ryan, Inc. GGTR jointly monitored and sampled each well on a quarterly basis between January 2000 and October 2002. Thereafter, Gettler-Ryan conducted semi-annual monitoring and sampling only. The locations of the subject monitor wells and Gettler-Ryan's monitoring wells are shown on the Site Plan. The attached Table 3A presents the historical monitor well fluid-level data and groundwater analytical results for samples collected in wells MW-1 thru MW-3. Additional details are presented in the associated groundwater monitoring reports. The historical results of groundwater sampling at the adjacent College Square facility is summarized in the Gettler-Ryan *Groundwater Monitoring & Sampling Report* dated May 28, 2008.

## Additional Subsurface Investigation 2002

Based on review of analytical results of the GGTR April 2001 *Groundwater Monitoring Report*, the ACEH, in a letter dated July 9, 2001, requested a work plan to assess whether any additional

contaminant sources potentially exist that may be contributing to the elevated hydrocarbon concentration in groundwater in the vicinity of well MW-1. GGTR submitted the work plan for additional investigation on December 19, 2001, which was subsequently approved by the ACEH in a letter dated January 3, 2002. In August, October, and November 2002, GGTR implemented the UST product line excavation/removal and soil boring (B7-B11) activities.

The location of the product piping, extending between the former fuel dispenser and UST cavity, is shown on Figure 3 - Site Plan. GGTR removed the existing concrete pavement above the product piping and the existing concrete pad (42-inch by 42-inch) previously used to support the former product fuel dispenser located adjacent to the north interior wall of the building structure (Figure 3). GGTR then excavated a 16-inch wide trench (extending the entire length of the piping @ 30 feet) to approximately 2 fbg, exposing the entire surface of the product piping for inspection. Immediately following excavation activities, under the direction of Ms. Eva Chu of the ACEH, GGTR collected a soil sample beneath the south (Sample ID: 7335-EX1[3.5]) and north (Sample ID: 7335-EX3[2.5]) ends of the product piping as well as beneath the central pipe junction point (Sample ID: 7335-EX2[3.5]) as shown on the Site Plan. The soil samples were collected from 0.5 and 1.5 feet below the invert of the piping in relatively undisturbed soil.

The laboratory analysis of soil samples collected beneath the product line revealed insignificant or non-detectable concentrations of TPH-G, BTEX, and MTBE. Following soil sampling activities, the entire length of piping was removed and disposed as scrap metal. The entire length of piping was found in good condition with no visible holes or cracks. No soil discoloration or staining was observed below the piping joints or elbow connections.

GGTR also drilled additional soil borings B7-B11 at the locations shown in Figure 3, Site Plan. Soil samples collected in B7 (former fuel dispenser location), B8 and B9 (east parking lane of College Avenue) between 8 and 20 fbg contained insignificant concentrations of TPH-G and BTEX. However, grab groundwater samples collected in B7 to B9 contained elevated concentrations of TPH-G, BTEX and MTBE. The soil and groundwater samples collected in B10 (vicinity of former USTs, east parking lane of College Avenue) also contained elevated TPH-G, BTEX and MTBE. Soil collected in B11 at 8 and 13 fbg, located along the north property line, contained insignificant concentrations of TPH-G, BTEX, and MTBE. No groundwater was encountered in boring B11. Additional details of the additional site characterization are presented in the GGTR June 10, 2003, *Report of Additional Soil and Groundwater Investigation*. The results of the laboratory analyses of soil and grab groundwater samples are summarized on the attached Tables 1 & 2.

## **Preferential Migration Pathway Survey 2003**

### **Subsurface Utility Corridor Survey**

The ACEH in their September 8, 2003, letter requested a subsurface utility corridor survey in the general vicinity of the Site to evaluate whether any underground utility corridors may potentially act as preferential pathways for migration of dissolved-phase contaminant hydrocarbons. On November 13, 2003, GGTR visited the City of Oakland Department of Engineering to obtain a copy of their subsurface utility map associated with the sanitary and storm sewer lines located in the direct vicinity of the site along College Avenue. GGTR also contacted the East Bay Municipal Utilities District

(EBMUD), Engineering/Mapping Division to obtain utility map(s) associated with the municipal supply water mains/laterals in the vicinity of the site. GGTR also obtained information from the Pacific Bell Engineering Division and Pacific Gas & Electric (PG&E) for the associated utility corridors, which were located beneath the sidewalk and parking lane locations only. Information obtained from each agency included utility line dimensions (diameter), invert depths, and flow directions (if applicable).

The results were presented in the GGTR's *Work Plan for Additional Site Characterization* dated December 29, 2003. The approximate locations of the pertinent subsurface site vicinity utilities are shown in the attached Figure 6 titled *Subsurface Utility Map*. The results of the utility survey were discussed in detail within the June 1, 2009 Site Conceptual Model. Based on the information provided by the subsurface utility corridor survey and on the historical fluctuation of the shallow water table at the Site (about 3 to 12 fbg), it appears that the utility conduits located within College Avenue occur at the lower limit of the historical water table fluctuation and potentially act as a barrier and/or pathway for on- and/or off-site migration of groundwater and contaminant hydrocarbons.

### **Site Vicinity Receptor Well Survey**

As part of the preferential migration pathway survey, the ACEH also requested that a Site vicinity well survey be conducted within a 0.25-mile radius. The purpose of the survey was to determine whether any domestic and/or irrigation water-producing wells and monitor wells exist within this area that may both potentially act as receptors for offsite migration of the hydrocarbon-affected groundwater and potentially act as conduits for continued vertical migration. On November 4, 2003, GGTR submitted a Well Completion Report Release Agreement to the Department of Water Resources (DWR), Central District for all domestic/irrigation and monitoring wells installed within a 0.25-mile radius of the subject property. On November 12, 2003, GGTR visited the DWR Central District office in Sacramento to access their database for the associated well search. Well Completion Reports were provided within a 2-mile radius of the subject property.

The results of the sensitive receptor survey are summarized on Figure 1, Site Location Map. The results of the sensitive receptor survey are further discussed in the Site Conceptual Model section of this report. Based on results of the receptor well survey, no known active domestic and/or irrigation wells exist within the 0.25-mile survey radius of the subject property. Only two irrigation wells were reported about 0.75 miles from the Site and located regionally up-gradient of the Site. Only three groundwater monitoring wells were reported within 0.75 mile of the subject property. The three above reported monitor wells are located regionally up- and lateral gradient of the Site. Because of their distance from the subject property impacted groundwater, the reported irrigation and monitor wells will not act as potential receptors or vertical conduits for continued contaminant migration. Additional monitor wells occur in the vicinity of the Site as listed on GeoTracker and LOP databases.

### **Additional Site Characterization 2005**

ACEH in their letter dated September 8, 2003, requested a work plan proposing additional characterization of soil and groundwater. GGTR submitted their *Work Plan for Additional Site Characterization* on December 29, 2003, and a June 3, 2004 Addendum which were conditionally

approved by the ACEH in letters dated September 30, 2004 and February 22, 2005. Between April and July 2005, GGTR installed borings B12 to B24 to 25 fbg and Hydropunch borings HB-1 to HB-6 to 15 fbg, and converted HB-2 to piezometer well PW-1. The location of each boring is shown in Figure 3, Site Plan. The results of the laboratory analyses of soil and grab groundwater samples are summarized on the attached Tables 1 & 2. The results of the investigation were presented in the GGTR report titled *Report of Additional Site Characterization & Groundwater Monitoring* dated August 29, 2006. The following discussion is summarized from this report.

During April to June 2005, GGTR and Gregg Drilling (Gregg) performed soil boring and sampling activities. Continuous soil samples were collected in all soil borings (and HB-2/PW-1) at 4-foot intervals between 5 and 25 fbg. Following soil sampling activities, Gregg placed 0.75-inch-diameter, factory-sealed, screened piezometer casing to the total depth of selected boreholes. Groundwater was not observed in borings B13, B22, and HB-5, most likely due to the relatively impermeable silty clay / clayey silt material observed in each boring. Following grab groundwater sampling, GGTR removed the temporary well casing from the borings and backfilled each borehole with neat Portland cement. GGTR converted soil boring HB-2 located in the rear paved parking lot to a groundwater piezometer labeled PW-1.

Three exploratory borings were drilled at the dispenser-piping run location during this investigation. Borings B20 and B24 encountered no significant TPH as gasoline contamination (<63 ppm). Boring B19 encountered no significant soil contamination until a depth of 15 feet, where TPH as gasoline at 139 ppm was detected within the saturated zone. Only low concentrations of gasoline hydrocarbons were discovered in soil beneath the former fuel dispenser in boring B7 to a depth of 20 fbg. Upon removal, the product piping to the dispenser was found in good condition and subsequently removed and does not appear to be a contributing source of the elevated gasoline hydrocarbons present in the groundwater.

Based on the laboratory analytical results of soil samples, it appears that only low concentrations of gasoline-range hydrocarbons (i.e., TPH-G, benzene, and total xylenes) are present in the soil within the vadose-interface zone interval (less than 8.5 feet deep). Laboratory analysis of one soil sample (B21-8.5) for total chromium reported a concentration of 74 ppm above the ESL of 58 ppm but within the range of Bay Area background chromium concentrations. However, a total of six soil samples have been analyzed at the site for total chromium with concentrations of 49, 34, 38, 74, 43 and 47 ppm. The mean total chromium concentration for these six samples is 47.5 ppm below the ESL of 58 ppm.

Elevated concentrations of gasoline-range hydrocarbons were detected in the groundwater within the western half of the subject property and extending into the utility corridor beneath College Avenue. No significant free-phase product was observed at the Site. Sheen of petroleum product was observed on the surface of the purged groundwater from onsite wells accounting for the relatively high concentrations observed in wells MW-1 and MW-3. TPH as gasoline concentrations in groundwater to the south of the Site is constrained by exploratory boring HB-6 with a grab water sample concentration of 45 µg/L. Figures 7 & 8 titled *TPH as Gasoline in Soil at Depth of 7-12 Feet* and *TPH as Gasoline in Soil at Depth of 13-20 Feet*, respectively, summarize the results of laboratory analysis for soil samples at the Site.

---

## Continued Quarterly Groundwater Monitoring 2003 to Present

The attached Table 3 includes the historical monitoring data and groundwater analytical results for samples collected in MW-1, MW-2, MW-3 and PW-1. Additional details are presented in the individual groundwater monitoring reports. The groundwater levels measured in each well during the monitoring event were used to calculate an approximate groundwater gradient and flow direction across the site. The groundwater gradient data calculated for the period from April 14, 2005 through October 2013 monitoring events are shown on the attached Figure 9 titled *Groundwater Data Diagram*. The groundwater elevations are referenced to mean sea level (MSL) as determined by the April 26, 2001, Virgil Chavez Land Surveying; Wellhead Elevation and Coordinate Survey. The benchmark for the survey was a City of Oakland benchmark being a cut square in the top of curb at the northeast corner of College Avenue and Miles Avenue (benchmark elevation is 179.075 feet MSL).

Monitoring well MW-2 is believed to be influenced by exfiltration from water leaks-sewer lateral and beginning in April 2005, gradient calculations have utilized data from piezometer PW-1. The groundwater gradient and flow direction was calculated using the U.S. Environmental Protection Agency (EPA) On-Line Tools for Site Assessment Calculation – Gradient and Direction from Four or More Points. Groundwater elevations from the three onsite monitoring field points (MW-1, MW-3 and PW-1) were utilized to calculate an overall site gradient and flow direction as shown on the rose diagram of the Figure 9, titled *Groundwater Data Diagram*.

Evaluation of the data by GGE indicates that well MW-3 located in the College Avenue parking strip is influenced by utility conduits and skews the groundwater gradient data southward during winter months producing erroneous flow directions. GGE concludes that the flow direction across the Site is west-southwest similar to nearby LUST cases. The most recent groundwater monitoring occurred on October 16, 2013 with monitoring and sampling of wells MW-1, MW-2, MW-3 and piezometer PW-1. The results of the recent groundwater monitoring are reported in the following sections of this report.

## Conditions at Nearby LUST Sites

The Alameda County Environmental Health (ACEH) website allows historical documents submitted for Leaking Underground Storage Tank (LUST) cases to be downloaded and reviewed. The technical documents and other correspondence were submitted to the ACEH under their Local Oversight Program (LOP) supervision of LUST cases. The following summaries of neighborhood LUST cases were derived from the ACEH database of documents.

### **Former Chevron Service Station #209339, 5940-42 College Avenue**

The former Chevron Station #20-9339 is located adjacent to the north side of the Site at 5940-42 College Avenue (College Square). A Standard Oil-Chevron gas station operated at this property from 1938 until demolition of the station in 1968. From 1968 to 1978, this property was a vacant parking lot owned eventually by Dryers Ice Cream. In 1978, the College Square development was constructed on the adjacent property. During August-September 1999, Pier Environmental Services provided for the hand auger drilling and grab groundwater sampling of four borings SB-1 through SB-4 at the

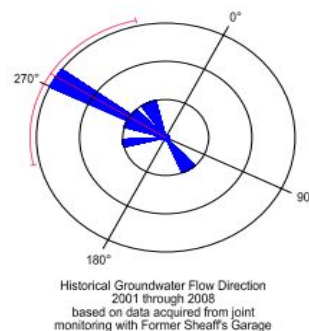
College Square property. No soil samples were recovered from the borings. Groundwater was encountered at approximately 5 feet bsg (surface grade is 3-4 feet below sidewalk grade).

In 2001, Gettler-Ryan, Inc. (GRI) and Delta Environmental Consultants, Inc. installed two groundwater monitoring wells labeled MW-1 and MW-2 used to conduct groundwater monitoring and evaluate the hydrocarbon concentrations in groundwater at the Chevron case. Both borings were drilled to 21 feet bgs and 15 feet of 2-inch diameter screened well casing was installed to 20 feet bsg. The well screen was 0.020-inch with Lonestar #3 sand pack. The borings encountered clay and silty sand to approximately 15-19 feet bsg with brick fragments that appeared to be fill material. A silty sand stratum was encountered at the bottom of each boring at 15-19 feet bsg. Soil samples collected from 4.5 and 9.5 feet contained non-detectable or relatively low concentrations of petroleum hydrocarbons.

GGTR and GRI conducted joint monitoring and sampling activities on a quarterly basis from October 2000 through 2001. Beginning on the April 8, 2002 monitoring event, GRI decreased their monitoring schedule to a biannual basis. GRI performed a biannual monitoring and sampling of GR-MW1 & GR-MW2 on April 21, 2008, as reported in their Groundwater Monitoring and Sampling Report dated May 28, 2008. This GRI report contains monitoring and sampling data from January 3, 2001 through April 21, 2008. Figure 1 in the GRI report also shows the historic location of the former USTs, dispensers and service building associated with the former Chevron service station.

The current operator of Stauder Automotive remembers the former Chevron Station and believes the former used oil UST was located at the south end of the former "Garage and Service Building." Figure 3, Site Plan, shows the location of the Chevron station monitor wells relative to the subject property, the former gasoline station features from Figure 1 of the Gettler-Ryan report, and the anecdotal account of where the former used oil UST was located.

As recorded on Table 1 of the GRI report, well MW-1 has varied in depth to water from 7.11 to 13.72 feet below grade or from an elevation of 189.8 to 183.19 feet. In well MW-1, TPH as gasoline concentrations have varied from non-detect to 1700 µg/l. In well MW-2, TPH as gasoline concentrations have varied from non-detect to 4200 µg/l. No floating petroleum product has been observed in the wells.



Exploratory borings HB-3 and HB-4 located in the vicinity of wells GR-MW1 and GR-MW2 revealed high concentrations of TPH as gasoline in grab water samples of 13,000 and 14,000 µg/l. The above rose diagram is copied from the Conestoga-Rovers & Associates report dated December 30, 2008, showing the historical groundwater flow direction measured from 2001 through 2008.

The GRI monitoring also includes results for the groundwater analysis of ferrous iron, total alkalinity, sulfate, dissolved oxygen and ORP as shown in the following table.



---

**Gettler-Ryan Monitoring Data**

Well ID	Date	Ferrous Iron (ppm)	Tot. Alkalinity (ppm)	Sulfate SO4 (ppm)	D.O. (mg/L)	ORP (mV)
MW-1	04/25/2001	0.15	380	11	--	--
	07/09/2001	<0.050	410	6.8	1.25	111
	10/08/2001	--	414	5.4	1.20	64
	01/13/2002	<0.10	390	10	--	--
MW-2	04/25/2001	0.093	680	21	--	--
	07/09/2001	0.44	600	9.3	1.89	16
	10/08/2001	--	683	3.8	1.04	58
	01/13/2002	<0.10	630	7.0	--	--

*D.O.* = Dissolved Oxygen Concentration; *mg/L* = milligrams per liter; *ORP* = Oxygen Reduction Potential; *mV* = millivolt; -- = not measured

*EPA Method SM 3500 Fe* for Ferrous Iron, *EPA Method 310.1* for Total Alkalinity, *EPA Method 300.0* for Sulfate as SO4

In their letter dated September 11, 2008, the ACHCSA directed Chevron Environmental Management, College Square Associates and San Francisco Property Mgmt. to perform additional site characterization and submit a Site Conceptual Model with Preferential Pathway Study by December 30, 2008. The ACHCSA letter also discloses that investigation in September 1999 did not include soil sampling, but grab groundwater sampling detected 190,000 ppb of TPH as gasoline, 3500 ppb benzene and 1100 ppb MTBE down-gradient of the source area. According to the ACHCSA, the horizontal extent of contamination beneath the former Chevron service station is undefined. Conestoga-Rovers & Associates submitted their *Work Plan for Additional Site Assessment* dated December 30, 2008, proposing to drill and sample three additional soil borings to verify that a source area is present.

Conestoga-Rovers & Associates submitted the document titled *Response to Technical Comments and Work Plan* dated April 19, 2013. Alameda County Environmental Health (ACEH) reviewed the site under the Low-Threat Closure Policy and requests additional characterization. ACEH requests that the 5-foot soil bore be located immediately adjacent to the presumed former UST locations. ACEH requests that a soil sample recovered from the bore be sampled for Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, BTEX, MTBE and naphthalene. The proposed two sub-slab vapor sampling points were approved with the relocation of the southerly vapor point northward away from the Sheaffs Garage facility.

The ACEH letter requested a work plan addendum by July 19, 2013, and a technical report by August 23, 2013. On July 18, 2013, Conestoga-Rovers & Associates submitted the addendum to the work plan. In an email dated August 7, 2013, the ACEH modified the report due date to October 11, 2013.

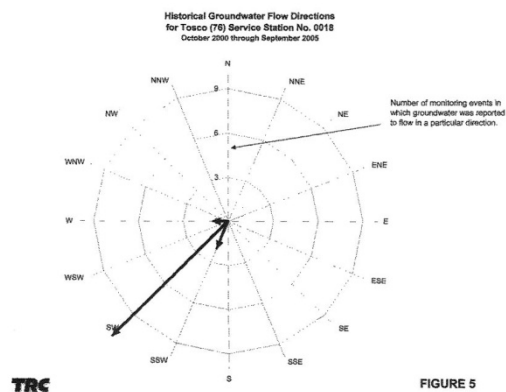
### **Unocal / 76 Service Station #0018, 6201 Claremont Avenue**

Formal Unocal Service Station #0018 was located at 6201 Claremont Avenue, at the intersection of Claremont Avenue and College Avenue approximately 600 feet north of the Site. The Unocal station

was located on the north side of this intersection while a Shell station is located on the south side of the intersection at 6039 College Avenue. An active gasoline service station has operated at this location since before 1956. TRC submitted a *Sensitive Receptor Survey* dated April 24, 2006, for the 76 Service Station (care of ConocoPhillips). TRC concludes that no current or potential receptors are located within one-half mile of the 76 Service Station. Residual petroleum contamination is relatively minor and in 2006 a request for case closure was submitted to the ACEH.

Delta Consultants, Inc. (Delta) on behalf of Conoco Phillips Company submitted a Site Conceptual Model to the ACHCSA on September 15, 2008. The Site Conceptual Model reveals the following information. Boring logs indicate a layered sequence of silty sand, silt with sand and silty gravel with sand from two feet to 30 feet below grade. Groundwater typically occurs at a depth of about 16 to 23 feet with a seasonal fluctuation of 5 to 7 feet annually between summer and winter. Because the depth to groundwater averages 20 feet bsg and below the depth of utility trenches, Delta concluded that a survey of utility trenches was not necessary. Vertical migration of dissolved contaminants is hindered by generally fine-grained soil types.

The accompanying figure is copied from the Delta Consultants Site Conceptual Model. This rose diagram depicts the southwest groundwater flow direction at the Unocal station. According to the Site Conceptual Model, the groundwater flow direction has consistently been to the southwest (between west and south-southwest) with a gradient of approximately 0.01 feet/foot. Delta estimates the groundwater velocity as a silt/silty sand at approximately 3.4 feet per year. According to Delta, the typical flow rate for dissolved petroleum hydrocarbons is significantly slower than the groundwater due to physical and chemical interactions with the soil matrix and biological processes. In their report, Delta identified data gaps concerning the down-gradient distribution of residual petroleum contamination and Delta proposed additional investigation activities.



In November 2009, Safeway purchased the property to expand their current store. In 2011, two USTs, associated piping, and two hydraulic hoists were removed. The case closure summary indicates that the groundwater depth below surface varied from 11.69 to 23.02 feet with a flow direction of southwest. On February 28, 2012, the ACEH issued a case closure letter allowing proposed construction of a commercial shopping center and subterranean parking garage at this site. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures prior to and during excavation and construction activities.

### **Shell Service Station, 6039 College Avenue**

Shell service station #13-5685 is located at 6039 College Avenue on the south side of the intersection of College Avenue and Claremont Avenue. Site conditions are summarized in the Alameda County Health Care Services closure letter dated May 4, 2011. The station has been in continuous operation since 1940. Investigation and remediation activities have been underway at this property since 1990

and five onsite monitoring wells and two off-site wells were installed. Separate-phase / dissolved phase hydrocarbon removal occurred from 1999 to 2005. Additional subsurface investigation of fuel dispenser and USTs occurred in 2005.

As reported in the Cambria report titled Subsurface Investigation Report and Second Quarter 2006 Groundwater Monitoring Report dated August 11, 2006, the soils beneath the Shell station consist of clayey gravel, clay, clayey sand and clayey gravel with sand to approximately 30 feet below grade, underlain by clayey gravel with sand and silty clay to 36 feet below grade. Groundwater monitoring/sampling was performed at this Site between approximately February 1990 and February 2010.

Conestoga-Rovers & Associates (CRA) / Blaine Tech Services, Inc. performed the final groundwater sampling and monitoring on February 3, 2010. The groundwater flow direction was west-southwesterly at 0.02 ft/ft with a depth to water of 11.50 to 14.06 feet below top of casing. Groundwater depth varied from 7.76 to 20.58 feet below grade. A soil vapor survey also conducted in February 2010 that revealed no constituents of concern in soil vapor samples. A *Remedial Action Completion Certification Letter* was issued for this site by the ACHCSA on May 4, 2011 for the current commercial land use only. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.

On January 29, 2013, three additional USTs were removed from this site. Corrosion holes, odor and soil discoloration were observed in the area of one tank. Soil samples had up to 1700 ppm of TPH as gasoline. Based on the results of the UST removal, the ACEH opened a new fuel leak case and requested a site investigation to determine the extent of contamination from the potential new release. In their letter dated September 16, 2013, the ACEH requested that a Site Investigation Work Plan be submitted by November 20, 2013, to assess the extent of contamination from the potential new release. The facilities at this site have been demolished and the lot is vacant.

### **Dreyers Grand Ice Cream, 5929 College Avenue**

A gasoline service station was formerly located at 5929 College Avenue on the northwest corner of College Avenue and Chabot Road. A commercial building and parking lot occupied by the headquarters of Dryers Grand Ice Cream is now located at this corner. The gasoline station operated from 1932 to at least 1952. Seven USTs were removed from this property in December 1989 apparently during development of the Dreyer's Grand Ice Cream, Inc. corporate office building and parking lot.

The CET Environmental Services report dated August 3, 1999, shows the location of the former waste oil and fuel USTs near the corner of College Avenue and Chabot Road across the street and cross-gradient from the subject property. An obvious petroleum contamination problem was discovered during the UST removal. Following the UST removal, contaminated soil was over-excavated from the former UST cavities. Apparently, excavation also occurred during the site grading activities. The groundwater is impacted and the extent of groundwater contamination is under investigation. Groundwater flow direction is reported as west-southwest.

During June 1999, CET Environmental Services drilled 10 GeoProbe borings and collected grab groundwater samples along Chabot Road. The depth to groundwater in well MW1 along Chabot Road varied from a low of 16.16 feet in December 1991 to a high of 7.85 feet in January 1993. Depth to water in down-gradient well MW5 varied from 5.1 feet in March 1995 to 11.22 feet in January 1994. The CET Environmental Services report shows six groundwater monitoring wells located near the intersection of Chabot Road between College and Claremont Avenues. Three wells were installed in 1991 and three wells installed in 1993. Native alluvial soils consisted of silty to sandy clay from surface to 10 feet and sandy-gravelly clay to clayey sand to 30 feet. TPH as gasoline concentrations in Well MW2 has varied from 91,000 µg/L in 1994 to 21,000 µg/L in 1999.

Based on the results of the 1999 groundwater sampling, CET proposed in their 1999 work plan to install two additional groundwater monitor wells, collect bio-indicator parameters from wells MW1 and MW3 to support natural attenuation, and perform risk assessments for soil vapor intrusion and groundwater. No additional documentation was available following the 1999 work plan. In their letter dated July 3, 2008, the ACEH requested the submittal of all analytical data including monitoring well samples be transmitted to the SWRCB GeoTracker system and monitoring wells be surveyed to current standards. On July 24, 2009, the ACEH issued a Notice of Violation to Dreyers Grand Ice Cream because the States GeoTracker site has not been claimed and the site is out of compliance with directives from the agency.

On March 28, 2011, the site was claimed by Nestle Dreyers. No further action is indicated on the ACEH website.

## **GROUNDWATER MONITORING & SAMPLING: OCT. 2013**

The scope of work for the 4<sup>th</sup> Quarter 2013 groundwater monitoring and sampling events includes the following:

- Monitoring, purging and sampling of monitor wells MW-1, MW-2, MW-3 and PW-1
- Laboratory analysis of groundwater samples
- Waste management
- Electronic data upload to GeoTracker Database System
- Data interpretation

On October 16, 2013, GGE in conjunction with Dysert Environmental, Inc. (DEI) monitored and sampled wells MW-1, MW-2, MW-3 and piezometer PW-1.

### **Groundwater Monitoring and Sampling**

Prior to purging and sampling, DEI removed the well cover and locking compression cap from each well and allowed the water in each well column to stabilize for approximately 20 minutes. DEI then measured and recorded the depth to product/groundwater using an electronic water level indicator. Fluid levels were measured relative to the north side of the top of each well casing to the nearest 0.01 foot. No product was detected at the Site. Groundwater depths ranged from 10.56 in well MW-3 to 12.18 feet below grade in well MW-2.

DEI subsequently purged groundwater from the monitor wells using a peristaltic pump (average flow rate @ 250 to 300 milliliters per minute), and simultaneously monitored and recorded the pH, temperature, and specific conductivity of the purged well water. DEI terminated well purging after evacuation of approximately three gallons of water from each well and three successive readings of each parameter varied by less than 0.1, 10%, and 3%, respectively. DEI transferred the purge water directly to a 55-gallon, D.O.T.-approved steel drum.

After the groundwater in each well recharged sufficiently to allow sample collection (at least 80% of initial depth to water), DEI recovered a groundwater sample using a peristaltic pump with dedicated tubing lowered just below the last measured groundwater level. The groundwater sample was collected from the discharge end of the dedicated tubing into pre-cleaned, laboratory-provided sample containers. The sample containers were sealed with Teflon caps and all volatile organic analysis (VOA) vials were inverted and checked to insure that no entrapped air was present. The samples were properly labeled and stored in a cooler chilled to approximately 4°C. Appendix C contains a copy of the Fluid-Level Monitoring Data Form and Well Purging/Sampling Data Sheets for this event.

## Water Sample Analytical Methods

GGE submitted the groundwater samples under formal chain of custody command to Torrent Laboratory, Inc., a State-certified analytical laboratory (CA ELAP #1991) in Milpitas, California, for laboratory analysis of the following fuel constituents:

- Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA Method SW8260B
- Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) by EPA Method SW8260B
- Volatile Organic Compounds (full scan) by EPA Method SW8260B

The groundwater sample collected from each monitor well was additionally analyzed for other VOCs (full list) by EPA Method SW8260B.

Torrent completed all volatile organic analyses within the 14-day required time limit for analysis. GGE directed Torrent to submit all analytical data in electronic deliverable format (EDF) in accordance with the State Water Resources Control Board's GeoTracker database system. Table 3 attached presents a summary of the analytical results for the 4<sup>th</sup> Quarter 2013 sampling event as well as previous monitoring/sampling events at the Site. Appendix A includes a copy of the Laboratory Certificate of Analysis and associated Chain of Custody Record for this event.

## Groundwater Monitoring Results

For the October 16, 2013 event, the groundwater elevations calculated relative to the top of well casing in wells MW-1, MW-3 and PW-1 ranged between 184.66 (MW-3) and 185.26 (PW-1) feet, as referenced to Mean Sea Level (MSL), a range of 0.6 feet. The groundwater elevation and coordinate data for each monitoring event was entered into the EPA On-Line Tools for Site Assessment Calculation, Hydraulic Gradient – Magnitude and Direction. This tool calculates gradient by a least-squares fitting of the data to a plane and used to calculate the approximate groundwater hydraulic gradient and flow direction across the Site. The attached Figure 9, titled *Groundwater Data Diagram*

depicts the groundwater flow direction for the October 16, 2013 monitoring event. The EPA On-Line Tools for Site Assessment Calculation sheet is included in Appendix D.

During the October 16, 2013 monitoring event, the groundwater flow direction beneath the Site was estimated at South 11° East (169°) under a hydraulic gradient of approximately 0.012 ft/ft. The groundwater flow direction for the October 16, 2013 event is consistent with historical data for the Site with general flow direction ranging from south to west.

Figure 9 titled *Groundwater Data Diagram* includes a rose diagram presenting the historical groundwater flow direction and hydraulic gradient across the Site as calculated from groundwater elevations from three wells MW-1, MW-3, and PW-1 since April 2005. The variation in groundwater flow direction from summer to winter is believed to be caused by the influence of the storm water cutoff conduit in College Avenue. Figure 10, titled *Cross Section A-A'*, illustrates the relationship between the seasonal variation in groundwater elevation and the storm water cutoff conduit.

## Results of Groundwater Sampling and Laboratory Analysis

Concentrations of TPH as gasoline ranging from 150 µg/l in piezometer PW-1 to 12,000 µg/l in well MW-1 were measured in groundwater samples collected during the October 2013 event. Elevated benzene concentrations were measured in well MW-1 thru MW-3, with maximum concentrations again reported in MW-1 at 2400 µg/l. The TPH as gasoline and BTEX concentrations measured in these wells continue to exceed applicable groundwater ESL values. No PCE was detected in monitor wells MW-1, MW-2 and MW-3.

The following table presents the results of laboratory analysis for the groundwater samples recovered during this monitoring event:

### Results of Laboratory Analyses of Water Samples

<i>Sample</i>	<i>Sample Date</i>	<i>Parameter</i>	<i>Medium</i>	<i>Analysis Method</i>	<i>Result</i>	<i>Unit</i>
MW-1	10-16-13	TPH as Gasoline	Water	SW8260B	12000	µg/L
		Benzene	Water	SW8260B	2400	µg/L
		Toluene	Water	SW8260B	330	µg/L
		Ethylbenzene	Water	SW8260B	1500	µg/L
		Xylenes	Water	SW8260B	2780	µg/L
		Naphthalene	Water	SW8260B	310	µg/L
MW-2	10-16-13	TPH as Gasoline	Water	SW8260B	4400	µg/L
		Benzene	Water	SW8260B	780	µg/L
		Toluene	Water	SW8260B	33	µg/L
		Ethylbenzene	Water	SW8260B	200	µg/L
		Xylenes	Water	SW8260B	39.8	µg/L
		Naphthalene	Water	SW8260B	62	µg/L

MW-3	10-16-13	TPH as Gasoline	Water	SW8260B	3400	µg/L
		Benzene	Water	SW8260B	990	µg/L
		Toluene	Water	SW8260B	58	µg/L
		Ethylbenzene	Water	SW8260B	75	µg/L
		Xylenes	Water	SW8260B	71	µg/L
		Naphthalene	Water	SW8260B	9.9	µg/L
PW-1	10-16-13	TPH as Gasoline	Water	SW8260B	150	µg/L
		Benzene	Water	SW8260B	0.87	µg/L
		Tetrachloroethylene	Water	SW8260B	45	µg/L
		Trichloroethylene	Water	SW8260B	2.7	µg/L
		cis-1,2-Dichloroethene	Water	SW8260B	12	µg/L

The attached Table 3 also includes a summary of the historical groundwater analysis results for the October 2013 event, and the associated laboratory report is included in Appendix A. The attached Figure 11 titled *TPH Gasoline in Groundwater* illustrates the estimated extent of petroleum contaminated groundwater at the Site.

## ADDITIONAL SITE CHARACTERIZATION

GGE performed additional site investigation in the form of additional soil, soil gas and groundwater sampling. In general accordance with the technical comments presented in the aforementioned regulatory agency letters, this report describes the procedures and results from the following additional site characterization activities: 1) further definition of the vertical extent of the hydrocarbon-affected soil and groundwater, 2) investigation for potential source areas of PCE groundwater contamination in the rear courtyard, and 3) investigation for the presence of soil gas contamination beneath the subject building. The following sections describe the results of the additional investigation work.

## Scope/Sequence of Proposed Work Activities

The general scope of work and sequence of activities described in this section is outlined as follows:

- Obtained soil boring and monitoring well permits at the Alameda County Public Works Agency
- Obtained street excavation and/or minor encroachment permits from the City of Oakland Department of Public Works Engineering Division
- Outlined the proposed work area and boring locations in white surface paint and notified Underground Service Alert to clear for exterior subsurface utilities
- Revised the existing Site Health & Safety Plan for newly-proposed field work
- Using DPT drilling equipment, drilled and recovered soil samples to a depth of 4½ feet below grade from three (3) locations labeled as borings B-25, B-26 and B-27 in the rear courtyard-

---

parking lot of the Site; Boring B-25 was located adjacent to the storm drain; Boring B-26 was located along the storm line lateral; Boring B-27 was located near the former parts cleaner-sink location at the southwest corner of the building

- Collected four (4) discrete soil samples from borings B-25, B-26 & B-27 at depths of 2 or 4 feet below grade. Submitted four (4) soil samples for laboratory analysis of VOCs
- Drilled one deep (60 foot) boring (CPT-1A) for CPT sounding along the east parking lane of College Avenue for vertical definition of petroleum contamination of groundwater and continuously log soil lithology. Recovered one grab groundwater sample with Hydropunch sampling equipment from subsequent boring CPT-1B between 3.5 and 6.5 feet
- Collected three discrete soil samples from boring locations SG-1, SG-2 and SG-3 for laboratory analysis of TPH as gasoline and submit two samples for physical testing
- Install three semi-permanent soil gas sampling probes with screened sample points at a depth of four feet in probes SG-1 and five feet in probes SG-2 and SG-3
- Performed a step purge test prior to soil gas sampling utilizing a mobile laboratory
- Recovered discrete soil gas samples and duplicate sample from locations SG-1, SG-2 and SG-3 within the subject building and analyzed the samples utilizing a mobile laboratory
- Submitted all soil and grab groundwater samples to a State-certified environmental laboratory for chemical analysis
- Returned to the Site to recover duplicate soil gas sample from SG-3 with a Summa canister for confirmation air sampling by stationary laboratory
- Uploaded all investigative analytical data to the State GeoTracker Database System
- Profiled and transported all investigation waste to respective State-licensed disposal facilities
- Interpreted all data and prepared a report summarizing the activities, findings, and conclusions of the additional site characterization activities
- Uploaded all investigative data and this report to the State GeoTracker Database System and ACEH online database system

The following sections provide additional discussion of the investigation activities listed above.

## **Pre-Field Activities**

GGE obtained a drilling permit from of the Alameda County Public Works Agency, an excavation/minor encroachment permit from the City of Oakland Office of Planning & Building, and a parking permit from the Oakland Traffic Control Department. At least 72 hours before commencing field activities, GGE visited the site and outlined the proposed work areas in white surface paint and subsequently notified Underground Service Alert (USA) to locate and mark any subsurface utilities extending through the designated work areas. Permit copies are included in Appendix D.

## **General Field Activities**

GGE revised the existing Community Site Health & Safety Plan to reflect the additionally proposed activities. GGE notified the property owners, tenants, and regulatory/permitting agency



representatives of all scheduled fieldwork and arranged and scheduled all drilling and laboratory subcontractor services. The following table presents a summary of the investigation activities:

<i>Boring Label</i>	<i>Depth of Boring Feet</i>	<i>Boring &amp; Well Location</i>	<i>Sample Data</i>	<i>Laboratory Analyses</i>
B-25	4½	Soil sample at storm water floor drain location in rear parking lot	Soil sample B25-4	VOC
B-26	4½	Soil samples at storm water floor drain location at service lateral alignment connection	Soil samples B26-2 & B26-4	VOC
B-27	4½	Soil sample at southwest corner of building where former parts washer-sink was located and sanitary lateral connects	Soil sample B27-4	VOC
CPT-1	60	Near UST source area in parking lane	Continuous lithology (CPT-1A), one grab groundwater sample (CPT-1B) between 3.5-6.5 feet	TPH as gasoline, BTEX, MTBE, ETBE, TBA
SG-1	4	Soil and soil gas sample at east side of office	Soil sample SG-1-4 & vapor sample SG-1-3	TPH as gasoline, VOC
SG-2	5	Soil and soil gas sample at north side of office	Soil sample SG-2-5 & vapor samples SG-2-1, -3, -10	TPH as gasoline, VOC
SG-3	5	Soil and soil gas sample at northwest corner of garage	Soil sample SG-3-5 & vapor sample SG-3-3	TPH as gasoline, VOC

Prior to commencing drilling activities, GGE conducted a tailgate safety meeting with all site personnel addressing all information provided in the Community Site Health & Safety Plan. GGE directed the subcontracted driller to hand auger each proposed boring location to clear for unmarked subsurface utilities.

## PCE Source Area Investigation

On August 8, 2013, GGE in association with the State-licensed EnProbe Environmental Drilling Services (EnProbe), drilled three (3) additional investigative soil borings in the Site's rear courtyard-parking lot as shown on Figure 3, Site Plan. The purpose of the investigation is to determine if obvious onsite potential source areas of PCE contamination have PCE soil contamination above regulatory screening levels. EnProbe drilled the three borings using a portable, limited access Geoprobe direct push technology (DPT) drill rig. Photographs of the event are presented in the attached Photograph Pages 1&2.

The soils encountered in each boring were continuously logged for lithology and obvious evidence of contamination (vapor & staining) and consisted entirely of silty clay. No obvious evidence of odor or staining was observed during the drilling and sampling activities. Soil samples were collected using a 2.25-inch-diameter, butyrate plastic tube-lined remote sampler (2- to 4- feet in length).

One boring (B25) was placed adjacent to the existing storm water catch basin to assess shallow soil for VOC analysis of soil samples. One boring (B26) was placed adjacent to the existing storm water lateral pipe at the cleanout junction to assess soil for VOC constituents. One boring (B27) was placed

adjacent to the southwest corner of the existing building to assess soil for VOC constituents. At this corner of the building, a former parts washer was historically located. The storm water lateral pipe from the catch basin also turns and connects to the sanitary sewer line beneath building at the southwest corner. Discrete soil samples were recovered at depths of 2-2½ and 4-4½ feet below grade in boring B26 and at 4-4½ feet below grade in borings B25 and B27 (See Site Photograph Page #2).

All soil samples were sealed, appropriately labeled, and transferred to a cooler chilled to approximately 4° Centigrade. Soil boring samples were screened using a calibrated photo ionization detector (PID) and described using the Unified Soil Classification System and Munsell Soil Color Chart. Drilling was conducted by a California-licensed Water Well Drilling Contractor (C57). All down-hole drilling and sampling equipment was decontaminated between each boring location using an Alconox® solution and double rinsed using clean, potable water. Equipment wash and rinse water was transferred directly to a separate 55-gallon storage drum.

GGE submitted the discrete soil samples under formal chain of custody command to the State-certified Torrent Laboratory, Inc. (CA ELAP #1991) in Milpitas, California, for laboratory analysis of Volatile Organic Compounds (full scan) by EPA Method SW8260B.

The following table presents the results of laboratory analysis for the soil samples recovered during this investigation:

#### Results of Laboratory Analyses of Soil Samples

<i>Sample</i>	<i>Depth</i> <i>feet</i>	<i>Sample Date</i>	<i>Parameter</i>	<i>Medium</i>	<i>Analysis</i> <i>Method</i>	<i>Result</i>	<i>Unit</i>
B25-4	4-4½	8-8-13	Tetrachloroethylene	Soil	SW8260B	ND <10	µg/kg
B26-2	2-2½	8-8-13	Tetrachloroethylene	Soil	SW8260B	<b>16</b>	µg/kg
B26-4	4-4½	8-8-13	Tetrachloroethylene	Soil	SW8260B	ND <10	µg/kg
B27-4	4-4½	8-8-13	Tetrachloroethylene	Soil	SW8260B	ND <10	µg/kg

The attached Table 1B includes a summary of the discrete soil sample analytical results for the August 2013 event, and the associated laboratory report is included in Appendix A.

## Soil Gas Assessment

GGE provided for the drilling, soil sampling and installation of three soil gas sampling probes in three locations SG-1, SG-2 and SG-3 within the garage work area of the subject building. Each soil boring was drilled by a California-licensed Water Well Drilling Contractor (C-57), En Probe, on August 8, 2013, using either hand auguring equipment or a limited access GeoProbe drilling rig. Boring SG-1 encountered drilling refusal on rock at four foot below grade. Borings SG-2 and SG-3 were drilled to five foot below grade. An encroachment permit for the drilling work proposed in the College Avenue public right of way was not yet issued, and the proposed soil gas sample probe SG-4 (adjacent to the subject building on the adjoining property to the south) was not drilled. GGE located

sample location SG-1 within the subject building as close to the south exterior wall as feasible to replace the sampling information from that of SG-4. The attached Site Plan shows the location of the soil gas probe locations. Photographs of the soil gas probe drilling/sampling activities are presented in the attached Photograph Page #2.

At the completion of drilling the borehole at each location, a discrete soil sample was collected in each boring using a 2.25- to 2.5-inch-diameter, butyrate plastic tube-lined or brass tube-lined remote sampler (0.5- to 4- feet in length). Soil samples retained for laboratory analysis were immediately sealed with Teflon tape and plastic caps, appropriately labeled, and placed in a cooler chilled to approximately 4° Centigrade. A total of three discrete soil samples were submitted under formal chain of custody command to Torrent Laboratory, Inc. for laboratory analysis of TPH as gasoline by EPA 8260B. No obvious distinct change in soil discoloration/ contamination was observed in the borings. GGE classified and logged all soil extracted from each borehole using the Unified Soil Classification System and Munsell Rock Color Chart, and monitored and recorded the organic vapor concentrations of the soil samples using a PID. All three borings encountered clay and silt rich soils.

GGE recovered two additional soil samples for particle size distribution analysis, organic carbon, and moisture content from borings SG-1 and SG-3 at depths of 4 and 5 fbg, respectively. Cooper Testing Labs (CTL) of Palo Alto, California, described the sample from boring SG-1@4' as a "dark brown clay with sand" containing 3.6% gravel, 26.2% sand, 44.9% silt and 25.3% clay. CTL described the sample from boring SG-3@5' as a "very dark gray clay with sand" containing 1.7% gravel, 23.9% sand, 45.4% silt and 29% clay. Analysis of Organic Matter (Titration) performed by Soil & Plant Laboratory, Inc. of Anaheim, California, revealed 1.56% organic matter in sample SG-1@4' and 2.71% organic matter in sample SG-3@5'. The associated analytical reports for Particle Size Distribution, Organic Matter, and Moisture-Density-Porosity are presented in Appendix A.

The following table presents the results of laboratory analysis for the soil samples recovered during this investigation:

**Results of Laboratory Analyses of Soil Samples**

<i>Sample</i>	<i>Depth</i> <i>feet</i>	<i>Sample Date</i>	<i>Parameter</i>	<i>Medium</i>	<i>Analysis</i> <i>Method</i>	<i>Result</i>	<i>Unit</i>
SG-1-4	3½-4	8-8-2013	TPH as Gasoline	Soil	8260TPH	ND<100	µg/Kg
SG-2-5	4½-5	8-8-2013	TPH as Gasoline	Soil	8260TPH	ND <100	µg/Kg
SG-3-5	4½-5	8-8-2013	TPH as Gasoline	Soil	8260TPH	ND <100	µg/Kg

All down-hole drilling and sampling equipment was cleaned between each boring location using a non-phosphate Alconox® solution and double rinsed using clean, potable water. Equipment wash and rinse water was transferred to a separate D.O.T-approved storage container. All containers were sealed and appropriately labeled as non-hazardous waste and securely stored onsite pending future disposal at respective licensed-disposal facilities.

At the conclusion of soil sampling activities on August 8, 2013, En Probe installed temporary soil gas sampling probes in each borehole. A screened stainless steel sample point (0.25" diameter & 2" length) was installed to the completed depth in each borehole, and connected to 0.25" O.D. Teflon

tubing that extends approximately 1 foot above grade surface at each location. One foot of #3 silica sand was placed around the sample point, overlain by two foot of hydrated/dry granular bentonite. Cement and a 3.5-inch-diameter well box in concrete were placed from the top of the bentonite to the surface to complete the semi-permanent soil gas sampling probe. Photographs of the soil gas probe installation activities are presented in the attached Photograph Page #3.

On August 26, 2013, TEG Northern California, Inc. (TEG) recovered a soil gas sample from each of the three soil gas probes SG-1, SG-2 and SG-3 within the subject building. TEG performed the laboratory analysis of soil vapor samples using an onsite mobile laboratory and EPA Method 8260B VOC Analyses of Soil Vapor. Each sample was analyzed for VOCs, TPH (gasoline range) and leak detection compound Dichlorodifluoromethane by EPA 8260B as well as methane (EPA 8015M), oxygen and carbon dioxide in % volume. A soil gas sample was collected at each location following the procedures provided in the *Field Methods for Soil Gas Sampling* section of the work plan and in general accordance with the EPA's March 2010 *Draft Advisory – Active Soil Gas Investigation*. The appropriate purge volume was determined using a step purge volume testing program before sampling begins with test volumes of 1, 3 and 10 volumes. As result of the purge volume testing, all soil gas samples were analyzed onsite by a State-certified mobile laboratory using three purge volumes.

The following table presents the results of laboratory analysis for the soil vapor samples recovered during this investigation:

#### Results of Mobile Laboratory Analyses of Soil Gas Samples

<i>Sample</i>	<i>Sample Date</i>	<i>Parameter</i>	<i>Medium</i>	<i>Analysis Method</i>	<i>Result</i>	<i>Unit</i>
SG-1-3V	8-26-13	Tetrachloroethene	Air	8260B	<100	µg/m <sup>3</sup>
SG-2-1V	8-26-13	Tetrachloroethene	Air	8260B	<100	µg/m <sup>3</sup>
SG-2-3V	8-26-13	Tetrachloroethene	Air	8260B	<100	µg/m <sup>3</sup>
SG-2-10V	8-26-13	Tetrachloroethene	Air	8260B	<100	µg/m <sup>3</sup>
SG-3-3V	8-26-13	Tetrachloroethene	Air	8260B	580	µg/m <sup>3</sup>
SG-3-3V	8-26-13	Tetrachloroethene	Air	8260B	590	µg/m <sup>3</sup>
Duplicate						

One duplicate soil gas sample SG-3-3V dup (one duplicate per 10% of total samples) was collected by TEG. The vapor probes were left temporarily installed in the ground for future sampling if needed.

A step purge test was performed on the first borehole to determine the appropriate purge volume for this Site. Prior to purging, a leak check was performed at the sampling point to ensure an appropriate seal between the sampling train and probe interface. After three volumes of vapor was evacuated from the sampling assembly to insure collection of a representative sample, a vapor sample was

collected in a gas-tight glass syringe and transferred directly to an on-site mobile analytical laboratory. Soil gas samples were collected by inserting a syringe needle through the wall of the silicon tubing attached to the above ground end of the sample tubing and extracting a 10-cc aliquot of soil vapor. New tubing was used at each sampling location. Purge and sample flow rates were maintained at approximately 100-200 milliliters per minute, and at a vacuum less than 100 inches of water. The samples were analyzed by TEG for VOC constituents as soon as possible following sample collection (generally within 30 minutes of sample collection). Photographs of the soil gas purge volume testing and sampling activities are presented in the attached Photograph Pages 3&4.

On October 26, 2013, GGE returned to the site to collect an additional duplicate sample from vapor point SG-3 using a 1-liter Summa canister for stationary laboratory analysis (See Photograph Page 4, Photograph #12). The mobile laboratory had reported PCE concentrations of 580  $\mu\text{g}/\text{m}^3$  and 590  $\mu\text{g}/\text{m}^3$  for soil gas from this sampling point. In GGE's experience, the mobile laboratory reports a higher concentration than soil gas sampling utilizing a Summa canister and a stationary laboratory. The additional duplicate soil gas sample was collected following general leak check procedures and after approximately 3 purge volumes were extracted from SG-3. The soil gas canister was appropriately labeled and submitted under chain of custody command to Torrent Laboratory, Inc., a State-certified laboratory, for analysis of VOCs and TPH-Gasoline using EPA method ETO15. A copy of GGE's Soil Gas Sampling Field Data Form is presented in Appendix C.

The following table presents the results of laboratory analysis for the duplicate soil vapor sample recovered from probe SG-3:

#### Results of Laboratory Analyses of Duplicate Air Sample

<i>Sample</i>	<i>Sample Date</i>	<i>Parameter</i>	<i>Medium</i>	<i>Analysis Method</i>	<i>Result</i>	<i>Unit</i>
SG-3-3	10-16-13	Toluene	Air	ETO15	4.75	$\mu\text{g}/\text{m}^3$
		Tetrachloroethylene	Air	ETO15	191	$\mu\text{g}/\text{m}^3$
		m,p-Xylene	Air	ETO15	4.3	$\mu\text{g}/\text{m}^3$
		4-Ethyle Toluene	Air	ETO15	2.5	$\mu\text{g}/\text{m}^3$
		1,3,5-Trimethylbenzene	Air	ETO15	2.5	$\mu\text{g}/\text{m}^3$
		1,2,4-Trimethylbenzene	Air	ETO15	2.5	$\mu\text{g}/\text{m}^3$
		TPH-Gasoline	Air	ETO15	300	$\mu\text{g}/\text{m}^3$

The PCE concentration reported by the stationary laboratory in the duplicate soil gas sample from vapor point SG-3 was 191  $\mu\text{g}/\text{m}^3$ . GGE utilized the result of the duplicate sampling as indicative of soil gas conditions at vapor sampling point SG-3. The value of 191  $\mu\text{g}/\text{m}^3$  was utilized for comparison to ESL screening values.

## Vertical Profile Contamination Characterization

On September 27, 2013, GGE provided for the drilling of one deep Cone Penetration Testing (CPT) boring, CPT-1, near the former UST location to a depth of 60 feet bsg using Gregg Drilling and Testing, Inc. (Gregg). GGE initially measured the depth to groundwater in nearby monitoring well MW-3 (@ 10.45 fbg).

Gregg hand augured to a depth of six fbg prior to drilling activities to clear for any unmarked subsurface utilities. Lithology was continuously logged during the drilling of the first boring, CPT-1A. No soil samples were recovered from CPT-1A. The lithology recorded during the drilling of CPT-1A consisted of clay, silty clay and dense stiff layers. No obvious sand or gravel zones are present in the CPT sounding profile. The attached Figure 12 titled *CPT Sounding* illustrates the lithology encountered in the deep exploratory boring to 60 feet below surface grade. Photographs of the CPT drilling event are presented in the attached Photograph Page 4.

No significant zones of apparent water bearing capacity were encountered below a depth of 3.5-6.5 feet. Based on review of CPT-1A sounding data, GGE attempted to recover a grab water sample from depths of 24-28 feet and 34-38 feet in a second CPT boring, CPT-1B, using a Hydropunch groundwater sampler. However, no groundwater entered the sample chamber after waiting extended periods, verifying the presence of tight, clay rich formations, as indicated by the CPT sounding. All down-hole drilling and sampling equipment was cleaned between each boring location using a non-phosphate Alconox® solution and double rinsed using clean, potable water.

In an attempt to further recover a groundwater sample in CPT-1B, Gregg extracted all drill tubes and advanced a clean Hydropunch sampler at depths of 20, 10, and 5 fbg, and subsequently extracted the sample tubes approximately 2 feet to expose the bottom screened portion of the sampler (4- to 5-foot section) to the surrounding strata at each interval. Using a clean, stainless steel bailer, Gregg collected a grab groundwater sample from the first encountered water-bearing zone in CPT-1B, at approximately 3.5 and 6.5 fbg, for laboratory analysis of gasoline constituents. It was noted that groundwater recharge in CPT-1B during sample collection was relatively slow. The grab groundwater sample was appropriately labeled and transferred to a cooler chilled to approximately 4° Centigrade. As shown in the following table, the laboratory reported petroleum hydrocarbons in the grab groundwater sample similar to the recent results of groundwater sampling in monitor well MW-1 adjacent to the former UST location.

The following table presents the results of laboratory analysis for the grab groundwater sample recovered from in the CPT boring:

### Results of Laboratory Analyses of Grab Water Sample

<i>Sample</i>	<i>Sample Date</i>	<i>Parameter</i>	<i>Medium</i>	<i>Analysis Method</i>	<i>Result</i>	<i>Unit</i>
CPT-1B-GW	9-27-13	TPH as Gasoline	Water	SW8260B	16000	µg/L
		Benzene	Water	SW8260B	360	µg/L
		Toluene	Water	SW8260B	910	µg/L

---

Ethyl Benzene	Water	SW8260B	550	µg/L
Xylenes	Water	SW8260B	2810	µg/L
Naphthalene	Water	SW8260B	200	µg/L

---

Following groundwater sampling activities, GGE directed the driller to backfill CPT-1A & CPT-1B with neat Portland cement up to approximately 0.5 fbg. The borings were backfilled by pumping Portland cement (6 gallons water per 94-pound bag of Portland cement) directly through the CPT drill rods and grouting upward from the bottom of the boring. Groundwater did not discharge from the boring (@ grade surface) during grouting. The balance of each borehole was backfilled with appropriate surface material (i.e., concrete, asphalt, etc.) to restore original site conditions.

## REVISED SITE CONCEPTUAL MODEL

A Site Conceptual Model was presented in the document titled *Soil and Water Investigation Work plan & Site Conceptual Model* dated June 1, 2009. In this report, GGE has updated the Site Conceptual Model with new data from a recent deep CPT boring and additional site characterization. Only the sections of the original model that benefit from the new information are updated in this section. Please refer to the original document for a complete description of the Site Conceptual Model.

## Results of Site Characterization

### Local Site Conditions

Native subsurface soil encountered at the Site consists of clay, silty clay, clayey silt and fine-grained sand with thin lenses of coarser-grained sand with gravel. Soil in the direct vicinity of the former UST cavity, as described in B21 to B23, was moderate to dark yellowish brown intermixed lenses of clay, silty clay and clayey silt with sand to a total explored sample depth of 25 fbg. Boring B15 in the southeastern corner of the Site encountered silty fine-grained sand to a depth of 10 feet.

Previously reported Particle Size Distribution and Moisture-Density-Porosity Reports indicated that soil in boring B8 at 17 fbg was an olive gray clay w/ sand containing 57.9 % silt, 27.3% clay & 14.8% sand with a porosity of 38.6%, moisture content of 22.8%, and density of 106 pounds per cubic foot (pcf). Soil in boring B9 at 7 fbg was described as brown clayey sand w/ trace gravel containing 47.3% sand with trace gravel, 39.5% porosity, 19% moisture, and approximately density of 102 pounds per cubic foot. The soil sample collected in B11 at the north side of site at 19 fbg was described as a brown clayey sand w/gravel containing 25.5% silt, 22.9% clay, and 34.8% sand with 43% porosity, 21.9% moisture content, and an approximate density of 97 pounds per cubic foot. These materials appear consistent with young Pleistocene/Holocene-age alluvial fan-fluvial deposits as described on the geologic map.

On October 15, 2013, GGE recovered two soil samples for particle size distribution analysis from borings SG-1 and SG-3 at depths of 4 and 5 feet below grade. The laboratory described the sample from boring SG-1@4' as a dark brown clay with sand containing 3.6% gravel, 26.2% sand, 44.9%

silt and 25.3% clay. The laboratory described the sample from boring SG-3@5' as a very dark gray clay with sand containing 1.7% gravel, 23.9% sand, 45.4% silt and 29% clay. Analysis of Organic Matter (Titration) revealed 1.56% organic matter in sample SG-1@4' and 2.71% organic matter in sample SG-3@5'. The associated analytical reports for Particle Size Distribution, Organic Matter, and Moisture-Density-Porosity are presented in Appendix A.

On September 27, 2013, GGE provided for the drilling and sampling of a deep cone penetration test (CPT) boring adjoining the former UST location, see Figure 3, Site Plan, for location of CPT boring. Figure 7 titled "CPT Sounding" shows the final sounding profile from Gregg Drilling. As shown on Figure 7, from five to 39 feet below grade, the sounding recorded a layered stratigraphy of clay, silty clay with intervals of very dense/stiff soil. From 39 to 60 feet, very dense/stiff soil with thin intervals of clay occurred.

The data confirms that the Site is predominantly underlain by clays and silty clays to a depth of at least 60 feet below grade. No significant groundwater zones were recognized below a depth of 3.5-6.5 feet on the CPT sounding. The attached Figure 12 titled CPT Sounding illustrates the lithologic profile for the 60 foot deep exploratory boring.

## Nature & Extent of Contamination

### Contaminants of Potential Concern

The contaminants of potential concern at this Site consist of TPH as gasoline and other associated gasoline constituents that remain in groundwater in the direct vicinity of the former UST location. The attached Tables 1-3 show the historical results for the laboratory analyses of soil and groundwater samples. The accompanying chart (below) titled *Historical TPH Gasoline in Groundwater* shows historical concentrations of TPH as gasoline in Site monitoring wells plotted by date from June 1998 through October 2013. A trend line through the data for monitoring point MW-1 has been added to the data on this chart. The variability in data is large at this site reflecting the large seasonal variability in groundwater elevation. The trend line illustrates that the gasoline plume is steadily decreasing in concentration. For well MW-1, the data indicate that overall TPH as gasoline concentrations have decreased substantially from a high of 290,000 µg/l in September 1998 to the lowest value reported in well MW-1 of 12,000 µg/l in October 2013.



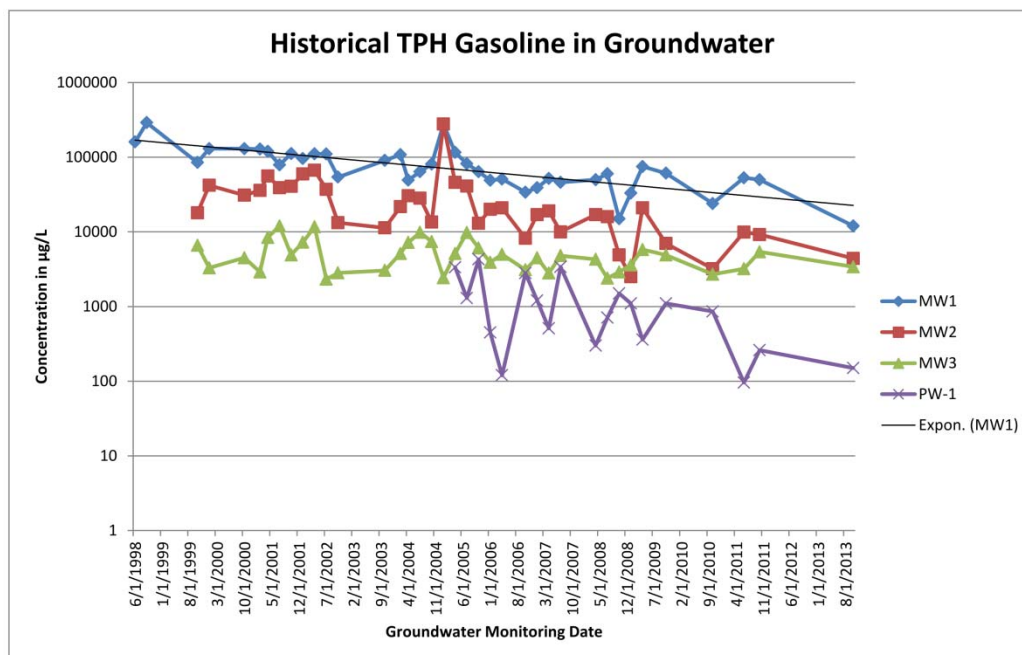


Chart of TPH Gasoline versus Time

A secondary contaminant of potential concern at this Site is PCE in groundwater at the location of piezometer PW-1 in the rear courtyard. Groundwater sampling of PW-1 from April 2005 through October 2013 revealed PCE concentrations ranging from 25 to 95 µg/l. TCE and cis-1,2-DCE concentration have also been detected suggesting that degradation of PCE may be occurring. TCE concentrations during the sampling period have ranged from non-detect to 6.2 µg/l. Concentrations of cis-1,2-DCE have ranged from 2.8 to 61 µg/l. A trace concentration of Vinyl Chloride was detected in the October 2008 sampling at 0.6 µg/l. Monitoring wells down-gradient of PW-1 including wells MW-1, MW-2 and MW-3 did not detect PCE, TCE or cis-1,2-DCE between February 2004 and October 2013. As illustrated on the accompanying chart below, the PCE concentrations in groundwater fluctuate over a consistent range and appear stable. A decreasing trend in TCE and cis-1,2-DCE concentrations is evident in the data.

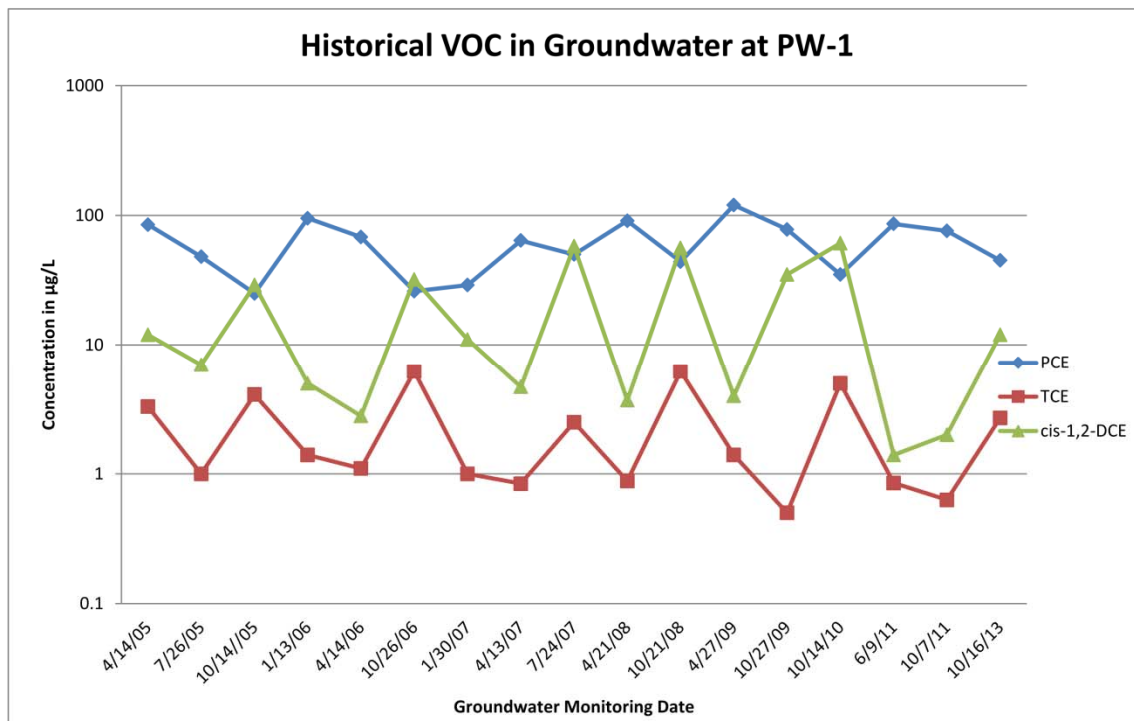


Chart of historical VOC concentrations at PW-1

**Origin of Contamination**

The primary source of gasoline contamination is the former onsite gasoline underground storage tank (UST). Soil sampling results indicate that residual petroleum mass remains in the groundwater interface zone (smear zone) surrounding the former location of the USTs adjacent to utility lines and beneath the building foundation. The extent of this residual soil contamination was removed to the extent feasible during over-excavation activities in 1996. The extent of the smear zone is limited laterally and defined by subsurface soil sampling. Based on the findings of the dispenser-subsurface product pipeline removal / sampling activities, shallow surface soil directly beneath the piping run and associated fuel dispenser has not been affected by gasoline-range hydrocarbons. The product piping to the dispenser was found in good condition and subsequently removed and does not appear to be a potential or contributing source of the elevated gasoline hydrocarbons present in the groundwater at the Site. The attached Figures 7, 8 & 10 show the lateral and vertical extent of petroleum contamination in soil at the Site.

Shallow groundwater is unconfined at the Site and groundwater elevations vary depending on seasonal rainfall. The table below lists the known variation in groundwater elevation measured in monitor points at the Site since 1998. Wells MW-1 and MW-3 are located in the sidewalk on College Avenue and adjacent to the utility and storm water cutoff conduit corridor. The former gasoline UST was located in the sidewalk between wells MW-1 and MW-3. These wells have the smallest range in water table fluctuation at 7.7-8.5 feet. The primary smear zone correlates with this zone of water table fluctuation. Interior well MW-2 and rear courtyard point PW-1 show a larger range of water table fluctuation at 10.2-10.6 feet.

### Historical Variation in Groundwater Elevation

Monitor Point	Date	Depth to Water feet	Elevation feet	Range feet
Wells in sidewalk along College Avenue utility line corridor:				
MW-1	April 2006	3.08	192.82	
	October 2008	11.63	184.27	8.5
MW-3	April 2006	3.41	191.81	
	October 2008	11.12	184.1	7.7
Interior well and rear courtyard piezometer:				
MW-2	April 2006	3.61	193.67	
	October 2002	13.85	183.43	10.2
PW-1	April 2006	2.27	194.9	
	October 2008	12.9	184.27	10.6

The invert elevation of the utility corridor is estimated at about 183 feet or lower. The groundwater elevation fluctuates over a known interval of 8.55 feet at the Site producing a smear zone of petroleum soil contamination within the groundwater interface zone. Entrapped petroleum contamination (TPH gasoline at 100-2800 mg/Kg) is located in the vicinity of the former USTs at a depth of 9-17 feet below grade based on the laboratory analysis of soil samples. The lower limit of the petroleum contamination is represented by the soil sample at 17 feet in boring B23 with 910 ppm TPH as gasoline. The deeper 19.5 foot sample had an insignificant concentration of TPH as gasoline. The CPT sounding revealed no significant water bearing capacity below a depth of 3.5-6.5 feet. We believe that tight clay rich formation below 6.5 feet and extending to at least 60 feet below grade prevented vertical migration of the gasoline contamination.

At this time, the source of PCE contamination in the groundwater at sampling point PW-1 appears to be residual low-level soil contamination in the rear courtyard at the Site possibly related to former vehicle cleaning operations. The PCE contamination appears unrelated to the former USTs. Recent sampling within the rear courtyard of the Site close to the storm drain revealed residual PCE at a depth of two feet with a concentration of 16 µg/Kg. A deeper soil sample at the storm drain location did not detect PCE. No PCE was detected in the soil samples recovered from along the sewer lateral and near the former parts cleaner-sink at the rear southwest corner of the building. A possible offsite source of PCE is the suspected former location of the used oil UST at the former adjacent Chevron service station at 5940 College Avenue.

### Extent of Soil Contamination

Based on the laboratory analytical results of soil samples collected in the soil borings and beneath the product piping/dispenser, only low concentrations of residual gasoline-range hydrocarbons are

present in the soil within the vadose zone (upper 3 feet) or upper interface zone (3-8 feet deep). The attached Figure 10 titled Cross Section A-A' shows the estimated distribution of residual petroleum mass within the groundwater saturated-interface (smear) zone in the vicinity of the former USTs.

One soil sample (B21-8.5) analysis for total chromium was reported at a concentration of 74 ppm above the ESL screening level but within the range of Bay Area background chromium concentrations. A total of six soil samples have been analyzed at the Site for total chromium with concentrations of 49, 34, 38, 74, 43 and 47 ppm. The mean total chromium concentration for these six samples is 47.5 ppm below the ESL of 58 ppm.

At this time no documented soil contamination by PCE is known at the Site above regulatory screening levels. Additional soil sampling recently performed by GGE within the rear courtyard at the Site found PCE in one sample at a depth of two feet with a PCE concentration of 16 µg/Kg. This concentration is below its applicable ESL value for soil.

### **Extent of Groundwater Contamination**

The idealized conceptual model of a dissolved fuel hydrocarbon groundwater plume consists of two essential elements. The first element is the residual hydrocarbon material that provides mass to the dissolved hydrocarbon plume. The residual hydrocarbons can be characterized by light non-aqueous phase liquids (LNAPL) either as small free-product lenses floating on the capillary fringe, or as discrete ganglia entrapped within the vadose zone and/or below the seasonal fluctuation of the water table in a smear zone. The second element is the dissolved plume extending down-gradient of the residual hydrocarbon area which is affected by advective and dispersive transport, retardation, and passive biodegradation. Natural attenuation processes, particularly passive biodegradation, may limit the down-gradient migration of the dissolved plume. The interplay of the two elements leads to the concept of a steady-state plume existing under dynamic equilibrium conditions, where the mass influx of dissolved contaminants from residual entrapped product is balanced by mass loss via passive biodegradation.

No sheen or free product was observed in the onsite wells during the October 2013 groundwater sampling. Elevated concentrations of gasoline-range hydrocarbons were detected in the groundwater within the western half of the subject property and extending into the utility corridor beneath College Avenue. TPH as gasoline concentrations in groundwater to the south of the former USTs is constrained by exploratory boring HB-6 with a grab water sample concentration of 45 ug/L. Historical TPH as gasoline is plotted versus sampling date in the chart titled *Historical TPH Gasoline in Groundwater* (see previous chart). The chart indicates that petroleum hydrocarbon concentrations are steadily decreasing reflecting the decreasing groundwater plume at the Site. The decline in concentrations can be attributed to the significant source removal actions undertaken at the Site and ongoing natural attenuation processes.

Based on our understanding of the direction of regional groundwater flow (west-southwest) and invert depth of the utility conduits along College Avenue ranging from 12-15 fbg, the leading edge of the groundwater plume has been stopped since at least 1995 by the utility corridor along College Avenue where a hydraulic barrier was created by construction of the 90-inch RCP cutoff conduit (See

Figures. Groundwater elevation data indicate the utility corridor is draining the water table during winter months. During summer months the utility corridor may be forming an artificial base level to the water table.

We believe that petroleum contamination is trapped against the east side of the utility corridor and during winter months groundwater from the Site mixes within a zone of storm water exfiltration in the utility corridor. Because the 90-inch RCP cutoff conduit is encased in cement slurry with compacted fill above, it is unlikely that groundwater from the Site's vicinity enters the cutoff conduit directly. The gradual decreasing trend lines shown on charts of gasoline concentrations versus time do not indicate a rapid removal of residual petroleum from the Site's subsurface that would pollute conduits or downstream resources. Instead a gradual attenuation similar to natural degradation is suggested by the data. We believe it is unlikely that concentrations of gasoline from the Site could be detected in storm water within the conduits along College Avenue.

In general, we believe there is a correlation between higher gasoline concentrations and higher groundwater elevations on a seasonal basis. This is commonly explained by groundwater encountering entrapped contaminant within a smear zone during seasonal episodes of rising groundwater.

Tetrachloroethene (PCE) occurs in the groundwater in the vicinity of piezometer PW-1. Based on the west-south groundwater flow across the Site and the location of PW-1 situated up-gradient of the other monitoring wells, the PCE plume appears to be stable and not migrating to monitoring wells MW-1, MW-2 and MW-3 where no PCE or daughter products have historically been detected. The tight clay and silty clay soils at the Site are likely preventing migration of the PCE plume.

### **Natural Attenuation of TPH and VOC**

Source area wells MW-3 and MW-1 display decreasing trend lines of TPH as gasoline attributed to natural degradation processes. Source area removal has reduced TPH concentrations significantly within the source area of the groundwater plume. The Site appears to have favorable conditions for the degradation-attenuation of a gasoline groundwater plume. Low permeability underlying soil conditions reduce contaminant migration below 17 feet. Exfiltration from sewer laterals along College Avenue with aerobic conditions facilitates the removal of petroleum hydrocarbons through natural degradation. The leading edge of the plume apparently abuts the mainline storm conduit corridor along College Avenue. The combination of these factors appears to create a compact (<150 feet) remediation system for attenuation of the existing groundwater plume.

The rate of natural attenuation for TPH as gasoline can be estimated from the data tables and charts presented herein. Well MW-1 has the highest concentration of residual TPH as gasoline with an initial 1998 maximum concentration of 290,000 µg/L. A significant decrease in TPH as gasoline concentration is evident with the last October 2013 concentration of 12,000 µg/L, at less than 5% of the maximum concentration in 1998. It appears reasonable to surmise that the ESL value of 5,000 µg/L for TPH as gasoline could be reached within 10 years from the present date.

## RISK EVALUATION

The risk assessment evaluates the potential for human health impacts from chemicals released due to past activities at the Site. Potential human health risks associated with current and future exposures to contaminated environmental media are considered.

### Screening Level Comparison

The following maximum PCE and gasoline contaminant concentrations are from previous investigations discussed above that represent current conditions beneath the Site:

Soil: Vadose Zone: 5.51 mg/Kg of TPH as Gasoline (Soil sample 7335-EX1[3.5] at depth of 3.5 feet bsg, benzene <0.005 mg/Kg, MTBE <0.005 mg/Kg, toluene = 0.006 mg/Kg, ethylbenzene <0.005 mg/Kg

16 µg/kg of PCE at two feet bsg

Groundwater: 12000 µg/L for TPH as gasoline, ND<21 µg/L for MTBE, 2400 µg/L for benzene, 330 µg/L for Toluene, 1500 µg/L for ethylbenzene & 2780 µg/L for xylenes (Well MW-1 for October 2013)

45 µg/L for PCE, 2.7 µg/L for TCE, 12 µg/L for cis-1,2-DCE & ND<0.5 µg/L for vinyl chloride (piezometer PW-1 for October 2013)

Potential Vapor Intrusion: 191 µg/m<sup>3</sup> for PCE and 300 µg/m<sup>3</sup> for TPH as gasoline from soil gas sample SG-3 duplicate (Summa canister) October 2013

These residual concentrations are compared to published risk-based screening levels in order to determine if additional site-specific risk evaluation and/or remedial action is warranted. The RWQCB provides screening-based guidance for evaluating sites with contaminated soil and groundwater in Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (CRWQCB 2013). In this guidance, the RWQCB provides environmental screening levels (ESLs) for use in a tiered screening approach. The RWQCB tiered approach utilizes a conservative screening step in that chemical concentrations are directly compared to published ESLs selected for the Site. Environmental screening levels have been selected based on the shallow soil conditions and groundwater that is NOT a current or potential source of drinking water (Zone B).

The following table shows the applicable environmental screening levels:

**TABLE OF ENVIRONMENTAL SCREENING LEVELS**

Medium	Contaminant	Site Concentration	Environmental Screening Level Shallow Soils / Groundwater is NOT a Potential Drinking Water Supply
Soil - vadose zone	TPH as gas	5.51 mg/kg	ESL Residential = 100 mg/kg ESL Commercial = 420 mg/kg
Soil - vadose zone	MTBE	1 mg/kg	ESL Residential = 8.4 mg/kg ESL Commercial = 8.4 mg/kg
Soil - vadose zone	PCE	0.016 mg/kg	ESL Residential = 0.43 mg/kg ESL Commercial = 3.4 mg/kg
Groundwater	TPH as gasoline	12000 µg/L	ESL = 500 µg/L aquatic habitat goal
Groundwater	Benzene	2400 µg/L	ESL = 27 µg/L vapor intrusion
Groundwater	Toluene, Ethylbenzene Xylenes	330 µg/L 1500 µg/L 2780 µg/L	ESL = 130 µg/L aquatic habitat goal ESL = 43 µg/L aquatic habitat goal ESA = 100 µg/L aquatic habitat goal
Groundwater	MTBE	ND<21 µg/L	ESL = 1800 µg/L
Groundwater	PCE TCE cis-1,2-DCE Vinyl Chloride	45 µg/L 2.7 µg/L 12 µg/L ND<0.5 µg/L	ESL = 63 µg/L ESL = 130 µg/L ESL = 590 µg/L ESL = 1.8 µg/L
Soil Gas	Benzene TPH - gas	ND<1.6 µg/m <sup>3</sup> 300 µg/m <sup>3</sup>	Vapor Intrusion Residential = 42 µg/m <sup>3</sup> Vapor Intrusion Residential = 350,000 µg/m <sup>3</sup>
Soil Gas	PCE	191 µg/m <sup>3</sup>	Potential Vapor Intrusion Residential = 210 µg/L Potential Vapor Intrusion Commercial = 2100 µg/L

**TABLE NOTES:** PCE-Tetrachloroethene; TPH = Total Petroleum Hydrocarbons; mg/kg = milligrams per kilogram (ppm); µg /L = micrograms per Liter (ppb); TCE-Trichloroethene, DCE-Dichloroethene

Concentrations of contaminants that exceed ESL values are shown highlighted as red in the table above. ESLs are considered very conservative (i.e., stringent) and are not enforceable regulatory cleanup standards. Exceeding an ESL does not imply the presence of environmental threats but suggests a need for additional evaluation. The presence of a chemical at concentrations below ESLs can be assumed not to pose a significant environmental threat. Results of this comparison are used to base decisions regarding the need for a more detailed risk assessment, additional site investigation, or remedial action. In a later step, the ESLs can be modified with respect to site-specific data or considerations or site-specific screening levels or clean-up levels are developed using alternate models and modeling assumptions.

---

## Identification of Contaminants of Concern

Based on the comparison of contaminants of potential concern to applicable regulatory screening levels, the following constituents have been retained as contaminants of concern (COC) at the Site. No soil concentrations are known to exceed ESL values for the vadose zone or groundwater interface zone to a depth of 8 feet bsg. For TPH as gasoline the ESL is 500 ug/L for groundwater. The October 2013 groundwater concentration for TPH as gasoline was 12,000 ug/L in well MW-1. Similarly, benzene, toluene, ethylbenzene and xylenes also exceed the ESL groundwater screening levels. The recently measured concentrations of MTBE, PCE, TCE and cis-1,2-DCE do not exceed the ESL values.

For vapor intrusion concerns, the measured TPH as gasoline concentration of 300  $\mu\text{g}/\text{m}^3$  in soil gas sample SG-3 (inside the existing commercial building) does not exceed the ESL residential value. No benzene was detected in the three soil gas samples recovered at the Site. The PCE concentration of 191  $\mu\text{g}/\text{m}^3$  in soil gas sample SG-3 (inside the existing commercial building) does not exceed residential ESL values. Based on the comparison, TPH as gasoline, benzene, toluene, ethylbenzene and xylenes are retained as contaminants of concern for groundwater.

In 1999, the CRWQCB recommended that groundwater pollutant sites in Zone B (Berkeley sub-area) would be regulated pursuant to SWRCB Resolution 92-49 and need to demonstrate: 1) that reasonably adequate source removal has occurred, 2) the plume has been reasonably defined both laterally and vertically, and 3) a long-term monitoring program is established to verify that the plume is stable and will not impact ecological receptors or human health (e.g., from volatilization into trenches and buildings) (CRWQCB, 1999). This policy does not require the use of numeric cleanup objectives. As a site remediation goal, the three CRWQCB objectives listed above need to have been adequately satisfied at the Site. To demonstrate the site remediation goals have been achieved, sufficient investigation and groundwater monitoring is needed to document that adequate source removal has occurred, the plume is defined, and the plume is stable-decreasing with minimal impact to the ecology and occupants of the site and adjoining buildings. The following section discusses the assessment of the Site as a low threat closure candidate.

## Low Threat Closure Assessment

The California State Water Resources Control Board (State Water Board) recognizes that many petroleum release cases pose a low threat to human health and the environment. The State Water Board has provided policy to establish statewide case closure criteria for low-threat petroleum UST sites. Cases that meet the general and media-specific criteria described in the policy pose a low threat to human health, safety or the environment and are appropriate for closure. Cases that meet the criteria in the policy do not require further corrective action and shall be issued a uniform closure letter. Annually, or at the request of the responsible party or party conducting the corrective action, the regulatory agency shall conduct a review to determine whether the site meets the criteria contained in the policy.



---

**General Criteria for Low-Threat Case Closure:****a. The unauthorized release is located within the service area of a public water system**

The Site is located in Oakland, California and served by a public water system.

**b. The unauthorized release consist only of petroleum**

The release originated from an underground storage tank (UST) containing gasoline fuel with associated product fuel line and gasoline dispenser. The contaminants of concern consist of TPH as gasoline and related constituents benzene, toluene, ethylbenzene and xylenes. Although a used oil UST was removed from a common excavation during removal of the gasoline UST in 1996, confirmation soil sampling and subsequent groundwater sampling have not revealed significant used oil contamination at the former UST locations.

**c. The unauthorized release has been stopped**

The gasoline UST was abandoned and not in service when removed in 1996. All USTs and associated dispenser and product line have been removed from the Site and no fueling occurs at the Site. The primary gasoline release was addressed by over-excavation of contaminated soil to the extent possible following the UST removal. Confirmation soil sampling along the product line and beneath the dispenser did not reveal significant gasoline contamination.

**d. Free product has been removed to the maximum extent practicable**

No sheen or free product was observed in four groundwater monitor points at the Site during the October 2013 groundwater monitoring and sampling event. No sheen has been observed in monitor wells since 2009. No free petroleum product has been observed in any monitor wells since the beginning of groundwater monitoring in 1998.

**e. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed**

A site conceptual model was developed for the Site in 2009 and submitted within the document titled *Soil and Water Investigation Work Plan & Site Conceptual Model* dated June 1, 2009. The site conceptual model was updated in this report with the results of recent investigation activities.

**f. Secondary source has been removed to the extent practicable**

The secondary source consists of petroleum-impacted soil within the groundwater smear zone from 8-17 feet below surface grade in the immediate vicinity of the former UST location. Following UST removal in 1996, the accessible extent of the secondary source was removed to the extent feasible by over-excavation of the UST pit and offsite disposal of petroleum contaminated soil. The extent of over-excavation was constrained at this location by physical limitations of working in an urban sidewalk. The UST location is surrounded by adjoining street, utility corridors, building foundation, paved sidewalk, and a large tree.

**g. Soil and groundwater have been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15**

Investigation soil sampling and groundwater monitoring at the Site have incorporated the analysis of MTBE since 1998. The results of MTBE analysis have been included in all technical reports.

**h. Nuisance as defined by Water Code section 1305 does not exist at the site**

No nuisance is present at this Site.

**Media-Specific Criteria for Low-Threat Case Closure:**

**1. Groundwater-Specific Criteria**

**a. The contaminant plume exceeding water quality objectives is less than 100 feet in length**

The contaminant plume is less than 100 feet in length. The laboratory analysis of groundwater from down-gradient location HP-6 revealed a TPH as gasoline concentration of 45 µg/L. Location HP-6 is approximately 60 feet in the local down-gradient direction. The last down-gradient direction measured in October 2013 was southerly down College Avenue. Because of the low concentration, location HB-6 is interpreted as near to the down-gradient extent of the groundwater plume.

The gasoline UST source area was located in the sidewalk of College Avenue, which contains a 90-inch storm water cutoff conduit directly in the path of the groundwater plume. The 1995 construction plan for the conduit indicates that the conduit was incased in slurry cement from the conduit spring line (center) to the invert of the conduit. Above the slurry, the conduit was encased in compacted materials to 90-95% compaction. The slurry and compacted material forms a barrier to groundwater flow and water infiltration into the conduit appears retarded. Grab groundwater sampling on the other side of the conduit (utility corridor in College Avenue) at boring HB-5 was unsuccessful with no water recovery in the boring suggesting that the cutoff conduit acts as a barrier to down-gradient groundwater flow. The plume length in the regional down-gradient direction of south-southwest is 60 feet to grab groundwater sample point HB-5, where no water recovery occurred in the open borehole.

**b. There is no free product**

Since 1998, no free petroleum product has been observed at this Site in two existing monitoring wells proximal to the former UST location. No petroleum sheen has been observed on the surface of purge water from monitor wells since 2009. Purge water from proximal wells MW-1 and MW-2 still have an odor of gasoline.

**c. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary**

There are no existing water supply wells within 250 feet from the plume boundary. There are no surface water bodies exposed within 250 feet from the plume boundary. Harwood Creek is located within a subterranean box culvert within the center line of Chabot Avenue located approximately 200 feet south of the Site.

**2. Petroleum Vapor Intrusion to Indoor Air**

The Site contains an existing single-story industrial building constructed in 1952 in the existing configuration. The building has been continuously utilized as an auto repair shop since construction. Based on our inspection of the low threat policy, scenario 4 appears applicable to the Site. Three soil

gas samples were collected from inside the subject building within the front portion of the building closest to the former gasoline UST, product line and fuel dispenser locations (see Figure 3, Site Plan). One soil gas sampling location was located close to the exterior wall adjoining the apartment building to the south of the Site. TPH as gasoline and other volatile compounds did not exceed ESL residential screening values in soil gas.

### **3. Direct Contact and Outdoor Air Exposure**

The maximum concentrations of petroleum constituents in soil and within the vadose zone (<5 feet) are less than the screening values. The former UST location is completely covered with paved driveway, building foundation and paved sidewalk preventing direct contact or air exposure.

## **RECOMMENDATION**

Based on the low threat closure analysis and in light of new investigation results, GGE recommends that the regulatory agency perform a low threat closure review of the subject case file. GGE recommends meeting with ACEH staff to discuss any outstanding issues at the Site.

Due to the elevated concentrations of TPH-G and BTEX remaining in monitor wells MW-1 to MW-3 and PW-1, GGE recommends continuing the existing groundwater monitoring and groundwater sampling program pending evaluation of the case file for low threat closure. Groundwater samples will continue to be analyzed for TPH-G, BTEX by EPA Method 8260B, to include MTBE during the future events. Additionally, GGE recommends continuing analysis of the groundwater sample from PW-1 for VOCs (full list) by EPA Method 8260B to further monitor the elevated concentration of PCE in groundwater in the vicinity of this sampling point.

## **BACKFILLING ACTIVITIES**

Immediately following sampling activities in all soil borings that did not reach groundwater, GGE directed the subcontracted driller to extract drill tubes from each borehole and backfill with neat Portland cement up to approximately 0.5 fbg. The balance of each borehole was backfilled with appropriate surface material (i.e., concrete, asphalt, etc.) to restore original site conditions. The boreholes containing groundwater were backfilled by pumping Portland cement (6 gallons water per 94-pound bag of Portland cement) through a tremie pipe and grouting upward from the bottom of the boring. The balance of each borehole was backfilled with appropriate surface material (i.e., concrete, asphalt, etc.) to restore original site conditions.

## **WASTE MANAGEMENT**

The well purge water and equipment wash and rinse water generated during the investigation activities, as well as that generated during previous monitoring/investigation events was transferred to 55-gallon D.O.T.-approved steel drums and stored onsite in a secure area. All waste water containers were sealed and appropriately labeled as non-hazardous waste and securely stored onsite pending future disposal at respective licensed-disposal facilities. The solid and liquid waste streams were profiled for disposal/recycling under uniform waste manifest following receipt of the laboratory results of groundwater sample analysis. On January 15, 2014, Icon Environmental Services Inc. (ICON) transported the drums under Non-Hazardous Waste Manifest No. 10503 to ICON's disposal/recycling facility in Union City, California. A copy of the waste manifest is included in Appendix D.

## **GEOTRACKER ELECTRONIC SUBMITTAL**

GGE directed TEG & Torrent to submit all analytical data in electronic deliverable format (EDF) via the Internet. All soil/groundwater sample analytical data and survey data were uploaded to the State Water Resources Control Board's GeoTracker Database System. Also, a revised site plan, geologic boring logs, and construction log of each newly-installed soil gas sample probe, as well as a copy of the report of findings was uploaded in Portable Data Format (PDF) to the State GeoTracker Database. Appendix D - Miscellaneous Documentation will include a copy of each associated GeoTracker Upload Confirmation Form.

## **LIMITATIONS**

It should be understood that all environmental assessments are inherently limited in that conclusions are drawn and recommendations developed from information obtained from limited research and visual observations. Subsurface conditions change significantly with distance and time and therefore may differ from the conditions implied by subsurface investigation. It must be noted that no investigation can absolutely rule out the existence of any hazardous or petroleum substances at a given site. Existing hazardous materials and contaminants can escape detection using these methods. The work performed in conjunction with this assessment and the data developed are intended as a description of available information at the dates and location given. GGE professional services have been performed, with findings obtained and recommendations prepared in accordance with customary principles and practices in the field of environmental science, at the time of the assessment.

This warranty is in lieu of all other warranties either expressed or implied. GGE is not responsible for the accuracy of information reported by others or the independent conclusions, opinions or recommendations made by others based on the field exploration presented in this report. The findings contained in this report are based upon information contained in previous reports of corrective action activities performed at the subject property and based upon site conditions as they existed at the time of the investigation, and are subject to change. The scope of services conducted in execution of this phase of investigation may not be appropriate to satisfy the needs of other users and any use or reuse

of this document and any of its information presented herein is at the sole risk of said user. The figures, drawings and plates presented in this document are only for the purposes of environmental assessment and no other use is recommended. No other third party may rely on this report, figures or plates for any other purpose.

## REPORT DISTRIBUTION

All reports that are prepared during the continuing work on this project will be submitted to:

Alameda County Health Care Services Agency  
Environmental Health Services, Environmental Protection (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
Attention: Ms. Dylan Roe

(1 Electronic Copy via ACHCSA FTP)  
(1 Electronic Copy via GeoTracker)

William G Sheaff Trust  
c/o Dr. Brian R. Sheaff, D.D.S.  
1945 Parkside Drive  
Concord, California 94519

(1 Electronic Copy via Email)  
(1 Copy, Bound)

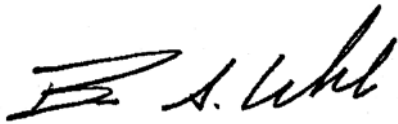
## CERTIFICATION

This document has been prepared in accordance with generally accepted environmental practices exercised by professional geologists, scientists, and engineers. No warranty, either expressed or implied, is made as to the professional advice presented herein. The findings conclusions, and recommendations contained in this document are based upon information contained in previous reports of corrective action activities performed at the subject property and based upon site conditions as they existed at the time of the investigation, and are subject to change.

The conclusions presented in this document are professional opinions based solely upon visual observations of the subject property and vicinity, and interpretation of available information as described in this report. The scope of services conducted in execution of this investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document and any of its information presented herein is at sole risk of said user.

Golden Gate Environmental, Inc.

Authored By:



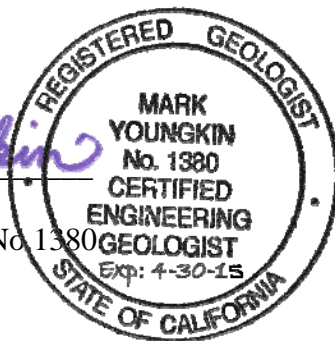
---

Brent A. Wheeler  
Project Engineer



---

Mark Youngkin  
Registered Geologist, CEG No. 1380



---

## REFERENCES

- Alameda County Environmental Health (ACEC), January 3, 2002, Work Plan Approval Letter
- Alameda County Environmental Health (ACEC), September 8, 2003, comment and directive letter
- Alameda County Environmental Health (ACEC), June 3, 2004, comment and directive letter
- Alameda County Environmental Health (ACEC), February 22, 2005, comment and directive letter
- Alameda County Environmental Health (ACEC), June 25, 2008, comment and directive letter
- Alameda County Environmental Health (ACEC), August 3, 2010, comment and directive letter
- Alameda County Environmental Health (ACEC), June 10, 2011, comment and directive letter
- Alameda County Environmental Health (ACEC), December 14, 2011, Notice to Comply
- ATT, February 19, 1992, Groundwater Investigation, 5929 College Avenue, Oakland, California, prepared for Dreyers Grand Ice Cream
- California Regional Water Quality Control Board, San Francisco Bay Region. Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater; Interim Final – February 2013.
- Cambria, August 11, 2006, Subsurface Investigation Report and Second Quarter 2006 Groundwater Monitoring Report, Shell-branded Service Station, 6039 College Avenue, Oakland, California, submitted on behalf of Shell Oil Products US
- CET Environmental Services, Inc., November 17, 1999, Groundwater Monitoring, Geoprobe Investigation Results and Work Plan for Bioindicator Sampling, Dreyer's Grand Ice Cream, 5929 College Avenue, Oakland, California, submitted to Alameda County Environmental Health
- CET Environmental Services, Inc., August 3, 1999, Results of GeoProbe Investigation, Dreyer's Grand Ice Cream, 5929 College Avenue, Oakland, California, submitted to Alameda County Environmental Health
- Conestoga-Rovers & Associates, December 30, 2008, Work Plan for Additional Site Assessment, Former Chevron Service Station 20-9339, 5940 College Avenue, Oakland, California, submitted to ACHCSA
- Delta Consultants, Inc., September 12, 2008, Site Conceptual Model, 76 Service Station No. 0018, 6201 Claremont Street, Oakland, California, Prepared for ConocoPhillips Company
- Delta Environmental Consultants, Inc./Gettler-Ryan Inc., February 20, 2001, Well Installation Report at Former Chevron Service Station #20-9339, 5940 College Avenue, Oakland, California, prepared for Chevron Products Company
- Geological Society of America, 1991, Munsell Rock Color Chart
- Gettler-Ryan Inc., March 1, 2000, Work Plan for Well Installation at Former Chevron Service Station #20-9339, 5940 College Avenue, Oakland, California, prepared for Chevron Products Company
- GGTR, December 19, 2001. Work Plan for Additional Soil and Groundwater Investigation, 5930 College Avenue, Oakland, California. GGTR Project No. 7335
- GGTR, June 10, 2003, Report of Additional Soil and Groundwater Investigation, 5930 College Avenue, Oakland, California. GGTR Project No. 7335
- GGTR, December 29, 2003, Work Plan for Additional Site Characterization, 5930 College Avenue, Oakland, California. GGTR Project No. 7335
- GGTR, September 20, 2004, Work Plan for Additional Site Characterization Addendum, 5930 College Avenue, Oakland, California. GGTR Project No. 7335

GGTR, August 29, 2006, Report of Additional Site Characterization & Groundwater Monitoring, 5930 College Avenue, Oakland, California, GGTR Project No. 7335

GGTR, June 9, 2009, Soil and Water Investigation Work Plan & Site Conceptual Model, 5930 College Avenue, Oakland, California, GGTR Project No. 7335

GGTR, October 29, 2010, Work Plan Addendum for Soil Gas Sampling, 5930 College Avenue, Oakland, California, GGTR Project No. 7335

Piers Environmental Services, September 27, 1999, Report of Findings, Groundwater Investigation at 5940 College Ave., Oakland, CA, submitted to ACHCSA

State Water Resources Control Board, Underground Storage Tank Cleanup Fund, July 11, 2013. Annual Case Review Letter, Claim # 12154.

U.S. Geological Survey (USGS), Misc. Field Studies MF-2342, 2000, Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, by R.W. Graymer

U.S. Geological Survey (USGS), Quaternary Geology of Alameda County and Surrounding Areas: Derived from the Digital Database, Open File 97-97

Weiss Associates, November 26, 1996, Corrective Action Plan and Risk-Based Corrective Action Evaluation Addendum, Shell Service Station, 6039 College Avenue, Oakland, California, prepared for ACHCSA





## **ADDITIONAL SOIL & WATER INVESTIGATION REPORT**

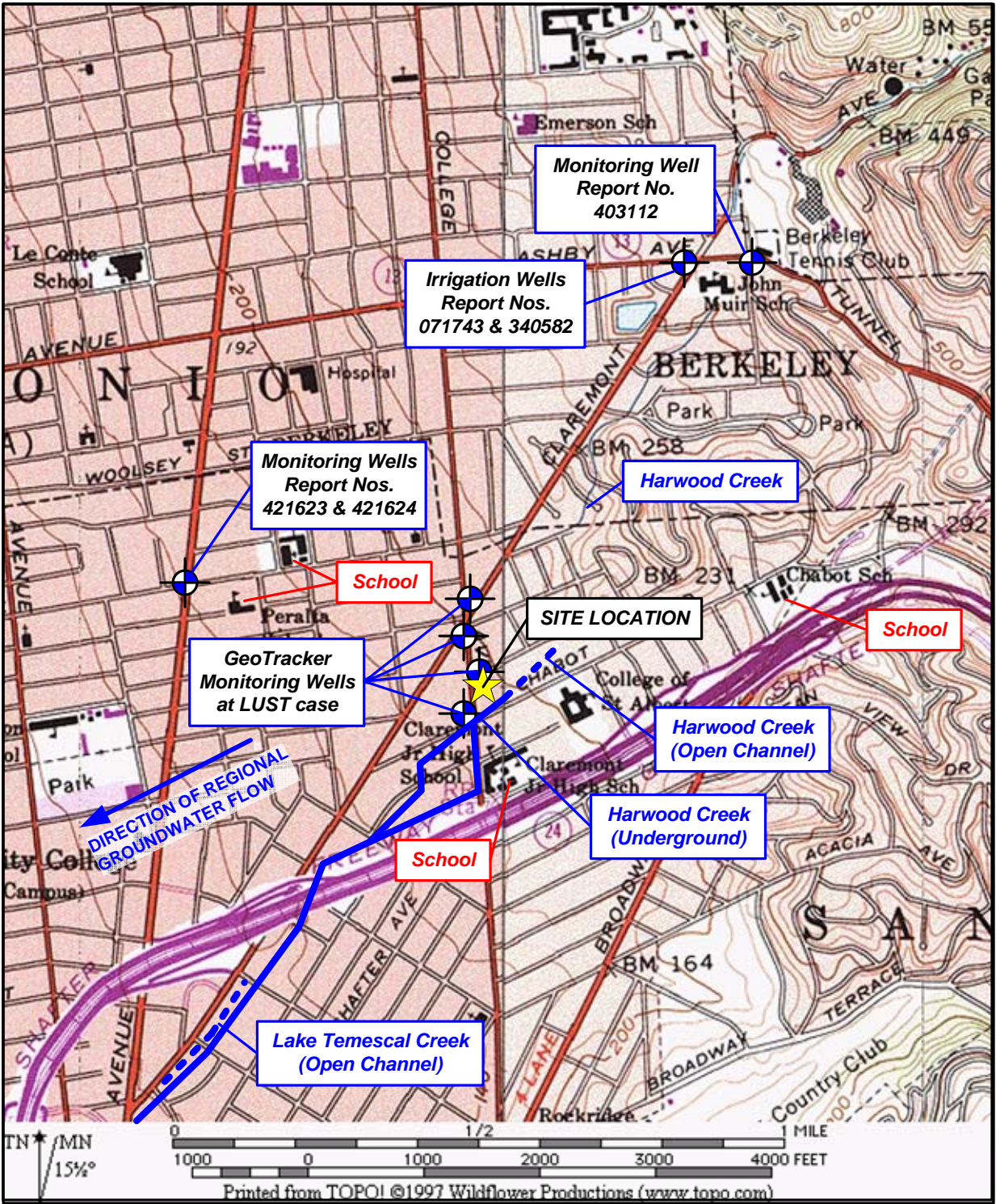
Sheaff's Garage  
5930 College Avenue, Oakland, California

### **FIGURES**

- Figure 1 - Site Location Map
- Figure 2 - Site Vicinity Map
- Figure 3 - Site Plan
- Figure 4 - Geologic Map
- Figure 5 - Local Map of Storm Conduits
- Figure 6 - Subsurface Utility Map
- Figure 7 - TPH as Gasoline in Soil at Depth of 7-12 Feet
- Figure 8 - TPH as Gasoline in Soil at Depth of 13-20 Feet
- Figure 9 - Groundwater Data Diagram
- Figure 10 - Cross Section A-A'
- Figure 11 - TPH Gasoline in Groundwater
- Figure 12 - CPT Sounding

**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014



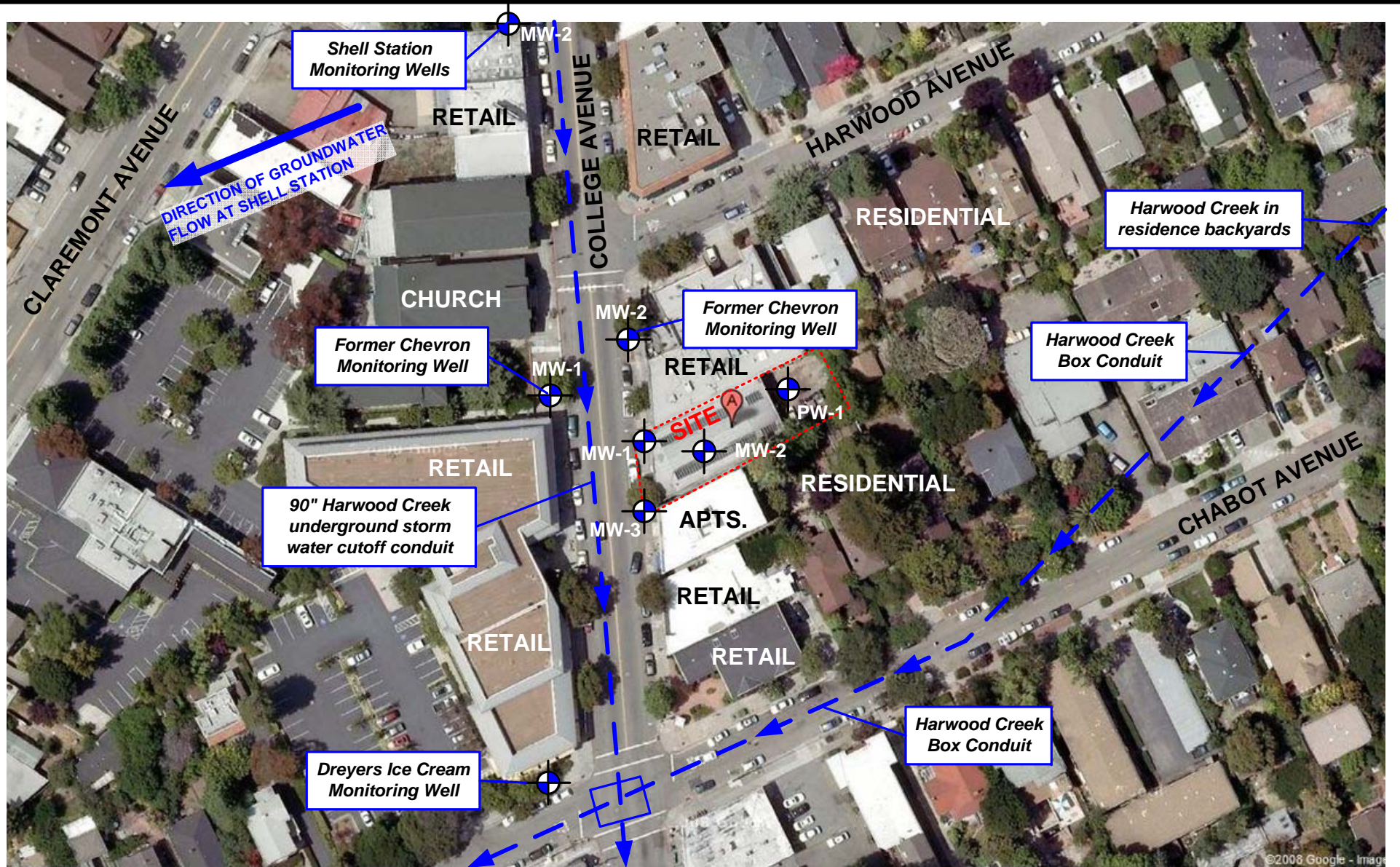
**GOLDEN GATE ENVIRONMENTAL, INC.**  
 1455 Yosemite Av., San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089

**SITE LOCATION MAP**  
 Showing Potential Sensitive Receptors  
 5930 College Avenue, Oakland, California

GGE Project No. 2014

December 2013

**Figure 1**



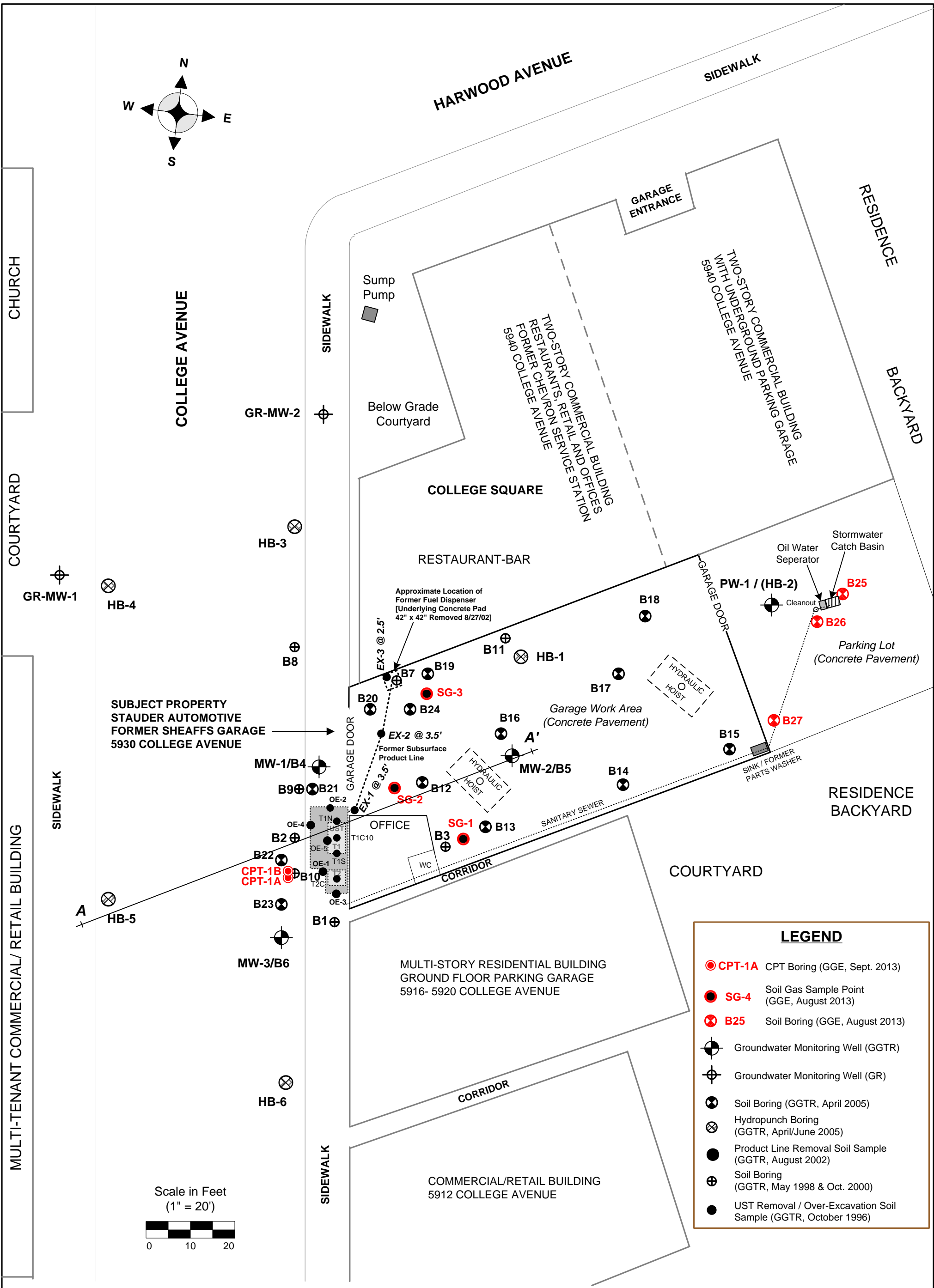
Base Map from Google Maps, 2008, at a scale of about 1"=100 feet with North to top of map.



**GOLDEN GATE ENVIRONMENTAL, INC.**  
 1455 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089

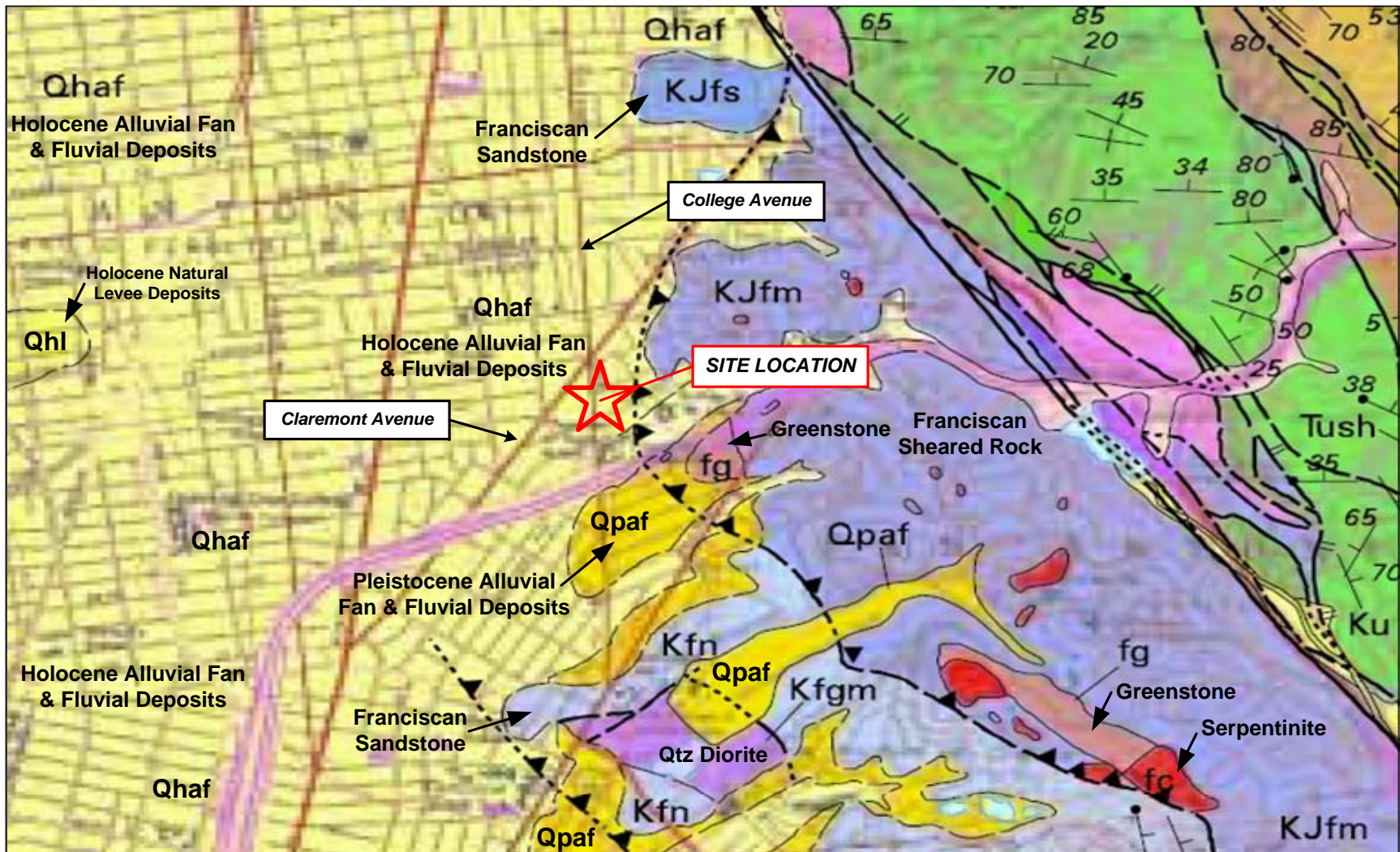


**SITE VICINITY MAP**  
 Sheaffs Garage  
 5930 College Avenue, Oakland, California



**GOLDEN GATE ENVIRONMENTAL, INC.**  
 1455 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089

**SITE PLAN**  
 Former Sheaff's Service Garage  
 5930 College Avenue, Oakland, CA 94618



A portion of Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, 2000, by R.W. Graymer, U.S. Geological Survey Miscellaneous Field Studies MF-2342; North to top; See report text for explanation of geologic units shown on map; Scale about 3 inches per mile.



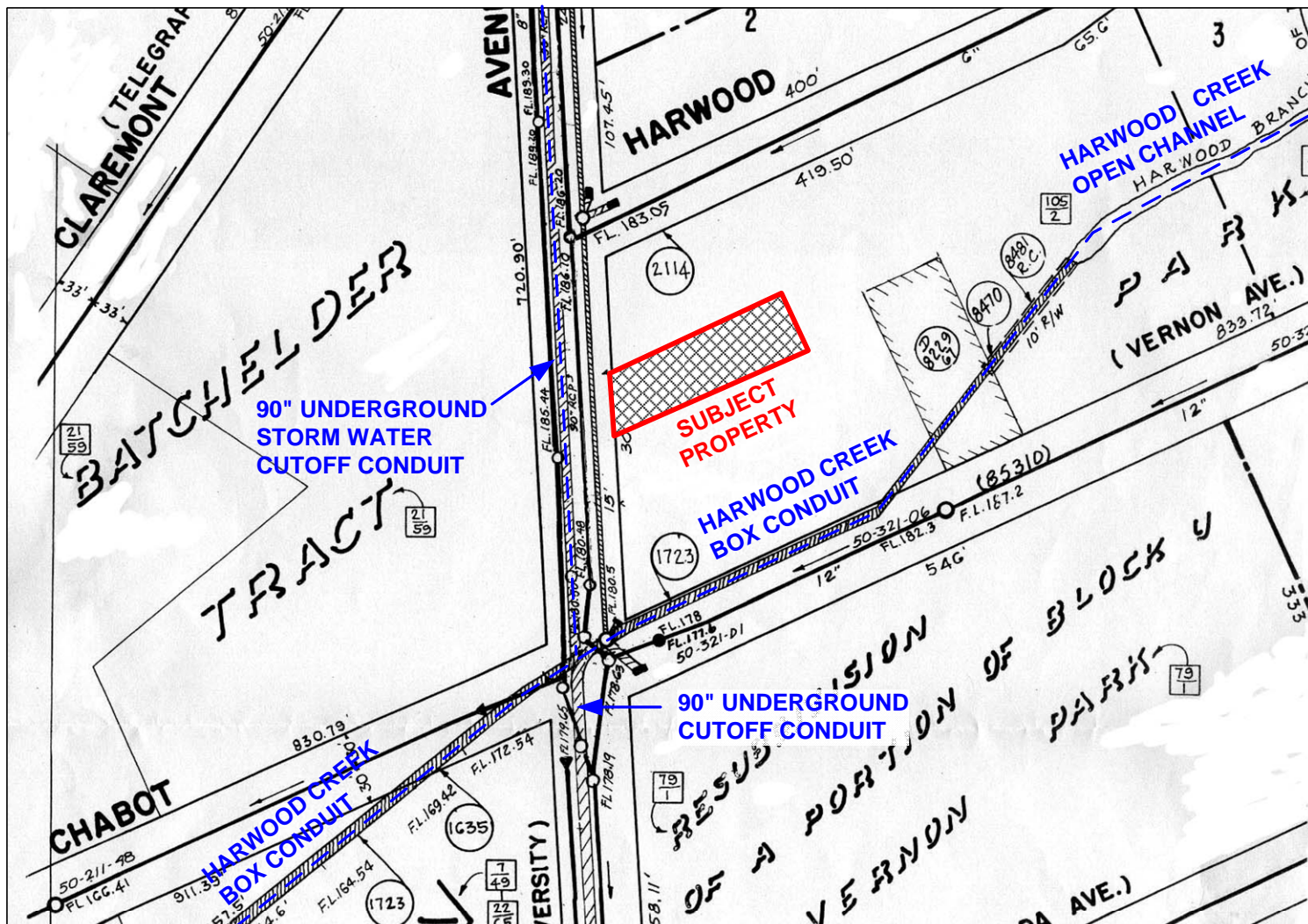
**GOLDEN GATE ENVIRONMENTAL, INC.**

1455 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089



**GEOLOGIC MAP**

Former Sheaff's Garage  
 5930 College Avenue, Oakland, California



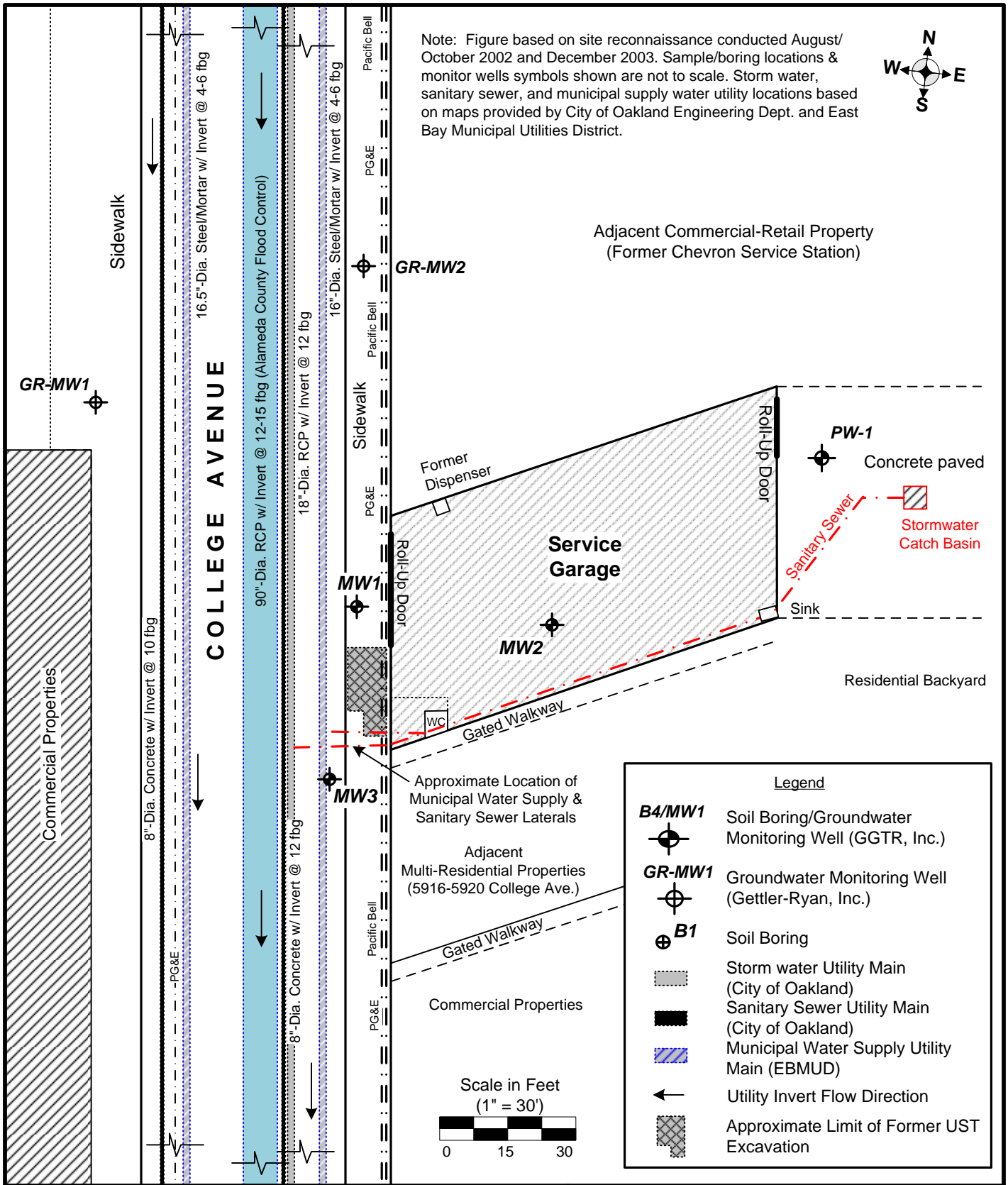
Portion of Alameda County plat maps showing location of subject property in relation to Harwood Branch and associated Harwood Creek storm conduits located both west and east of the site; North to top; Scale about 1" = 100 feet.



**GOLDEN GATE ENVIRONMENTAL, INC.**  
 1455 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089

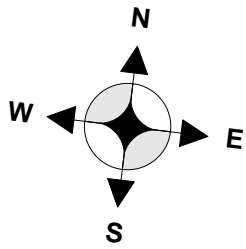


**MAP OF LOCAL STORM WATER CONDUITS**  
 Former Sheaff's Garage  
 5930 College Avenue, Oakland, California



**GOLDEN GATE ENVIRONMENTAL, INC.**  
 1455 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089

**SUBSURFACE UTILITY MAP**  
 Former Sheffs Garage  
 5930 College Avenue, Oakland, California



HARWOOD AVENUE

CHURCH

COLLEGE AVENUE

RESIDENCE

COMMERCIAL/RETAIL

SIDEWALK

Isoconcentration lines show known extent of soil at 7-12 feet below grade with concentrations above 100 and 1000 mg/Kg TPH as gasoline using soil sampling data from 1996, 1998, 2002 & 2005

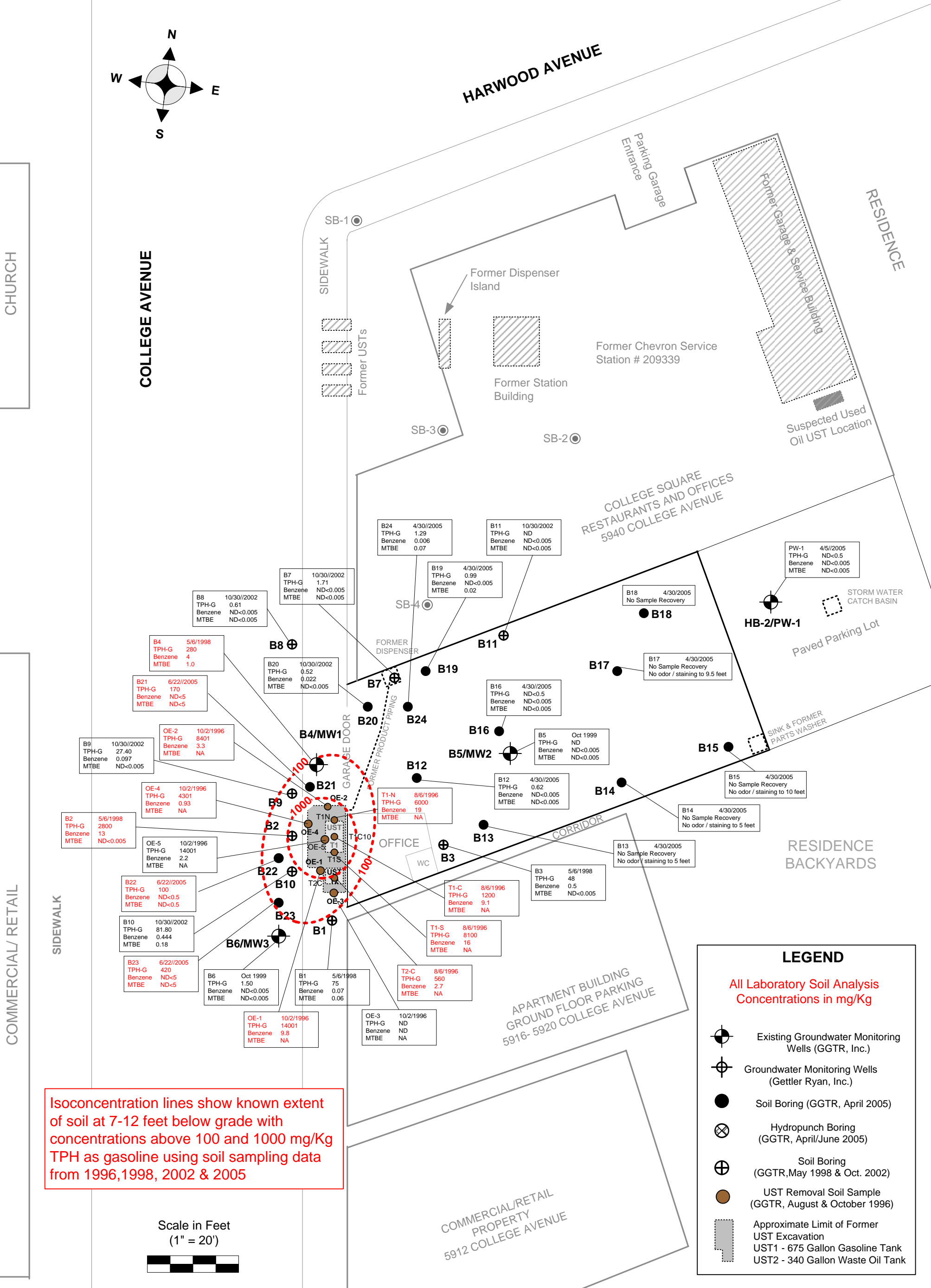
Scale in Feet  
(1" = 20')



**LEGEND**

All Laboratory Soil Analysis Concentrations in mg/Kg

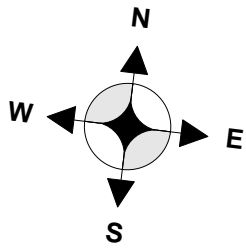
- Existing Groundwater Monitoring Wells (GGTR, Inc.)
- Groundwater Monitoring Wells (Gettler Ryan, Inc.)
- Soil Boring (GGTR, April 2005)
- Hydropunch Boring (GGTR, April/June 2005)
- Soil Boring (GGTR, May 1998 & Oct. 2002)
- UST Removal Soil Sample (GGTR, August & October 1996)
- Approximate Limit of Former UST Excavation  
UST1 - 675 Gallon Gasoline Tank  
UST2 - 340 Gallon Waste Oil Tank



**GOLDEN GATE ENVIRONMENTAL, INC.**  
1455 Yosemite Avenue, San Francisco, CA 94124  
Phone (415) 970-9088 Fax (415) 970-9089

**TPH as Gasoline in Soil at Depth of 7-12 Feet**  
Sheffs Service Garage  
5930 College Avenue, Oakland, California





HARWOOD AVENUE

CHURCH

COLLEGE AVENUE

RESIDENCE

COMMERCIAL/RETAIL

SIDEWALK

SIDEWALK

Former USTs

Former Dispenser Island

Former Chevron Service Station # 209339

Former Station Building

Former Garage & Service Building

Suspected Used Oil UST Location

COLLEGE SQUARE RESTAURANTS AND OFFICES  
5940 COLLEGE AVENUE

PW-1 4/5/2005  
TPH-G 0.8  
Benzene ND<0.005  
MTBE ND<0.005

STORM WATER CATCH BASIN

Paved Parking Lot

HB-2/PW-1

SINK & FORMER PARTS WASHER

B24 4/30/2005  
TPH-G 31.10  
Benzene 0.341  
MTBE 0.08

B11 10/30/2002  
TPH-G ND  
Benzene ND<0.005  
MTBE ND<0.005

B19 4/30/2005  
TPH-G 139 @ 15'  
Benzene 0.841  
MTBE ND<0.020

B7 10/30/2002  
TPH-G 61.80  
Benzene 0.762  
MTBE ND<0.02

B8 10/30/2002  
TPH-G 14.0  
Benzene 0.184  
MTBE ND<0.005

B20 10/30/2002  
TPH-G 63.60  
Benzene 0.395  
MTBE ND<0.020

B21 6/22/2005  
TPH-G 970 @ 14.5'  
Benzene ND<25  
MTBE ND<25

B9 10/30/2002  
TPH-G 47.50  
Benzene 1.12  
MTBE ND<0.005

B16 4/30/2005  
TPH-G 5.27  
Benzene 0.061  
MTBE ND<0.005

B5 Oct 1999  
TPH-G 2.80  
Benzene 0.69  
MTBE ND<0.005

B12 4/30/2005  
TPH-G 79.5  
Benzene 0.537  
MTBE 0.12

B4/MW1

B21

B2

B10

B22

B23

B6/MW3

B1

B6 Oct 1999  
TPH-G ND  
Benzene ND<0.005  
MTBE 0.04

B22 6/22/2005  
TPH-G 0.25  
Benzene ND<0.005  
MTBE ND<0.005

B10 10/30/2002  
TPH-G 479 @ 15'  
Benzene 4.16  
MTBE ND<0.25

B23 6/22/2005  
TPH-G 910 @ 17'  
Benzene ND<5  
MTBE ND<5

FORMER DISPENSER

GARAGE DOOR

FORMER PRODUCT PIPING

OFFICE

WC

B3

CORRIDOR

RESIDENCE BACKYARDS

APARTMENT BUILDING  
GROUND FLOOR PARKING  
5916- 5920 COLLEGE AVENUE

COMMERCIAL/RETAIL  
PROPERTY  
5912 COLLEGE AVENUE

Isoconcentration lines show known extent of soil at 13-20 feet below grade with concentrations above 100 mg/Kg TPH as gasoline using soil sampling data from 1996,1998, 2002 & 2005

Scale in Feet  
(1" = 20')



**LEGEND**

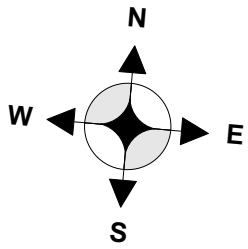
- All Laboratory Soil Analysis Concentrations in mg/Kg
- Existing Groundwater Monitoring Wells (GGTR, Inc.)
- Groundwater Monitoring Wells (Gettler Ryan, Inc.)
- Soil Boring (GGTR, April 2005)
- Hydropunch Boring (GGTR, April/June 2005)
- Soil Boring (GGTR, May 1998 & Oct. 2002)
- UST Removal Soil Sample (GGTR, August & October 1996)
- Approximate Limit of Former UST Excavation  
UST1 - 675 Gallon Gasoline Tank  
UST2 - 340 Gallon Waste Oil Tank



**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124  
Phone: 415-970-9088 Fax: 415-970-9089



**TPH as Gasoline in Soil at Depth of 13-20 Feet**  
Sheaffs Service Garage  
5930 College Avenue, Oakland, California



COLLEGE AVENUE

HARWOOD AVENUE

RESIDENCE

Parking Garage Entrance

Former Dispenser Island

Former Chevron Service Station # 209339

Former Station Building

Former Garage & Service Building

Reported Used Oil UST Location

GR-MW-2

SB-1

SB-3

SB-2

COLLEGE SQUARE RESTAURANTS AND OFFICES  
5940 COLLEGE AVENUE

SIDEWALK

PL

PL

GR-MW-1

SB-4

FORMER DISPENSER

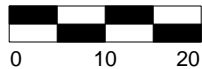
AUTOMOTIVE REPAIR GARAGE  
5930 COLLEGE AVENUE

STORM WATER CATCH BASIN

ASPHALT PARKING LOT

SIDEWALK

Scale in Feet  
(1" = 20')



MW-1  
(185.07)

MW-2  
(185.1)

MW-3  
(184.66)

S11E  
(0.012 ft/ft)

GARAGE DOOR

UST T1

UST T2

OFFICE

WC

CORRIDOR

APARTMENT BUILDING WITH GROUND FLOOR PARKING  
5916- 5920 COLLEGE AVENUE

RESIDENCE BACKYARDS

PL

**MAP LEGEND**

MW-1  
(185.07)



Groundwater Monitoring Well & Elevation in Feet Above MSL (GGE, 10/16/13)

GR-MW-1  
(186.25)



Groundwater Monitoring Well & Elevation in Feet Above MSL (Gettler-Ryan, 10/7/11)



Approximate Groundwater Flow Direction and Hydraulic Gradient (GGE, 10/16/13)

ug/L

Micrograms per liter

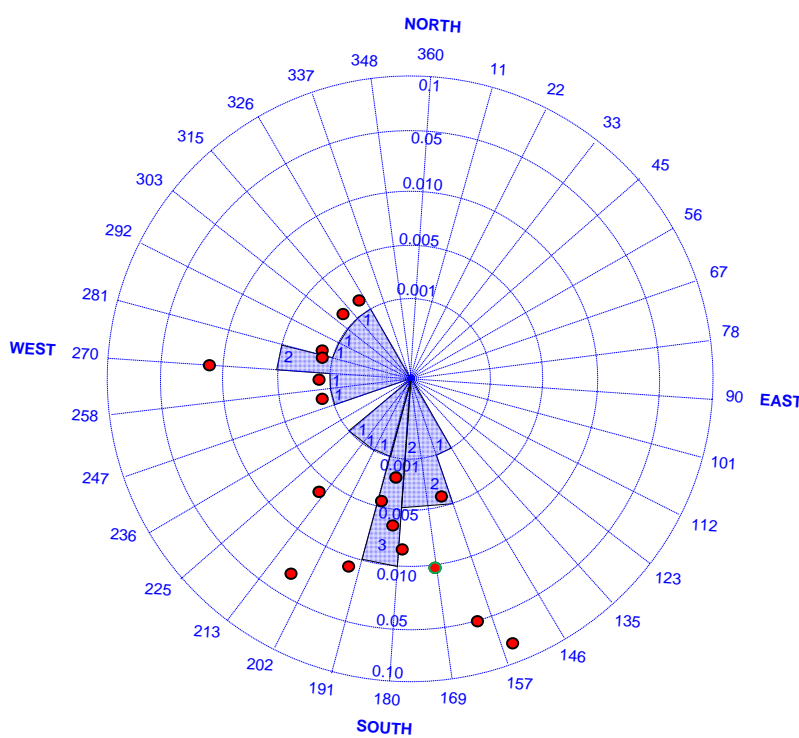


Approx. Limit of Former UST Excavation

PL

Property Line

**ROSE DIAGRAM**



Rose diagram showing historic flow direction & gradient. Circles show recent data from three wells MW-1, MW-3 & PW-1 since April 14, 2005. Note non-linear scale for gradient to accommodate large variation in data. Bar graph shows number of values within each interval of flow direction for 2005-2013 data.

Date Groundwater Flow Direction / Hydraulic Gradient (ft/ft)

Wells MW-1, MW-3 & PW-1:

4/14/05	161.3@0.05
7/26/05	282.5@0.002
10/14/05	309.9@0.002
1/13/06	194.8@0.016
04/14/06	208.5@0.026
10/26/06	249.9@0.002
01/30/07	325@0.002
04/13/07	265.9@0.002
07/24/07	281.8@0.002
4/21/08	155.2@0.072
7/22/08	270.4@0.012
10/21/08	159.5@0.004
1/19/09	184 @ 0.0017
10/27/09	179 @ 0.008
10/14/10	188 @ 0.004
6/9/11	184 @ 0.006
10/7/11	216 @ 0.006
10/16/2013	169.1@0.012



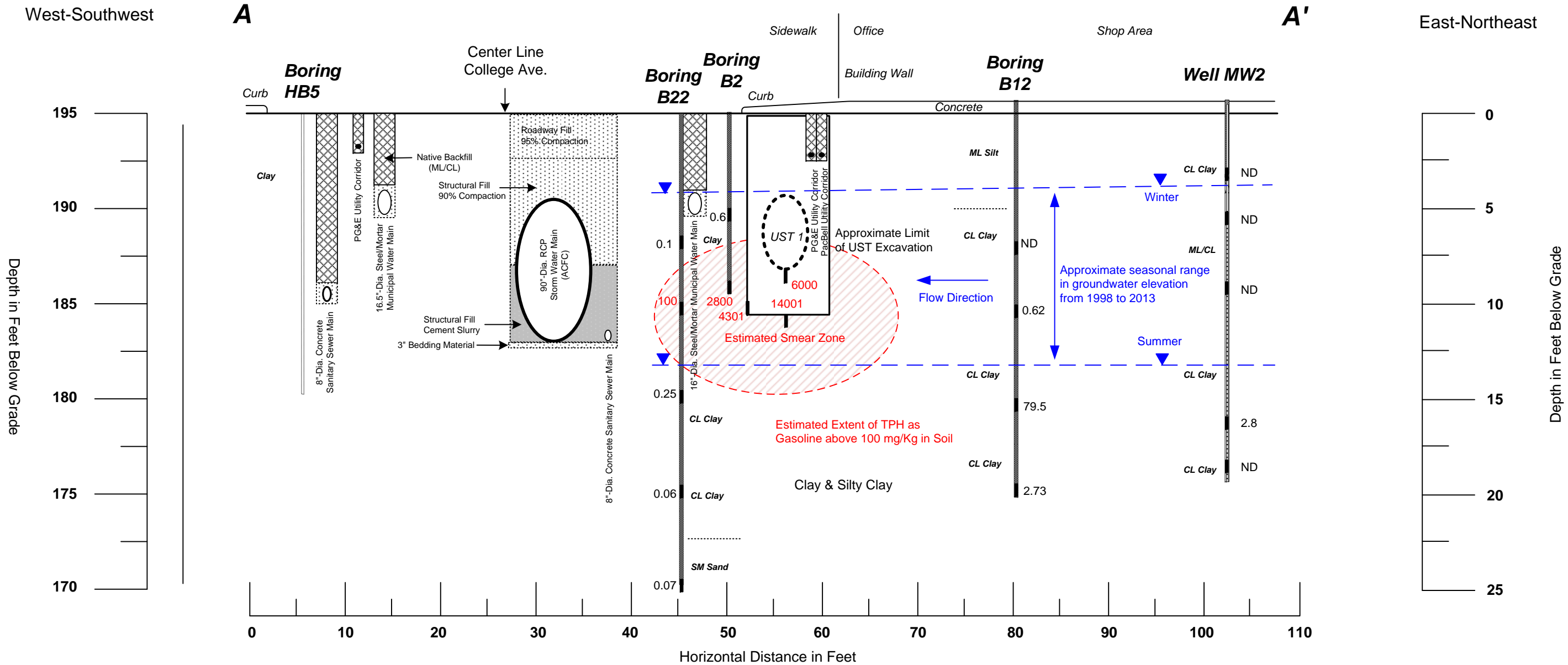
**GOLDEN GATE ENVIRONMENTAL, INC.**  
3730 Mission Street, San Francisco, CA 94110  
Phone (415) 970-9088 Fax (415) 970-9089



**GROUNDWATER DATA DIAGRAM  
October 2013**

Sheaffs Service Garage  
5930 College Avenue, Oakland, CA 94618

# Cross Section A-A'



**Scale in Feet**

Hor. : Vert. Exaggeration = 1:2

**MW3**  
Existing Groundwater Monitor Well

Maximum Historical Seasonal Fluctuation in Groundwater Elevation

**B1**  
Soil Boring (Portland Cement Backfill)  
Subsurface Utility Corridor (Backfill: Native overlying utility grade sand)

**SM/ML** Clayey, Silty SAND/Sandy SILT  
**ML/CL** Silty CLAY/Clayey SILT  
**ML** Clayey, Sandy SILT  
**CL** Silty CLAY

**LEGEND**

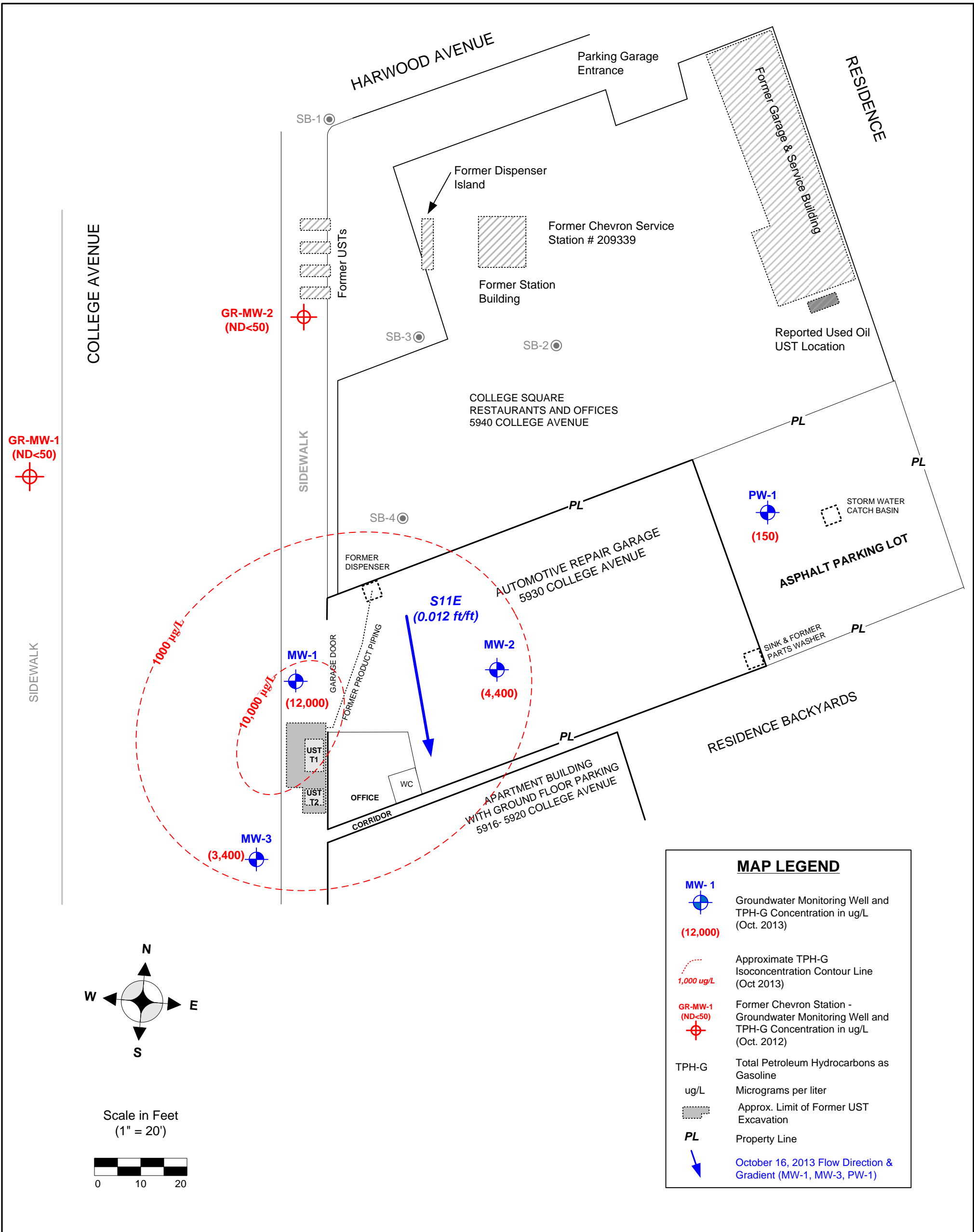
Notes: Location of Cross Section A-A' referenced in Figure 3; RCP = reinforced concrete pipe; ACFC = Alameda County Flood Control; MSL = Mean Sea Level; Trench backfill and utility invert depths are approximate and based on information provided by associated utility agencies; All utility invert gradient and flow is south along parallel to College Avenue.



**GOLDEN GATE ENVIRONMENTAL, INC.**  
1455 Yosemite Avenue, San Francisco, CA 94124  
Phone (415) 970-9088 Fax (415) 970-9089



**CROSS SECTION A-A'**  
Sheaffs Service Garage  
5930 College Avenue, Oakland, California



**GOLDEN GATE ENVIRONMENTAL, INC.**  
 3730 Mission Street, San Francisco, CA 94110  
 Phone (415) 970-9088 Fax (415) 970-9089



**TPH GASOLINE IN GROUNDWATER**  
**October 2013**  
 Sheaffs Service Garage  
 5930 College Avenue, Oakland, CA 94618

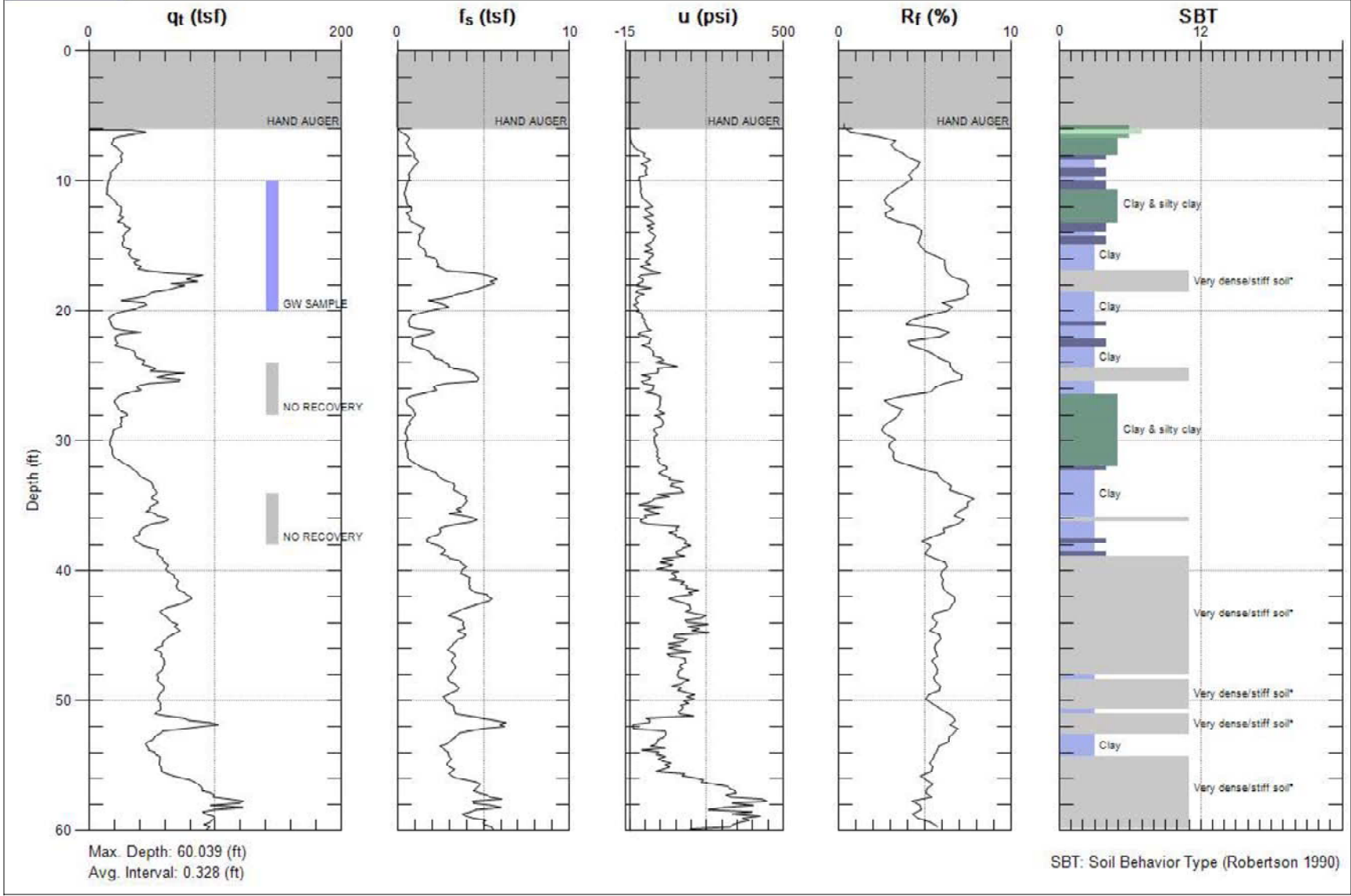


# GOLDEN GATE ENVIRONMENTAL

Site: FMR. SHEXFF'S GARAGE Engineer: B.WHEELER

Sounding: CPT-01

Date: 9/27/2013 08:54



**OLDEN GATE ENVIRONMENTAL, INC.**  
 5 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089



**CPT SOUNDING**  
 Sheaff's Garage  
 5930 College Avenue, Oakland, California



## **ADDITIONAL SOIL & WATER INVESTIGATION REPORT**

Sheaff's Garage  
5930 College Avenue, Oakland, California

### **PHOTOGRAPHS**

Photograph Page 1 (Photos 1-3)  
Photograph Page 2 (Photos 4-6)  
Photograph Page 3 (Photos 7-10)  
Photograph Page 4 (Photos 11-16)

**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014

Photograph No. 1 – South view of subject building at 5930 College Avenue occupied by Stauder Automotive Service. Former USTs located in sidewalk under tree with former dispenser and associated dispenser piping trench area to left inside rollup door. Monitoring well MW-1 located in sidewalk at driveway.



Photograph No. 2 - View northward of College Avenue and subject property to right behind tree. Adjacent property at 5920 College Ave. to right with first floor parking-retail (T-Mobile store) and multi-family above. USTs in sidewalk under tree and monitoring well MW-3 in street.

Photograph No. 3 – East view of rear concrete-paved storage yard. EnProbe truck shown setting up for drilling of B25/B26 in vicinity of storm water catch basin and oil/water separator. Monitor/Piezometer Well PW-1 visible at lower right of photo. Single-family residential neighborhood beyond rear wall and/or fence (GGE, August 2013).



**GOLDEN GATE ENVIRONMENTAL, INC.**  
1455 Yosemite Avenue, San Francisco, CA 94124  
Phone (415) 970-9088 Fax (415) 970-9089

**PHOTOGRAPHS PAGE 1**  
Former Sheaff's Service Garage  
5930 College Avenue, Oakland, California

Photograph No. 4 – Southwest view of rear concrete-paved storage yard, showing EnProbe representative concrete coring at B26 in vicinity of subsurface sanitary service lateral cleanout and oil/water separator (GGE, August 2013).



5

Photograph No. 5 – South view of rear concrete-paved storage yard, showing EnProbe representatives drilling/sampling B27 with limited access rig in vicinity of subsurface sanitary service lateral at southeast corner of service garage (GGE, August 2013).



Photograph No. 6 – Southwest view of interior service garage area, showing EnProbe representatives drilling for discrete soil sampling and installation of soil gas probe, SG-2 (GGE August 2013).



**GOLDEN GATE ENVIRONMENTAL, INC.**  
 1455 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089

**PHOTOGRAPHS PAGE 2**  
 Former Sheaff's Service Garage  
 5930 College Avenue, Oakland, California



Photograph Nos. 7 & 8 – South view of interior service garage area, showing EnProbe representative during installation of soil gas probe, SG-1, located along east side of shop office. Surface completion of SG-1 shown as Photograph No. 8 (GGE, August 2013).



Photograph No. 9 – Southeast view of subject property showing TEG Northern California Mobile Laboratory onsite. TEG field representative shown in center of photograph during step-purge volume testing at location of Soil Gas Probe SG-2 (GGE, August 2013).

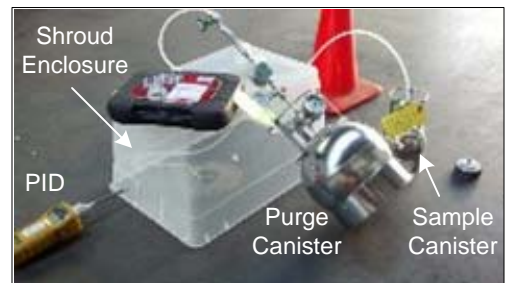
Photograph No. 10 – South view of interior service garage area, showing TEG field representative during sampling (in progress) of soil gas probe, SG-2 (GGE, August 2013).



**GOLDEN GATE ENVIRONMENTAL, INC.**  
 1455 Yosemite Avenue, San Francisco, CA 94124  
 Phone (415) 970-9088 Fax (415) 970-9089

**PHOTOGRAPHS PAGE 3**  
 Former Sheaff's Service Garage  
 5930 College Avenue, Oakland, California

Photograph Nos. 11 & 12 – West views of interior service garage area, showing TEG field representative during sampling (in progress) of soil gas probe, SG-3 (August 2013). Re-sampling of SG-3 by GGE utilizing summa canister & shroud enclosure shown in Photograph No. 11 (GGE, October 2013).



Photograph No. 13 – Southeast view of subject property showing Gregg Drilling's CPT Rig and Chase Truck onsite. CPT Rig shown setup over borings CPT-1A / CPT-1B (GGE, August 2013).

Photograph Nos. 14-16: Interior views of Gregg Drilling's CPT Rig shown during drilling/sounding of CPT-1A (#14), groundwater sampling in CPT-1B (#15), and subsequent backfilling of boreholes (#16) - GGE, September 2013.



**GOLDEN GATE ENVIRONMENTAL, INC.**  
1455 Yosemite Avenue, San Francisco, CA 94124  
Phone (415) 970-9088 Fax (415) 970-9089

**PHOTOGRAPHS PAGE 4**  
Former Sheaff's Service Garage  
5930 College Avenue, Oakland, California



## **ADDITIONAL SOIL & WATER INVESTIGATION REPORT**

Sheaff's Garage  
5930 College Avenue, Oakland, California

### **TABLES**

- TABLE 1A - Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents
- TABLE 1B - Results of Soil Sample Analysis for Volatile Organic Compounds
- TABLE 1C - Results of Soil Sample Analysis for LUFT-5 Metals
- TABLE 2A - Historical Results of Grab Groundwater Hydrocarbon Sample Analysis
- TABLE 2B - Historical Results of Grab Groundwater Volatile Organic Compound Analysis
- TABLE 2C - Results of Grab Groundwater Sample Analysis for LUFT5 Metals
- TABLE 3A - Historical Results of Groundwater Sample Analysis & Fluid-Level Data
- TABLE 3B - 2004 To 2013 Groundwater Sampling Results for VOCs

**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014

**TABLE 1A**  
**Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents**  
**5930 College Avenue, Oakland, CA**

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	TPH-D (mg/Kg)	TEPH (mg/kg)	MTBE (mg/Kg)	B/T/E/X (mg/Kg)
<b>UST Removal Activities - 1996</b>									
UST 1 Excavation, North End	7189-T1-N	8	8/6/1996	6000.00	--	--	--	--	19/240/76/470
UST 1 Excavation, South End	7189-T1-S	8		8100.00	--	--	--	--	16/240/72/530
UST 1 Excavation, Center	7189-T1-C-10	10		1200.00	--	--	--	--	9.1/68/10/79
UST 2 Excavation, Center	7189-T2-C	8		560.00	16000.00	ND	--	--	2.7/16/3.3/33
UST 1 Overburden Soil Stockpile	7189-SP1	--		ND	--	ND	--	--	ND/ND/ND/ND
UST 2 Overburden Soil Stockpile	7189-SP2	--		1.30	14000.00	ND	--	--	ND/ND/ND/0.020
UST 1 & UST 2 Over-Ex Stockpile	7189-OE-1	10.5	10/2/1996	14001.00	1700.00	ND	--	--	9.8/81/14/110 <sup>1</sup>
UST 1 & UST 2 Over-Ex Stockpile	7189-OE-2	10.5		8401.00	320.00	ND	--	--	3.3/51/12/91 <sup>1</sup>
UST 1 & UST 2 Over-Ex Stockpile	7189-OE-3	10.5		ND	21.00	ND	--	--	ND/0.01/ND/0.027
UST 1 & UST 2 Over-Ex Stockpile	7189-OE-4	10.5		4301.00	240.00	ND	--	--	0.93/18/4.6/41 <sup>1</sup>
UST 1 & UST 2 Over-Ex Stockpile	7189-OE-5	10.5		14001.00	1100.00	ND	--	--	2.2/40/14/120 <sup>1</sup>
UST 1 & UST 2 Over-Ex Stockpile	7189-OE-5	10.5		14001.00	1100.00	ND	--	--	2.2/40/14/120 <sup>1</sup>
<b>Preliminary Site Assessment - May 1998 &amp; October 1999</b>									
B1	7335-B1-5	5	5/6/1998	ND	--	--	ND	ND<0.005	ND/ND/ND/ND
	7335-B1-9	9		75.00	--	--	53.00	0.06	0.07/0.04/0.53/1
B2	7335-B2-5	5	10/1/99	0.60	--	--	60.00	0.03	ND/ND/ND/ND
	7335-B2-9	9		<b>2800.00</b>	--	--	ND	ND<0.005	13/78/38/160
B3	7335-B3-6	6		ND	--	--	ND	ND<0.005	ND/ND/ND/ND
	7335-B3-10	10		48.00	--	--	ND	ND<0.005	0.5/0.6/0.5/2
B4 (MW1)	7335-B4-5	5		ND	--	--	ND	ND<0.005	ND/ND/ND/0.02
	7335-B4-9	9		<b>280.00</b>	--	--	ND	1.00	4/8/6/27
B5 (MW2)	7335-B5-3.0	3	ND	--	--	ND	ND<0.005	ND/ND/ND/ND	
	7335-B5-5.0	5	ND	--	--	ND	ND<0.005	ND/ND/ND/ND	
	7335-B5-9.0	9	ND	--	--	ND	ND<0.005	ND/ND/ND/ND	
	7335-B5-15.5	15.5	2.80	--	--	ND	ND<0.005	0.69/0.092/0.066/0.22	
	7335-B5-20.0	20	ND	--	--	ND	ND<0.005	0.028/0.021/0.007/0.029	
B6 (MW3)	7335-B6-5.0	5	ND	--	--	200.00	ND<0.005	ND/ND/ND/ND	
	7335-B6-10.0	10	1.50	--	--	ND	ND<0.005	ND/ND/0.005/0.013	
	7335-B6-15.0	15	ND	--	--	ND	0.03	ND/ND/ND/ND	
	7335-B6-19.0	19	ND	--	--	ND	0.04	ND/ND/ND/ND	
<b>Soil &amp; Groundwater Investigation - October 2002</b>									
B7	7335-B7-8	8	10/30/2002	1.71	--	--	--	ND<0.005	0.005/ND<0.005/ND<0.005/ND<0.01
	7335-B7-13	13		20.10	--	--	--	ND<0.005	0.720/0.162/0.803/2.5
	7335-B7-16	16		61.80	--	--	--	ND<0.02	0.762/2.37/1.4/6.34
	7335-B7-20	20		1.97	--	--	--	ND<0.005	0.020/0.034/0.032/0.140
B8	7335-B8-12	12		0.61	--	--	--	ND<0.005	ND<0.005/ND<0.005/ND<0.005/ND<0.005
	7335-B8-16	16		14.00	--	--	--	ND<0.005	0.184/0.019/0.495/0.628
	7335-B8-20	20		5.66	--	--	--	ND<0.005	0.037/0.136/0.105/0.461
B9	7335-B9-12	12		27.40	--	--	--	ND<0.005	0.097/0.027/0.171/0.161
	7335-B9-15	15		47.50	--	--	--	ND<0.005	1.12/1.96/2.09/9.46
	7335-B9-20	20		0.86	--	--	--	ND<0.005	ND<0.005/0.007/0.010/0.049
B10	7335-B10-11 <sup>2,3</sup>	11		81.80	--	--	ND	0.18	0.444/2.26/1.65/8.84
	7335-B10-15	15	<b>479.00</b>	--	--	ND	ND<0.250	4.16/15.9/9.21	
	7335-B10-17	17	7.44	--	--	ND	ND<0.005	0.036/0.075/0.079/0.442	
B11	7335-B11-8	8	ND	--	--	--	ND<0.005	ND<0.005/ND<0.005/ND<0.005/0.014	
	7335-B11-13	13	ND	--	--	--	ND<0.005	ND<0.005/ND<0.005/ND<0.005/ND<0.01	
CRWQCB February 2013 ESL - Residential Land Use				100	NC	100	NC	8.4	0.54/9.3/2.9/11
CRWQCB February 2013 ESL - Commercial Land Use				420	NC	500	NC	8.4	1.2/9.3/4.7/11

*Table & Notes Following*

**TABLE 1A (Cont'd)**  
**Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents**  
**5930 College Avenue, Oakland, CA**

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	TPH-D (mg/Kg)	TEPH (mg/Kg)	MTBE (mg/Kg)	B/T/E/X (mg/Kg)
<b>Site Characterization - April &amp; June 2005</b>									
B12	B12-7	7	4/30/2005	ND<0.5	--	--	--	ND<0.005	<0.005/0.006/<0.005/0.021
	B12-10	10		0.62	ND<10	--	ND<50	ND<0.005	<0.005/<0.005/<0.005/0.011
	B12-15	15		79.50	ND<10	--	ND<50	0.03	0.537/0.394/0.826/2.740
	B12-20	20		2.73	--	--	--	0.12	0.016/0.035/0.045/0.280
B16	B16-7.5	7.5		1.90	--	--	--	ND<0.005	<0.005/0.013/0.027/0.113
	B16-9.5	9.5		ND<0.5	--	--	--	ND<0.005	<0.005/<0.005/0.009/0.037
	B16-15	15		5.27	--	--	--	ND<0.005	0.061/0.014/0.061/0.190
B19	B19-7	7		ND<0.5	--	--	--	ND<0.005	<0.005/<0.005/<0.005/<0.010
	B19-10	10		0.99	--	--	--	0.02	<0.005/<0.005/<0.005/<0.010
	B19-15	15		139.00	--	--	--	ND<0.020	0.841/0.995/4.290/12.00
B20	B20-7	7		10.00	--	--	--	ND<0.005	0.039/0.163/0.091/0.341
	B20-15	15		8.15	--	--	--	ND<0.005	0.094/0.163/0.091/0.341
	B20-20	20		0.52	--	--	--	ND<0.005	0.022/<0.005/0.014/0.023
	B20-20	20		63.60	--	--	--	ND<0.020	0.395/0.491/0.961/2.750
B21	B21-6.5	6.5	6/22/2005	3.97	--	--	--	0.09	0.013/0.019/0.069/0.271
	B21-8.5	8.5		ND<0.05	--	--	--	ND<0.005	<0.005/<0.005/<0.005/<0.010
	B21-11.5	11.5		14.00	--	ND<25	--	ND<0.250	<0.250/<0.250/<0.250/<0.500
	B21-14.5	14.5		170.00	--	--	--	ND<5	<5/<5/<5/13
	B21-19.5	19.5		970.00	--	--	--	ND<25	<25/28/<25/100
B22	B22-6.5	6.5		6.90	--	--	--	ND<0.250	<0.250/<0.250/<0.250/<0.500
	B22-10	10		73.00	--	--	--	ND<0.250	0.280/1.30/1.30/7.0
	B22-14.5	14.5		0.10	--	--	--	ND<0.005	<0.005/0.052/<0.005/0.011
	B22-19.5	19.5		100.00	--	ND<25	--	ND<0.50	<0.5/<0.680/<0.5/3.0
B23	B23-6	6		0.25	--	--	--	ND<0.005	<0.005/<0.005/<0.005/<0.010
	B23-10	10		0.06	--	--	--	0.07	<0.005/<0.005/<0.005/<0.010
	B23-11.5	11.5		0.07	--	--	--	0.09	<0.005/<0.005/<0.005/<0.010
	B23-15	15		ND<0.05	--	--	--	ND<0.005	<0.005/<0.005/<0.005/<0.010
B24	B24-7	7	4/30/2005	300.00	--	230.00	--	ND<2.50	<2.5/<2.5/1.29
	B24-10	10		420.00	--	--	--	ND<5	<5/0.16/0.9/2/53
	B24-15	15		870.00	--	--	--	ND<2.50	<2.5/<2.5/19/76
	B24-22	22		910.00	--	--	--	ND<5	<5.0/28/20/110
	B24-7	7		0.06	--	--	--	ND<0.005	<0.005/<0.005/<0.005/<0.010
	B24-10	10		0.06	--	--	--	0.05	<0.005/<0.005/<0.005/<0.010
PW-1	PW1-4.5	4.5	4/5/2005	3.75	--	--	--	ND<0.005	0.006/0.009/0.048/0.203
	PW1-6	6		1.29	--	--	--	0.07	0.006/<0.005/0.015/0.066
	PW1-9	9		31.10	--	--	--	ND<0.020	0.341/0.112/0.490/0.789
	PW1-11.5	11.5		27.30	--	--	--	0.08	0.260/0.272/0.747/2.140
	PW1-20	20		ND<0.5	--	--	--	ND<0.005	<0.005/<0.005/<0.005/<0.010
<b>Soil &amp; Groundwater Investigation - August/October 2013</b>									
SG-1	SG-1-4 <sup>5</sup>	4	8/8/2013	ND<0.1	--	--	--	--	--
SG-2	SG-2-5	5		ND<0.1	--	--	--	--	--
SG-3	SG-3-5 <sup>5</sup>	5		ND<0.1	--	--	--	--	--
CRWQCB February 2013 ESL - Residential Land Use				100	NC	100	NC	8.4	0.54/9.3/2.9/11
CRWQCB February 2013 ESL - Commercial Land Use				420	NC	500	NC	8.4	1.2/9.3/4.7/11

**TABLE NOTES:**

TPH-G = total petroleum hydrocarbons (TPH) as gasoline (EPA Method 8015M)

TEPH = total extractable petroleum hydrocarbons [SM 5520 E&F + EPA 1664 (Silica Gel Treated Hexane; B10 only)]

B/T/E/X = benzene, toluene, ethylbenzene, total xylenes (EPA Method 8020)

MTBE = methyl tertiary-butyl ether (EPA Method 8020)

Total Lead by EPA Method 7420/AA Spectroscopy

fbg = feet below grade

mg/kg = milligrams per kilogram (parts per million)

-- = not analyzed for this constituent; ND = concentration below associated laboratory reporting limit

1 = confirmed by EPA Method 8260

2 = sample also analyzed (EPA 6010B ICAP) for cadmium (ND<2.0 mg/kg), chromium (38.2 mg/kg), nickel (51.5 mg/kg), and zinc (47.7 mg/kg);

3 = sample also analyzed for VOCs (EPA 8260) in mg/kg; MTBE (0.599), benzene (0.397), toluene (1.81), ethylbenzene (1.05), total xylenes (5.37), isopropylbenzene (0.100), n-propylbenzene (0.453), 1,3,5-trimethylbenzene (2.63), 1,2,4-trimethylbenzene (0.832), n-butylbenzene (0.313),

4 = sample also analyzed for HVOCs (EPA 8010); All concentrations ND

5 = sample also analyzed by Cooper Testing Labs for Grain Size Analysis, % Moisture & % Organic Matter (See CTL Lab Report Dated 8/15/13)

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Tier 1 Environmental Screening Level for hallow soil (vadose zone) at a residential or commercial use permitted site with groundwater that **is Not** a potential source of drinking water

**TABLE 1B**  
**Results of Soil Sample Analysis for Volatile Organic Compounds**  
**5930 College Avenue, Oakland, CA**

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	IPB (mg/Kg)	n-PB (mg/Kg)	1,3,5-TMB (mg/Kg)	1,2,4-TMB (mg/Kg)	Sec-BB (mg/Kg)	n-BB (mg/Kg)	Napthalene (mg/Kg)	MIBK (mg/Kg)	TCE (mg/Kg)	MC (mg/Kg)	cis-1,2-DCE (mg/Kg)	PCE (mg/Kg)	
<i>UST Removal Activities - 1996</i>																
UST 2 Excavation, Center	7189-T2-C	8	10/2/1996	0.14	1.1	2.8	7.5	0.2	--	ND<0.005	0.36	ND<0.005	ND<0.005	ND<0.005	0.024	
UST 2 Overburden Soil Stockpile	7189-SP2	NA		ND<5	0.017	0.92	0.037	ND<5	--	ND<0.005	0.042	ND<0.005	ND<0.005	ND<0.005	0.031	
<i>Preliminary Site Assessment - May 1998 &amp; October 1999</i>																
B10	7335-B10-11 <sup>2,3</sup>	11	10/30/2002	0.1	0.453	2.63	0.832	ND<0.020	0.313	715	ND<0.20	ND<0.020	ND<1.0	ND<0.020	ND<0.020	
<i>Soil &amp; Groundwater Investigation - October 2002</i>																
B12	B12-10	10	4/30/2005	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<50	ND<5	ND<50	ND<5	ND<5	
	B12-15	15		134	416	788	617	78	331	819	ND<50	ND<5	ND<50	ND<5	ND<5	
<i>Site Characterization - April &amp; June 2005</i>																
B21	B21-8.5	9.5	6/22/2005	ND<250	ND<250	1100	870	ND<250	ND<250	ND<250	ND<2000	ND<250	ND<1200	ND<250	ND<250	
B22	B22-10	10		ND<500	830	5100	4000	ND<500	720	640	ND<4000	ND<500	ND<4000	ND<500	ND<500	
<i>Soil &amp; Groundwater Investigation - August/October 2013</i>																
B25	B25-4	4	8/8/2013	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.050	ND<0.010	ND<0.010	
B26	B26-2	2		ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.050	ND<0.010	0.016
	B26-4	4		ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.050	ND<0.010	ND<0.010
B27	B27-4	4		ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.050	ND<0.010	ND<0.010
CRWQCB February 2013 ESL - Residential Land Use				NC	NC	NC	NC	NC	NC	NC	1.7	3.9	1.1	8.8	18	0.43
CRWQCB February 2013 ESL - Commercial Land Use				NC	NC	NC	NC	NC	NC	4.8	3.9	5.9	34	18	3.4	

**TABLE NOTES:**

mg/kg = milligrams per kilogram  
 NC - no criteria established for this chemical constituent  
 -- - not analyzed for this constituent  
 fbg - feet below grade surface  
 IPB - Isopropylbenzene  
 n-PB - n-Propylbenzene  
 1,3,5-TMB - 135 Trimethylbenzene  
 1,2,4-TMB - 1,2,4- Trimethylbenzene  
 Sec-BB - Sec-Butylbenzene  
 n-BB - n-Butylbenzene  
 TCE - Trichloroethene  
 MC - Methylene Chloride  
 cis-1,2-DCE - cis-1,2-Dichloroethene  
 Tri-CFM - Trichlorofluoromethane  
 PCE - Tetrachloroethene  
 CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Tier 1 Environmental Screening Level for hallow soil (vadose zone)  
 at a residential or commercial use permitted site with groundwater that **Is Not** a potential source of drinking water

**TABLE 1C**  
**Results of Soil Sample Analysis for LUFT 5 Metals**  
**5930 College Avenue, Oakland, CA**

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	Cd (mg/kg)	Cr (mg/kg)	Pb (mg/kg)	Ni (mg/kg)	Zn (mg/kg)
<b><i>UST Removal Activities - 1996</i></b>								
center of T2 excavation	7189-T2-C	8		ND<2.0	49	48	68	210
T2 Soil Stockpile	7189-SP2	NA		ND<2.0	34	79	32	130
<b><i>Soil &amp; Groundwater Investigaion - October 2002</i></b>								
B10	7335-B10-15	15	10/30/2002	ND<2.0	38.2	19.6	51.5	47.7
<b><i>Site Characterization - April &amp; June 2005</i></b>								
B21	B21-8.5	8.5	6/22/2005	ND<1.0	74	4.6	78	36
B22	B22-10	10		ND<1.0	43	5.3	53	41
B23	B23-10	10		ND<1.0	47	7.2	63	50
CRWQCB February 2013 ESL - Shallow Soil				12	NC	80	150	600
CRWQCB February 2013 ESL - Deep Soil				12	NC	320	150	600

**TABLE NOTES:**

Cd - Cadmium  
 Cr - Chromium (Total)  
 Pb - Lead  
 Ni - Nickel  
 Zn - Zinc  
 mg/Kg - milligrams per Kilogram; parts per million (ppm)  
 NC - no criteria established for this chemical constituent  
 fbg - feet below grade

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Tier 1 Environmental Screening Level for hallow soil (vadose zone) at a residential or commercial use permitted site with groundwater that Is Not a potential source of drinking water

**TABLE 2A**

**Historical Results of Grab Groundwater Sample Hydrocarbon Analysis**

**5930 College Avenue, Oakland, CA**

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	TPH-G (ug/L)	TEPH (ug/L)	TPH-D (ug/L)	O&G (ug/L)	MTBE (ug/L)	B/T/E/X (ug/L)
<i>Preliminary Site Assessment - May 1998 &amp; October 1999</i>									
B1	B1-GW	8.5	5/6/1998	31000	6000	--	--	ND<5	2600 / 390 / 1600 / 4200
B2	B2-GW	6.5		200000	ND<5000	--	--	2500	30000 / 49000 / 45000 / 21000
B3	B3-GW	6.5		1x10 <sup>6</sup>	7000	--	--	18000	17000 / 24000 / 20000 / 80000
<i>Soil &amp; Groundwater Investigaion - October/November 2002</i>									
B7	B7-W	16.4	10/30/2002	296000	--	--	--	1360	18400 / 21900 / 8310 / 33800
B8	B8-W	11.5		1480	--	--	--	35	386 / 9 / 74 / 81
B9	B9-W	16.95	11/1/2002	16100	--	--	--	879	1250 / 1380 / 820 / 3480
B10	B10-W	13.85		49400	--	--	ND<5000	2040	6600 / 9940 / 1610 / 7600
<i>Site Characterization - April-July 2005</i>									
B12	B12-W	NM	5/2/2005	934000	--	--	92000*	ND<5000	13900 / 22300 / 20800 / 86800
B14	B14-W	NM	5/19/2005	ND<50	--	--	--	2.2	ND<0.5 / 1.2 / 0.6 / 3.5
B15	B15-W	NM		53	--	--	--	ND<0.5	8.4 / ND<0.5 / ND<0.5 / ND<1.0
B16	B16-W	NM	5/2/2005	154000	--	--	--	ND<500	2510 / 3020 / 4300 / 20400
B17	B17-W		5/19/2005	ND<50	--	--	--	--	ND<0.5 / ND<0.5 / ND<0.5 / ND<1.0
B18	B18-W	6.4	4/14/2005	51	--	--	--	ND<0.5	ND<0.5 / ND<0.5 / ND<0.5 / 1.8
B19	B19-W	NM	5/2/2005	4600000	--	--	--	ND<250	31100 / 70500 / 75600 / 228000
B20	B20-W		5/19/2005	60700	--	--	--	--	6800 / 2600 / 1550 / 6520
B21	B21-W	15	6/22/2005	130000	--	--	5800000	--	21000 / 24000 / 4500 / 23000
B23	B23-W	6.9	7/11/2005	21000	1800	--	9200	880	2200 / 2600 / 450 / 3000
B24	B24-W	NM	5/2/2005	3830000	--	--	--	ND<50	33200 / 46300 / 65500 / 175000
HB-1	HB-1-W	7.52	4/14/2005	173	--	--	--	0.9	0.8 / ND<0.5 / 0.9 / 3.9
HB-3	HB-3-W	8.05	7/11/2005	13000	--	--	--	ND<20	690 / 21 / 1200 / 190
HB-4	HB-4-W	8.43		14000	--	--	--	ND<20	13 / ND<10 / 10 / ND<10
HB-6	HB-6-W	6.45		45	--	--	--	ND<1	ND<0.5
<i>Soil &amp; Groundwater Investigation - August/October 2013</i>									
CPT-1	CPT-1B-GW	6.5	9/27/2013	16000	NM	NM	NM	ND<4.2	360 / 910 / 550 / 2810
CRWQCB February 2013 ESL				500	NC	640	NC	1800	27 / 130 / 43 / 100

*Table Notes Following*



**TABLE 2A (Cont'd)**  
**Historical Results of Grab Groundwater Sample Hydrocarbon Analysis**  
**5930 College Avenue, Oakland, CA**

---

---

**TABLE NOTES:**

TPH-G = total petroleum hydrocarbons (TPH) as gasoline (EPA Method 8015M or 8260B)

TEPH = total extractable petroleum hydrocarbons [SM 5520 E&F + EPA 1664 (Silica Gel Treated Hexane; B10 only)]

B/T/E/X = benzene, toluene, ethylbenzene, total xylenes (EPA Method 8020 or 8260B)

MTBE = methyl tertiary-butyl ether (EPA Method 8020 or 8260B)

fbg = feet below grade

ug/L = micrograms per liter (parts per billion)

NM = not measured

-- = not analyzed for this constituent; ND = concentration below associated laboratory reporting limit

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Environmental Screening Level at a residential or commercial use permitted site with groundwater that Is Not a potential source of drinking water.

**TABLE 2B**

**Historical Results of Grab Groundwater Volatile Organic Compound Analysis**

**5930 College Avenue, Oakland, CA**

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	IPB (ug/L)	n-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Sec-BB (ug/L)	n-BB (ug/L)	Napthalene (ug/L)	MIBK (ug/L)	TCE (ug/L)	MC (ug/L)	cis-1,2-DCE (ug/L)	PCE (ug/L)
<i>Soil &amp; Groundwater Investigaion - October 2002</i>															
B10	B10-W	13.85	11/1/2002	74	230	1610	441	ND<50	ND<50	765	ND<500	ND<100	ND<5000	ND<50	ND<50
<i>Site Characterization - April-July 2005</i>															
B12	B12-W	NM	5/2/2005	61200	236000	430000	1270000	28600	ND<10000	305000	ND<10000	ND<5000	ND<250000	ND<10000	ND<5000
B21	B21-W	15	6/22/2005	ND<1000	ND<5000	ND<5000	ND<5000	ND<5000	ND<5000	ND<5000	ND<20000	ND<500	ND<5000	ND<500	ND<500
B23	B23-W	6.9	7/11/2005	ND<50	ND<250	ND<250	320	ND<250	ND<250	ND<250	ND<1000	ND<25	ND<250	ND<25	ND<25
<i>Soil &amp; Groundwater Investigation - August/October 2013</i>															
CPT-1	CPT-1B-GW*	6.5	9/27/2013	--	--	--	--	--	--	810	--	--	--	--	--
CRWQCB February 2013 ESL				NC	NC	NC	NC	NC	NC	24	170	130	2,200	590	63

**TABLE NOTES:**

ug/L = micrograms per liter

NC - no criteria established for this chemical constituent

-- - not analyzed for this constituent

fbg - feet below grade surface

NM = not measured

IPB- Isopropylbenzene

n-PB - n-Propylbenzene

1,3,5-TMB - 135 Trimethylbenzene

1,2,4-TMB - 1,2,4- Trimethylbenzene

Sec-BB - Sec-Butylbenzene

n-BB - n-Butylbenzene

MIBK - Methyl Isobutal Ketone

TCE - Trichloroethene

MC - Methylene Chloride

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

PCE - Tetrachloroethene

\* Sample additionally analyzed for Tert-Butanol (ND<42), 1,2-Dichloroethane (ND<4.2), 1,2-Dibromothane (ND<4.2); See Table 2A for BTEX & MTBE Results

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Environmental Screening

Level at a residential or commercial use permitted site with groundwater that Is Not a potential source of drinking water.

**TABLE 2C**  
**Results of Grab Groundwater Sample Analysis for LUFT 5 Metals**  
**5930 College Avenue, Oakland, CA**

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	Cd (ug/L)	Cr (ug/L)	Pb (ug/L)	Ni (ug/L)	Zn (ug/L)
<i>Soil &amp; Groundwater Investigaion - October 2002</i>								
B10	B10-W	13.85	11/1/2002	ND<0.5	0.28	0.26	0.33	0.41
<i>Site Characterization - April-July 2005</i>								
B12	B12-W	NM	5/2/2005	17.4	9.51	106	30.7	100
B21	B21-W	15	6/22/2005	38	1400	75	1500	1900
B23	B23-W	6.9	7/11/2005	ND<2	ND<5	10	13	32
B23**	B23-W	6.9	7/11/2005	ND<2	ND<5	ND<5	11	30
CRWQCB February 2013 ESL				12	NC	320	150	600

**TABLE NOTES:**

Cd - Cadmium

Cr - Chromium

Pb - Lead

Ni - Nickel

Zn - Zinc

ug/L - micrograms per liter

fbg - feet below grade

NM = not measured

\*\* Results from filtered field sample

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Environmental Screening Level at a residential or commercial use permitted site with groundwater that Is Not a potential source of drinking water.

**TABLE 3A**  
**Historical Groundwater Levels & Hydrocarbon Analytical Results**  
**5930 College Avenue, Oakland, CA**

Well ID	Sample Date	Casing Elevation (ft, MSL)	Depth to GW (ft, TOC)	Water Elevation (ft, MSL)	Product Odor/ Sheen	TPH-G (ug/L)	MTBE (ug/L)	BTEX (ug/L)
MW-1	6/1/98	50.00 *	4.81	45.19	slight sheen	160000	1900	28000 / 21000 / 3800 / 21000
	9/10/98	50.00 *	7.5	42.5	Odor	290000	440	<50 / 25000 / 7100 / 32000
	10/7/99	50.00 *	10.04	39.96	Odor	85000	1100	20000 / 13000 / 3800 / 17000
	1/26/00	50.00 *	8.26	41.74	slight sheen	130000	470	25000 / 18000 / 4500 / 22000
	10/25/00	50.00 *	10.1	39.9	Odor	130000	1300	23000 / 12000 / 3900 / 18000
	2/2/01	50.00 *	9.61	40.39	Odor	128000	780	19000 / 11000 / 3800 / 18000
	4/25/01	195.9	7.39	188.51	Odor	120000	900	21000 / 13000 / 390 / 18000
	7/10/01		9.72	186.18	Odor	79000	660	15000 / 7800 / 3000 / 15000
	10/8/01		10.88	185.02	Odor/sheen	112000	374	25300 / 11800 / 4280 / 20600
	1/7/02		4.34	191.56	Odor	96100	596	21100 / 13500 / 4160 / 21900
	4/8/02		6.84	189.06	slight odor	111000	679	21200 / 13400 / 4230 / 21000
	7/9/02		9.4	186.5	slight odor	110000	570	20300 / 13300 / 4060 / 19800
	10/23/02		11.04	184.86	None	54100	1010 (1080)**	10800 / 3870 / 2320 / 9440
	10/15/03		10.8	185.1	None	90700	724	17800 / 4740 / 3150 / 13900
	2/2/04		7.35	188.55	None	108000	194	14200 / 7420 / 3450 / 19800
	4/23/04		6.83	189.07	slight odor	49200	114	7910 / 1480 / 1810 / 10100
	7/19/04		8.95	186.95	Odor	63900	303	7260 / 2270 / 2510 / 10100
	10/22/04		10.15	185.75	None	80700	493 (296)**	13900 / 1670 / 3550 / 15200
	1/21/05		5.45	190.45	Odor	278000	271 (174)**	14700 / 25300 / 10800 / 73500
	4/14/05		5.3	190.6	Odor /sheen	116000	366 (410)**	15100 / 7080 / 4220 / 20700
	7/26/05		7.6	188.3	Odor	82000	ND<250	12000 / 4500 / 3300 / 14000
	10/14/05		9.58	186.32	Odor/sheen	64000	ND<250	13000 / 5700 / 3400 / 16000
	1/13/06		4.6	191.3	Odor/sheen	49000	ND<250	12000 / 5300 / 3500 / 17000
	4/14/06		3.08	192.82	Odor	51000	270	14000 / 5300 / 3500 / 17000
	10/26/06		9.22	186.68	Odor	34000	ND<250	12000 / 1600 / 3100 / 8600
	1/30/07		9.6	186.3	Odor	39000	ND<200	10000 / 2200 / 2900 / 10000
	4/13/07		9.24	186.66	NM	52000	150	9100 / 2600 / 3100 / 11000
	7/24/07		10.67	185.23	None	46000	240	10000 / 1200 / 3500 / 6200
	4/21/08		7.24	188.66	None	50000	ND<100	7800 / 1500 / 3000 / 12000
	7/22/08		9.71	186.19	Odor	60000	470 <sup>1</sup>	8100 / 1500 / 2700 / 9800
	10/21/08		11.63	184.27	Odor	15000	110	4900 / 430 / 1900 / 2260
	1/19/09		10.91	184.99	Odor/Sheen	33000	143	8830/837/2160/3880
4/27/09	7.7		188.2	Odor	75000	53	8500/2100/2300/11000	
10/27/09	9.34		186.56	Odor	61000	75	8300/1500/2600/7900	
10/14/10	10.3		185.6	Clear/Odor	24000 <sup>2</sup>	220	8100/820/2200/4400	
6/9/11	6.38		189.5	Clear/Odor	53000	NA	14000/3000/3800/16900	
10/7/11	9.08		186.82	None	50000 <sup>2</sup>	89	9200/1500/4200/13500	
10/16/13	10.83		185.07	Clear	12000 <sup>2</sup>	ND<21	2400/330/1500/2780	
CRWQCB February 2013 ESL						500	1800	27 / 130 / 43 / 100

Table & Notes Following

**TABLE 3A (Cont.)**  
**Historical Groundwater Levels & Hydrocarbon Analytical Results**  
**5930 College Avenue, Oakland, CA**

Well ID	Sample Date	Casing Elevation (ft, MSL)	Depth to GW (ft, TOC)	Water Elevation (ft, MSL)	Product Odor/ Sheen	TPH-G (ug/L)	MTBE (ug/L)	BTEX (ug/L)
MW-2	10/7/99	51.42*	11.49	39.93	slight/odor	18000	490	3000 / 1700 / 1000 / 3900
	1/26/00	51.42*	7.85	43.57	None	42000	560	9300 / 2200 / 2300 / 7700
	10/25/00	51.42*	11.57	39.85	slight/odor	31000	500	5500 / 370 / 1700 / 2600
	2/2/01	51.42*	10.77	40.65	Odor	36000	400	4300 / 530 / 1800 / 4500
	4/25/01	197.28	8.52	188.76	Odor	56000	460	6700 / 1700 / 2600 / 8200
	7/10/01		11.05	186.23	Odor	39000	180	6200 / 730 / 2300 / 6100
	10/8/01		12.79	184.49	Odor/sheen	40700	6460	6310 / 399 / 2100 / 5320
	1/7/02		4.92	192.36	Odor	59600	366**	10300 / 3250 / 4180 / 14400
	4/8/02		8.4	188.88	slight odor	66700	583**	10200 / 2670 / 3840 / 13200
	7/9/02		10.55	186.73	slight odor	37100	303 (298)**	5340 / 890 / 2110 / 6920
	10/23/02		13.85	183.43	None	13300	322 (360)**	2420 / 216 / 922 / 1470
	10/15/03		12.38	184.9	None	11300	264 (322)**	2660 / 51 / 1180 / 1220
	2/2/04		8.8	188.48	None	21700	168 (200)**	2130 / 51 / 1030 / 2060
	4/23/04		8.4	188.88	Slight odor	30400	112 (203)**	3570 / 322 / 1620 / 4140
	7/19/04		10.3	186.98	Odor	28300	283 (373)**	2540 / 239 / 1320 / 2300
	10/22/04		10.25	187.03	Mod odor	13500	273 (229)**	1790 / 54 / 892 / 915
	1/21/05		6.65	190.63	Mod odor	278000	161 (163)**	5980 / 1030 / 2890 / 9070
	4/14/05		8.7	188.58	None	46100	155 (150)**	5170 / 787 / 2530 / 6010
	7/26/05		8.95	188.33	Mod odor	41000	ND (ND)**	5600 / 550 / 2600 / 4600
	10/14/05		10.92	186.36	Odor/sheen	13000	130	2900 / 100 / 1300 / 1200
	1/13/06		5.48	191.8	Odor	20000	ND<100	4900 / 490 / 2400 / 4200
	4/14/06		3.61	193.67	Odor	21000	ND<100	4000 / 740 / 2300 / 5100
	10/26/06		10.58	186.7	Odor	8200	68	1400 / 51 / 840 / 500
	1/30/07		10.98	186.3	Odor	17000	62	3200 / 150 / 2200 / 1800
	4/13/07		10.54	186.74	NM	19000	57	2000 / 85 / 1300 / 1100
	7/24/07		12.04	185.24	None	10000	84	1300 / 41 / 710 / 270
	4/21/08		8.01	189.27	None	17000	48	1800 / 100 / 1400 / 1300
	7/22/08		11.12	186.16	None	16000	100 <sup>1</sup>	1900 / 98 / 1600 / 741
	10/21/08		13.11	184.17	Odor/sheen	4900	65	700 / 20 / 370 / 52
	1/19/09		12.31	184.97	Odor	2500	90	167/8.49/114/50.3
	4/27/09		9.01	188.27	Odor/sheen	21000	ND<0.5	1700/130/1100/1800
	10/27/09		10.52	186.76	Odor	7000	ND<0.5***	510/19/330/160
	10/14/2010		11.56	185.72	None	3200 <sup>2</sup>	35	460/16/230/110
6/9/2011	7.67		189.61	Clear/Odor	9900	NA	1900/75/1100/1013	
10/7/2011	10.42		186.86	Clear/Odor	9200 <sup>4</sup>	ND<22	810/34/610/100	
10/16/2013	12.18		185.1	Clear/Odor	4400 <sup>2,5</sup>	ND<4.2	780/33/200/39.8	
CRWQCB February 2013 ESL						500	1800	27 / 130 / 43 / 100

Table & Notes Following

**TABLE 3A (Cont.)**  
**Historical Groundwater Levels & Hydrocarbon Analytical Results**  
**5930 College Avenue, Oakland, CA**

Well ID	Sample Date	Casing Elevation (ft, MSL)	Depth to GW (ft, TOC)	Water Elevation (ft, MSL)	Product Odor/ Sheen	TPH-G (ug/L)	MTBE (ug/L)	BTEX (ug/L)
MW-3	10/7/99	49.39*	9.67	39.72	None	6600	390	310 / 110 / 430 / 1000
	1/26/00	49.39*	5.4	43.99	None	3300	40	110 / 8 / 100 / 32
	10/25/00	49.39*	9.24	40.15	Slight odor	4500	ND	100 / 2 / 120 / 130
	2/2/01	49.39*	8.73	40.66	Slight odor	2900	35	35 / 3 / 160 / 298
	4/25/01	195.22	6.61	188.61	Slight odor	8400	56	260 / 33 / 290 / 510
	7/10/01		8.85	186.37	Slight odor	12000	35	39 / 10 / 690 / 1600
	10/8/01		9.75	185.47	Odor/sheen	4913	52	108 / 4 / 99 / 133
	1/7/02		4.25	190.97	Odor/sheen	7260	81.7**	723 / 138 / 492 / 887
	4/8/02		6.33	188.89	Odor	11700	ND**	540 / 108 / 706 / 1710
	7/9/02		8.56	186.66	Odor	2320	28.3 (20)**	37.1 / 4.7 / 98.5 / 187
	10/23/02		10.02	185.2	Odor/sheen	2830	ND (ND)**	46.8 / 4.7 / 43.6 / 65.5
	10/15/03		9.8	185.42	Odor/sheen	3040	ND (ND)**	91.3 / 8.4 / 69.9 / 148
	2/2/04		6.85	188.37	Odor/sheen	5140	ND (ND)**	126 / 8.7 / 134 / 238
	4/23/04		6.17	189.05	None	7210	ND (ND)**	227 / 39.5 / 448 / 879
	7/19/04		8.25	186.97	Slight odor	9860	ND (ND)**	20.4 / 3.2 / 30.6 / 117
	10/22/04		9.25	185.97	None	7420	96 (21)**	152 / 12.8 / 267 / 480
	1/21/05		5.22	190	Slight odor	2420	ND (ND)**	111 / 11.4 / 139 / 265
	4/14/05		6.64	188.58	Odor/sheen	5130	54 (41.4)**	357 / 19.4 / 287 / 510
	7/26/05		6.9	188.32	None	9800	ND (21)**	200 / 23 / 220 / 360
	10/14/05		8.83	186.39	Odor/sheen	6100	ND	76 / 19 / 170 / 350
	1/13/06		4.61	190.61	Odor	3900	24	380 / 17 / 230 / 300
	4/14/06		3.41	191.81	Odor	5000	69	760 / 44 / 230 / 190
	10/26/06		8.57	186.65	Odor	3100	17	120 / 9.8 / 55 / 54
	1/30/07		8.83	186.39	Odor	4500	ND<10	90 / 7.6 / 75 / 44
	4/13/07		8.57	186.65	NM	2800	ND<5	55 / 4.9 / 19 / 6.1
	7/24/07		9.98	185.24	None	4800	ND<5	140 / 8.3 / 66 / 22
	4/21/08		9.3	185.92	None	4300	ND<5	200 / 11 / 30 / 14
	7/22/08		9.05	186.17	None	2400	53 <sup>1</sup>	140 / 13 / 26 / 18.5
	10/21/08		11.12	184.1	Slight Odor	2900	2.2	170 / 9.2 / 99 / 25.8
	1/19/09		10.29	184.93	Odor	3600	ND<0.5	148/6.73/24.5/22.1
	4/27/09		7.15	188.07	Odor/sheen	5800	8.8	370/12/82/84
	10/27/09		8.96	186.26	Odor	4900 <sup>2</sup>	ND<0.5***	130/8.5/89/130
10/14/2010	9.76		185.46	None	2700 <sup>2</sup>	ND<4.4	270/11/290/399.2	
6/9/2011	5.92		189.3	Clear/Odor	3200 <sup>2</sup>	NA	220/ND<4.4/37/20	
10/7/2011	8.6		186.62	None	5400 <sup>2</sup>	ND<4.4	140/7.0/160/67	
10/16/2013	10.56		184.66	Lt. Gray/Odor	3400 <sup>2</sup>	ND<4.2	990/58/75/71	
CRWQCB February 2013 ESL						500	1800	27 / 130 / 43 / 100

Table & Notes Following

**TABLE 3A (Cont.)**  
**Historical Groundwater Levels & Hydrocarbon Analytical Results**  
**5930 College Avenue, Oakland, CA**

Well ID	Sample Date	Casing Elevation (ft, MSL)	Depth to GW (ft, TOC)	Water Elevation (ft, MSL)	Product Odor/ Sheen	TPH-G (ug/L)	MTBE (ug/L)	BTEX (ug/L)
PW-1	4/14/05	197.17	6.4	190.77	None	3360	ND (ND**)	62.8 / 6.7 / 79.5 / 317
	7/26/05		8.63	188.54	None	1300	ND (ND**)	22 / ND / 48 / 110
	10/14/05		10.71	186.46	None	4300	ND	93 / 1.2 / 100 / 140
	1/13/06		4.87	192.3	None	450	ND<2.0	10 / ND / 37 / 72
	4/14/06		2.27	194.9	Odor	120	ND<2.0	2.3 / ND<1.0 / 3.5 / 9.3
	10/26/06		10.3	186.87	Odor	2800	ND<10	61 / ND<5.0 / 130 / 34
	1/30/07		10.8	186.37	Odor	1200	ND<2	22 / ND<1.0 / 100 / 200
	4/13/07		10.31	186.86	NM	510	ND<1	6 / ND<0.5 / 30 / 56
	7/24/07		11.81	185.36	None	3400	ND<5	63 / ND<2.5 / 180 / 5.6
	4/21/08		9.08	188.09	None	300	ND<1	3 / ND<0.5 / 16 / 26
	7/22/08		9.83	187.34	None	710	3.1 <sup>1</sup>	9.3 / 1.2 <sup>1</sup> / 49 / 67.86
	10/21/08		12.9	184.27	None	1500 <sup>2</sup>	1	20 / ND<0.5 / 57 / 20
	1/19/09		12.11	185.06	Odor/sheen	1100 <sup>2</sup>	ND<0.5	12.3/ND<0.5/30.8/9.20
	4/27/2009		8.69	188.48	None	360 <sup>3</sup>	ND<0.5	2.7/ND<0.5/12/18
	10/27/2009		10.32	186.85	None	1100 <sup>2</sup>	ND<0.5	12/ND<0.5/36/34
	10/14/2010		11.38	185.79	None	860 <sup>3</sup>	ND<0.5	8.8/.55/44/44
	6/9/2011		7.43	189.74	None	96 <sup>3</sup>	ND<0.5	ND<0.5/ND<0.5/3.1/2.5
10/7/2011	9.79	187.38	None	260 <sup>5</sup>	ND<0.5	ND<0.5/ND<0.5/5.9/4.5		
<b>10/16/2013</b>	<b>11.91</b>	<b>185.26</b>	<b>Clear</b>	<b>150 <sup>2,5</sup></b>	<b>ND&lt;0.5</b>	<b>0.87/ND&lt;0.5/ND&lt;0.5/ND&lt;1.0</b>		
<b>CRWQCB February 2013 ESL</b>						<b>500</b>	<b>1800</b>	<b>27 / 130 / 43 / 100</b>

**NOTES:**

ft, MSL = feet Above Mean Sea Level

TOC = Top of Well Casing

GW = Depth to Groundwater in feet Below TOC

TPH-G = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl Tertiary Butyl Ether

BTEX = Benzene / Toluene / Ethylbenzene / Total Xylenes

ug/L = micrograms per liter

ND = Not detected above laboratory reporting limit

<sup>1</sup> = Presence confirmed, but Relative Percentage Difference (RPD) between columns exceeds 40%

<sup>2</sup> = Sample exhibit chromatographic pattern that does not resemble standard; See laboratory report for additional information

<sup>3</sup> = Although TPH-gas compounds are present, value is elevated due to discrete peak (PCE) within C5-C12 range quantified as gasoline

<sup>4</sup> = Result is elevated due to contribution from heavy end hydrocarbons within C5-C12 range quantified as gasoline

<sup>5</sup> = Result is elevated due to contribution from heavy end hydrocarbons and discrete peak of non-fuel compound within C5-C12 range quantified as gasoline

\* = Arbitrary datum point with assumed elevation of 50 ft used prior to MSL survey on 4/ 25/01

\*\* = Concentration confirmed by EPA Method 8260

\*\* = Sample also analyzed for other Fuel oxygenates (EPA Method 8260); All results ND (See Lab Report)

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Environmental Screening Level at a residential or commercial use permitted site with groundwater that Is Not a potential source of drinking water.

**TABLE 3B**  
**Historical Groundwater VOC Analytical Results in PW-1**  
**5930 College Avenue, Oakland, CA**

Well ID	Sample Date	IPB (ug/L)	n-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Sec-BB (ug/L)	n-BB (ug/L)	Naphthalene (ug/L)	TCE (ug/L)	MC (ug/L)	cis-1,2-DCE (ug/L)	Vinyl Chloride (ug/L)	PCE (ug/L)
PW-1	4/14/05	11	22	110	100	ND,10	ND<10	43	3.3	ND<25	12	ND<0.5	84.9
	7/26/05	7.3	17	37	100	ND<10	ND<10	43	ND<1	ND<10	7	ND<1	48
	10/14/05	28	72	67	120	12	17	43	4.1	ND<40	29	ND<1	25
	1/13/06	ND<20	ND<10	ND<10	37	ND<10	ND<10	ND<10	1.4	ND<40	5	ND<1	95
	4/14/06	ND<2	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	1.1	ND<40	2.8	ND<1	68
	10/26/06	ND<10	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	6.2	ND<200	32	ND<5.0	26
	1/30/07	ND<2	23	31	120	ND<10	ND<10	18	ND<1	ND<40	11	ND<1	29
	4/13/07	2.4	6.1	7	30	ND<5	ND<5	6.8	0.84	ND<20	4.7	ND<0.5	64
	7/24/07	ND<5.0	60	ND<25	ND<25	ND<25	ND<25	ND<25	ND<2.5	ND<100	58	ND<2.5	50
	4/21/08	1.1	ND<5	ND<5	15	ND<5	ND<5	ND<5	0.88	ND<20	3.7	ND<0.5	91
	7/22/08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/21/08	17	14	5	15	9.4	14	5.1	6.2	ND<10	56	0.6	44
	4/27/09	1.2	3.3	3.4	16	ND<0.5	ND<0.5	ND<1.0	1.4	ND<5.0	4	ND<0.5	120
	10/27/09	6	4.8	ND<0.5	15	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<5.0	35	ND<0.5	78
	10/14/10	9.8	15	12	44	4.4	ND<0.5	4	5	ND<5.0	61	ND<0.5	35
6/9/11	0.55	1.7	0.98	3.7	ND<0.5	ND<0.5	ND<1.0	0.85	ND<5.0	1.4	ND<0.5	86	
10/7/11	0.79	1.8	0.99	3.8	ND<0.5	0.68	1.2	0.63	ND<5.0	2	ND<0.5	76	
10/16/13	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	2.7	ND<5.0	12	ND<0.5	45	
<b>CRWQCB ESL</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>24</b>	<b>130</b>	<b>2200</b>	<b>590</b>	<b>1.8</b>	<b>63</b>

**NOTES:**

VOC = Volatile Organic Compounds

IPB = Isopropylbenzene

n-PB = n-Propylbenzene

1,3,5-TMB = 1,3,5-Trimethylbenzene

1,2,4-TMB = 1,2,4-Trimethylbenzene

sec-BB = sec-Butylbenzene

n-BB = n-Butylbenzene

TCE = Trichloroethene

MC = Methylene Chloride

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

PCE = Tetrachloroethene

ug/l = micrograms per liter

ND = Not detected above laboratory reporting limit

NC = No Criteria Listed

NA = Not Analyzed

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2013, Environmental Screening Level at a residential or commercial use permitted site with groundwater that Is Not a potential source of drinking water.





## **ADDITIONAL SOIL & WATER INVESTIGATION REPORT**

Sheaff's Garage  
5930 College Avenue, Oakland, California

### **APPENDIX A**

## **LABORATORY ANALYTICAL REPORTS**

**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014



Golden Gate Environmental, Inc  
1455 Yosemite Avenue  
San Francisco, California 94124  
Tel: (415) 686-8846 cell  
RE: 5930 College Avenue, Oakland

Work Order No.: 1310114

Dear Brent Wheeler:

Torrent Laboratory, Inc. received 4 sample(s) on October 17, 2013 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

---

Patti Sandrock  
QA Officer

October 24, 2013  
Date



**Date:** 10/24/2013

---

**Client:** Golden Gate Environmental, Inc

**Project:** 5930 College Avenue, Oakland

**Work Order:** 1310114

### **CASE NARRATIVE**

---

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



### Sample Result Summary

Report prepared for: Brent Wheeler  
Golden Gate Environmental, Inc

Date Received: 10/17/13

Date Reported: 10/24/13

**MW-1**

1310114-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Gasoline	8260TPH	105	3300	5300	12000	ug/L
Benzene	SW8260B	42	5.4	21	2400	ug/L
Toluene	SW8260B	42	6.1	21	330	ug/L
Ethyl Benzene	SW8260B	42	6.4	21	1500	ug/L
m,p-Xylene	SW8260B	42	5.6	42	2200	ug/L
o-Xylene	SW8260B	42	6.4	21	580	ug/L
Isopropyl Benzene	SW8260B	42	4.1	21	49	ug/L
n-Propylbenzene	SW8260B	42	3.3	21	150	ug/L
1,3,5-Trimethylbenzene	SW8260B	42	3.1	21	130	ug/L
1,2,4-Trimethylbenzene	SW8260B	42	3.5	21	600	ug/L
Naphthalene	SW8260B	42	5.7	42	310	ug/L

**MW-2**

1310114-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Gasoline	8260TPH	42	1300	2100	4400	ug/L
Benzene	SW8260B	8.4	1.1	4.2	780	ug/L
Toluene	SW8260B	8.4	1.2	4.2	33	ug/L
Ethyl Benzene	SW8260B	8.4	1.3	4.2	200	ug/L
m,p-Xylene	SW8260B	8.4	1.1	8.4	32	ug/L
o-Xylene	SW8260B	8.4	1.3	4.2	7.8	ug/L
Isopropyl Benzene	SW8260B	8.4	0.81	4.2	53	ug/L
n-Propylbenzene	SW8260B	8.4	0.65	4.2	180	ug/L
n-Butylbenzene	SW8260B	8.4	0.68	4.2	20	ug/L
Naphthalene	SW8260B	8.4	1.1	8.4	62	ug/L



### Sample Result Summary

Report prepared for: Brent Wheeler  
Golden Gate Environmental, Inc

Date Received: 10/17/13

Date Reported: 10/24/13

MW-3

1310114-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Benzene	SW8260B	8.4	1.1	4.2	990	ug/L
Toluene	SW8260B	8.4	1.2	4.2	58	ug/L
Ethyl Benzene	SW8260B	8.4	1.3	4.2	75	ug/L
m,p-Xylene	SW8260B	8.4	1.1	8.4	66	ug/L
o-Xylene	SW8260B	8.4	1.3	4.2	5.0	ug/L
Isopropyl Benzene	SW8260B	8.4	0.81	4.2	21	ug/L
n-Propylbenzene	SW8260B	8.4	0.65	4.2	57	ug/L
n-Butylbenzene	SW8260B	8.4	0.68	4.2	6.8	ug/L
Naphthalene	SW8260B	8.4	1.1	8.4	9.9	ug/L
TPH as Gasoline	8260TPH	8.4	260	420	3400	ug/L

PW-1

1310114-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
cis-1,2-Dichloroethene	SW8260B	1	0.19	0.50	12	ug/L
Benzene	SW8260B	1	0.13	0.50	0.87	ug/L
Trichloroethylene	SW8260B	1	0.13	0.50	2.7	ug/L
Tetrachloroethylene	SW8260B	1	0.14	0.50	45	ug/L
TPH as Gasoline	8260TPH	1	31	50	150	ug/L



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1310114-001A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 13:39		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	10/22/13	42	7.5	21	ND		ug/L	417881	NA
Chloromethane	SW8260B	NA	10/22/13	42	6.7	21	ND		ug/L	417881	NA
Vinyl Chloride	SW8260B	NA	10/22/13	42	6.6	21	ND		ug/L	417881	NA
Bromomethane	SW8260B	NA	10/22/13	42	7.6	21	ND		ug/L	417881	NA
Trichlorofluoromethane	SW8260B	NA	10/22/13	42	7.7	21	ND		ug/L	417881	NA
1,1-Dichloroethene	SW8260B	NA	10/22/13	42	6.4	21	ND		ug/L	417881	NA
Freon 113	SW8260B	NA	10/22/13	42	8.1	21	ND		ug/L	417881	NA
Methylene Chloride	SW8260B	NA	10/22/13	42	9.7	210	ND		ug/L	417881	NA
trans-1,2-Dichloroethene	SW8260B	NA	10/22/13	42	8.1	21	ND		ug/L	417881	NA
MTBE	SW8260B	NA	10/22/13	42	7.2	21	ND		ug/L	417881	NA
tert-Butanol	SW8260B	NA	10/22/13	42	65	210	ND		ug/L	417881	NA
Diisopropyl ether (DIPE)	SW8260B	NA	10/22/13	42	5.4	21	ND		ug/L	417881	NA
1,1-Dichloroethane	SW8260B	NA	10/22/13	42	5.4	21	ND		ug/L	417881	NA
ETBE	SW8260B	NA	10/22/13	42	7.3	21	ND		ug/L	417881	NA
cis-1,2-Dichloroethene	SW8260B	NA	10/22/13	42	8.1	21	ND		ug/L	417881	NA
2,2-Dichloropropane	SW8260B	NA	10/22/13	42	6.5	21	ND		ug/L	417881	NA
Bromochloromethane	SW8260B	NA	10/22/13	42	8.6	21	ND		ug/L	417881	NA
Chloroform	SW8260B	NA	10/22/13	42	5.4	21	ND		ug/L	417881	NA
Carbon Tetrachloride	SW8260B	NA	10/22/13	42	6.4	21	ND		ug/L	417881	NA
1,1,1-Trichloroethane	SW8260B	NA	10/22/13	42	4.1	21	ND		ug/L	417881	NA
1,1-Dichloropropene	SW8260B	NA	10/22/13	42	6.4	21	ND		ug/L	417881	NA
Benzene	SW8260B	NA	10/22/13	42	5.4	21	2400		ug/L	417881	NA
TAME	SW8260B	NA	10/22/13	42	7.3	21	ND		ug/L	417881	NA
1,2-Dichloroethane	SW8260B	NA	10/22/13	42	6.1	21	ND		ug/L	417881	NA
Trichloroethylene	SW8260B	NA	10/22/13	42	5.4	21	ND		ug/L	417881	NA
Dibromomethane	SW8260B	NA	10/22/13	42	6.2	21	ND		ug/L	417881	NA
1,2-Dichloropropane	SW8260B	NA	10/22/13	42	7.3	21	ND		ug/L	417881	NA
Bromodichloromethane	SW8260B	NA	10/22/13	42	5.4	21	ND		ug/L	417881	NA
cis-1,3-Dichloropropene	SW8260B	NA	10/22/13	42	4.0	21	ND		ug/L	417881	NA
Toluene	SW8260B	NA	10/22/13	42	6.1	21	330		ug/L	417881	NA
Tetrachloroethylene	SW8260B	NA	10/22/13	42	6.1	21	ND		ug/L	417881	NA
trans-1,3-Dichloropropene	SW8260B	NA	10/22/13	42	9.5	21	ND		ug/L	417881	NA
1,1,2-Trichloroethane	SW8260B	NA	10/22/13	42	6.1	21	ND		ug/L	417881	NA
Dibromochloromethane	SW8260B	NA	10/22/13	42	4.0	21	ND		ug/L	417881	NA
1,3-Dichloropropane	SW8260B	NA	10/22/13	42	4.3	21	ND		ug/L	417881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1310114-001A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 13:39		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	10/22/13	42	8.1	21	ND		ug/L	417881	NA
Chlorobenzene	SW8260B	NA	10/22/13	42	6.1	21	ND		ug/L	417881	NA
Ethyl Benzene	SW8260B	NA	10/22/13	42	6.4	21	1500		ug/L	417881	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	10/22/13	42	4.0	21	ND		ug/L	417881	NA
m,p-Xylene	SW8260B	NA	10/22/13	42	5.6	42	2200		ug/L	417881	NA
o-Xylene	SW8260B	NA	10/22/13	42	6.4	21	580		ug/L	417881	NA
Styrene	SW8260B	NA	10/22/13	42	8.8	21	ND		ug/L	417881	NA
Bromoform	SW8260B	NA	10/22/13	42	8.8	42	ND		ug/L	417881	NA
Isopropyl Benzene	SW8260B	NA	10/22/13	42	4.1	21	49		ug/L	417881	NA
Bromobenzene	SW8260B	NA	10/22/13	42	6.4	21	ND		ug/L	417881	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	10/22/13	42	4.5	21	ND		ug/L	417881	NA
n-Propylbenzene	SW8260B	NA	10/22/13	42	3.3	21	150		ug/L	417881	NA
2-Chlorotoluene	SW8260B	NA	10/22/13	42	3.2	21	ND		ug/L	417881	NA
1,3,5-Trimethylbenzene	SW8260B	NA	10/22/13	42	3.1	21	130		ug/L	417881	NA
4-Chlorotoluene	SW8260B	NA	10/22/13	42	3.7	21	ND		ug/L	417881	NA
tert-Butylbenzene	SW8260B	NA	10/22/13	42	3.4	21	ND		ug/L	417881	NA
1,2,3-Trichloropropane	SW8260B	NA	10/22/13	42	5.9	21	ND		ug/L	417881	NA
1,2,4-Trimethylbenzene	SW8260B	NA	10/22/13	42	3.5	21	600		ug/L	417881	NA
sec-Butyl Benzene	SW8260B	NA	10/22/13	42	3.9	21	ND		ug/L	417881	NA
p-Isopropyltoluene	SW8260B	NA	10/22/13	42	3.9	21	ND		ug/L	417881	NA
1,3-Dichlorobenzene	SW8260B	NA	10/22/13	42	4.4	21	ND		ug/L	417881	NA
1,4-Dichlorobenzene	SW8260B	NA	10/22/13	42	2.9	21	ND		ug/L	417881	NA
n-Butylbenzene	SW8260B	NA	10/22/13	42	3.4	21	ND		ug/L	417881	NA
1,2-Dichlorobenzene	SW8260B	NA	10/22/13	42	2.4	21	ND		ug/L	417881	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	10/22/13	42	6.5	21	ND		ug/L	417881	NA
Hexachlorobutadiene	SW8260B	NA	10/22/13	42	8.2	21	ND		ug/L	417881	NA
1,2,4-Trichlorobenzene	SW8260B	NA	10/22/13	42	5.1	21	ND		ug/L	417881	NA
Naphthalene	SW8260B	NA	10/22/13	42	5.7	42	310		ug/L	417881	NA
1,2,3-Trichlorobenzene	SW8260B	NA	10/22/13	42	9.8	21	ND		ug/L	417881	NA
(S) Dibromofluoromethane	SW8260B	NA	10/22/13	42	61.2	131	97.3		%	417881	NA
(S) Toluene-d8	SW8260B	NA	10/22/13	42	75.1	127	97.0		%	417881	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	10/22/13	42	64.1	120	100		%	417881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1310114-001A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 13:39		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	NA	10/17/13	105	3300	5300	12000	x	ug/L	417826	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	10/17/13	105	41.5	125	84.0		%	417826	NA

**NOTE:** x - Does not match reference Gasoline standard. Reported value is the result of discrete peaks and contribution from heavy hydrocarbons in range of C5-C12 quantified as gasoline.





## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1310114-002A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 12:44		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	10/22/13	8.4	1.5	4.2	ND		ug/L	417881	NA
Chloromethane	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
Vinyl Chloride	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
Bromomethane	SW8260B	NA	10/22/13	8.4	1.5	4.2	ND		ug/L	417881	NA
Trichlorofluoromethane	SW8260B	NA	10/22/13	8.4	1.5	4.2	ND		ug/L	417881	NA
1,1-Dichloroethene	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
Freon 113	SW8260B	NA	10/22/13	8.4	1.6	4.2	ND		ug/L	417881	NA
Methylene Chloride	SW8260B	NA	10/22/13	8.4	1.9	42	ND		ug/L	417881	NA
trans-1,2-Dichloroethene	SW8260B	NA	10/22/13	8.4	1.6	4.2	ND		ug/L	417881	NA
MTBE	SW8260B	NA	10/22/13	8.4	1.4	4.2	ND		ug/L	417881	NA
tert-Butanol	SW8260B	NA	10/22/13	8.4	13	42	ND		ug/L	417881	NA
Diisopropyl ether (DIPE)	SW8260B	NA	10/22/13	8.4	1.1	4.2	ND		ug/L	417881	NA
1,1-Dichloroethane	SW8260B	NA	10/22/13	8.4	1.1	4.2	ND		ug/L	417881	NA
ETBE	SW8260B	NA	10/22/13	8.4	1.5	4.2	ND		ug/L	417881	NA
cis-1,2-Dichloroethene	SW8260B	NA	10/22/13	8.4	1.6	4.2	ND		ug/L	417881	NA
2,2-Dichloropropane	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
Bromochloromethane	SW8260B	NA	10/22/13	8.4	1.7	4.2	ND		ug/L	417881	NA
Chloroform	SW8260B	NA	10/22/13	8.4	1.1	4.2	ND		ug/L	417881	NA
Carbon Tetrachloride	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
1,1,1-Trichloroethane	SW8260B	NA	10/22/13	8.4	0.81	4.2	ND		ug/L	417881	NA
1,1-Dichloropropene	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
Benzene	SW8260B	NA	10/22/13	8.4	1.1	4.2	780		ug/L	417881	NA
TAME	SW8260B	NA	10/22/13	8.4	1.5	4.2	ND		ug/L	417881	NA
1,2-Dichloroethane	SW8260B	NA	10/22/13	8.4	1.2	4.2	ND		ug/L	417881	NA
Trichloroethylene	SW8260B	NA	10/22/13	8.4	1.1	4.2	ND		ug/L	417881	NA
Dibromomethane	SW8260B	NA	10/22/13	8.4	1.2	4.2	ND		ug/L	417881	NA
1,2-Dichloropropane	SW8260B	NA	10/22/13	8.4	1.5	4.2	ND		ug/L	417881	NA
Bromodichloromethane	SW8260B	NA	10/22/13	8.4	1.1	4.2	ND		ug/L	417881	NA
cis-1,3-Dichloropropene	SW8260B	NA	10/22/13	8.4	0.81	4.2	ND		ug/L	417881	NA
Toluene	SW8260B	NA	10/22/13	8.4	1.2	4.2	33		ug/L	417881	NA
Tetrachloroethylene	SW8260B	NA	10/22/13	8.4	1.2	4.2	ND		ug/L	417881	NA
trans-1,3-Dichloropropene	SW8260B	NA	10/22/13	8.4	1.9	4.2	ND		ug/L	417881	NA
1,1,2-Trichloroethane	SW8260B	NA	10/22/13	8.4	1.2	4.2	ND		ug/L	417881	NA
Dibromochloromethane	SW8260B	NA	10/22/13	8.4	0.81	4.2	ND		ug/L	417881	NA
1,3-Dichloropropane	SW8260B	NA	10/22/13	8.4	0.86	4.2	ND		ug/L	417881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1310114-002A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 12:44		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	10/22/13	8.4	1.6	4.2	ND		ug/L	417881	NA
Chlorobenzene	SW8260B	NA	10/22/13	8.4	1.2	4.2	ND		ug/L	417881	NA
Ethyl Benzene	SW8260B	NA	10/22/13	8.4	1.3	4.2	200		ug/L	417881	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	10/22/13	8.4	0.81	4.2	ND		ug/L	417881	NA
m,p-Xylene	SW8260B	NA	10/22/13	8.4	1.1	8.4	32		ug/L	417881	NA
o-Xylene	SW8260B	NA	10/22/13	8.4	1.3	4.2	7.8		ug/L	417881	NA
Styrene	SW8260B	NA	10/22/13	8.4	1.8	4.2	ND		ug/L	417881	NA
Bromoform	SW8260B	NA	10/22/13	8.4	1.8	8.4	ND		ug/L	417881	NA
Isopropyl Benzene	SW8260B	NA	10/22/13	8.4	0.81	4.2	53		ug/L	417881	NA
Bromobenzene	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	10/22/13	8.4	0.90	4.2	ND		ug/L	417881	NA
n-Propylbenzene	SW8260B	NA	10/22/13	8.4	0.65	4.2	180		ug/L	417881	NA
2-Chlorotoluene	SW8260B	NA	10/22/13	8.4	0.64	4.2	ND		ug/L	417881	NA
1,3,5-Trimethylbenzene	SW8260B	NA	10/22/13	8.4	0.62	4.2	ND		ug/L	417881	NA
4-Chlorotoluene	SW8260B	NA	10/22/13	8.4	0.74	4.2	ND		ug/L	417881	NA
tert-Butylbenzene	SW8260B	NA	10/22/13	8.4	0.68	4.2	ND		ug/L	417881	NA
1,2,3-Trichloropropane	SW8260B	NA	10/22/13	8.4	1.2	4.2	ND		ug/L	417881	NA
1,2,4-Trimethylbenzene	SW8260B	NA	10/22/13	8.4	0.70	4.2	ND		ug/L	417881	NA
sec-Butyl Benzene	SW8260B	NA	10/22/13	8.4	0.77	4.2	ND		ug/L	417881	NA
p-Isopropyltoluene	SW8260B	NA	10/22/13	8.4	0.78	4.2	ND		ug/L	417881	NA
1,3-Dichlorobenzene	SW8260B	NA	10/22/13	8.4	0.87	4.2	ND		ug/L	417881	NA
1,4-Dichlorobenzene	SW8260B	NA	10/22/13	8.4	0.58	4.2	ND		ug/L	417881	NA
n-Butylbenzene	SW8260B	NA	10/22/13	8.4	0.68	4.2	20		ug/L	417881	NA
1,2-Dichlorobenzene	SW8260B	NA	10/22/13	8.4	0.48	4.2	ND		ug/L	417881	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	10/22/13	8.4	1.3	4.2	ND		ug/L	417881	NA
Hexachlorobutadiene	SW8260B	NA	10/22/13	8.4	1.6	4.2	ND		ug/L	417881	NA
1,2,4-Trichlorobenzene	SW8260B	NA	10/22/13	8.4	1.0	4.2	ND		ug/L	417881	NA
Naphthalene	SW8260B	NA	10/22/13	8.4	1.1	8.4	62		ug/L	417881	NA
1,2,3-Trichlorobenzene	SW8260B	NA	10/22/13	8.4	2.0	4.2	ND		ug/L	417881	NA
(S) Dibromofluoromethane	SW8260B	NA	10/22/13	8.4	61.2	131	98.7		%	417881	NA
(S) Toluene-d8	SW8260B	NA	10/22/13	8.4	75.1	127	95.8		%	417881	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	10/22/13	8.4	64.1	120	100		%	417881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1310114-002A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 12:44		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	NA	10/17/13	42	1300	2100	4400	x	ug/L	417826	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	10/17/13	42	41.5	125	87.6		%	417826	NA

**NOTE:** x - Hydrocarbons within range of C5-C12 quantified as Gasoline but pattern not typical of reference Gasoline standard.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1310114-003A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 11:40		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	10/17/13	8.4	1.5	4.2	ND		ug/L	417826	NA
Chloromethane	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
Vinyl Chloride	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
Bromomethane	SW8260B	NA	10/17/13	8.4	1.5	4.2	ND		ug/L	417826	NA
Trichlorofluoromethane	SW8260B	NA	10/17/13	8.4	1.5	4.2	ND		ug/L	417826	NA
1,1-Dichloroethene	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
Freon 113	SW8260B	NA	10/17/13	8.4	1.6	4.2	ND		ug/L	417826	NA
Methylene Chloride	SW8260B	NA	10/17/13	8.4	1.9	42	ND		ug/L	417826	NA
trans-1,2-Dichloroethene	SW8260B	NA	10/17/13	8.4	1.6	4.2	ND		ug/L	417826	NA
MTBE	SW8260B	NA	10/17/13	8.4	1.4	4.2	ND		ug/L	417826	NA
tert-Butanol	SW8260B	NA	10/17/13	8.4	13	42	ND		ug/L	417826	NA
Diisopropyl ether (DIPE)	SW8260B	NA	10/17/13	8.4	1.1	4.2	ND		ug/L	417826	NA
1,1-Dichloroethane	SW8260B	NA	10/17/13	8.4	1.1	4.2	ND		ug/L	417826	NA
ETBE	SW8260B	NA	10/17/13	8.4	1.5	4.2	ND		ug/L	417826	NA
cis-1,2-Dichloroethene	SW8260B	NA	10/17/13	8.4	1.6	4.2	ND		ug/L	417826	NA
2,2-Dichloropropane	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
Bromochloromethane	SW8260B	NA	10/17/13	8.4	1.7	4.2	ND		ug/L	417826	NA
Chloroform	SW8260B	NA	10/17/13	8.4	1.1	4.2	ND		ug/L	417826	NA
Carbon Tetrachloride	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
1,1,1-Trichloroethane	SW8260B	NA	10/17/13	8.4	0.81	4.2	ND		ug/L	417826	NA
1,1-Dichloropropene	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
Benzene	SW8260B	NA	10/17/13	8.4	1.1	4.2	990		ug/L	417826	NA
TAME	SW8260B	NA	10/17/13	8.4	1.5	4.2	ND		ug/L	417826	NA
1,2-Dichloroethane	SW8260B	NA	10/17/13	8.4	1.2	4.2	ND		ug/L	417826	NA
Trichloroethylene	SW8260B	NA	10/17/13	8.4	1.1	4.2	ND		ug/L	417826	NA
Dibromomethane	SW8260B	NA	10/17/13	8.4	1.2	4.2	ND		ug/L	417826	NA
1,2-Dichloropropane	SW8260B	NA	10/17/13	8.4	1.5	4.2	ND		ug/L	417826	NA
Bromodichloromethane	SW8260B	NA	10/17/13	8.4	1.1	4.2	ND		ug/L	417826	NA
cis-1,3-Dichloropropene	SW8260B	NA	10/17/13	8.4	0.81	4.2	ND		ug/L	417826	NA
Toluene	SW8260B	NA	10/17/13	8.4	1.2	4.2	58		ug/L	417826	NA
Tetrachloroethylene	SW8260B	NA	10/17/13	8.4	1.2	4.2	ND		ug/L	417826	NA
trans-1,3-Dichloropropene	SW8260B	NA	10/17/13	8.4	1.9	4.2	ND		ug/L	417826	NA
1,1,2-Trichloroethane	SW8260B	NA	10/17/13	8.4	1.2	4.2	ND		ug/L	417826	NA
Dibromochloromethane	SW8260B	NA	10/17/13	8.4	0.81	4.2	ND		ug/L	417826	NA
1,3-Dichloropropane	SW8260B	NA	10/17/13	8.4	0.86	4.2	ND		ug/L	417826	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1310114-003A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 11:40		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	10/17/13	8.4	1.6	4.2	ND		ug/L	417826	NA
Chlorobenzene	SW8260B	NA	10/17/13	8.4	1.2	4.2	ND		ug/L	417826	NA
Ethyl Benzene	SW8260B	NA	10/17/13	8.4	1.3	4.2	75		ug/L	417826	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	10/17/13	8.4	0.81	4.2	ND		ug/L	417826	NA
m,p-Xylene	SW8260B	NA	10/17/13	8.4	1.1	8.4	66		ug/L	417826	NA
o-Xylene	SW8260B	NA	10/17/13	8.4	1.3	4.2	5.0		ug/L	417826	NA
Styrene	SW8260B	NA	10/17/13	8.4	1.8	4.2	ND		ug/L	417826	NA
Bromoform	SW8260B	NA	10/17/13	8.4	1.8	8.4	ND		ug/L	417826	NA
Isopropyl Benzene	SW8260B	NA	10/17/13	8.4	0.81	4.2	21		ug/L	417826	NA
Bromobenzene	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	10/17/13	8.4	0.90	4.2	ND		ug/L	417826	NA
n-Propylbenzene	SW8260B	NA	10/17/13	8.4	0.65	4.2	57		ug/L	417826	NA
2-Chlorotoluene	SW8260B	NA	10/17/13	8.4	0.64	4.2	ND		ug/L	417826	NA
1,3,5-Trimethylbenzene	SW8260B	NA	10/17/13	8.4	0.62	4.2	ND		ug/L	417826	NA
4-Chlorotoluene	SW8260B	NA	10/17/13	8.4	0.74	4.2	ND		ug/L	417826	NA
tert-Butylbenzene	SW8260B	NA	10/17/13	8.4	0.68	4.2	ND		ug/L	417826	NA
1,2,3-Trichloropropane	SW8260B	NA	10/17/13	8.4	1.2	4.2	ND		ug/L	417826	NA
1,2,4-Trimethylbenzene	SW8260B	NA	10/17/13	8.4	0.70	4.2	ND		ug/L	417826	NA
sec-Butyl Benzene	SW8260B	NA	10/17/13	8.4	0.77	4.2	ND		ug/L	417826	NA
p-Isopropyltoluene	SW8260B	NA	10/17/13	8.4	0.78	4.2	ND		ug/L	417826	NA
1,3-Dichlorobenzene	SW8260B	NA	10/17/13	8.4	0.87	4.2	ND		ug/L	417826	NA
1,4-Dichlorobenzene	SW8260B	NA	10/17/13	8.4	0.58	4.2	ND		ug/L	417826	NA
n-Butylbenzene	SW8260B	NA	10/17/13	8.4	0.68	4.2	6.8		ug/L	417826	NA
1,2-Dichlorobenzene	SW8260B	NA	10/17/13	8.4	0.48	4.2	ND		ug/L	417826	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	10/17/13	8.4	1.3	4.2	ND		ug/L	417826	NA
Hexachlorobutadiene	SW8260B	NA	10/17/13	8.4	1.6	4.2	ND		ug/L	417826	NA
1,2,4-Trichlorobenzene	SW8260B	NA	10/17/13	8.4	1.0	4.2	ND		ug/L	417826	NA
Naphthalene	SW8260B	NA	10/17/13	8.4	1.1	8.4	9.9		ug/L	417826	NA
1,2,3-Trichlorobenzene	SW8260B	NA	10/17/13	8.4	2.0	4.2	ND		ug/L	417826	NA
(S) Dibromofluoromethane	SW8260B	NA	10/17/13	8.4	61.2	131	129		%	417826	NA
(S) Toluene-d8	SW8260B	NA	10/17/13	8.4	75.1	127	91.7		%	417826	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	10/17/13	8.4	64.1	120	99.5		%	417826	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1310114-003A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 11:40		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	NA	10/17/13	8.4	260	420	3400	x	ug/L	417826	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	10/17/13	8.4	41.5	125	92.6		%	417826	NA

**NOTE:** x - Reported TPH value includes amount due to discrete peak (Benzene).



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	PW-1	<b>Lab Sample ID:</b>	1310114-004A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 10:49		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	10/17/13	1	0.18	0.50	ND		ug/L	417826	NA
Chloromethane	SW8260B	NA	10/17/13	1	0.16	0.50	ND		ug/L	417826	NA
Vinyl Chloride	SW8260B	NA	10/17/13	1	0.16	0.50	ND		ug/L	417826	NA
Bromomethane	SW8260B	NA	10/17/13	1	0.18	0.50	ND		ug/L	417826	NA
Trichlorofluoromethane	SW8260B	NA	10/17/13	1	0.18	0.50	ND		ug/L	417826	NA
1,1-Dichloroethene	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
Freon 113	SW8260B	NA	10/17/13	1	0.19	0.50	ND		ug/L	417826	NA
Methylene Chloride	SW8260B	NA	10/17/13	1	0.23	5.0	ND		ug/L	417826	NA
trans-1,2-Dichloroethene	SW8260B	NA	10/17/13	1	0.19	0.50	ND		ug/L	417826	NA
MTBE	SW8260B	NA	10/17/13	1	0.17	0.50	ND		ug/L	417826	NA
tert-Butanol	SW8260B	NA	10/17/13	1	1.5	5.0	ND		ug/L	417826	NA
Diisopropyl ether (DIPE)	SW8260B	NA	10/17/13	1	0.13	0.50	ND		ug/L	417826	NA
1,1-Dichloroethane	SW8260B	NA	10/17/13	1	0.13	0.50	ND		ug/L	417826	NA
ETBE	SW8260B	NA	10/17/13	1	0.17	0.50	ND		ug/L	417826	NA
cis-1,2-Dichloroethene	SW8260B	NA	10/17/13	1	0.19	0.50	12		ug/L	417826	NA
2,2-Dichloropropane	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
Bromochloromethane	SW8260B	NA	10/17/13	1	0.20	0.50	ND		ug/L	417826	NA
Chloroform	SW8260B	NA	10/17/13	1	0.13	0.50	ND		ug/L	417826	NA
Carbon Tetrachloride	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
1,1,1-Trichloroethane	SW8260B	NA	10/17/13	1	0.097	0.50	ND		ug/L	417826	NA
1,1-Dichloropropene	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
Benzene	SW8260B	NA	10/17/13	1	0.13	0.50	0.87		ug/L	417826	NA
TAME	SW8260B	NA	10/17/13	1	0.17	0.50	ND		ug/L	417826	NA
1,2-Dichloroethane	SW8260B	NA	10/17/13	1	0.14	0.50	ND		ug/L	417826	NA
Trichloroethylene	SW8260B	NA	10/17/13	1	0.13	0.50	2.7		ug/L	417826	NA
Dibromomethane	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
1,2-Dichloropropane	SW8260B	NA	10/17/13	1	0.17	0.50	ND		ug/L	417826	NA
Bromodichloromethane	SW8260B	NA	10/17/13	1	0.13	0.50	ND		ug/L	417826	NA
cis-1,3-Dichloropropene	SW8260B	NA	10/17/13	1	0.096	0.50	ND		ug/L	417826	NA
Toluene	SW8260B	NA	10/17/13	1	0.14	0.50	ND		ug/L	417826	NA
Tetrachloroethylene	SW8260B	NA	10/17/13	1	0.14	0.50	45		ug/L	417826	NA
trans-1,3-Dichloropropene	SW8260B	NA	10/17/13	1	0.23	0.50	ND		ug/L	417826	NA
1,1,2-Trichloroethane	SW8260B	NA	10/17/13	1	0.14	0.50	ND		ug/L	417826	NA
Dibromochloromethane	SW8260B	NA	10/17/13	1	0.096	0.50	ND		ug/L	417826	NA
1,3-Dichloropropane	SW8260B	NA	10/17/13	1	0.10	0.50	ND		ug/L	417826	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	PW-1	<b>Lab Sample ID:</b>	1310114-004A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 10:49		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	10/17/13	1	0.19	0.50	ND		ug/L	417826	NA
Chlorobenzene	SW8260B	NA	10/17/13	1	0.14	0.50	ND		ug/L	417826	NA
Ethyl Benzene	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	10/17/13	1	0.096	0.50	ND		ug/L	417826	NA
m,p-Xylene	SW8260B	NA	10/17/13	1	0.13	1.0	ND		ug/L	417826	NA
o-Xylene	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
Styrene	SW8260B	NA	10/17/13	1	0.21	0.50	ND		ug/L	417826	NA
Bromoform	SW8260B	NA	10/17/13	1	0.21	1.0	ND		ug/L	417826	NA
Isopropyl Benzene	SW8260B	NA	10/17/13	1	0.097	0.50	ND		ug/L	417826	NA
Bromobenzene	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	10/17/13	1	0.11	0.50	ND		ug/L	417826	NA
n-Propylbenzene	SW8260B	NA	10/17/13	1	0.078	0.50	ND		ug/L	417826	NA
2-Chlorotoluene	SW8260B	NA	10/17/13	1	0.076	0.50	ND		ug/L	417826	NA
1,3,5-Trimethylbenzene	SW8260B	NA	10/17/13	1	0.074	0.50	ND		ug/L	417826	NA
4-Chlorotoluene	SW8260B	NA	10/17/13	1	0.088	0.50	ND		ug/L	417826	NA
tert-Butylbenzene	SW8260B	NA	10/17/13	1	0.081	0.50	ND		ug/L	417826	NA
1,2,3-Trichloropropane	SW8260B	NA	10/17/13	1	0.14	0.50	ND		ug/L	417826	NA
1,2,4-Trimethylbenzene	SW8260B	NA	10/17/13	1	0.083	0.50	ND		ug/L	417826	NA
sec-Butyl Benzene	SW8260B	NA	10/17/13	1	0.092	0.50	ND		ug/L	417826	NA
p-Isopropyltoluene	SW8260B	NA	10/17/13	1	0.093	0.50	ND		ug/L	417826	NA
1,3-Dichlorobenzene	SW8260B	NA	10/17/13	1	0.10	0.50	ND		ug/L	417826	NA
1,4-Dichlorobenzene	SW8260B	NA	10/17/13	1	0.069	0.50	ND		ug/L	417826	NA
n-Butylbenzene	SW8260B	NA	10/17/13	1	0.081	0.50	ND		ug/L	417826	NA
1,2-Dichlorobenzene	SW8260B	NA	10/17/13	1	0.057	0.50	ND		ug/L	417826	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	10/17/13	1	0.15	0.50	ND		ug/L	417826	NA
Hexachlorobutadiene	SW8260B	NA	10/17/13	1	0.19	0.50	ND		ug/L	417826	NA
1,2,4-Trichlorobenzene	SW8260B	NA	10/17/13	1	0.12	0.50	ND		ug/L	417826	NA
Naphthalene	SW8260B	NA	10/17/13	1	0.14	1.0	ND		ug/L	417826	NA
1,2,3-Trichlorobenzene	SW8260B	NA	10/17/13	1	0.23	0.50	ND		ug/L	417826	NA
(S) Dibromofluoromethane	SW8260B	NA	10/17/13	1	61.2	131	103		%	417826	NA
(S) Toluene-d8	SW8260B	NA	10/17/13	1	75.1	127	97.7		%	417826	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	10/17/13	1	64.1	120	103		%	417826	NA





## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/17/13  
**Date Reported:** 10/24/13

<b>Client Sample ID:</b>	PW-1	<b>Lab Sample ID:</b>	1310114-004A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	10/16/13 / 10:49		
<b>Tag Number:</b>	5930 College Avenue, Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	NA	10/17/13	1	31	50	150	x	ug/L	417826	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	10/17/13	1	41.5	125	111		%	417826	NA

**NOTE:** x - Does not match pattern of reference Gasoline standard. Hydrocarbons in the range of C5-C12 quantified as Gasoline.



## MB Summary Report

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/17/13	<b>Analytical Batch:</b>	417826
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.18	0.50	ND		
Chloromethane	0.16	0.50	ND		
Vinyl Chloride	0.16	0.50	ND		
Bromomethane	0.18	0.50	ND		
Trichlorofluoromethane	0.18	0.50	ND		
1,1-Dichloroethene	0.15	0.50	ND		
Freon 113	0.19	0.50	ND		
Methylene Chloride	0.23	5.0	ND		
trans-1,2-Dichloroethene	0.19	0.50	ND		
MTBE	0.17	0.50	ND		
tert-Butanol	1.5	5.0	ND		
Diisopropyl ether (DIPE)	0.13	0.50	ND		
1,1-Dichloroethane	0.13	0.50	ND		
ETBE	0.17	0.50	ND		
cis-1,2-Dichloroethene	0.19	0.50	ND		
2,2-Dichloropropane	0.15	0.50	ND		
Bromochloromethane	0.20	0.50	ND		
Chloroform	0.13	0.50	ND		
Carbon Tetrachloride	0.15	0.50	ND		
1,1,1-Trichloroethane	0.097	0.50	ND		
1,1-Dichloropropene	0.15	0.50	ND		
Benzene	0.13	0.50	ND		
TAME	0.17	0.50	ND		
1,2-Dichloroethane	0.14	0.50	ND		
Trichloroethylene	0.13	0.50	ND		
Dibromomethane	0.15	0.50	ND		
1,2-Dichloropropane	0.17	0.50	ND		
Bromodichloromethane	0.13	0.50	ND		
cis-1,3-Dichloropropene	0.096	0.50	ND		
Toluene	0.14	0.50	ND		
Tetrachloroethylene	0.14	0.50	ND		
trans-1,3-Dichloropropene	0.23	0.50	ND		
1,1,2-Trichloroethane	0.14	0.50	ND		
Dibromochloromethane	0.096	0.50	ND		
1,3-Dichloropropane	0.10	0.50	ND		
1,2-Dibromoethane	0.19	0.50	ND		
Chlorobenzene	0.14	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
1,1,1,2-Tetrachloroethane	0.096	0.50	ND		
m,p-Xylene	0.13	1.0	ND		



## MB Summary Report

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/17/13	<b>Analytical Batch:</b>	417826
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
o-Xylene	0.15	0.50	ND		
Styrene	0.21	0.50	ND		
Bromoform	0.21	1.0	ND		
Isopropyl Benzene	0.097	0.50	ND		
Bromobenzene	0.15	0.50	ND		
1,1,2,2-Tetrachloroethane	0.11	0.50	ND		
n-Propylbenzene	0.078	0.50	ND		
2-Chlorotoluene	0.076	0.50	ND		
1,3,5-Trimethylbenzene	0.074	0.50	ND		
4-Chlorotoluene	0.088	0.50	ND		
tert-Butylbenzene	0.081	0.50	ND		
1,2,3-Trichloropropane	0.14	0.50	ND		
1,2,4-Trimethylbenzene	0.083	0.50	ND		
sec-Butyl Benzene	0.092	0.50	ND		
p-Isopropyltoluene	0.093	0.50	ND		
1,3-Dichlorobenzene	0.10	0.50	ND		
1,4-Dichlorobenzene	0.069	0.50	ND		
n-Butylbenzene	0.081	0.50	ND		
1,2-Dichlorobenzene	0.057	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.15	0.50	ND		
Hexachlorobutadiene	0.19	0.50	ND		
1,2,4-Trichlorobenzene	0.12	0.50	ND		
Naphthalene	0.14	1.0	ND		
1,2,3-Trichlorobenzene	0.23	0.50	ND		
(S) Dibromofluoromethane			116		
(S) Toluene-d8			101		
(S) 4-Bromofluorobenzene			107		
Ethanol	0.21	0.50	ND	TIC	



## MB Summary Report

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417881
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.18	0.50	ND		
Chloromethane	0.16	0.50	ND		
Vinyl Chloride	0.16	0.50	ND		
Bromomethane	0.18	0.50	ND		
Trichlorofluoromethane	0.18	0.50	ND		
1,1-Dichloroethene	0.15	0.50	ND		
Freon 113	0.19	0.50	ND		
Methylene Chloride	0.23	5.0	ND		
trans-1,2-Dichloroethene	0.19	0.50	ND		
MTBE	0.17	0.50	ND		
tert-Butanol	1.5	5.0	ND		
Diisopropyl ether (DIPE)	0.13	0.50	ND		
1,1-Dichloroethane	0.13	0.50	ND		
ETBE	0.17	0.50	ND		
cis-1,2-Dichloroethene	0.19	0.50	ND		
2,2-Dichloropropane	0.15	0.50	ND		
Bromochloromethane	0.20	0.50	ND		
Chloroform	0.13	0.50	ND		
Carbon Tetrachloride	0.15	0.50	ND		
1,1,1-Trichloroethane	0.097	0.50	ND		
1,1-Dichloropropene	0.15	0.50	ND		
Benzene	0.13	0.50	ND		
TAME	0.17	0.50	ND		
1,2-Dichloroethane	0.14	0.50	ND		
Trichloroethylene	0.13	0.50	ND		
Dibromomethane	0.15	0.50	ND		
1,2-Dichloropropane	0.17	0.50	ND		
Bromodichloromethane	0.13	0.50	ND		
cis-1,3-Dichloropropene	0.096	0.50	ND		
Toluene	0.14	0.50	ND		
Tetrachloroethylene	0.14	0.50	ND		
trans-1,3-Dichloropropene	0.23	0.50	ND		
1,1,2-Trichloroethane	0.14	0.50	ND		
Dibromochloromethane	0.096	0.50	ND		
1,3-Dichloropropane	0.10	0.50	ND		
1,2-Dibromoethane	0.19	0.50	ND		
Chlorobenzene	0.14	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
1,1,1,2-Tetrachloroethane	0.096	0.50	ND		
m,p-Xylene	0.13	1.0	ND		
o-Xylene	0.15	0.50	ND		



## MB Summary Report

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417881
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.21	0.50	ND		
Bromoform	0.21	1.0	ND		
Isopropyl Benzene	0.097	0.50	ND		
Bromobenzene	0.15	0.50	ND		
1,1,2,2-Tetrachloroethane	0.11	0.50	ND		
n-Propylbenzene	0.078	0.50	ND		
2-Chlorotoluene	0.076	0.50	ND		
1,3,5,-Trimethylbenzene	0.074	0.50	ND		
4-Chlorotoluene	0.088	0.50	ND		
tert-Butylbenzene	0.081	0.50	ND		
1,2,3-Trichloropropane	0.14	0.50	ND		
1,2,4-Trimethylbenzene	0.083	0.50	ND		
sec-Butyl Benzene	0.092	0.50	ND		
p-Isopropyltoluene	0.093	0.50	ND		
1,3-Dichlorobenzene	0.10	0.50	ND		
1,4-Dichlorobenzene	0.069	0.50	ND		
n-Butylbenzene	0.081	0.50	ND		
1,2-Dichlorobenzene	0.057	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.15	0.50	ND		
Hexachlorobutadiene	0.19	0.50	ND		
1,2,4-Trichlorobenzene	0.12	0.50	ND		
Naphthalene	0.14	1.0	ND		
1,2,3-Trichlorobenzene	0.23	0.50	ND		
(S) Dibromofluoromethane			104		
(S) Toluene-d8			96.8		
(S) 4-Bromofluorobenzene			104		
Ethanol	0.21	0.50	ND	TIC	

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	5030	<b>Prep Date:</b>	10/17/13	<b>Prep Batch:</b>	9933
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	10/17/13	<b>Analytical Batch:</b>	417826
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline	31	50	ND		
(S) 4-Bromofluorobenzene			67.2		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/17/13	<b>Analytical Batch:</b>	417826
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.14	0.50	ND	17.86	96.8	109	11.8	61.4 - 129	30	
Benzene	0.087	0.50	ND	17.86	89.1	103	14.7	66.9 - 140	30	
Trichloroethylene	0.057	0.50	ND	17.86	86.8	93.1	6.99	69.3 - 144	30	
Toluene	0.059	0.50	ND	17.86	94.8	98.4	3.92	76.6 - 123	30	
Chlorobenzene	0.068	0.50	ND	17.86	88.5	94.1	6.20	73.9 - 137	30	
(S) Dibromofluoromethane			ND	11.9	88.9	102		61.2 - 131		
(S) Toluene-d8			ND	11.9	102	99.1		75.1 - 127		
(S) 4-Bromofluorobenzene			ND	11.9	95.9	101		64.1 - 120		

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417881
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.14	0.50	ND	17.86	93.8	83.1	12.3	61.4 - 129	30	
Benzene	0.087	0.50	ND	17.86	90.2	84.3	6.74	66.9 - 140	30	
Trichloroethylene	0.057	0.50	ND	17.86	84.8	79.8	6.47	69.3 - 144	30	
Toluene	0.059	0.50	ND	17.86	91.2	83.5	8.90	76.6 - 123	30	
Chlorobenzene	0.068	0.50	ND	17.86	85.2	83.4	1.97	73.9 - 137	30	
(S) Dibromofluoromethane			ND	11.9	91.8	94.7		61.2 - 131		
(S) Toluene-d8			ND	11.9	97.7	94.8		75.1 - 127		
(S) 4-Bromofluorobenzene			ND	11.9	98.4	94.1		64.1 - 120		

<b>Work Order:</b>	1310114	<b>Prep Method:</b>	5030	<b>Prep Date:</b>	10/17/13	<b>Prep Batch:</b>	9933
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	10/17/13	<b>Analytical Batch:</b>	417826
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	31	50	ND	238.1	81.5	90.7	10.8	52.4 - 127	30	
(S) 4-Bromofluorobenzene			67.2	11.9	95.9	94.3		41.5 - 125		



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
---



## Sample Receipt Checklist

Client Name: Golden Gate Environmental, Inc

Date and Time Received: 10/17/2013 12:30

Project Name: 5930 College Avenue, Oakland

Received By: pr

Work Order No.: 1310114

Physically Logged By: pr

Checklist Completed By: pr

Carrier Name: First Courier

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? No Temperature: 3 °C  
Water-VOA vials have zero headspace? No VOA vials submitted  
Water-pH acceptable upon receipt? N/A  
pH Checked by: na pH Adjusted by: na





## Login Summary Report

**Client ID:** TL5127      Golden Gate Environmental, Inc  
**Project Name:** 5930 College Avenue, Oakland  
**Project # :**  
**Report Due Date:** 10/24/2013

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 10/17/2013  
**Time Received:** 12:30

**Comments:**

**Work Order # :** 1310114

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1310114-001A	MW-1	10/16/13 13:39	Water	12/01/13			EDF Courier Service W_GCMS-GRO W_8260Full	
<b>Sample Note:</b>	TPHg, VOCs. EDF.							
1310114-002A	MW-2	10/16/13 12:44	Water	12/01/13			W_GCMS-GRO W_8260Full	
1310114-003A	MW-3	10/16/13 11:40	Water	12/01/13			W_8260Full W_GCMS-GRO	
1310114-004A	PW-1	10/16/13 10:49	Water	12/01/13			W_8260Full W_GCMS-GRO	





Golden Gate Environmental, Inc  
1455 Yosemite Avenue  
San Francisco, California 94124  
Tel: (415) 686-8846 cell  
RE: 5930 College Ave., Oakland

Work Order No.: 1308066

Dear Brent Wheeler:

Torrent Laboratory, Inc. received 7 sample(s) on August 12, 2013 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

\_\_\_\_\_  
Patti Sandrock  
QA Officer

August 16, 2013

\_\_\_\_\_  
Date



**Date:** 8/16/2013

---

**Client:** Golden Gate Environmental, Inc

**Project:** 5930 College Ave., Oakland

**Work Order:** 1308066

### **CASE NARRATIVE**

---

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



### Sample Result Summary

Report prepared for: Brent Wheeler  
Golden Gate Environmental, Inc

Date Received: 08/12/13

Date Reported: 08/16/13

B25-4

1308066-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

B26-2

1308066-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Tetrachloroethylene	SW8260B	1	1.8	10	16	ug/Kg

B26-4

1308066-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

B27-4

1308066-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

SG-1-4

1308066-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

SG-2-5

1308066-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

SG-3-5

1308066-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B25-4	<b>Lab Sample ID:</b>	1308066-001A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 8:25		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	08/13/13	1	4.4	10	ND		ug/Kg	416881	NA
Chloromethane	SW8260B	NA	08/13/13	1	4.6	10	ND		ug/Kg	416881	NA
Vinyl Chloride	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
Bromomethane	SW8260B	NA	08/13/13	1	4.7	10	ND		ug/Kg	416881	NA
Trichlorofluoromethane	SW8260B	NA	08/13/13	1	2.9	10	ND		ug/Kg	416881	NA
1,1-Dichloroethene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
Freon 113	SW8260B	NA	08/13/13	1	3.7	10	ND		ug/Kg	416881	NA
Methylene Chloride	SW8260B	NA	08/13/13	1	2.0	50	ND		ug/Kg	416881	NA
trans-1,2-Dichloroethene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
MTBE	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
tert-Butanol	SW8260B	NA	08/13/13	1	21	50	ND		ug/Kg	416881	NA
Diisopropyl ether (DIPE)	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,1-Dichloroethane	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
ETBE	SW8260B	NA	08/13/13	1	2.4	10	ND		ug/Kg	416881	NA
cis-1,2-Dichloroethene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
2,2-Dichloropropane	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
Bromochloromethane	SW8260B	NA	08/13/13	1	2.3	10	ND		ug/Kg	416881	NA
Chloroform	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
Carbon Tetrachloride	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
1,1,1-Trichloroethane	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1-Dichloropropene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Benzene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
TAME	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA
1,2-Dichloroethane	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
Trichloroethylene	SW8260B	NA	08/13/13	1	3.9	10	ND		ug/Kg	416881	NA
Dibromomethane	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,2-Dichloropropane	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
Bromodichloromethane	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
cis-1,3-Dichloropropene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Toluene	SW8260B	NA	08/13/13	1	0.98	10	ND		ug/Kg	416881	NA
Tetrachloroethylene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
trans-1,3-Dichloropropene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1,2-Trichloroethane	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
Dibromochloromethane	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
1,3-Dichloropropane	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B25-4	<b>Lab Sample ID:</b>	1308066-001A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 8:25		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	08/13/13	1	1.7	10	ND		ug/Kg	416881	NA
Ethyl Benzene	SW8260B	NA	08/13/13	1	0.86	10	ND		ug/Kg	416881	NA
Chlorobenzene	SW8260B	NA	08/13/13	1	4.2	10	ND		ug/Kg	416881	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	08/13/13	1	0.86	10	ND		ug/Kg	416881	NA
m,p-Xylene	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
o-Xylene	SW8260B	NA	08/13/13	1	0.66	5.0	ND		ug/Kg	416881	NA
Styrene	SW8260B	NA	08/13/13	1	0.77	10	ND		ug/Kg	416881	NA
Bromoform	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
Isopropyl Benzene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
n-Propylbenzene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Bromobenzene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	08/13/13	1	3.0	10	ND		ug/Kg	416881	NA
1,3,5-Trimethylbenzene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
1,2,3-Trichloropropane	SW8260B	NA	08/13/13	1	3.3	10	ND		ug/Kg	416881	NA
4-Chlorotoluene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
2-Chlorotoluene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
tert-Butylbenzene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
1,2,4-Trimethylbenzene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
sec-Butyl Benzene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
p-Isopropyltoluene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
1,3-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
1,4-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
n-Butylbenzene	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,2-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	08/13/13	1	4.2	10	ND		ug/Kg	416881	NA
Hexachlorobutadiene	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
1,2,4-Trichlorobenzene	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA
Naphthalene	SW8260B	NA	08/13/13	1	2.8	10	ND		ug/Kg	416881	NA
1,2,3-Trichlorobenzene	SW8260B	NA	08/13/13	1	2.9	10	ND		ug/Kg	416881	NA
(S) Dibromofluoromethane	SW8260B	NA	08/13/13	1	59.8	148	90.5		%	416881	NA
(S) Toluene-d8	SW8260B	NA	08/13/13	1	55.2	133	92.0		%	416881	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	08/13/13	1	55.8	141	96.9		%	416881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B26-2	<b>Lab Sample ID:</b>	1308066-002A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 8:55		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	08/13/13	1	4.4	10	ND		ug/Kg	416881	NA
Chloromethane	SW8260B	NA	08/13/13	1	4.6	10	ND		ug/Kg	416881	NA
Vinyl Chloride	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
Bromomethane	SW8260B	NA	08/13/13	1	4.7	10	ND		ug/Kg	416881	NA
Trichlorofluoromethane	SW8260B	NA	08/13/13	1	2.9	10	ND		ug/Kg	416881	NA
1,1-Dichloroethene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
Freon 113	SW8260B	NA	08/13/13	1	3.7	10	ND		ug/Kg	416881	NA
Methylene Chloride	SW8260B	NA	08/13/13	1	2.0	50	ND		ug/Kg	416881	NA
trans-1,2-Dichloroethene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
MTBE	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
tert-Butanol	SW8260B	NA	08/13/13	1	21	50	ND		ug/Kg	416881	NA
Diisopropyl ether (DIPE)	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,1-Dichloroethane	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
ETBE	SW8260B	NA	08/13/13	1	2.4	10	ND		ug/Kg	416881	NA
cis-1,2-Dichloroethene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
2,2-Dichloropropane	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
Bromochloromethane	SW8260B	NA	08/13/13	1	2.3	10	ND		ug/Kg	416881	NA
Chloroform	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
Carbon Tetrachloride	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
1,1,1-Trichloroethane	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1-Dichloropropene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Benzene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
TAME	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA
1,2-Dichloroethane	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
Trichloroethylene	SW8260B	NA	08/13/13	1	3.9	10	ND		ug/Kg	416881	NA
Dibromomethane	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,2-Dichloropropane	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
Bromodichloromethane	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
cis-1,3-Dichloropropene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Toluene	SW8260B	NA	08/13/13	1	0.98	10	ND		ug/Kg	416881	NA
Tetrachloroethylene	SW8260B	NA	08/13/13	1	1.8	10	16		ug/Kg	416881	NA
trans-1,3-Dichloropropene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1,2-Trichloroethane	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
Dibromochloromethane	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
1,3-Dichloropropane	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA





## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B26-2	<b>Lab Sample ID:</b>	1308066-002A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 8:55		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	08/13/13	1	1.7	10	ND		ug/Kg	416881	NA
Ethyl Benzene	SW8260B	NA	08/13/13	1	0.86	10	ND		ug/Kg	416881	NA
Chlorobenzene	SW8260B	NA	08/13/13	1	4.2	10	ND		ug/Kg	416881	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	08/13/13	1	0.86	10	ND		ug/Kg	416881	NA
m,p-Xylene	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
o-Xylene	SW8260B	NA	08/13/13	1	0.66	5.0	ND		ug/Kg	416881	NA
Styrene	SW8260B	NA	08/13/13	1	0.77	10	ND		ug/Kg	416881	NA
Bromoform	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
Isopropyl Benzene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
n-Propylbenzene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Bromobenzene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	08/13/13	1	3.0	10	ND		ug/Kg	416881	NA
1,3,5-Trimethylbenzene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
1,2,3-Trichloropropane	SW8260B	NA	08/13/13	1	3.3	10	ND		ug/Kg	416881	NA
4-Chlorotoluene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
2-Chlorotoluene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
tert-Butylbenzene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
1,2,4-Trimethylbenzene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
sec-Butyl Benzene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
p-Isopropyltoluene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
1,3-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
1,4-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
n-Butylbenzene	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,2-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	08/13/13	1	4.2	10	ND		ug/Kg	416881	NA
Hexachlorobutadiene	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
1,2,4-Trichlorobenzene	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA
Naphthalene	SW8260B	NA	08/13/13	1	2.8	10	ND		ug/Kg	416881	NA
1,2,3-Trichlorobenzene	SW8260B	NA	08/13/13	1	2.9	10	ND		ug/Kg	416881	NA
(S) Dibromofluoromethane	SW8260B	NA	08/13/13	1	59.8	148	83.3		%	416881	NA
(S) Toluene-d8	SW8260B	NA	08/13/13	1	55.2	133	89.6		%	416881	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	08/13/13	1	55.8	141	109		%	416881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B26-4	<b>Lab Sample ID:</b>	1308066-003A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 9:00		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	08/13/13	1	4.4	10	ND		ug/Kg	416881	NA
Chloromethane	SW8260B	NA	08/13/13	1	4.6	10	ND		ug/Kg	416881	NA
Vinyl Chloride	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
Bromomethane	SW8260B	NA	08/13/13	1	4.7	10	ND		ug/Kg	416881	NA
Trichlorofluoromethane	SW8260B	NA	08/13/13	1	2.9	10	ND		ug/Kg	416881	NA
1,1-Dichloroethene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
Freon 113	SW8260B	NA	08/13/13	1	3.7	10	ND		ug/Kg	416881	NA
Methylene Chloride	SW8260B	NA	08/13/13	1	2.0	50	ND		ug/Kg	416881	NA
trans-1,2-Dichloroethene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
MTBE	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
tert-Butanol	SW8260B	NA	08/13/13	1	21	50	ND		ug/Kg	416881	NA
Diisopropyl ether (DIPE)	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,1-Dichloroethane	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
ETBE	SW8260B	NA	08/13/13	1	2.4	10	ND		ug/Kg	416881	NA
cis-1,2-Dichloroethene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
2,2-Dichloropropane	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
Bromochloromethane	SW8260B	NA	08/13/13	1	2.3	10	ND		ug/Kg	416881	NA
Chloroform	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
Carbon Tetrachloride	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
1,1,1-Trichloroethane	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1-Dichloropropene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Benzene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
TAME	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA
1,2-Dichloroethane	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
Trichloroethylene	SW8260B	NA	08/13/13	1	3.9	10	ND		ug/Kg	416881	NA
Dibromomethane	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,2-Dichloropropane	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
Bromodichloromethane	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
cis-1,3-Dichloropropene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Toluene	SW8260B	NA	08/13/13	1	0.98	10	ND		ug/Kg	416881	NA
Tetrachloroethylene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
trans-1,3-Dichloropropene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1,2-Trichloroethane	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
Dibromochloromethane	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
1,3-Dichloropropane	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B26-4	<b>Lab Sample ID:</b>	1308066-003A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 9:00		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	08/13/13	1	1.7	10	ND		ug/Kg	416881	NA
Ethyl Benzene	SW8260B	NA	08/13/13	1	0.86	10	ND		ug/Kg	416881	NA
Chlorobenzene	SW8260B	NA	08/13/13	1	4.2	10	ND		ug/Kg	416881	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	08/13/13	1	0.86	10	ND		ug/Kg	416881	NA
m,p-Xylene	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
o-Xylene	SW8260B	NA	08/13/13	1	0.66	5.0	ND		ug/Kg	416881	NA
Styrene	SW8260B	NA	08/13/13	1	0.77	10	ND		ug/Kg	416881	NA
Bromoform	SW8260B	NA	08/13/13	1	1.9	10	ND		ug/Kg	416881	NA
Isopropyl Benzene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
n-Propylbenzene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
Bromobenzene	SW8260B	NA	08/13/13	1	1.2	10	ND		ug/Kg	416881	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	08/13/13	1	3.0	10	ND		ug/Kg	416881	NA
1,3,5-Trimethylbenzene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
1,2,3-Trichloropropane	SW8260B	NA	08/13/13	1	3.3	10	ND		ug/Kg	416881	NA
4-Chlorotoluene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
2-Chlorotoluene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
tert-Butylbenzene	SW8260B	NA	08/13/13	1	1.4	10	ND		ug/Kg	416881	NA
1,2,4-Trimethylbenzene	SW8260B	NA	08/13/13	1	1.1	10	ND		ug/Kg	416881	NA
sec-Butyl Benzene	SW8260B	NA	08/13/13	1	1.6	10	ND		ug/Kg	416881	NA
p-Isopropyltoluene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
1,3-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.8	10	ND		ug/Kg	416881	NA
1,4-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.5	10	ND		ug/Kg	416881	NA
n-Butylbenzene	SW8260B	NA	08/13/13	1	2.2	10	ND		ug/Kg	416881	NA
1,2-Dichlorobenzene	SW8260B	NA	08/13/13	1	1.3	10	ND		ug/Kg	416881	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	08/13/13	1	4.2	10	ND		ug/Kg	416881	NA
Hexachlorobutadiene	SW8260B	NA	08/13/13	1	2.6	10	ND		ug/Kg	416881	NA
1,2,4-Trichlorobenzene	SW8260B	NA	08/13/13	1	2.1	10	ND		ug/Kg	416881	NA
Naphthalene	SW8260B	NA	08/13/13	1	2.8	10	ND		ug/Kg	416881	NA
1,2,3-Trichlorobenzene	SW8260B	NA	08/13/13	1	2.9	10	ND		ug/Kg	416881	NA
(S) Dibromofluoromethane	SW8260B	NA	08/13/13	1	59.8	148	100		%	416881	NA
(S) Toluene-d8	SW8260B	NA	08/13/13	1	55.2	133	89.5		%	416881	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	08/13/13	1	55.8	141	83.0		%	416881	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B27-4	<b>Lab Sample ID:</b>	1308066-004A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 11:00		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	08/14/13	1	4.4	10	ND		ug/Kg	416888	NA
Chloromethane	SW8260B	NA	08/14/13	1	4.6	10	ND		ug/Kg	416888	NA
Vinyl Chloride	SW8260B	NA	08/14/13	1	2.6	10	ND		ug/Kg	416888	NA
Bromomethane	SW8260B	NA	08/14/13	1	4.7	10	ND		ug/Kg	416888	NA
Trichlorofluoromethane	SW8260B	NA	08/14/13	1	2.9	10	ND		ug/Kg	416888	NA
1,1-Dichloroethene	SW8260B	NA	08/14/13	1	1.5	10	ND		ug/Kg	416888	NA
Freon 113	SW8260B	NA	08/14/13	1	3.7	10	ND		ug/Kg	416888	NA
Methylene Chloride	SW8260B	NA	08/14/13	1	2.0	50	ND		ug/Kg	416888	NA
trans-1,2-Dichloroethene	SW8260B	NA	08/14/13	1	1.1	10	ND		ug/Kg	416888	NA
MTBE	SW8260B	NA	08/14/13	1	2.6	10	ND		ug/Kg	416888	NA
tert-Butanol	SW8260B	NA	08/14/13	1	21	50	ND		ug/Kg	416888	NA
Diisopropyl ether (DIPE)	SW8260B	NA	08/14/13	1	2.2	10	ND		ug/Kg	416888	NA
1,1-Dichloroethane	SW8260B	NA	08/14/13	1	1.3	10	ND		ug/Kg	416888	NA
ETBE	SW8260B	NA	08/14/13	1	2.4	10	ND		ug/Kg	416888	NA
cis-1,2-Dichloroethene	SW8260B	NA	08/14/13	1	1.8	10	ND		ug/Kg	416888	NA
2,2-Dichloropropane	SW8260B	NA	08/14/13	1	1.2	10	ND		ug/Kg	416888	NA
Bromochloromethane	SW8260B	NA	08/14/13	1	2.3	10	ND		ug/Kg	416888	NA
Chloroform	SW8260B	NA	08/14/13	1	1.2	10	ND		ug/Kg	416888	NA
Carbon Tetrachloride	SW8260B	NA	08/14/13	1	1.6	10	ND		ug/Kg	416888	NA
1,1,1-Trichloroethane	SW8260B	NA	08/14/13	1	1.2	10	ND		ug/Kg	416888	NA
1,1-Dichloropropene	SW8260B	NA	08/14/13	1	1.4	10	ND		ug/Kg	416888	NA
Benzene	SW8260B	NA	08/14/13	1	1.5	10	ND		ug/Kg	416888	NA
TAME	SW8260B	NA	08/14/13	1	2.1	10	ND		ug/Kg	416888	NA
1,2-Dichloroethane	SW8260B	NA	08/14/13	1	1.9	10	ND		ug/Kg	416888	NA
Trichloroethylene	SW8260B	NA	08/14/13	1	3.9	10	ND		ug/Kg	416888	NA
Dibromomethane	SW8260B	NA	08/14/13	1	2.2	10	ND		ug/Kg	416888	NA
1,2-Dichloropropane	SW8260B	NA	08/14/13	1	1.3	10	ND		ug/Kg	416888	NA
Bromodichloromethane	SW8260B	NA	08/14/13	1	1.1	10	ND		ug/Kg	416888	NA
cis-1,3-Dichloropropene	SW8260B	NA	08/14/13	1	1.4	10	ND		ug/Kg	416888	NA
Toluene	SW8260B	NA	08/14/13	1	0.98	10	ND		ug/Kg	416888	NA
Tetrachloroethylene	SW8260B	NA	08/14/13	1	1.8	10	ND		ug/Kg	416888	NA
trans-1,3-Dichloropropene	SW8260B	NA	08/14/13	1	1.2	10	ND		ug/Kg	416888	NA
1,1,2-Trichloroethane	SW8260B	NA	08/14/13	1	1.8	10	ND		ug/Kg	416888	NA
Dibromochloromethane	SW8260B	NA	08/14/13	1	1.1	10	ND		ug/Kg	416888	NA
1,3-Dichloropropane	SW8260B	NA	08/14/13	1	2.1	10	ND		ug/Kg	416888	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	B27-4	<b>Lab Sample ID:</b>	1308066-004A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 11:00		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	08/14/13	1	1.7	10	ND		ug/Kg	416888	NA
Ethyl Benzene	SW8260B	NA	08/14/13	1	0.86	10	ND		ug/Kg	416888	NA
Chlorobenzene	SW8260B	NA	08/14/13	1	4.2	10	ND		ug/Kg	416888	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	08/14/13	1	0.86	10	ND		ug/Kg	416888	NA
m,p-Xylene	SW8260B	NA	08/14/13	1	1.9	10	ND		ug/Kg	416888	NA
o-Xylene	SW8260B	NA	08/14/13	1	0.66	5.0	ND		ug/Kg	416888	NA
Styrene	SW8260B	NA	08/14/13	1	0.77	10	ND		ug/Kg	416888	NA
Bromoform	SW8260B	NA	08/14/13	1	1.9	10	ND		ug/Kg	416888	NA
Isopropyl Benzene	SW8260B	NA	08/14/13	1	1.2	10	ND		ug/Kg	416888	NA
n-Propylbenzene	SW8260B	NA	08/14/13	1	1.4	10	ND		ug/Kg	416888	NA
Bromobenzene	SW8260B	NA	08/14/13	1	1.2	10	ND		ug/Kg	416888	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	08/14/13	1	3.0	10	ND		ug/Kg	416888	NA
1,3,5-Trimethylbenzene	SW8260B	NA	08/14/13	1	1.1	10	ND		ug/Kg	416888	NA
1,2,3-Trichloropropane	SW8260B	NA	08/14/13	1	3.3	10	ND		ug/Kg	416888	NA
4-Chlorotoluene	SW8260B	NA	08/14/13	1	1.6	10	ND		ug/Kg	416888	NA
2-Chlorotoluene	SW8260B	NA	08/14/13	1	1.6	10	ND		ug/Kg	416888	NA
tert-Butylbenzene	SW8260B	NA	08/14/13	1	1.4	10	ND		ug/Kg	416888	NA
1,2,4-Trimethylbenzene	SW8260B	NA	08/14/13	1	1.1	10	ND		ug/Kg	416888	NA
sec-Butyl Benzene	SW8260B	NA	08/14/13	1	1.6	10	ND		ug/Kg	416888	NA
p-Isopropyltoluene	SW8260B	NA	08/14/13	1	1.5	10	ND		ug/Kg	416888	NA
1,3-Dichlorobenzene	SW8260B	NA	08/14/13	1	1.8	10	ND		ug/Kg	416888	NA
1,4-Dichlorobenzene	SW8260B	NA	08/14/13	1	1.5	10	ND		ug/Kg	416888	NA
n-Butylbenzene	SW8260B	NA	08/14/13	1	2.2	10	ND		ug/Kg	416888	NA
1,2-Dichlorobenzene	SW8260B	NA	08/14/13	1	1.3	10	ND		ug/Kg	416888	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	08/14/13	1	4.2	10	ND		ug/Kg	416888	NA
Hexachlorobutadiene	SW8260B	NA	08/14/13	1	2.6	10	ND		ug/Kg	416888	NA
1,2,4-Trichlorobenzene	SW8260B	NA	08/14/13	1	2.1	10	ND		ug/Kg	416888	NA
Naphthalene	SW8260B	NA	08/14/13	1	2.8	10	ND		ug/Kg	416888	NA
1,2,3-Trichlorobenzene	SW8260B	NA	08/14/13	1	2.9	10	ND		ug/Kg	416888	NA
(S) Dibromofluoromethane	SW8260B	NA	08/14/13	1	59.8	148	104		%	416888	NA
(S) Toluene-d8	SW8260B	NA	08/14/13	1	55.2	133	88.7		%	416888	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	08/14/13	1	55.8	141	97.9		%	416888	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	SG-1-4	<b>Lab Sample ID:</b>	1308066-005A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 12:20		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	8/13/13	08/13/13	1	30	100	ND		ug/Kg	416881	9391
(S) 4-Bromofluorobenzene	8260TPH	8/13/13	08/13/13	1	43.9	127	59.1		%	416881	9391



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	SG-2-5	<b>Lab Sample ID:</b>	1308066-006A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 13:15		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	8/13/13	08/13/13	1	30	100	ND		ug/Kg	416881	9391
(S) 4-Bromofluorobenzene	8260TPH	8/13/13	08/13/13	1	43.9	127	62.5		%	416881	9391



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 08/12/13  
**Date Reported:** 08/16/13

<b>Client Sample ID:</b>	SG-3-5	<b>Lab Sample ID:</b>	1308066-007A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/08/13 / 13:30		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	8/13/13	08/13/13	1	30	100	ND		ug/Kg	416881	9391
(S) 4-Bromofluorobenzene	8260TPH	8/13/13	08/13/13	1	43.9	127	66.2		%	416881	9391





## MB Summary Report

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	08/13/13	<b>Analytical Batch:</b>	416881
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	4.4	10	ND		
Chloromethane	4.6	10	ND		
Vinyl Chloride	2.6	10	ND		
Bromomethane	4.7	10	ND		
Trichlorofluoromethane	2.9	10	ND		
1,1-Dichloroethene	1.5	10	ND		
Freon 113	3.7	10	ND		
Methylene Chloride	2.0	50	ND		
trans-1,2-Dichloroethene	1.1	10	ND		
MTBE	2.6	10	ND		
tert-Butanol	21	50	ND		
Diisopropyl ether (DIPE)	2.2	10	ND		
1,1-Dichloroethane	1.3	10	ND		
ETBE	2.4	10	ND		
cis-1,2-Dichloroethene	1.8	10	ND		
2,2-Dichloropropane	1.2	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	1.2	10	ND		
Carbon Tetrachloride	1.6	10	ND		
1,1,1-Trichloroethane	1.2	10	ND		
1,1-Dichloropropene	1.4	10	ND		
Benzene	1.5	10	ND		
TAME	2.1	10	ND		
1,2-Dichloroethane	1.9	10	ND		
Trichloroethylene	3.9	10	ND		
Dibromomethane	2.2	10	ND		
1,2-Dichloropropane	1.3	10	ND		
Bromodichloromethane	1.1	10	ND		
cis-1,3-Dichloropropene	1.4	10	ND		
Toluene	0.98	10	ND		
Tetrachloroethylene	1.8	10	ND		
trans-1,3-Dichloropropene	1.2	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.1	10	ND		
1,3-Dichloropropane	2.1	10	ND		
1,2-Dibromoethane	1.7	10	ND		
Ethyl Benzene	0.86	10	0.99		
Chlorobenzene	4.2	10	ND		
1,1,1,2-Tetrachloroethane	0.86	10	ND		
m,p-Xylene	1.9	10	ND		



## MB Summary Report

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	08/13/13	<b>Analytical Batch:</b>	416881
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
o-Xylene	0.66	5.0	ND		
Styrene	0.77	10	ND		
Bromoform	1.9	10	ND		
Isopropyl Benzene	1.2	10	ND		
n-Propylbenzene	1.4	10	ND		
Bromobenzene	1.2	10	ND		
1,1,2,2-Tetrachloroethane	3.0	10	ND		
1,3,5-Trimethylbenzene	1.1	10	ND		
1,2,3-Trichloropropane	3.3	10	ND		
4-Chlorotoluene	1.6	10	ND		
2-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.4	10	ND		
1,2,4-Trimethylbenzene	1.1	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.8	10	ND		
1,4-Dichlorobenzene	1.5	10	ND		
n-Butylbenzene	2.2	10	ND		
1,2-Dichlorobenzene	1.3	10	ND		
1,2-Dibromo-3-Chloropropane	4.2	10	ND		
Hexachlorobutadiene	2.6	10	ND		
1,2,4-Trichlorobenzene	2.1	10	ND		
Naphthalene	2.8	10	ND		
1,2,3-Trichlorobenzene	2.9	10	ND		
(S) Dibromofluoromethane			106		
(S) Toluene-d8			90.1		
(S) 4-Bromofluorobenzene			94.5		



## MB Summary Report

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	08/14/13	<b>Analytical Batch:</b>	416888
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	4.4	10	ND		
Chloromethane	4.6	10	ND		
Vinyl Chloride	2.6	10	ND		
Bromomethane	4.7	10	ND		
Trichlorofluoromethane	2.9	10	ND		
1,1-Dichloroethene	1.5	10	ND		
Freon 113	3.7	10	ND		
Methylene Chloride	2.0	50	ND		
trans-1,2-Dichloroethene	1.1	10	ND		
MTBE	2.6	10	ND		
tert-Butanol	21	50	ND		
Diisopropyl ether (DIPE)	2.2	10	ND		
1,1-Dichloroethane	1.3	10	ND		
ETBE	2.4	10	ND		
cis-1,2-Dichloroethene	1.8	10	ND		
2,2-Dichloropropane	1.2	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	1.2	10	ND		
Carbon Tetrachloride	1.6	10	ND		
1,1,1-Trichloroethane	1.2	10	ND		
1,1-Dichloropropene	1.4	10	ND		
Benzene	1.5	10	ND		
TAME	2.1	10	ND		
1,2-Dichloroethane	1.9	10	ND		
Trichloroethylene	3.9	10	ND		
Dibromomethane	2.2	10	ND		
1,2-Dichloropropane	1.3	10	ND		
Bromodichloromethane	1.1	10	ND		
cis-1,3-Dichloropropene	1.4	10	ND		
Toluene	0.98	10	ND		
Tetrachloroethylene	1.8	10	ND		
trans-1,3-Dichloropropene	1.2	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.1	10	ND		
1,3-Dichloropropane	2.1	10	ND		
1,2-Dibromoethane	1.7	10	ND		
Ethyl Benzene	0.86	10	ND		
Chlorobenzene	4.2	10	ND		
1,1,1,2-Tetrachloroethane	0.86	10	ND		
m,p-Xylene	1.9	10	ND		
o-Xylene	0.66	5.0	ND		



## MB Summary Report

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	08/14/13	<b>Analytical Batch:</b>	416888
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.77	10	ND		
Bromoform	1.9	10	ND		
Isopropyl Benzene	1.2	10	ND		
n-Propylbenzene	1.4	10	ND		
Bromobenzene	1.2	10	ND		
1,1,2,2-Tetrachloroethane	3.0	10	ND		
1,3,5-Trimethylbenzene	1.1	10	ND		
1,2,3-Trichloropropane	3.3	10	ND		
4-Chlorotoluene	1.6	10	ND		
2-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.4	10	ND		
1,2,4-Trimethylbenzene	1.1	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.8	10	ND		
1,4-Dichlorobenzene	1.5	10	ND		
n-Butylbenzene	2.2	10	ND		
1,2-Dichlorobenzene	1.3	10	ND		
1,2-Dibromo-3-Chloropropane	4.2	10	ND		
Hexachlorobutadiene	2.6	10	ND		
1,2,4-Trichlorobenzene	2.1	10	ND		
Naphthalene	2.8	10	ND		
1,2,3-Trichlorobenzene	2.9	10	ND		
(S) Dibromofluoromethane			82.6		
(S) Toluene-d8			90.2		
(S) 4-Bromofluorobenzene			104		

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	08/13/13	<b>Prep Batch:</b>	9391
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	08/13/13	<b>Analytical Batch:</b>	416881
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH(Gasoline)	30	100	ND		
(S) 4-Bromofluorobenzene			89.6		



### MB Summary Report

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	08/14/13	<b>Prep Batch:</b>	9396
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	08/14/13	<b>Analytical Batch:</b>	416888
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH(Gasoline)	30	100	ND	
(S) 4-Bromofluorobenzene			101	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	08/13/13	<b>Analytical Batch:</b>	416881
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	88.1	86.4	2.06	53.7 - 139	30	
Benzene	1.5	10	ND	50	98.8	84.8	15.2	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	85.0	84.4	0.661	57.5 - 150	30	
Toluene	0.98	10	ND	50	101	99.6	1.81	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	99.6	92.5	7.35	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	73.8	76.1		59.8 - 148		
(S) Toluene-d8			ND	50	89.8	90.0		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	93.2	88.3		55.8 - 141		

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	08/14/13	<b>Analytical Batch:</b>	416888
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	80.9	75.5	6.76	53.7 - 139	30	
Benzene	1.5	10	ND	50	86.8	84.3	2.87	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	79.6	76.6	3.87	57.5 - 150	30	
Toluene	0.98	10	ND	50	98.7	95.5	3.38	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	112	107	4.84	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	87.5	94.6		59.8 - 148		
(S) Toluene-d8			ND	50	87.4	86.6		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	101	98.4		55.8 - 141		

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	08/13/13	<b>Prep Batch:</b>	9391
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	08/13/13	<b>Analytical Batch:</b>	416881
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	30	100	ND	1000	94.5	97.1	2.65	64.0 - 133.2	30	
(S) 4-Bromofluorobenzene			89.6	50	90.1	94.9		43.9 - 127		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1308066	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	08/14/13	<b>Prep Batch:</b>	9396
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	08/14/13	<b>Analytical Batch:</b>	416888
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	30	100	ND	1000	86.8	110	23.4	64.0 - 133.2	30	
(S) 4-Bromofluorobenzene			101	50	105	92.9		43.9 - 127		



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
---





## Sample Receipt Checklist

Client Name: Golden Gate Environmental, Inc

Date and Time Received: 8/12/2013 13:16

Project Name: 5930 College Ave., Oakland

Received By: kb

Work Order No.: 1308066

Physically Logged By: ng

Checklist Completed By: ng

Carrier Name: First Courier

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? Yes Temperature: 8 °C  
Water-VOA vials have zero headspace? No VOA vials submitted  
Water-pH acceptable upon receipt? N/A  
pH Checked by: n/a pH Adjusted by: n/a

Samples received in a cooler with ice at 8 deg C.



## Login Summary Report

<b>Client ID:</b>	TL5127 Golden Gate Environmental, Inc	<b>QC Level:</b>	
<b>Project Name:</b>	5930 College Ave., Oakland	<b>TAT Requested:</b>	5+ day:0
<b>Project # :</b>		<b>Date Received:</b>	8/12/2013
<b>Report Due Date:</b>	8/16/2013	<b>Time Received:</b>	13:16
<b>Comments:</b>	5day TAT (minus 1 day due to courier mishap). EDF. Four soils submitted for VOCs (full list), and three soils submitted for GRO. Send report to Brent Wheeler.		
<b>Work Order # :</b>	<b>1308066</b>		

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1308066-001A	B25-4	08/08/13 8:25	Soil	02/08/14			EDF Courier Service S_8260Full	
<b>Sample Note:</b>		VOCs (full list).						
1308066-002A	B26-2	08/08/13 8:55	Soil	02/08/14			S_8260Full	
1308066-003A	B26-4	08/08/13 9:00	Soil	02/08/14			S_8260Full	
1308066-004A	B27-4	08/08/13 11:00	Soil	02/08/14			S_8260Full	
1308066-005A	SG-1-4	08/08/13 12:20	Soil	02/08/14			S_GCMS-GRO	
<b>Sample Note:</b>		GRO only (on 005A, 006A, 007A).						
1308066-006A	SG-2-5	08/08/13 13:15	Soil	02/08/14			S_GCMS-GRO	
1308066-007A	SG-3-5	08/08/13 13:30	Soil	02/08/14			S_GCMS-GRO	



483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com



### CHAIN OF CUSTODY

LAB WORK ORDER NO  
**1308066**

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: <b>Golden Gate Environmental, Inc.</b>			Location of Sampling: <b>5930 College Avenue, Oakland</b>		
Address: <b>1455 Yosemite Avenue</b>			Purpose: <b>ASC - August 2013</b>		
City: <b>San Francisco</b>	State: <b>CA</b>	Zip Code: <b>94124</b>	Special Instructions / Comments: <b>Global ID: T0600102112.</b>		
Telephone: <b>415-970-9088</b>		FAX: <b>415-970-9089</b>	Field Point ID=See Remarks Section; PT = Plastic Tube		
REPORT TO: <b>Brent Wheeler</b>		SAMPLER: <b>Brent Wheeler</b>	P.O. #: <b>GGE 2014</b>	EMAIL: <b>b.wheeler@ggtr.com</b>	

<b>TURNAROUND TIME:</b>			<b>SAMPLE TYPE:</b>			<b>REPORT FORMAT:</b>														
<input type="checkbox"/> 10 Work Days	<input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Noon - Nxt Day	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Air	<input type="checkbox"/> QC Level IV	<table border="0"> <tr> <td>TPH-C (\$260)</td> <td>BTEX/MTBE (\$260)</td> <td>VOCs (Full List)</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>			TPH-C (\$260)	BTEX/MTBE (\$260)	VOCs (Full List)									
TPH-C (\$260)	BTEX/MTBE (\$260)	VOCs (Full List)																		
<input type="checkbox"/> 7 Work Days	<input type="checkbox"/> 2 Work Days	<input type="checkbox"/> 2 - 8 Hours	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> EDF															
<input checked="" type="checkbox"/> 5 Work Days	<input type="checkbox"/> 1 Work Day	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Ground Water		<input type="checkbox"/> Excel / EDD															
			<input type="checkbox"/> Soil																	

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH-C (\$260)	BTEX/MTBE (\$260)	VOCs (Full List)	REMARKS
001A	B25-4	8-8-13/0825	Soil	1	PT			✓	
002A	B26-2	8-8-13/0855	Soil	1	PT			✓	
003A	B26-4	8-8-13/0900	Soil	1	PT			✓	
004A	B27-4	8-8-13/1100	Soil	1	PT			✓	
005A	SG-1-4	8-8-13/1220	Soil	1	PT	✓			
006A	SG-2-5	8-8-13/1315	Soil	1	PT	✓			
007A	SG-3-5	8-8-13/1330	Soil	1	PT	✓			
									Temp. 8°C

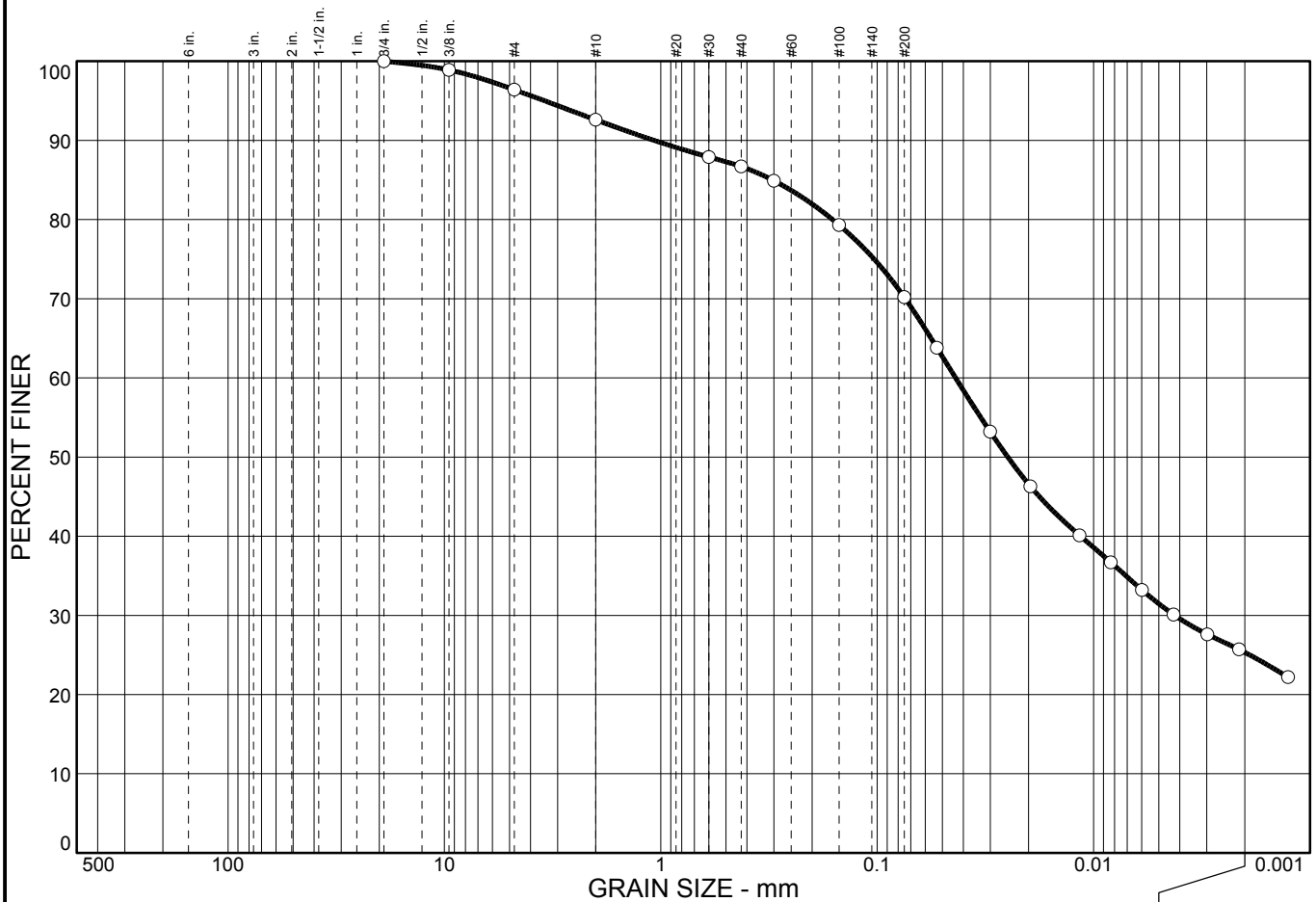
1 Relinquished By: <u>Brent Wheeler</u> Print: <u>[Signature]</u> Date: <u>8-9-13</u> Time: <u>11:15</u> Received By: <u>[Signature]</u> Print: <u>[Signature]</u> Date: <u>8-12-13</u> Time: <u>10:49</u>
2 Relinquished By: <u>[Signature]</u> Print: <u>[Signature]</u> Date: <u>8-9-13</u> Time: <u>[Signature]</u> Received By: <u>[Signature]</u> Print: <u>[Signature]</u> Date: <u>8-12-13</u> Time: <u>1:10</u>

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment FCS Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 1 of 1

Log In By: [Signature] Date: 8/12/13 Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

# Particle Size Distribution Report



<b>% COBBLES</b>	<b>% GRAVEL</b>	<b>% SAND</b>	<b>% SILT</b>	<b>% CLAY</b>
0.0	3.6	26.2	44.9	25.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4 in.	100.0		
3/8 in.	98.9		
#4	96.4		
#10	92.6		
#30	87.9		
#40	86.7		
#50	84.9		
#100	79.3		
#200	70.2		
#270	63.8		
0.0301 mm.	53.2		
0.0196 mm.	46.3		
0.0116 mm.	40.1		
0.0083 mm.	36.7		
0.0060 mm.	33.2		
0.0043 mm.	30.1		
0.0030 mm.	27.6		
0.0021 mm.	25.7		
0.0013 mm.	22.2		

**Soil Description**

Dark Brown CLAY w/ Sand

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 0.305              D<sub>60</sub>= 0.0435              D<sub>50</sub>= 0.0249  
D<sub>30</sub>= 0.0042              D<sub>15</sub>=                      D<sub>10</sub>=  
C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

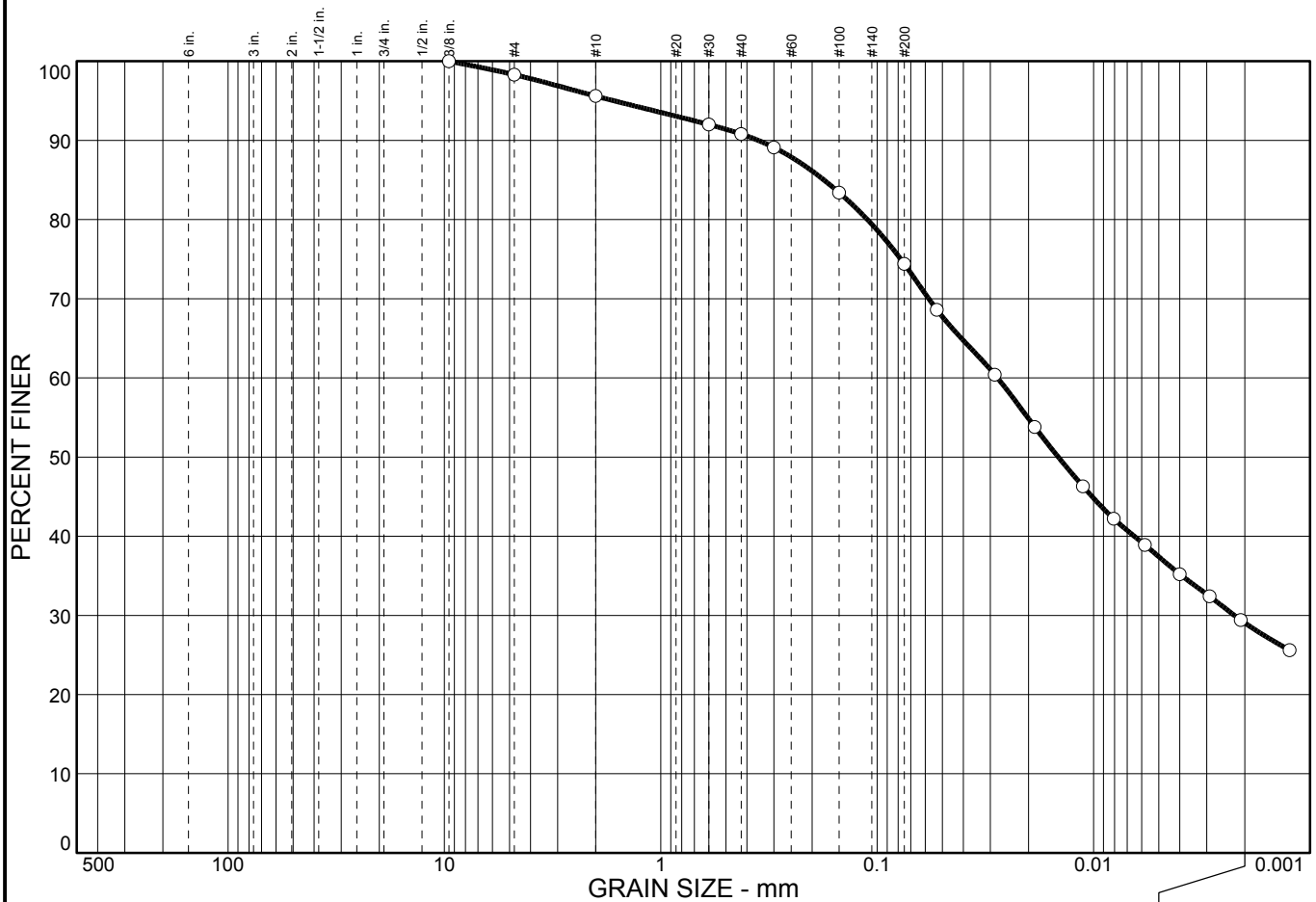
**Sample No.:**  
**Location:**

**Source of Sample:** SG-1

**Date:** 8/15/13  
**Elev./Depth:** 4'

<b>COOPER TESTING LABORATORY</b>	<p><b>Client:</b> Golden Gate Environmental</p> <p><b>Project:</b> 5930 College Ave., Oakland - GGE 2014</p> <p><b>Project No:</b> 453-025</p>
	<b>Figure</b>

# Particle Size Distribution Report



<b>% COBBLES</b>	<b>% GRAVEL</b>	<b>% SAND</b>	<b>% SILT</b>	<b>% CLAY</b>
0.0	1.7	23.9	45.4	29.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	98.3		
#10	95.6		
#30	92.0		
#40	90.8		
#50	89.1		
#100	83.4		
#200	74.4		
#270	68.6		
0.0286 mm.	60.4		
0.0187 mm.	53.8		
0.0112 mm.	46.3		
0.0081 mm.	42.2		
0.0058 mm.	38.9		
0.0040 mm.	35.2		
0.0029 mm.	32.4		
0.0021 mm.	29.4		
0.0012 mm.	25.6		

**Soil Description**

Very Dark Gray CLAY w/ Sand

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 0.176              D<sub>60</sub>= 0.0278              D<sub>50</sub>= 0.0146  
D<sub>30</sub>= 0.0022              D<sub>15</sub>=                      D<sub>10</sub>=  
C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

**Sample No.:**  
**Location:**

**Source of Sample:** SG-3

**Date:** 8/15/13  
**Elev./Depth:** 5'

<b>COOPER TESTING LABORATORY</b>	<b>Client:</b> Golden Gate Environmental <b>Project:</b> 5930 College Ave., Oakland - GGE 2014 <b>Project No:</b> 453-025	<b>Figure</b>
----------------------------------	---	---------------

**Report Number**

13-224-0057

**Page:** 1 of 2**Account Number**

15024

**Send To:** Cooper Testing Labs, Inc.

937 Commercial St

Palo Alto , CA 94303

**Project :** Golden Gate Env

GGE 2014

453-025

Lab Number: 24164

Sample Id : SG-1@4'



# Soil & Plant Laboratory, Inc.

Leaders in Soil &amp; Plant Testing Since 1946

 4741 E. Hunter Ave, Suite A Anaheim, CA 92807 714-282-8777 (phone) 714-282-8575 (fax)  
 www.soilandplantlaboratory.com
**Purchase Order :****Report Date :** 08/14/2013**Date Received :** 08/12/2013**REPORT OF ANALYSIS****Date Sampled :**

<b>Analysis</b>	<b>Result</b>	<b>Quantitation Limit</b>	<b>Method</b>	<b>Date and Time Test Started</b>	<b>Analyst</b>
Organic Matter (Titration) , %	1.56	0.05	Walkley-Black	08/14/2013 15:20	SNS

**Method Reference:**

Methods of Soil Analysis, Part 3 - Chemical Methods, 2nd Ed. Rev. Soil Science Society of America, Black, C.A et al. 1982, pages 995-996.

**Comments:**

**Report Number**

13-224-0057

**Page:** 2 of 2**Account Number**

15024

**Send To:** Cooper Testing Labs, Inc.

937 Commercial St

Palo Alto , CA 94303

**Project :** Golden Gate Env

GGE 2014

453-025

Lab Number: 24165

Sample Id : SG-3@5'



# Soil & Plant Laboratory, Inc.

Leaders in Soil & Plant Testing Since 1946

4741 E. Hunter Ave, Suite A Anaheim, CA 92807 714-282-8777 (phone) 714-282-8575 (fax)  
www.soilandplantlaboratory.com

**Purchase Order :****Report Date :** 08/14/2013**Date Received :** 08/12/2013**Date Sampled :**

## REPORT OF ANALYSIS

<b>Analysis</b>	<b>Result</b>	<b>Quantitation Limit</b>	<b>Method</b>	<b>Date and Time Test Started</b>	<b>Analyst</b>
Organic Matter (Titration) , %	2.71	0.05	Walkley-Black	08/14/2013 15:20	SNS

**Method Reference:**

Methods of Soil Analysis, Part 3 - Chemical Methods, 2nd Ed. Rev. Soil Science Society of America, Black, C.A et al. 1982, pages 995-996.

**Comments:**



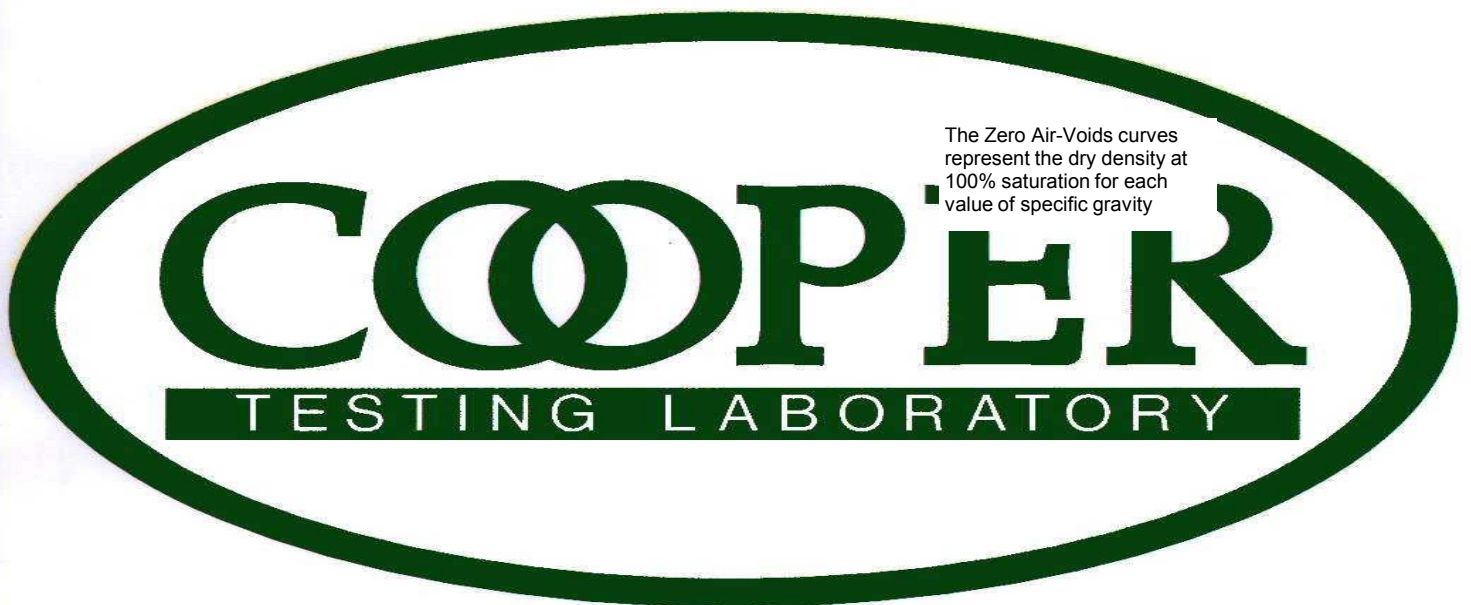
## Moisture-Density-Porosity Report

Cooper Testing Labs, Inc. (ASTM D 2937)

CTL Job No: <u>453-025</u>	Project No. <u>GGE 2014</u>	By: <u>RU</u>
Client: <u>Golden Gate Environmental</u>	Date: <u>08/16/13</u>	
Project Name: <u>5930 College Ave., Oakland</u>	Remarks:	

<b>Boring:</b>	SG-1	SG-3						
<b>Sample:</b>								
<b>Depth, ft:</b>	4	5						
<b>Visual Description:</b>	Dark Brown CLAY w/ Sand	Very Dark Gray CLAY w/ Sand						
<b>Actual <math>G_s</math></b>								
<b>Assumed <math>G_s</math></b>								
<b>Moisture, %</b>	13.1	20.7						
<b>Wet Unit wt, pcf</b>								
<b>Dry Unit wt, pcf</b>								
<b>Dry Bulk Dens.pb, (g/cc)</b>								
<b>Saturation, %</b>								
<b>Total Porosity, %</b>								
<b>Volumetric Water Cont., <math>\theta_w</math></b>								
<b>Volumetric Air Cont., <math>\theta_a</math></b>								
<b>Void Ratio</b>								
<b>Series</b>	1	2	3	4	5	6	7	8

Note: All reported parameters are from the as-received sample condition unless otherwise noted. If an assumed specific gravity ( $G_s$ ) was used then the saturation, porosities, and void ratio should be considered approximate.





937 Commercial St.  
 Palo Alto, CA 94303  
 TEL 650-213-8436  
 FAX 650-213-8437

Cooper Testing Labs, Inc.  
 Test Request Sheet

8/9

(email: peter@coopertestinglabs.com)

(home page: www.coopertestinglabs.com)

CTL#	453-025	P.O. #:		Project Name:	5930 COLLEGE AVE., OAKLAND
Your Company:	GOLDEN GATE ENVIRONMENTAL	Date In:	8-9-13	Project No.:	GGE 2014
Results To:	BRENT WHEELER	Email Address:	B.WHEELER@GATE.COM		

Priority (Circle One):	Standard	Rush (+50%)	Superrush (+100%)	Test	Test #	Price (\$)	Quantity
	Billing Address: 1955 POSIEMETE AVE.			Moisture (MC)	1	17	
	City: SAN FRANCISCO			MD, 2-2.5" diameter	2	21	
	State: CA			MD 3" diameter	3	32	
	Zip: 94124			PI Dry (CTL default)	4	160	
Boring	Depth ft	Test	Instructions	PI Wet Prep	5	220	
SC-1	4		SAMPLE ID: SC-1-4	Sieve (SA)-3/4" / +3/4"	6	105/170	
SG-3	5		SAMPLE ID: SG-3-5	Sieve + Hydrometer	7	175	
			(MC, SA-HYDR)	-#200 Wash	8	75	
			Wetly Black	Specific Gravity(-#4)	9	85/105	
			ON ea.	Specific Gravity(+ #4)	10	150	
				% Organics	11	85	
				Total Porosity	12	105	
				Effective Porosity	13	225	
				UC-Soil	14	70	
				UC-Soil-Cement-Precast	15	200	
				UC-Lime Precast	16	170	
				Direct Shear - CU	17	90/point	
				Direct Shear - CD	18	200/point	
				TX-UU	19	130	
				TX-ICU	20	220/point	
				TX-ICU- Staged	21	440/2-3 pts.	
				TX-ICU-PP	22	460/point	
				TX-ICU-PP- Staged	23	920/2-3 pts.	
				Torsional peak or res	24	295/pt	
				Torsional peak and res	25	545/pt	
				Incremental - Consol	26	360	
				SS/+Expansion-Pressure	27	275	
				Shrink Swell (SS)	28	150	
				Expansion Pressure	29	150	
				Expansion Index, ASTM	30	375	
				Expansion Index, UBC	31	400	
				Collapse	32	160	
				Permeability 2-3" dia.	33	305	
				6" dia. Perm on rock <3/4"	34	400	
				12" dia. Perm on rock <2"	35	800	
				Modified Proctor 4" / 6"	36	250/300	
				Max Index Density .1 / .5ft'	37	230/350	
				Min. Index Density .1 / .5ft'	38	115/230	

Corrosion Testing

Test	Test #	Price (\$)	Quantity	Instructions
Resistivity-As Received (ASTM)	54	65		R-Value
Resistivity-100%Saturated(ASTM)	55	65		R-value-batch/admix
Resistivity-Minimum (Caltrans)	56	140		CBR
pH	57	30		Sand Equivalent (SE)
Sulfate	58	50		Class II AB Spec
Sulfide	59	41		Durability Index, Fi / Co
Redox	60	45		LA Abrasion
Chloride	61	41		Sulfate Soundness
Caltrans Package	62	235		Rapid Chlor. Perm
Package A	63	167		UC Lime (Cal 373)
Package B	64	167		Remolding
Package C	65	207		Junior Technician/hr
Package D	66	207		Senior Technician/hr
PG&E Package	67	242		Principal/hr
				Sample Pick-up

Instructions: RETURNED BY: Brent Wheeler 8-9-13  
 EFFECTIVE 1 August 2013

See our fee schedule for a complete list of tests.



5 September 2013

Mr. Brent Wheeler  
Golden Gate Environmental, Inc.  
1455 Yosemite Avenue  
San Francisco, CA 94124

**SUBJECT: DATA REPORT - Golden Gate Environmental, Inc. Project # GGE2014  
Former Sheaff's Garage / 5930 College Avenue, Oakland, California**

**TEG Project # 30826F**

Mr. Wheeler:

Please find enclosed a data report for the samples analyzed from the above referenced project for Golden Gate Environmental, Inc. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 9 analyses on 6 soil vapor samples.

- 6 analyses on soil vapors for volatile organic hydrocarbons, and total petroleum hydrocarbons-gasoline by EPA method 8260B.
- 3 analyses on soil vapors for methane, oxygen, and carbon dioxide by GC/TCD.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

TEG appreciates the opportunity to have provided analytical services to Golden Gate Environmental, Inc. on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak  
Director, TEG-Northern California



Golden Gate Environmental, Inc. Project # GGE2014  
Former Sheaff's Garage  
5930 College Avenue, Oakland, California

TEG Project #30826F

EPA Method 8260B VOC Analyses of SOIL VAPOR in micrograms per cubic meter of Vapor

SAMPLE NUMBER:		Blank	SG-1-3V	SG-2-1V	SG-2-3V	SG-2-10V	SG-3-3V	SG-3-3V
								dup
SAMPLE DEPTH (feet):			4.0	5.0	5.0	5.0	5.0	5.0
PURGE VOLUME:			3	1	3	10	3	3
COLLECTION DATE:		8/26/13	8/26/13	8/26/13	8/26/13	8/26/13	8/26/13	8/26/13
COLLECTION TIME:		06:46	12:25	09:34	10:28	11:49	13:10	13:38
DILUTION FACTOR:		1	1	1	1	1	1	1
	RL							
Dichlorodifluoromethane	100	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride	10	nd	nd	nd	nd	nd	nd	nd
Chloroethane	100	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	100	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	100	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	100	nd	nd	nd	nd	nd	nd	nd
Methylene Chloride	100	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MtBE)	100	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	100	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	100	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	100	nd	nd	nd	nd	nd	nd	nd
Chloroform	100	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	100	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	50	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	45	nd	nd	nd	nd	nd	nd	nd
Benzene	30	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	100	nd	nd	nd	nd	nd	nd	nd
Toluene	200	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	100	nd	nd	nd	nd	nd	nd	nd
<b>Tetrachloroethene</b>	100	nd	nd	nd	nd	nd	<b>580</b>	<b>590</b>
Ethylbenzene	100	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	100	nd	nd	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	100	nd	nd	nd	nd	nd	nd	nd
TPH (gasoline range)	10000	nd	nd	nd	nd	nd	nd	nd
1,1-Difluoroethane (leak check)	10000	nd	nd	nd	nd	nd	nd	nd
Surrogate Recovery (1,2-DCA-d4)		98%	80%	92%	75%	84%	83%	69%
Surrogate Recovery (Toluene-d8)		96%	84%	105%	82%	86%	83%	78%
Surrogate Recovery (1,4-BFB)		121%	106%	134%	105%	105%	106%	96%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Mr. Lane Sharon



Golden Gate Environmental, Inc. Project # GGE2014  
Former Sheaff's Garage  
5930 College Avenue, Oakland, California

TEG Project #30826F

CALIBRATION DATA - Calibration Check Compounds

	Vinyl Chloride	1,1 DCE	Chloroform	1,2 DCP	Toluene	Ethylbenzene
Midpoint	10.0	10.0	10.0	10.0	10.0	10.0

Continuing Calibration - Midpoint

8/26/13	8.3	9.4	9.6	10.1	9.9	8.1
	83%	94%	96%	101%	99%	81%



Golden Gate Environmental, Inc. Project # GGE2014  
Former Sheaff's Garage  
5930 College Avenue, Oakland, California

TEG Project #30826F

*Analyses of Soil Vapor*

*Methane in ppmV, and Oxygen and Carbon Dioxide in percent by Volume*

SAMPLE NUMBER	SAMPLE DEPTH (feet)	COLLECTION DATE	COLLECTION TIME	Methane ppmV	Oxygen %	Carbon Dioxide %
Blank		8/26/13	07:47	nd	21	nd
SG-1-3V	4.0	8/26/13	12:35	nd	15	nd
SG-2-3V	5.0	8/26/13	12:59	nd	12	5.5
SG-3-3V	5.0	8/26/13	13:10	nd	9.7	12

Reporting Limit: 1000 1.0 1.0

'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Mr. Lane Sharon



Golden Gate Environmental, Inc  
1455 Yosemite Avenue  
San Francisco, California 94124  
Tel: (415) 686-8846 cell  
RE: 5930 College Ave., Oakland

Work Order No.: 1310108

Dear Brent Wheeler:

Torrent Laboratory, Inc. received 1 sample(s) on October 16, 2013 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

---

Patti Sandrock  
QA Officer

October 23, 2013  
Date



**Date:** 10/23/2013

---

**Client:** Golden Gate Environmental, Inc

**Project:** 5930 College Ave., Oakland

**Work Order:** 1310108

### **CASE NARRATIVE**

---

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



### Sample Result Summary

Report prepared for: Brent Wheeler  
Golden Gate Environmental, Inc

Date Received: 10/16/13

Date Reported: 10/23/13

SG-3-3

1310108-001A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Toluene	ETO15	1	0.95	1.9	4.75
Tetrachloroethylene	ETO15	1	0.91	3.4	191
m,p-Xylene	ETO15	1	1.6	4.3	4.43
4-Ethyl Toluene	ETO15	1	0.82	2.5	25.8
1,3,5-Trimethylbenzene	ETO15	1	0.76	2.5	5.93
1,2,4-Trimethylbenzene	ETO15	1	0.69	2.5	24.5
TPH-Gasoline	ETO15	1	29	57	300





## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/16/13  
**Date Reported:** 10/23/13

<b>Client Sample ID:</b>	SG-3-3	<b>Lab Sample ID:</b>	1310108-001A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil Vapor
<b>Project Number:</b>		<b>Certified Clean WO # :</b>	
<b>Date/Time Sampled:</b>	10/16/13 / 9:18	<b>Received PSI :</b>	12.5
<b>Canister/Tube ID:</b>	6334	<b>Corrected PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	10/22/13	1	1.5	5.0	ND	ND		417897	NA
1,1-Difluoroethane	ETO15	NA	10/22/13	1	0.50	1.4	ND	ND		417897	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	10/22/13	1	4.9	14	ND	ND		417897	NA
Chloromethane	ETO15	NA	10/22/13	1	0.32	1.1	ND	ND		417897	NA
Vinyl Chloride	ETO15	NA	10/22/13	1	0.67	2.6	ND	ND		417897	NA
1,3-Butadiene	ETO15	NA	10/22/13	1	0.45	1.1	ND	ND		417897	NA
Bromomethane	ETO15	NA	10/22/13	1	0.72	2.0	ND	ND		417897	NA
Chloroethane	ETO15	NA	10/22/13	1	0.50	1.3	ND	ND		417897	NA
Trichlorofluoromethane	ETO15	NA	10/22/13	1	1.8	5.6	ND	ND		417897	NA
1,1-Dichloroethene	ETO15	NA	10/22/13	1	0.61	2.0	ND	ND		417897	NA
Freon 113	ETO15	NA	10/22/13	1	0.85	3.9	ND	ND		417897	NA
Carbon Disulfide	ETO15	NA	10/22/13	1	0.81	3.1	ND	ND		417897	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	10/22/13	1	0.97	20	ND	ND		417897	NA
Methylene Chloride	ETO15	NA	10/22/13	1	0.58	28	ND	ND		417897	NA
Acetone	ETO15	NA	10/22/13	1	0.88	19	ND	ND		417897	NA
trans-1,2-Dichloroethene	ETO15	NA	10/22/13	1	0.64	2.0	ND	ND		417897	NA
Hexane	ETO15	NA	10/22/13	1	0.53	1.8	ND	ND		417897	NA
MTBE	ETO15	NA	10/22/13	1	0.87	1.8	ND	ND		417897	NA
tert-Butanol	ETO15	NA	10/22/13	1	0.91	8.4	ND	ND		417897	NA
Diisopropyl ether (DIPE)	ETO15	NA	10/22/13	1	0.88	2.1	ND	ND		417897	NA
1,1-Dichloroethane	ETO15	NA	10/22/13	1	0.75	2.1	ND	ND		417897	NA
ETBE	ETO15	NA	10/22/13	1	0.68	2.1	ND	ND		417897	NA
cis-1,2-Dichloroethene	ETO15	NA	10/22/13	1	0.54	2.0	ND	ND		417897	NA
Chloroform	ETO15	NA	10/22/13	1	1.2	4.9	ND	ND		417897	NA
Vinyl Acetate	ETO15	NA	10/22/13	1	0.57	1.8	ND	ND		417897	NA
Carbon Tetrachloride	ETO15	NA	10/22/13	1	0.86	3.2	ND	ND		417897	NA
1,1,1-Trichloroethane	ETO15	NA	10/22/13	1	0.85	2.8	ND	ND		417897	NA
2-Butanone (MEK)	ETO15	NA	10/22/13	1	0.63	1.5	ND	ND		417897	NA
Ethyl Acetate	ETO15	NA	10/22/13	1	0.74	1.8	ND	ND		417897	NA
Tetrahydrofuran	ETO15	NA	10/22/13	1	0.30	1.5	ND	ND		417897	NA
Benzene	ETO15	NA	10/22/13	1	0.69	1.6	ND	ND		417897	NA
TAME	ETO15	NA	10/22/13	1	0.36	2.1	ND	ND		417897	NA
1,2-Dichloroethane (EDC)	ETO15	NA	10/22/13	1	0.99	2.1	ND	ND		417897	NA
Trichloroethylene	ETO15	NA	10/22/13	1	1.4	5.4	ND	ND		417897	NA
1,2-Dichloropropane	ETO15	NA	10/22/13	1	1.3	4.6	ND	ND		417897	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/16/13  
**Date Reported:** 10/23/13

<b>Client Sample ID:</b>	SG-3-3	<b>Lab Sample ID:</b>	1310108-001A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil Vapor
<b>Project Number:</b>		<b>Certified Clean WO # :</b>	
<b>Date/Time Sampled:</b>	10/16/13 / 9:18	<b>Received PSI :</b>	12.5
<b>Canister/Tube ID:</b>	6334	<b>Corrected PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Bromodichloromethane	ETO15	NA	10/22/13	1	0.89	3.4	ND	ND		417897	NA
1,4-Dioxane	ETO15	NA	10/22/13	1	1.2	3.6	ND	ND		417897	NA
trans-1,3-Dichloropropene	ETO15	NA	10/22/13	1	0.87	2.3	ND	ND		417897	NA
Toluene	ETO15	NA	10/22/13	1	0.95	1.9	4.75	1.25		417897	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	10/22/13	1	0.85	2.1	ND	ND		417897	NA
cis-1,3-Dichloropropene	ETO15	NA	10/22/13	1	1.1	2.3	ND	ND		417897	NA
Tetrachloroethylene	ETO15	NA	10/22/13	1	0.91	3.4	191	28.09		417897	NA
1,1,2-Trichloroethane	ETO15	NA	10/22/13	1	0.93	2.8	ND	ND		417897	NA
Dibromochloromethane	ETO15	NA	10/22/13	1	1.7	4.3	ND	ND		417897	NA
1,2-Dibromoethane (EDB)	ETO15	NA	10/22/13	1	2.0	7.7	ND	ND		417897	NA
<hr/>											
2-Hexanone	ETO15	NA	10/22/13	1	1.1	4.1	ND	ND		417897	NA
Ethyl Benzene	ETO15	NA	10/22/13	1	0.99	2.2	ND	ND		417897	NA
Chlorobenzene	ETO15	NA	10/22/13	1	0.71	2.3	ND	ND		417897	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	10/22/13	1	1.0	3.5	ND	ND		417897	NA
m,p-Xylene	ETO15	NA	10/22/13	1	1.6	4.3	4.43	1.03		417897	NA
o-Xylene	ETO15	NA	10/22/13	1	0.81	2.2	ND	ND		417897	NA
Styrene	ETO15	NA	10/22/13	1	0.69	2.2	ND	ND		417897	NA
Bromoform	ETO15	NA	10/22/13	1	1.1	5.0	ND	ND		417897	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	10/22/13	1	0.70	3.5	ND	ND		417897	NA
4-Ethyl Toluene	ETO15	NA	10/22/13	1	0.82	2.5	25.8	5.27		417897	NA
1,3,5-Trimethylbenzene	ETO15	NA	10/22/13	1	0.76	2.5	5.93	1.21		417897	NA
1,2,4-Trimethylbenzene	ETO15	NA	10/22/13	1	0.69	2.5	24.5	5.00		417897	NA
1,4-Dichlorobenzene	ETO15	NA	10/22/13	1	0.65	3.0	ND	ND		417897	NA
1,3-Dichlorobenzene	ETO15	NA	10/22/13	1	0.84	3.0	ND	ND		417897	NA
1,2-Dichlorobenzene	ETO15	NA	10/22/13	1	0.91	3.0	ND	ND		417897	NA
Hexachlorobutadiene	ETO15	NA	10/22/13	1	2.4	5.5	ND	ND		417897	NA
1,2,4-Trichlorobenzene	ETO15	NA	10/22/13	1	3.4	7.4	ND	ND		417897	NA
Naphthalene	ETO15	NA	10/22/13	1	1.5	5.2	ND	ND		417897	NA
(S) 4-Bromofluorobenzene	ETO15	NA	10/22/13	1	65	135	98.5 %			417897	NA



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 10/16/13  
**Date Reported:** 10/23/13

<b>Client Sample ID:</b>	SG-3-3	<b>Lab Sample ID:</b>	1310108-001A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Soil Vapor
<b>Project Number:</b>		<b>Certified Clean WO # :</b>	
<b>Date/Time Sampled:</b>	10/16/13 / 9:18	<b>Received PSI :</b>	12.5
<b>Canister/Tube ID:</b>	6334	<b>Corrected PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00		
<b>Tag Number:</b>	5930 College Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO15	NA	10/22/13	1	29	57	300	85.23	x	417910	NA

**NOTE:** x - Does not match pattern of reference Gasoline standard. Hydrocarbons in the range of C5-C12 quantified as Gasoline.



## MB Summary Report

<b>Work Order:</b>	1310108	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417897
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.30	1.00	ND	
1,1-Difluoroethane	0.18	10.0	ND	
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND	
Chloromethane	0.15	0.500	ND	
Vinyl Chloride	0.26	1.00	ND	
1,3-Butadiene	0.20	0.500	ND	
Bromomethane	0.18	0.500	ND	
Chloroethane	0.19	0.500	ND	
Trichlorofluoromethane	0.32	1.00	ND	
1,1-Dichloroethene	0.15	0.500	ND	
Freon 113	0.11	0.500	ND	
Carbon Disulfide	0.26	1.00	ND	
2-Propanol (Isopropyl Alcohol)	0.39	8.00	ND	
Methylene Chloride	0.17	8.00	ND	
Acetone	0.37	8.00	ND	
trans-1,2-Dichloroethene	0.16	0.500	ND	
Hexane	0.15	0.500	ND	
MTBE	0.24	0.500	ND	
tert-Butanol	0.22	2.00	ND	
Diisopropyl ether (DIPE)	0.21	0.500	ND	
1,1-Dichloroethane	0.18	0.500	ND	
ETBE	0.16	0.500	ND	
cis-1,2-Dichloroethene	0.13	0.500	ND	
Chloroform	0.25	1.00	ND	
Vinyl Acetate	0.16	0.500	ND	
Carbon Tetrachloride	0.14	0.500	ND	
1,1,1-Trichloroethane	0.15	0.500	ND	
2-Butanone (MEK)	0.21	0.500	ND	
Ethyl Acetate	0.21	0.500	ND	
Tetrahydrofuran	0.10	0.500	ND	
Benzene	0.21	0.500	ND	
TAME	0.086	0.500	ND	
1,2-Dichloroethane (EDC)	0.24	0.500	ND	
Trichloroethylene	0.26	1.00	ND	
1,2-Dichloropropane	0.29	1.00	ND	
Bromodichloromethane	0.13	0.500	ND	
1,4-Dioxane	0.35	1.00	ND	
trans-1,3-Dichloropropene	0.19	0.500	ND	
Toluene	0.25	0.500	ND	
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND	
cis-1,3-Dichloropropene	0.25	0.500	ND	



### MB Summary Report

<b>Work Order:</b>	1310108	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417897
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Tetrachloroethylene	0.13	0.500	ND	
1,1,2-Trichloroethane	0.17	0.500	ND	
Dibromochloromethane	0.20	0.500	ND	
1,2-Dibromoethane (EDB)	0.27	1.00	ND	
2-Hexanone	0.27	1.00	ND	
Ethyl Benzene	0.23	0.500	ND	
Chlorobenzene	0.15	0.500	ND	
1,1,1,2-Tetrachloroethane	0.15	0.500	ND	
m,p-Xylene	0.38	1.00	ND	
o-Xylene	0.19	0.500	ND	
Styrene	0.16	0.500	ND	
Bromoform	0.11	0.500	ND	
1,1,2,2-Tetrachloroethane	0.10	0.500	ND	
4-Ethyl Toluene	0.17	0.500	ND	
1,3,5-Trimethylbenzene	0.15	0.500	ND	
1,2,4-Trimethylbenzene	0.14	0.500	ND	
1,4-Dichlorobenzene	0.11	0.500	ND	
1,3-Dichlorobenzene	0.14	0.500	ND	
1,2-Dichlorobenzene	0.15	0.500	ND	
Hexachlorobutadiene	0.22	0.500	ND	
1,2,4-Trichlorobenzene	0.46	1.00	ND	
Naphthalene	0.28	1.00	ND	
(S) 4-Bromofluorobenzene			104	

<b>Work Order:</b>	1310108	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417910
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH-Gasoline	8.1	20.0	ND	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1310108	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417897
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	20	103	99.2	4.15	65 - 135	30	
Benzene	0.21	0.500	ND	20	96.8	95.8	1.09	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	20	113	119	5.34	65 - 135	30	
Toluene	0.25	0.500	ND	20	124	121	2.04	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	20	134	120	10.5	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	20	130	125		65 - 135		

<b>Work Order:</b>	1310108	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Air	<b>Analytical Method:</b>	ETO15	<b>Analyzed Date:</b>	10/22/13	<b>Analytical Batch:</b>	417910
<b>Units:</b>	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH-Gasoline	8.1	20.0	ND	208	150	142	5.34	50 - 150	30	



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
---



## Sample Receipt Checklist

Client Name: Golden Gate Environmental, Inc

Date and Time Received: 10/16/2013 17:05

Project Name: 5930 College Ave., Oakland

Received By: ng

Work Order No.: 1310108

Physically Logged By: ng

Checklist Completed By: ng

Carrier Name: First Courier

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? Yes Temperature: °C  
Water-VOA vials have zero headspace? No VOA vials submitted  
Water-pH acceptable upon receipt? N/A  
pH Checked by: n/a pH Adjusted by: n/a





483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com

### CHAIN OF CUSTODY

LAB WORK ORDER NO

1310108

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: <b>Golden Gate Environmental, Inc.</b>			Location of Sampling: <b>5930 College Avenue, Oakland</b>		
Address: <b>1455 Yosemite Avenue</b>			Purpose: <b>ASC - October 2013</b>		
City: <b>San Francisco</b>	State: <b>CA</b>	Zip Code: <b>94124</b>	Special Instructions / Comments: <b>Global ID: T0600102112.</b>		
Telephone: <b>415-970-9088</b>		FAX: <b>415-970-9089</b>	Field Point Name (FPN) = See Remarks Section		
REPORT TO: <b>Brent Wheeler</b>		SAMPLER: <b>Brent Wheeler</b>	P.O. #: <b>GGE 2014</b>	EMAIL: <b>b.wheeler@ggtr.com</b>	

TURNAROUND TIME:		SAMPLE TYPE:		REPORT FORMAT:	
<input type="checkbox"/> 10 Work Days	<input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Air	<input type="checkbox"/> QC Level IV	
<input type="checkbox"/> 7 Work Days	<input type="checkbox"/> 2 Work Days	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> EDF	
<input checked="" type="checkbox"/> 5 Work Days	<input type="checkbox"/> 1 Work Day	<input checked="" type="checkbox"/> Ground Water		<input type="checkbox"/> Excel / EDD	
	<input type="checkbox"/> Noon - Nxt Day	<input type="checkbox"/> Soil			
	<input type="checkbox"/> 2 - 8 Hours				

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH-C (TO-3 Mod)	VOCS (TO-15)									REMARKS		
001A	SG-3-3	10-16-13/0918	Soil Gas	1	Summa	✓	✓											FPN: SG-3

1	Relinquished By: <i>Brent Wheeler</i> Print: <i>Brent Wheeler</i>	Date: 10-16-13	Time: 12:00	Received By: <i>[Signature]</i> Print: <i>LIVESAY</i>	Date: 10/16/13	Time: 3:40 PM
2	Relinquished By: <i>[Signature]</i> Print: <i>LIVESAY</i>	Date: 10/16/13	Time: 5:05 PM	Received By: <i>[Signature]</i> Print: <i>NAVIN G</i>	Date: 10-16-13	Time: 5:05 PM

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment FCS Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 1 of 1

Log In By: REC/US/LIR Date: \_\_\_\_\_ Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



Golden Gate Environmental, Inc  
1455 Yosemite Avenue  
San Francisco, California 94124  
Tel: (415) 686-8846 cell  
RE: 5930 College Ave., Oakland

Work Order No.: 1309152

Dear Brent Wheeler:

Torrent Laboratory, Inc. received 1 sample(s) on September 27, 2013 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

\_\_\_\_\_  
Patti Sandrock  
QA Officer

October 04, 2013  
\_\_\_\_\_  
Date



**Date:** 10/4/2013

---

---

**Client:** Golden Gate Environmental, Inc

**Project:** 5930 College Ave., Oakland

**Work Order:** 1309152

### **CASE NARRATIVE**

---

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



### Sample Result Summary

Report prepared for: Brent Wheeler  
Golden Gate Environmental, Inc

Date Received: 09/27/13  
Date Reported: 10/04/13  
1309152-001

CPT-1B-GW

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Benzene	SW8260B	8.4	0.73	4.2	360	ug/L
Toluene	SW8260B	8.4	0.50	4.2	910	ug/L
Ethyl Benzene	SW8260B	8.4	0.62	4.2	550	ug/L
m,p-Xylene	SW8260B	8.4	1.1	8.4	2000	ug/L
o-Xylene	SW8260B	8.4	0.64	4.2	810	ug/L
Naphthalene	SW8260B	8.4	1.1	8.4	200	ug/L
TPH as Gasoline	8260TPH	8.4	260	420	16000	ug/L



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Golden Gate Environmental, Inc

**Date Received:** 09/27/13  
**Date Reported:** 10/04/13

<b>Client Sample ID:</b>	CPT-1B-GW	<b>Lab Sample ID:</b>	1309152-001A
<b>Project Name/Location:</b>	5930 College Ave., Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	09/27/13 / 11:45		
<b>Tag Number:</b>	5930 College Ave., Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	10/02/13	8.4	1.4	4.2	ND		ug/L	417631	NA
tert-Butanol	SW8260B	NA	10/02/13	8.4	13	42	ND		ug/L	417631	NA
Benzene	SW8260B	NA	10/02/13	8.4	0.73	4.2	360		ug/L	417631	NA
1,2-Dichloroethane	SW8260B	NA	10/02/13	8.4	0.95	4.2	ND		ug/L	417631	NA
Toluene	SW8260B	NA	10/02/13	8.4	0.50	4.2	910		ug/L	417631	NA
1,2-Dibromoethane	SW8260B	NA	10/02/13	8.4	0.57	4.2	ND		ug/L	417631	NA
Ethyl Benzene	SW8260B	NA	10/02/13	8.4	0.62	4.2	550		ug/L	417631	NA
m,p-Xylene	SW8260B	NA	10/02/13	8.4	1.1	8.4	2000		ug/L	417631	NA
o-Xylene	SW8260B	NA	10/02/13	8.4	0.64	4.2	810		ug/L	417631	NA
Naphthalene	SW8260B	NA	10/02/13	8.4	1.1	8.4	200		ug/L	417631	NA
(S) Dibromofluoromethane	SW8260B	NA	10/02/13	8.4	61.2	131	98.9		%	417631	NA
(S) Toluene-d8	SW8260B	NA	10/02/13	8.4	75.1	127	104		%	417631	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	10/02/13	8.4	64.1	120	110		%	417631	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	10/2/13	10/02/13	8.4	260	420	16000		ug/L	417631	9800
(S) 4-Bromofluorobenzene	8260TPH	10/2/13	10/02/13	8.4	41.5	125	106		%	417631	9800

**NOTE:** Reported TPH value includes amount due to discrete peaks and heavy end hydrocarbons (possibly aged gasoline) within range of C5-C12 quantified as gasoline.



## MB Summary Report

<b>Work Order:</b>	1309152	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/02/13	<b>Analytical Batch:</b>	417631
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.18	0.50	ND		
Chloromethane	0.16	0.50	ND		
Vinyl Chloride	0.16	0.50	ND		
Bromomethane	0.18	0.50	ND		
Trichlorofluoromethane	0.18	0.50	ND		
1,1-Dichloroethene	0.15	0.50	ND		
Freon 113	0.19	0.50	ND		
Methylene Chloride	0.23	5.0	ND		
trans-1,2-Dichloroethene	0.19	0.50	ND		
MTBE	0.17	0.50	ND		
tert-Butanol	1.5	5.0	ND		
Diisopropyl ether (DIPE)	0.13	0.50	ND		
1,1-Dichloroethane	0.13	0.50	ND		
ETBE	0.17	0.50	ND		
cis-1,2-Dichloroethene	0.19	0.50	ND		
2,2-Dichloropropane	0.15	0.50	ND		
Bromochloromethane	0.20	0.50	ND		
Chloroform	0.13	0.50	ND		
Carbon Tetrachloride	0.15	0.50	ND		
1,1,1-Trichloroethane	0.097	0.50	ND		
1,1-Dichloropropene	0.15	0.50	ND		
Benzene	0.13	0.50	ND		
TAME	0.17	0.50	ND		
1,2-Dichloroethane	0.14	0.50	ND		
Trichloroethylene	0.13	0.50	ND		
Dibromomethane	0.15	0.50	ND		
1,2-Dichloropropane	0.17	0.50	ND		
Bromodichloromethane	0.13	0.50	ND		
cis-1,3-Dichloropropene	0.096	0.50	ND		
Toluene	0.14	0.50	ND		
Tetrachloroethylene	0.14	0.50	ND		
trans-1,3-Dichloropropene	0.23	0.50	ND		
1,1,2-Trichloroethane	0.14	0.50	ND		
Dibromochloromethane	0.096	0.50	ND		
1,3-Dichloropropane	0.10	0.50	ND		
1,2-Dibromoethane	0.19	0.50	ND		
Chlorobenzene	0.14	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
1,1,1,2-Tetrachloroethane	0.096	0.50	ND		
m,p-Xylene	0.13	1.0	ND		



### MB Summary Report

<b>Work Order:</b>	1309152	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/02/13	<b>Analytical Batch:</b>	417631
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
o-Xylene	0.15	0.50	ND	
Styrene	0.21	0.50	ND	
Bromoform	0.21	1.0	ND	
Isopropyl Benzene	0.097	0.50	ND	
Bromobenzene	0.15	0.50	ND	
1,1,2,2-Tetrachloroethane	0.11	0.50	ND	
n-Propylbenzene	0.078	0.50	ND	
2-Chlorotoluene	0.076	0.50	ND	
1,3,5,-Trimethylbenzene	0.074	0.50	ND	
4-Chlorotoluene	0.088	0.50	ND	
tert-Butylbenzene	0.081	0.50	ND	
1,2,3-Trichloropropane	0.14	0.50	ND	
1,2,4-Trimethylbenzene	0.083	0.50	ND	
sec-Butyl Benzene	0.092	0.50	ND	
p-Isopropyltoluene	0.093	0.50	ND	
1,3-Dichlorobenzene	0.10	0.50	ND	
1,4-Dichlorobenzene	0.069	0.50	ND	
n-Butylbenzene	0.081	0.50	ND	
1,2-Dichlorobenzene	0.057	0.50	ND	
1,2-Dibromo-3-Chloropropane	0.15	0.50	ND	
Hexachlorobutadiene	0.19	0.50	ND	
1,2,4-Trichlorobenzene	0.12	0.50	ND	
Naphthalene	0.14	1.0	0.51	
1,2,3-Trichlorobenzene	0.23	0.50	ND	
(S) Dibromofluoromethane			97.7	
(S) Toluene-d8			107	
(S) 4-Bromofluorobenzene			105	
Ethanol	0.21	0.50	ND	TIC

<b>Work Order:</b>	1309152	<b>Prep Method:</b>	5030	<b>Prep Date:</b>	10/02/13	<b>Prep Batch:</b>	9800
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	10/02/13	<b>Analytical Batch:</b>	417631
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	31	50	34	
(S) 4-Bromofluorobenzene			98.1	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1309152	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	10/02/13	<b>Analytical Batch:</b>	417631
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.14	0.50	ND	17.86	110	125	12.4	61.4 - 129	30	
Benzene	0.087	0.50	ND	17.86	85.6	89.8	4.73	66.9 - 140	30	
Trichloroethylene	0.057	0.50	ND	17.86	119	124	4.03	69.3 - 144	30	
Toluene	0.059	0.50	ND	17.86	102	102	0.0219	76.6 - 123	30	
Chlorobenzene	0.068	0.50	ND	17.86	104	112	6.93	73.9 - 137	30	
(S) Dibromofluoromethane			ND	11.9	98.8	112		61.2 - 131		
(S) Toluene-d8			ND	11.9	109	106		75.1 - 127		
(S) 4-Bromofluorobenzene			ND	11.9	105	103		64.1 - 120		

<b>Work Order:</b>	1309152	<b>Prep Method:</b>	5030	<b>Prep Date:</b>	10/02/13	<b>Prep Batch:</b>	9800
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	10/02/13	<b>Analytical Batch:</b>	417631
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	31	50	34	238.1	109	86.7	23.0	52.4 - 127	30	
(S) 4-Bromofluorobenzene			98.1	11.9	103	114		41.5 - 125		





## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
---



## Sample Receipt Checklist

Client Name: Golden Gate Environmental, Inc

Date and Time Received: 9/27/2013 16:05

Project Name: 5930 College Ave., Oakland

Received By: ng

Work Order No.: 1309152

Physically Logged By: ng

Checklist Completed By: ng

Carrier Name: First Courier

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? No      Temperature: 10 °C  
Water-VOA vials have zero headspace? Yes  
Water-pH acceptable upon receipt? N/A  
pH Checked by: n/a      pH Adjusted by: n/a

Samples received in a cooler with ice at 10 deg C. Chilling begun.



## Login Summary Report

**Client ID:** TL5127 Golden Gate Environmental, Inc  
**Project Name:** 5930 College Ave., Oakland  
**Project # :**  
**Report Due Date:** 10/4/2013

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 9/27/2013  
**Time Received:** 16:05

**Comments:**

**Work Order # :** 1309152

---

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1309152-001A	CPT-1B-GW	09/27/13 11:45	Water	11/11/13			EDF Courier Service W_8260PetE W_GCMS-GRO	

**Sample Note:** EDF. TPHg, BTEX, MTBE, TBA, EDB, EDC, Naphthalene.



483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com



# CHAIN OF CUSTODY

LAB WORK ORDER NO

1309152

NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY.

Company Name: <b>Golden Gate Environmental, Inc.</b>			Location of Sampling: 5930 College Avenue, Oakland		
Address: 1455 Yosemite Avenue			Purpose: CPT Drilling & Sampling - September 2013		
City: San Francisco	State: CA	Zip Code: 94124	Special Instructions / Comments: Global ID: T0600102112.		
Telephone: 415-970-9088		FAX: 415-970-9089	Field Point ID=See Remarks Section;		
REPORT TO: Brent Wheeler		SAMPLER: Brent Wheeler	P.O. #: GGE 2014	EMAIL: b.wheeler@ggtr.com	

TURNAROUND TIME:

- 10 Work Days
- 7 Work Days
- 5 Work Days
- 3 Work Days
- 2 Work Days
- 1 Work Day
- Noon - Nxt Day
- 2 - 8 Hours
- Other

SAMPLE TYPE:

- Storm Water
- Waste Water
- Ground Water
- Soil
- Air
- Other

REPORT FORMAT:

- QC Level IV
- EDF
- Excel / EDD

TPH-G (8260)	BTEX/MTBE	TBA,EDB,EDC	Naphthalene																
X	X	X	X																

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH-G (8260)	BTEX/MTBE	TBA,EDB,EDC	Naphthalene	REMARKS
001A	CPT1-GW- CPT-13-6W	9-27-13 / 11:45	GW	2	Voa	X	X	X	X	
	<del>CPT1-GW</del>	<del>9-27-13 /</del>	<del>CW</del>	<del>3</del>	<del>Voa</del>					
	<del>CPT1-GW</del>	<del>9-27-13 /</del>	<del>CW</del>	<del>3</del>	<del>Voa</del>					

Temp 10°C  
 Chilling begun

1	Relinquished By: Brent Wheeler	Print: <i>[Signature]</i>	Date: 9-27-13	Time: 1:50	Received By: <i>[Signature]</i>	Print: <i>[Signature]</i>	Date: 9-27-13	Time: 1:50
2	Relinquished By: <i>[Signature]</i>	Print: <i>[Signature]</i>	Date: 9-27-13	Time: 4:05	Received By: <i>[Signature]</i>	Print: NAVIN G	Date: 9-27-13	Time: 4:05

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment FCS Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 1 of 1

Log In By: *[Signature]* Date: 9/27/13 Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



## **ADDITIONAL SOIL & WATER INVESTIGATION REPORT**

Sheaff's Garage  
5930 College Avenue, Oakland, California

### **APPENDIX B**

### **BORING LOGS**

**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014

## SOIL BORING LOG B25

Depth (fbg)	Recovery/ Sample ID	Blow Counts (#/6")	Organic Vapor (ppm)	USCS Soil Type	Description	Boring Backfill Detail
1	<div style="text-align: center;"> <p style="margin: 0;">No Sample @ 2'</p> <p style="margin: 0;">B25-4</p> </div>	NA	0.0	CL	6" Concrete Pavement (0.5'-4.5') <b>Silty Clay (CL)</b> . Dark Yellowish Brown (10YR 4/2), Damp, Firm; No Odor, No Staining.	
5					Total Borehole Depth = 4.5 fbg  Notes: Bottom of Stormwater Catch Basin @ 4 fbg; Measured depth to groundwater in PW-1 (@ 11.2 fbg; 8:00 AM), located approximately 16 feet west of B25.	<p style="margin: 0;">2.25"</p>
10						
15						
20						
25						

**BORING NUMBER: B25**  
**LOCATION:** 5930 College Avenue, Oakland, CA  
**PROJECT No:** 2014  
**DRILLING CONTRACTOR:** En Probe  
**DRILLING METHOD:** DPT (Geoprobe)  
**DRILLING DATE:** August 8, 2013  
**Logged By:** B.Wheeler **Checked By:** M.Youngkin

**Legend/Notes:**

fbg = feet below grade  
 ppm = parts per million  
 = Lithologic sample interval  
 = Analytical sample

NA = Not applicable

## SOIL BORING LOG B26

Depth (fbg)	Recovery/ Sample ID	Blow Counts (#/6")	Organic Vapor (ppm)	USCS Soil Type	Description	Boring Backfill Detail
1	<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Hand Auger</div> </div>	NA	0.0	<div style="border: 1px solid black; padding: 2px; text-align: center;">CL</div>	6" Concrete Pavement Overlying Baserock (2")	<div style="display: flex; flex-direction: column; align-items: flex-end;"> <div style="margin-bottom: 10px;">  Concrete (0-6")         </div> <div>  Neat Portland Cement (0.5'-4.5')         </div> </div>
		B26-2				
	B26-4	NA	0.0		@ 4fbg, Grades to Moderate Yellowish Brown (10YR 5/4) Clay w/ Trace Coarse-Grained Sand, Firm to Stiff; No Odor, No Staining.	
5					Total Borehole Depth = 4.5 fbg	<div style="display: flex; align-items: center;"> <div style="width: 10px; border-bottom: 1px solid black; margin-right: 5px;"></div> <span style="font-size: x-small;">2.5"</span> </div>
10						
15						
20						
25						

<p><b>BORING NUMBER: B26</b>  <b>LOCATION:</b> 5930 College Avenue, Oakland, CA  <b>PROJECT No:</b> 2014  <b>DRILLING CONTRACTOR:</b> En Probe  <b>DRILLING METHOD:</b> Hand Auger  <b>DRILLING DATE:</b> August 8, 2013  <b>Logged By:</b> B.Wheeler <b>Checked By:</b> M.Youngkin</p>	<p><b>Legend/Notes:</b>            fbg = feet below grade            ppm = parts per million   = Lithologic sample interval   = Analytical sample</p> <p style="text-align: right; font-size: small;">NA = Not applicable</p>
<p><b>Page 1 of 1</b></p>	
<p><b>Golden Gate Environmental, Inc.</b></p>	

## SOIL BORING LOG B27

Depth (fbg)	Recovery/ Sample ID	Blow Counts (#/6")	Organic Vapor (ppm)	USCS Soil Type	Description	Boring Backfill Detail
1	NR No Sample		0.0	CL	6" Concrete Pavement Overlying Baserock (3") (0.7'-4.5') <b>Silty Clay (CL)</b> . Dusky Yellowish Brown (10YR 2/2), Damp, Stiff; No Odor, No Staining.	Concrete (0-6")
	B27-4	NA	0.0		@ 3 fbg, Grades to Dark Yellowish Brown (10YR 4/2) Clay w/ Trace Fine-Grained Sand & Organic Root Material; No Odor, No Staining.	Neat Portland Cement (0.5'-4.5')
5					Total Borehole Depth = 4.5 fbg	1.5"
10						
15						
20						
25						

**BORING NUMBER: B27**  
**LOCATION:** 5930 College Avenue, Oakland, CA  
**PROJECT No:** 2014  
**DRILLING CONTRACTOR:** En Probe  
**DRILLING METHOD:** DPT (Geoprobe)  
**DRILLING DATE:** August 8, 2013  
**Logged By:** B.Wheeler **Checked By:** M.Youngkin

**Legend/Notes:**

fbg = feet below grade  
 ppm = parts per million  
 = Lithologic sample interval  
 = Analytical sample

NA = Not applicable



## SOIL BORING LOG SG-1

Depth (fbg)	Recovery/ Sample ID	Blow Counts (#/6")	Organic Vapor (ppm)	USCS Soil Type	Description	Soil Gas Probe Construction Detail
1				ML	5" Concrete Pavement Overlying Baserock (4") (0.75'-4') <b>Clayey Silt (ML)</b> . Dark Yellowish Brown (10YR 4/2), Dry to Damp, Firm w/ Trace Rock Fragments; No Odor, No Staining.	
	SG-1-4	NA	0.0	ML	Refusal @ 4fbg (Rock)  Total Borehole Depth = 4 fbg  Screened Sample Point @ 4 fbg (Stainless, 0.25"-Dia., 2" Length)	
5						
10						
15						
20						
25						

Notes: Boring for Installation of Proposed Temporary Soil Gas Sampling Point – Completed at 12:30 PM; Soil Gas Sample SG-1-3 collected by TEG on 8/26/13 at 12:25 PM. Discrete Soil Sample SG-1-4 submitted for Grain Size Analysis, Organic Carbon, and Moisture Content Testing.

**BORING NUMBER: SG-1**  
**LOCATION:** 5930 College Avenue, Oakland, CA  
**PROJECT No:** 2014  
**DRILLING CONTRACTOR:** En Probe  
**DRILLING METHOD:** Hand Auger  
**DRILLING DATE:** August 8, 2013  
**Logged By:** B.Wheeler **Checked By:** M.Youngkin

**Legend/Notes:**

- fbg = feet below grade
- ppm = parts per million
- ☒ = Lithologic sample interval
- = Analytical sample

NA = Not applicable

## SOIL BORING LOG SG-2

Depth (fbg)	Recovery/ Sample ID	Blow Counts (#/6")	Organic Vapor (ppm)	USCS Soil Type	Description	Soil Gas Probe Construction Detail
1	NR			ML	5" Concrete Pavement Overlying Baserock (4") (0.75'-5') <b>Clayey Silt (ML)</b> . Brownish Black (5YR 2/1), Damp, Firm w/ Trace Rock Fragments; No Odor, No Staining.	<p>3.5"-Dia. Well Box in Concrete (0'-1') Portland Cement (1'-2') 0.25"-O.D. Teflon Tubing Hydrated/Dry Granular Bentonite (2'-4') #3 Silica Sand (4'-5')</p>
5				SG-2-5	NA	
10					Total Borehole Depth = 5 fbg Screened Sample Point @ 4 fbg (Stainless, 0.25"-Dia., 2" Length)	2.25"
15					Notes: Boring for Installation of Proposed Temporary Soil Gas Sampling Point – Completed at 1:30 PM; Soil Gas Samples SG-2-1, SG-2-3, SG-2-10 (Step Purge Test) collected by TEG on 8/26/13 from 9:30-10:30AM.	
20						
25						

**BORING NUMBER: SG-2**  
**LOCATION:** 5930 College Avenue, Oakland, CA  
**PROJECT No:** 2014  
**DRILLING CONTRACTOR:** En Probe  
**DRILLING METHOD:** DPT (GeoProbe)  
**DRILLING DATE:** August 8, 2013  
**Logged By:** B.Wheeler **Checked By:** M.Youngkin

**Legend/Notes:**

fbg = feet below grade  
 ppm = parts per million  
 = Lithologic sample interval  
 = Analytical sample

NA = Not applicable

## SOIL BORING LOG SG-3

Depth (fbg)	Recovery/ Sample ID	Blow Counts (#6")	Organic Vapor (ppm)	USCS Soil Type	Description	Soil Gas Probe Construction Detail
1	N/R			ML	5" Concrete Pavement Overlying Baserock (3") (0.75'-5') <b>Clayey Silt (ML)</b> . Brownish Black (5YR 2/1), Damp, Firm w/ Trace Rock Fragments; No Odor, No Staining.	
5				SG-3-5	NA	
10					Notes: Boring for Installation of Proposed Temporary Soil Gas Sampling Point – Completed at 2:30 PM; Soil Gas Sample SG-3-3 collected by TEG on 8/26/13 at 1:10 PM (Re-sampled by GGE on 10/16/13). Discrete Soil Sample SG-3-5 submitted to Cooper Testing Lab for Grain Size Analysis, Organic Carbon, and Moisture Content Testing.	
15						
20						
25						

**BORING NUMBER: SG-3**  
**LOCATION:** 5930 College Avenue, Oakland, CA  
**PROJECT No:** 2014  
**DRILLING CONTRACTOR:** En Probe  
**DRILLING METHOD:** DPT (GeoProbe)  
**DRILLING DATE:** August 8, 2013  
**Logged By:** B.Wheeler **Checked By:** M.Youngkin

**Legend/Notes:**

- fbg = feet below grade
- ppm = parts per million
- ☒ = Lithologic sample interval
- = Analytical sample

NA = Not applicable



## **ADDITIONAL SOIL & WATER INVESTIGATION REPORT**

Sheaff's Garage  
5930 College Avenue, Oakland, California

### **APPENDIX C**

### **FIELD DATA SHEETS**

**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014

# FLUID-LEVEL MONITORING DATA

Project Number: GGE-2014 / DEI- 6343

Date: 10/16/2013

Project/Site Location: 5930 College Ave Oakland CA

Technician: Kian Atkinson

Method: Electronic

4  
3  
2  
1

Boring/Well	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Total Well Depth (feet)	Well Diameter (in.)	Comments
MW-1	10.83	NONE DETECTED	N/A	14.65	2	@ 0957 (9/16)
MW-2	12.18	NONE DETECTED	N/A	19.60	2	@ 0953 (9/16)
MW-3	10.56	NONE DETECTED	N/A	18.95	2	@ 0949 (9/16)
PW-1	11.91	NONE DETECTED	N/A	19.75	2	@ 0945 (1/2)

# Dysert Environmental, Inc

Well Purging/Sampling Data

(1/2 socket)

WELL NUMBER: PW-1

DATE: 10/16/13

PROJECT / GLOBAL ID: GGE- 2014 / T0600102112

SITE LOCATION: 5930 College Ave

CITY: Oakland STATE: CA

PURGE DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

SAMPLING DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

ing diameter (inches) circle one 0.75 2 4 6

ing volumes (gallons) circle one 0.02 0.2 0.7 1.52

WELL DATA

SAMPLER/S: KIAN ARUNSON

WELL NUMBER / FIELD POINT ID: PW-1

A. TOTAL WELL DEPTH: 19.75

B. DEPTH TO WATER: 11.91

C. WATER HEIGHT (A-B): 7.84

D. WELL CASING DIAMETER: 2

E. CASING VOLUME: 2

F. SINGLE CASE VOLUME (CxEx): 1.57

G. CASE VOLUME (S) (CxEx 3 ): 4.71

H: 80% RECHARGE LEVEL (F+B): 13.48

PURGE DATA

START TIME: 1005

PUMP DEPTH: 15'

FINISH TIME: 1045

PUMP DEPTH: 15'

SAMPLE TIME

DEPTH TO WATER: 12.90 TIME MEASURED: 1049

SAMPLE APPEARANCE / ODOR: clear, no odor or silt

TOTAL GALLONS PURGED: 73.625

WELL FLUID PARAMETERS

Casing Vol.	0.0	0.5	1.0	1.5	2.0	2.5	3.0
pH	7.57	7.39	7.40	7.40	7.38		
TEMP in °C	15.8	15.7	15.5	15.2	15.2		
COND / SC us/cm	688	687	687	689	687		
DO mg/L	1.20/	1.15/	1.15/	1.16/	1.15/		
DO %	13.1	12.4	11.8	11.9	10.8		
ORP	87	89	88	88	87		
DTW	11.99	12.25	12.52	12.91	12.94		
Pump Depth	15'	→					
Pump Rate	250 ml/min	→					

# Dysert Environmental, Inc

Well Purging/Sampling Data

WELL NUMBER: MW-1

DATE: 10/16/13

PROJECT / GLOBAL ID: GGE- 2014 / T0600102112

SITE LOCATION: 5930 College Ave

CITY: Oakland STATE: CA

PURGE DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

SAMPLING DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

Sampling diameter (inches) circle one 0.75 2 4 6

Sampling volumes (gallons) circle one 0.02 0.2 0.7 1.52

WELL DATA

SAMPLER/S:

WELL NUMBER / FIELD POINT ID: MW-1

A. TOTAL WELL DEPTH: 14.65

B. DEPTH TO WATER: 10.83

C. WATER HEIGHT (A-B): 3.82

D. WELL CASING DIAMETER: 2

E. CASING VOLUME: .2

F. SINGLE CASE VOLUME (CxEx): 176

G. CASE VOLUME (S) (CxEx 3 ): 2.28

H: 80% RECHARGE LEVEL (F+B): 11.59

PURGE DATA

START TIME: 1255

PUMP DEPTH: 13'

FINISH TIME: 1335

PUMP DEPTH: 13'

SAMPLE TIME

DEPTH TO WATER: 10.55 TIME MEASURED: 1339

SAMPLE APPEARANCE / ODOR: clear

TOTAL GALLONS PURGED: 136.45

WELL FLUID PARAMETERS

Casing Vol.	0.0	0.5	1.0	1.5	2.0	2.5	3.0
pH	7.75	7.74	7.75	7.75	7.75		
TEMP in °C	16.1	16.0	16.1	16.1	16.1		
COND / SC us/cm	601	605	606	607	605		
DO mg/L	3.5	3.5	3.4	3.5	3.6		
DO %	3.8	3.9	3.8	3.8	3.9		
ORP	-49	-48	-47	-48	-48		
DTW	10.87	10.90	10.93	10.99	11.05		
Pump Depth	13'	→					
Pump Rate	130 gpm	→					

# Dysert Environmental, Inc

Well Purging/Sampling Data

WELL NUMBER: MW-2

DATE: 10/16/13

PROJECT / GLOBAL ID: GGE- 2014 / T0600102112

SITE LOCATION: 5930 College Ave

CITY: Oakland STATE: CA

PURGE DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

SAMPLING DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

ring diameter (inches) circle one 0.75 2 4 6

ring volumes (gallons) circle one 0.02 0.2 0.7 1.52

WELL DATA

SAMPLER/S: WAIN ADUNSON

WELL NUMBER / FIELD POINT ID: MW-2

A. TOTAL WELL DEPTH: 19.60

B. DEPTH TO WATER: 12.18

C. WATER HEIGHT (A-B): 7.42

D. WELL CASING DIAMETER: 2

E. CASING VOLUME: .2

F. SINGLE CASE VOLUME (CxEx): 1.48

G. CASE VOLUME (S) (CxEx 3 ): 4.44

H: 80% RECHARGE LEVEL (F+B): 13.66

PURGE DATA

START TIME: 1155

PUMP DEPTH: 15'

FINISH TIME: 1240

PUMP DEPTH: 15'

SAMPLE TIME

DEPTH TO WATER: 12.40 TIME MEASURED: 1244

SAMPLE APPEARANCE / ODOR: CLEAR, STRONG GAS ODOR

TOTAL GALLONS PURGED: 43 GALS

WELL FLUID PARAMETERS

Casing Vol.	0.0	0.5	1.0	1.5	2.0	2.5	3.0
pH	8.17	8.15	8.13	8.15	8.15		
TEMP in °C	17.9	17.9	17.8	17.8	17.8		
COND / SC us/cm	1195	1188	1190	1191	1191		
DO mg/L	1.68/2.0	1.68/2.0	1.68/1.1	1.67/1.0	1.68/1.2		
DO %							
ORP	-20	-19	-19	-19	-19		
DTW	12.25	12.27	12.33	12.37	12.42		
Pump Depth	<u>15' →</u>						
Pump Rate	<u>250 us/min →</u>						



# Dysert Environmental, Inc

Well Purging/Sampling Data

WELL NUMBER: MW-3

DATE: 10/16/13

PROJECT / GLOBAL ID: GGE- 2014 / T0600102112

SITE LOCATION: 5930 College Ave

CITY: Oakland STATE: CA

PURGE DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

SAMPLING DEVICE

circle one submersible pump peristaltic pump bladder pump disposable bailer

Sampling diameter (inches) circle one 0.75 2 4 6

Sampling volumes (gallons) circle one 0.02 0.2 0.7 1.52

WELL DATA

SAMPLER/S: KIAN ADINSON

WELL NUMBER / FIELD POINT ID: MW-3

A. TOTAL WELL DEPTH: 18.95

B. DEPTH TO WATER: 10.50

C. WATER HEIGHT (A-B): 8.39

D. WELL CASING DIAMETER: 2

E. CASING VOLUME: 12

F. SINGLE CASE VOLUME (Cx): 1.69

G. CASE VOLUME (S) (CxEx 3 ): 5.07

H: 80% RECHARGE LEVEL (F+B): 12.25

PURGE DATA

START TIME: 1058

PUMP DEPTH: 15'

FINISH TIME: 1136

PUMP DEPTH: 15'

SAMPLE TIME

DEPTH TO WATER: 10.60 TIME MEASURED: 1140

SAMPLE APPEARANCE / ODOR: LT GRAY, GAS ODOR. POSSIBLE TREE ROOT IN WELL

TOTAL GALLONS PURGED: ~73 GALS

WELL FLUID PARAMETERS

Casing Vol.	0.0	0.5	1.0	1.5	2.0	2.5	3.0
pH	6.12	6.60	6.18	<del>6.14</del>	6.17		
TEMP in °C	17.8	17.8	17.8	17.7	17.8		
COND / SC us/cm	11650	11659	11660	11661	11663		
DO mg/L	0.55/	0.54/	0.54/	0.56/	0.55/		
DO %	5.9	6.0	5.8	6.1	6.1		
ORP	-29	-30	-30	-30	-30		
DTW	10.50	10.60	10.61	10.62	10.65		
Pump Depth	15' →						
Pump Rate	~300 ush/min →						

# Golden Gate Tank Removal, Inc.

## Soil Gas Sampling Data Form

**Project #:** 2014 **Date:** 10/16/2013  
**Soil Gas Boring/Sample ID:** SG-3 **Weather Conditions/Temp:** High Clouds/46

**Project/Site Address:** Former Sheaff's Garage, 5930 College Avenue, Oakland  
**Technician/Sampler:** Brent Wheeler (GGE)

**Building Survey:**

Vacant: \_\_\_\_\_ Occupied: Yes Occupant: Stauder Automotive  
Business: Auto Repair Garage  
 Foundation: Slab on Grade  
 Floor/Pavement Description: Concrete  
 Floor Penetrations: Minitor Well (MW-2); Abandoned Soil Borings; Former Fuel Dispenser (open Ex) @ 5'  
 HVAC System: Open Ventilation; Centralized Heat Source along south wall of garage

**Chemical Inventory:**

Product Description: <u>New Motor Oil</u>	Quantity: <u>55-Gal. Totes</u>	PID Reading: <u>0</u>	
Product Description: _____	Quantity: _____	PID Reading: _____	
Product Description: _____	Quantity: _____	PID Reading: _____	
Product Description: _____	Quantity: _____	PID Reading: _____	
Product Description: _____	Quantity: _____	PID Reading: _____	
Product Description: _____	Quantity: _____	PID Reading: _____	
Product Description: _____	Quantity: _____	PID Reading: _____	

**Probe Construction:**

Slab Thickness (Inches): 5 Sub-Slab Conditions: Base Rock (2")  
 Borehole Dia. (Inches): 2.25 Borehole Depth Below Slab (Inches): 60  
 Borehole Prelim. PID Reading (PPM): 0  
 Total Length of 0.25"-Dia. Teflon Tubing (Ft): 7

**Soil Vapor Sampling Equipment Record:**

1 Liter (S/P) S 6 Liter (S/P) p  
 Glass Syringe: \_\_\_\_\_  
 Sample Canister Serial#: 6334 Sample Canister Initial Vacuum ("Hg): 30  
 Purge Canister Serial#: 1236 Purge Canister Initial Vacuum ("Hg): 27 (21)  
 Leak Check Canister Serial#: NA Leak Check Canister Initial Vacuum ("Hg): NA  
 Flow Regulator Serial#: 1009-01 Filter Micron Size (µ): 2

**Vacuum Testing (10 Minutes):**

Purge Canister Initial Vacuum ("Hg): 21 Start: 8:50  
 Purge Canister Final Vacuum ("Hg): 21 Finish: 9:00

*Note: Initial manifold unable to hold vacuum; change out to new manifold.*

**Purge Record (Tubing & Borehole Filter Pack):**

Purge Volume:  
 235 ml (borehole) + 5.4 ml / linear foot (tubing) x 7 feet tubing = 273 ml Volume  
 x 3 volumes = 818 ml Volume  
 Purge Time: 818 ml Volume / 150 ml/min. = 5.5 min.  
 Canister Purge Drop: 818 ml Volume x 1 "Hg/ 200 ml = 4.1 "Hg  
 Purge Canister Initial Vacuum ("Hg): 21 minus Canister Purge Drop 4.1 "Hg =  
 Final Purge Vacuum ("Hg): 17 "Hg  
 Purge Time: Start 9:00 Finish 9:06 Total (Min.) 6

**Vapor Sampling Record:**

Sample Canister Initial Vacuum ("Hg): 30 Sample Canister Final Vacuum ("Hg): 5 (5" Hg Target)  
 Sample Time: Start 9:11 Finish 9:18 Total (Min.) 7

**Golden Gate Tank Removal, Inc.**

*Soil Gas Sampling Data Form*

**Soil Gas Boring/Sample ID:** SG-3 **Date:** 10/16/2013

**Shroud Enclosure VOC Monitoring:**

Time:	<u>9:11</u>	PID Reading (PPM):	<u>42.1</u>
Time:	<u>9:13</u>	PID Reading (PPM):	<u>48</u>
Time:	<u>9:15</u>	PID Reading (PPM):	<u>51.3</u>
Time:	<u>9:17</u>	PID Reading (PPM):	<u>53.5</u>
Time:	<u>9:18</u>	PID Reading (PPM):	<u>53.2</u>
Time:	<u>          </u>	PID Reading (PPM):	<u>          </u>
Time:	<u>          </u>	PID Reading (PPM):	<u>          </u>
Time:	<u>          </u>	PID Reading (PPM):	<u>          </u>
Time:	<u>          </u>	PID Reading (PPM):	<u>          </u>
Time:	<u>          </u>	PID Reading (PPM):	<u>          </u>
Time:	<u>          </u>	PID Reading (PPM):	<u>          </u>

Notes: Max. PID Reading of Interior Shroud During Sampling @ 53.5 ppm; Leak Check Compound = IPA



## **ADDITIONAL SOIL & WATER INVESTIGATION REPORT**

Sheaff's Garage  
5930 College Avenue, Oakland, California

### **APPENDIX D**

### **MISCELLANEOUS DOCUMENTATION**

**Golden Gate Environmental, Inc.**  
1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014



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

August 3, 2010

Dr. Brian Sheaff (via e-mail: drsheaff@pacbell.net)  
William J Sheaf TTE Trust  
1945 Parkside Drive  
Concord, CA 94519

Subject: Work Plan Denial for Fuel Leak Case No. RO0000377 and Geotracker Global ID T0600102112, Sheaff's Garage, 5930 College Avenue, Oakland, CA 94618

Dear Dr. Brian Sheaff:

Thank you for the recently submitted document entitled, "Soil and Water Investigation Work Plan & Site Conceptual Model," dated June 2, 2009, which was prepared by Golden Gate Tank Removal for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned report/work plan for the above-referenced site.

The work plan/SCM proposes additional investigation to address data gaps defined in the SCM including installing additional soil borings and wells and resurveying. However, the above-mentioned report does not include a plan to assess the vapor intrusion pathway either at the site or at the adjacent building. Therefore, the scope of work presented in the work plan is not complete and cannot be approved at this time. ACEH requests that you address the following technical comments and send us a work plan addendum/revised work plan as requested below.

The above-mentioned report does not include a plan to assess the vapor intrusion pathway either at the site or at the adjacent building. Therefore, an adequate evaluation could not be performed. ACEH requests that you address the following technical comments and send us an addendum as requested below.

#### **TECHNICAL COMMENTS**

1. **Boring and Well Locations** – We request that the location of the deep CPT boring be relocated closer to the source area (the former UST) in the vicinity of B2 and B10. We request that MW-5 be located within the plume between MW-3 and HB-6.
2. **Vapor Sampling** – The potential for vapor intrusion to indoor air must be adequately evaluated before case closure will be evaluated. The RWQCB ESLs do not contain look up tables for volatilization from soil but instead requires that vapor data be collected to determine

Dr. Brian Sheaff  
RO0000377  
August 3, 2010, Page 2

the potential for vapor intrusion. Shallow soil (9 feet and above) has benzene concentrations at 13 mg/kg. Volatilization from soil was not adequately evaluated in the SCM, leaving this data gap unassessed. Please submit a work plan addendum for soil vapor sampling by the date requested below.

### **TECHNICAL REPORT REQUEST**

Please submit technical reports to ACEH (Attention: Barbara Jakub), according to the following schedule:

- **October 3, 2010** – Soil and Water Investigation Work Plan Addendum

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org).

Sincerely,

Barbara J. Jakub, P.G.  
Hazardous Materials Specialist

Enclosure: Responsible Party(ies) Legal Requirements/Obligations  
ACEH Electronic Report Upload (ftp) Instructions

cc: Brent Wheeler, Golden Gate Tank Removal, 3730 Mission St., San Francisco, CA 94110  
(via e-mail: [b.wheeler@ggtr.com](mailto:b.wheeler@ggtr.com))  
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland,  
CA 94612-2032 (Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))  
Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Barbara Jakub, ACEH (Sent via E-mail to: [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org))  
GeoTracker, e-files

## Responsible Party(ies) Legal Requirements/Obligations

### REPORT REQUESTS

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

### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/electronic\\_submittal/report\\_rqmts.shtml](http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml)).

### PERJURY STATEMENT

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

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

### UNDERGROUND STORAGE TANK CLEANUP FUND

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

### AGENCY OVERSIGHT

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

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> July 20, 2010
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

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

## REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:  
RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password:
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.





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

June 10, 2011

Dr. Brian Sheaff (via e-mail: drsheaff@pacbell.net)  
William J Sheaff Trust  
1945 Parkside Drive  
Concord, CA 94519

Subject: Work Plan Approval for Fuel Leak Case No. RO0000377 and Geotracker Global ID T0600102112, Sheaff's Garage, 5930 College Avenue, Oakland, CA 94618

Dear Dr. Brian Sheaff:

Thank you for the recently submitted document entitled, *Work Plan Addendum for Soil Gas Sampling*, dated November 9, 2010, which was prepared by Golden Gate Tank Removal for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned work plan for the above-referenced site.

The work plan addendum proposes evaluating soil vapor by installing nested vapor probes with subsequent sub-slab sampling, if needed, provides detailed vapor sampling techniques using the DTSC guidance and relocated the proposed CPT boring to the source area as requested in ACEH's August 3, 2010 letter.

ACEH generally concurs with the proposed scope of work, requests that you notify us of the planned fieldwork at least three business days prior to conducting the fieldwork and send us the technical reports described below.

#### **TECHNICAL REPORT REQUEST**

Please submit technical reports to ACEH (Attention: Barbara Jakub), according to the following schedule:

- **September 12, 2011** – Soil and Water Investigation Report

Dr. Brian Sheaff  
RO0000377  
June 10, 2011, Page 2

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org).

Sincerely,

Barbara J. Jakub, P.G.  
Hazardous Materials Specialist

Enclosure: Responsible Party(ies) Legal Requirements/Obligations  
ACEH Electronic Report Upload (ftp) Instructions

cc: Brent Wheeler, Golden Gate Tank Removal, 3730 Mission St., San Francisco, CA 94110  
(via e-mail: [b.wheeler@ggtr.com](mailto:b.wheeler@ggtr.com))  
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland,  
CA 94612-2032 (Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))  
Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Barbara Jakub, ACEH (Sent via E-mail to: [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org))  
GeoTracker, e-files

## Responsible Party(ies) Legal Requirements/Obligations

### REPORT REQUESTS

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

### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/electronic\\_submittal/report\\_rqmts.shtml](http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml)).

### PERJURY STATEMENT

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

### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

### UNDERGROUND STORAGE TANK CLEANUP FUND

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

### AGENCY OVERSIGHT

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

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> July 20, 2010
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

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

## REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:  
RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password:
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

# EPA On-line Tools for Site Assessment Calculation

[Module Home](#) [Objectives](#) [Table of Contents](#) [Previous](#) < [Next](#) >

## Hydraulic Gradient

**Gradient Calculation** from fitting a plane to three points

$$a x_1 + b y_1 + c = h_1$$

$$a x_2 + b y_2 + c = h_2$$

$$a x_3 + b y_3 + c = h_3$$

where  $(x_i, y_i)$  are the coordinates of the well and

$h_i$  is the head

$i = 1, 2, 3$

The gradient is calculated from the square root of  $(a^2 + b^2)$  and the angle from the arctangent of  $a/b$  or  $b/a$  depending on the quadrant

<input type="button" value="Example Data Set 1"/>	<input type="button" value="Calculate"/>	<input type="button" value="Clear"/>
<input type="button" value="Save Data"/>	<input type="button" value="Recall Data"/>	<input type="button" value="Go Back"/>
Site Name <input type="text" value="5930 College Ave"/>		<input type="button" value="Current Date"/>
Date <input type="text" value="10-16-2013"/>		
Calculation basis <input type="text" value="Head"/>		
Coordinates <input type="text" value="ft"/>		
x-coordinate	y-coordinate	head <input type="text" value="ft"/>
<input type="text" value="6055822.91"/>	<input type="text" value="2135878.96"/>	<input type="text" value="185.07"/>
<input type="text" value="6055818.98"/>	<input type="text" value="2135842.80"/>	<input type="text" value="184.66"/>
<input type="text" value="6055924.91"/>	<input type="text" value="2135914.96"/>	<input type="text" value="185.26"/>
Gradient Magnitude (i) <input type="text" value="0.01179"/>		
Degrees from North (+ y axis) <input type="text" value="169.1"/>		

[Previous](#) [Top](#) [Next](#)

[Home](#) | [Glossary](#) | [Notation](#) | [Links](#) | [References](#) | [Calculators](#)

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# X1302355 Job Site 5930 COLLEGE AV Parcel# 014 -1266-060-00

Descr Soil boring(s) & two wells on College Ave. Ref: ENMI13102. Permit Issued 09/06/13  
No impact on traffic lane allowed.

Call PWA INSPECTION prior to start: 510-238-3651. 4th FLOOR. YOUNG CHEW  
(510) 238-3760

Work Type EXCAVATION-PRIVATE P NON-Metered

USA # Util Co. Job # Acctg#:  
Util Fund #:

Applicant Phone# Lic# --License Classes--

Owner SHEAFF WILLIAM G TR

Contractor GREGG DRILLING & TESTING, INC. X (925) 313-5800 485165 C57

Arch/Engr

Agent GOLDEN GATE TANK/B WHEELER (415) 512-1555

Applic Addr 950 HOWE RD, MARTINEZ, CA., 94553

\$436.05 FEES TO BE PAID AT ISSUANCE		
\$71.00	Applic	\$309.00 Permit
\$ .00	Process	\$36.10 Rec Mgmt
\$ .00	Gen Plan	\$ .00 Invstg
\$ .00	Other	\$19.95 Tech Enh

**JOB SITE**

Permit Issued By ② Date: \_\_\_\_\_

Inspection Routing:  
Inits Date

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

FLD-CHK/Pre-Con  
Excavation/Anchor Installation  
Sidewalk repair mark-out  
Concrete repair  
Finalled

ADDRESS:

DIST:

CITY OF OAKLAND

**PAID**  
9/10/13 WMA

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Permit No. X1302355 Parcel #: 014 -1266-060-00  
Project Address: 5930 COLLEGE AV

Page 2 of 2

Licensed Contractors' Declaration

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Construction Lending Agency Declaration

I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender \_\_\_\_\_ Address \_\_\_\_\_

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

[ ] I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER: \_\_\_\_\_ POLICY NO. \_\_\_\_\_

[ ] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

PRINT NAME \_\_\_\_\_ Signature [ ] Contractor, or [ ] Agent \_\_\_\_\_ Date \_\_\_\_\_

ADDRESS:  
DIST:

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# OB130845 Job Site 5930 COLLEGE AV Parcel# 014 -1266-060-00

Reserve 2 metered spaces on College Av; one No Fee Ref: Permit Issued 09/06/13  
X1302355. No impact on traffic or sidewalk on this phase.  
Soil boring(s) & two wells on College Ave. Ref: ENMI13102.

Nbr of days: 1  
Effective: 09/27/13

## Display on Dashboard

Nbr of meters: 1  
Expiration: 09/27/13

SHORT TERM METERED

	Applcmt	Phone#	Lic#	--License Classes--
Owner	SHEAFF WILLIAM G TR			
Contractor	GREGG DRILLING & TESTING, INC.	X (925)313-5800	485165	C57
Arch/Engr				
Agent	GOLDEN GATE TANK/B WHEELER	(415)512-1555		
Applic Addr	950 HOWE RD, MARTINEZ, CA., 94553			

\$121.06 FEES TO BE PAID AT ISSUANCE	
\$71.00 Applic	\$34.50 Permit
\$.00 Process	\$10.02 Rec Mgmt
\$.00 Gen Plan	\$.00 Invstg
\$.00 Other	\$5.54 Tech Enh

## Display on Dashboard

**JOB SITE**

**To Have Illegally Parked Vehicle  
Ticketed Call 510-777-3333.  
Applicant arranges towing.  
For Towed Car Call 510-238-3021**

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

ADDRESS:

Applicant: \_\_\_\_\_

Issued by: \_\_\_\_\_ *(Signature)*

DIST:

CITY OF OAKLAND

**PAID**  
9/26/13 *(Signature)*



# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/18/2013 By jamesy

Permit Numbers: W2013-0460 to W2013-0462  
Permits Valid from 12/22/2013 to 12/22/2013

Application Id: 1370897951466  
Site Location: 5930 College Avenue  
Project Start Date: 07/09/2013  
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org  
Extension Start Date: 12/22/2013  
Extension Count: 2

City of Project Site:Oakland  
Completion Date:08/09/2013  
Extension End Date: 12/22/2013  
Extended By: priest

Applicant: Golden Gate Environmental, Inc. - Brent

Phone: 415-970-9088

Wheeler  
1455 Yosemite Avenue, San Francisco, CA 94124  
Dr. Brian Sheaff  
1945 Parkside Drive, Concord, CA 94519

Property Owner:

Phone: --

Client: \*\* same as Property Owner \*\*

Receipt Number: WR2013-0214 Total Due: \$1059.00  
Total Amount Paid: \$1059.00  
Payer Name : Golden Gate Tank Paid By: VISA PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study - 8 Boreholes  
Driller: EnProbe Environmental Drilling & Gregg Drilling-C57-485165 - Lic #: 777007  
- Method: DPcpt

Work Total: \$265.00

## Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2013-0460	06/18/2013	10/07/2013	8	2.50 in.	40.00 ft

## Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit

# Alameda County Public Works Agency - Water Resources Well Permit

application on site shall result in a fine of \$500.00.

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

---

Well Construction-Monitoring-Monitoring - 2 Wells

Driller: Gregg Driling & Testing - Lic #: 485165 - Method: hstem

**Work Total: \$794.00**

## Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2013-0461	06/18/2013	10/07/2013	MW-4	8.00 in.	2.00 in.	2.00 ft	13.00 ft
W2013-0462	06/18/2013	10/07/2013	MW-5	8.00 in.	2.00 in.	2.00 ft	13.00 ft

## Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

6. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to [stevem@acpwa.org](mailto:stevem@acpwa.org) at least

## Alameda County Public Works Agency - Water Resources Well Permit

five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie.

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

---

Borehole(s) for Investigation-Environmental/Monitoring Study - 0 Boreholes

Driller: Gregg Drilling & Testing - Lic #: 485165 - Method: CPT

**Work Total: \*\* \$0.00**

**\*\* Cancelled Work. Total amount adjusted. \*\***

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
* Cancelled *			1	2.50 in.	40.00 ft

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 09/04/2013 By jamesy**

**Permit Numbers: W2013-0733**  
**Permits Valid from 09/23/2013 to 10/10/2014**

**Application Id:** 1378233057623  
**Site Location:** 5930 College Avenue  
**Project Start Date:** 09/23/2013  
**Assigned Inspector:** Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

**City of Project Site:**Oakland

**Completion Date:**10/10/2014

**Applicant:** Golden Gate Environmental, Inc. - Brent **Phone:** 415-970-9088

Wheeler  
1455 Yosemite Avenue, San Francisco, CA 94124

**Property Owner:** Brian Dr. Sheaff **Phone:** --

1945 Parkside Drive, Concord, CA 94519  
\*\* same as Property Owner \*\*

**Client:**

	<b>Total Due:</b>	\$265.00
<b>Receipt Number: WR2013-0326</b>	<b>Total Amount Paid:</b>	\$265.00
<b>Payer Name : Golden Gate Tank</b>	Paid By: VISA	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Well Construction-Vapor monitoring well-Vapor monitoring well - 4 Wells  
Driller: EnProbe Environmental Drilling - Lic #: 777007 - Method: DP

**Work Total: \$265.00**

**Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2013-0733	09/04/2013	12/22/2013	SG-1	2.50 in.	0.25 in.	3.00 ft	4.00 ft
W2013-0733	09/04/2013	12/22/2013	SG-2	2.50 in.	0.25 in.	4.00 ft	5.00 ft
W2013-0733	09/04/2013	12/22/2013	SG-3	2.50 in.	0.25 in.	4.00 ft	5.00 ft
W2013-0733	09/04/2013	12/22/2013	SG-4	2.50 in.	0.25 in.	4.00 ft	5.00 ft

**Specific Work Permit Conditions**

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
  
2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.
  
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
  
4. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters

## Alameda County Public Works Agency - Water Resources Well Permit

generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

5. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

7. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

8. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to [stevem@acpwa.org](mailto:stevem@acpwa.org) at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

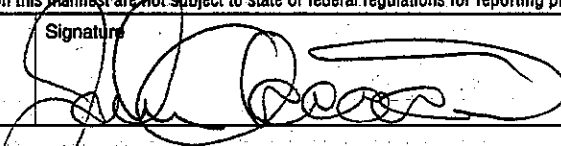
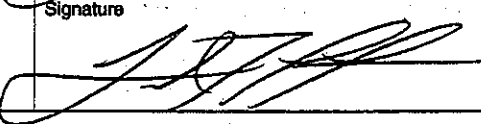

9. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

11. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

---

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.	2. Page 1 of 1	3. Document Number <b>Nº 10503</b>
4. Generator's Name and Mailing Address  Stauder Automotive 5980 College Avenue Oakland, CA 94618  Generator's Phone				
5. Transporter Company Name Icon Environmental Services	6. US EPA ID Number CAL 000 362 980	7. Transporter Phone		
8. Designated Facility Name and Site Address  Icon Environmental Services Inc 1220 Whipple Road Union City, CA 94587		9. US EPA ID Number CAL 000 369 026	10. Facility's Phone 510-476-1740	
11. Waste Shipping Name and Description		12. Containers	13. Total Quantity	14. Unit Wt/Vol
a. Non-Hazardous waste, liquid		No. Type		
		001 Dq	SS	G
b. Non-Hazardous waste, solid		No. Type		
		001 Dm	600	P
15. Special Handling Instructions and Additional Information wear PPE emergency contact 510-476-1740 attn: charles seaton		Handling Codes for Wastes Listed Above		
		11a.	11b.	
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to state or federal regulations for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name <i>John Accacian</i>		Signature 		Month Day Year 11/15/14
17. Transporter Acknowledgement of Receipt of Materials				
Printed/Typed Name <i>James Truffa</i>		Signature 		Month Day Year 11/15/14
18. Discrepancy Indication Space				
19. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 18.				
Printed/Typed Name <i>Charles Seaton</i>		Signature 		Month Day Year 01/15/14

GENERATOR

TRANSPORTER

FACILITY

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

## SUCCESS

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF
<u>Report Title:</u>	Additional Soil & Groundwater Investigation Report - February 2014
<u>Report Type:</u>	Soil and Water Investigation Report
<u>Facility Global ID:</u>	T0600102112
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Torrent 1310114_4Q13 GWM EDF.zip
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 11:14:57 AM
<u>Confirmation Number:</u>	5660132706

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_WELL FILE

**SUCCESS**

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<u>Submittal Type:</u>	GEO_WELL
<u>Report Title:</u>	Additional Soil & Groundwater Investigation Report - February 2014
<u>Facility Global ID:</u>	T0600102112
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	GEO_WELL.zip
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 11:30:50 AM
<u>Confirmation Number:</u>	5599229931

Copyright © 2014 State of California



STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

## SUCCESS

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF
<u>Report Title:</u>	Additional Soil & Groundwater Investigation Report - February 2014
<u>Report Type:</u>	Soil and Water Investigation Report
<u>Facility Global ID:</u>	T0600102112
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Torrent 1308066_B25_SG EDF.zip
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 11:00:47 AM
<u>Confirmation Number:</u>	7481294155

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

## SUCCESS

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF
<u>Report Title:</u>	Additional Soil & Groundwater Investigation Report - February 2014
<u>Report Type:</u>	Soil and Water Investigation Report
<u>Facility Global ID:</u>	T0600102112
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	TEG_Soil Gas Sampling.zip
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 11:05:38 AM
<u>Confirmation Number:</u>	7033495068

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

## SUCCESS

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF
<u>Report Title:</u>	Additional Soil & Groundwater Investigation Report - February 2014
<u>Report Type:</u>	Soil and Water Investigation Report
<u>Facility Global ID:</u>	T0600102112
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Torrent 1310108_SG-3 EDF.zip
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 11:02:57 AM
<u>Confirmation Number:</u>	9731253921

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

## SUCCESS

Processing is complete. No errors were found!  
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF
<u>Report Title:</u>	Additional Soil & Groundwater Investigation Report - February 2014
<u>Report Type:</u>	Soil and Water Investigation Report
<u>Facility Global ID:</u>	T0600102112
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Torrent 1309152_CPT-1B_EDF.zip
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 11:06:58 AM
<u>Confirmation Number:</u>	8490007519

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

**Your GEO\_BORE file has been successfully submitted!**

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600102112
<u>Field Point:</u>	B25
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Visio-2014 - B25.pdf
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 10:50:13 AM
<u>Confirmation Number:</u>	<b>2095162570</b>

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

**Your GEO\_BORE file has been successfully submitted!**

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600102112
<u>Field Point:</u>	B26
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Visio-2014 - B26.pdf
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 10:52:10 AM
<u>Confirmation Number:</u>	<b>3375734448</b>

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

**Your GEO\_BORE file has been successfully submitted!**

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600102112
<u>Field Point:</u>	B27
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Visio-2014 - B27.pdf
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 10:53:13 AM
<u>Confirmation Number:</u>	<b>7503594577</b>

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

**Your GEO\_BORE file has been successfully submitted!**

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600102112
<u>Field Point:</u>	SG-1
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Visio-2014 - SG-1.pdf
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 10:54:06 AM
<u>Confirmation Number:</u>	<b>3388886928</b>

Copyright © 2014 State of California



STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

**Your GEO\_BORE file has been successfully submitted!**

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600102112
<u>Field Point:</u>	SG-2
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Visio-2014 - SG-2.pdf
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 10:55:03 AM
<u>Confirmation Number:</u>	<b>1734083056</b>

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_BORE FILE

**SUCCESS**

**Your GEO\_BORE file has been successfully submitted!**

<u>Submittal Type:</u>	GEO_BORE
<u>Facility Global ID:</u>	T0600102112
<u>Field Point:</u>	SG-3
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Visio-2014 - SG-3.pdf
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 10:55:52 AM
<u>Confirmation Number:</u>	<b>4232517302</b>

Copyright © 2014 State of California

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_MAP FILE

**SUCCESS**

**Your GEO\_MAP file has been successfully submitted!**

<u>Submittal Type:</u>	GEO_MAP
<u>Facility Global ID:</u>	T0600102112
<u>Facility Name:</u>	SHEAFFS SERVICE GARAGE
<u>File Name:</u>	Visio-2014_Figure 3_Site Plan_Dec2013.pdf
<u>Organization Name:</u>	Golden Gate Environmental, Inc.
<u>Username:</u>	GGE
<u>IP Address:</u>	108.81.108.167
<u>Submittal Date/Time:</u>	2/18/2014 10:57:18 AM
<u>Confirmation Number:</u>	<b>5196306347</b>

Copyright © 2014 State of California