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## GROUNDWATER MONITORING REPORT 4<sup>th</sup> Quarter 2009

**Sheaff's Garage  
5930 College Avenue  
Oakland, CA 94618**

**ACHCSA Fuel Leak Case No. RO0000377**

Prepared For:

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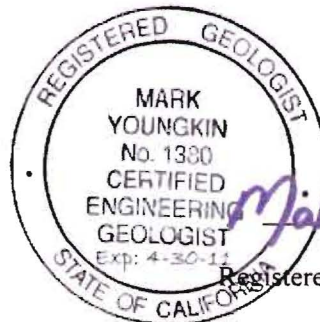
Prepared By:

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Project No. 2014

Sampling Date: October 27, 2009  
Report Date: December 2, 2009

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**GROUNDWATER MONITORING REPORT  
4<sup>th</sup> Quarter 2009**

Sheaff's Garage, 5930 College Avenue, Oakland, CA

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# GROUNDWATER MONITORING REPORT

## 4<sup>th</sup> Quarter 2009

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

### **INTRODUCTION**

Golden Gate Environmental, Inc. (GGE) presents the results of the October 27, 2009, groundwater monitoring and sampling event conducted at 5930 College Avenue in Oakland, California (the Site). The Alameda County Health Care Services Agency (ACHCSA) has designated the Site as Fuel Leak Case No. RO000377. Figure 1 presents a *Site Location Map*. Figure 2 titled *Site Plan*, depicts the Site, adjacent properties, and associated features. Figure 3 titled *Groundwater Data Diagram* shows the groundwater flow direction for the October 2009 event. Figure 4 titled *TPH Gasoline in Groundwater* illustrates the distribution of total petroleum hydrocarbons (TPH) as gasoline in groundwater across the Site. Table 1 provides a tabulated summary of the laboratory results of historical groundwater sample analyses and fluid-level monitoring data at the Site. Table 2 provides a tabulated summary of sample analyses for Volatile Organic Compounds (VOCs).

Gettler-Ryan, Inc. of Dublin, California is currently conducting a separate groundwater investigation for the former Chevron Station #20-9339 located adjacent to the north side of the Site at 5940 College Avenue. Two groundwater monitoring wells (GR-MW1 & GR-MW2) are used to evaluate the hydrocarbon concentrations in groundwater at this property. In a letter dated September 1, 2008, the ACHCSA reviewed the case file and requested that additional characterization be performed and a conceptual site model be prepared for the former Chevron Station property.

Joint monitoring and sampling activities have been conducted on a quarterly basis since October 2000. Since the April 8, 2002 event, Gettler-Ryan has monitored and sampled each well on a biannual basis. Gettler-Ryan performed their most recent monitoring and sampling of GR-MW1 & GR-MW2 on October 1, 2009. As of the First Quarter 2009 event, GGE has been contracted to perform the groundwater monitoring activities at the Site in lieu of Golden Gate Tank Removal, Inc. Due to schedule conflict, GGE was unable to perform the joint monitoring with Gettler-Ryan on October 1, 2009. Figures 2 and 3 show the location of each Gettler-Ryan well relative to the monitor wells on the subject property. Attachment B includes Gettler-Ryan's summary table titled *Groundwater Monitoring Data and Analytical Results*.

### **SITE DESCRIPTION**

The Site is located at 5930 College Avenue along the east side of College Avenue between Harwood Street and Chabot Road. The Site lies approximately 2.5 miles east of Interstate 80 and the San Francisco Bay. Figure 1 shows the general location of the Site. Stoddard Automotive (formerly Sheaff's Service Garage) currently occupies the Site for the service and repair of automobiles. No active fuel storage or distribution occurs at the Site. The Site

is approximately 5,500 square feet in area with about 75% utilized by a covered warehouse/garage and 25% used as an exterior (uncovered) storage yard. The ground surface of the entire Site is paved with concrete. The elevation of the Site is approximately 195 feet above Mean Sea Level as shown on Figure 1. The Site is relatively flat lying with the topographic relief in the immediate vicinity of the Site generally directed toward the southwest. Regional topographic relief appears to be directed toward the west-southwest in the general direction of the San Francisco Bay.

## **PROJECT HISTORY**

One 675-gallon gasoline Underground Storage Tank (UST) and one 340-gallon waste oil UST were located beneath the sidewalk at the southwest corner of the Site. Figure 2 depicts pertinent Site structures and adjacent properties. In August 1996, Golden Gate Tank Removal, Inc. (GGTR) removed two USTs and an associated fuel dispenser from the Site at the locations shown in Figure 2. The following table presents a summary of the tank designations, size, type of construction and contents:

Designation	Construction	Diameter (Feet)	Length (Feet)	Volume (Gallons)	Contents
TANK 1	Steel	4	7	675	Gasoline
TANK 2	Steel	4	3.5	340	Waste Oil

GGTR removed the residual fuel from the subsurface product piping (left in place), thoroughly flushed and drained the piping, and capped both ends. GGTR over-excavated the gasoline-contaminated soil surrounding the former UST location. The tank removal and over-excavation activities are documented in the GGTR document titled *Tank Removal Report* dated October 11, 1996.

Between May 1998 and October 1999, GGTR performed a preliminary subsurface soil boring investigation at the Site and subsequently installed three groundwater monitoring wells in the vicinity of the former UST cavity. Soil borings B1 to B3 were advanced immediately south, east, and west, respectively, of the former UST cavity. Following review and interpretation of all field and soil sample analytical data collected during these activities, additional soil borings B4 to B6 were then advanced at the Site to further assess the extent of contamination in soil and the potential impact to groundwater. The latter borings were converted to 2-inch-diameter groundwater monitoring wells MW-1 to MW-3. Figure 2 depicts the boring and monitoring well locations.

Based on the residual elevated concentrations of gasoline-range hydrocarbons measured in the groundwater samples collected during the April 2001 quarterly monitoring activities, the ACHCSA, in a letter dated July 9, 2001, requested a work plan to assess whether any additional contaminant sources may potentially exist onsite that may be contributing to the elevated hydrocarbon concentration in groundwater. GGTR submitted the work plan on December 19, 2001, which was subsequently approved by the ACHCSA in a letter dated January 3, 2002. In August, October, and November 2002, GGTR implemented the UST

product line excavation / removal activities and installed soil borings B7 to B11. Figure 2 depicts the locations of these borings, as well as the location of the former product line and associated sample points. Details are presented in the GGTR document titled *Report of Additional Soil and Groundwater Investigation* dated June 10, 2003.

Based on review of the GGTR report, the ACHCSA in their letter dated September 8, 2003, requested a work plan addressing additional source and site characterization of contaminants in soil and groundwater at the Site. GGTR submitted the Work Plan for Additional Site Characterization on December 29, 2003, and its Addendum on September 30, 2004, which were conditionally approved by the ACHCSA in letters dated June 3, 2004, and February 22, 2005. Between April and July 2005, GGTR advanced additional borings B12 to B24 to approximately 25 feet below grade surface (fbg) and Hydropunch borings HB-1 to HB-6 to approximately 15 fbg, and converted HB-2 to piezometer well PW-1. Figure 2 shows the location of each additional soil boring. Details of this investigation are presented in the GGTR document titled *Report of Additional Site Characterization and Groundwater Monitoring* dated August 29, 2006.

Between October 2003 and October 2009, GGTR conducted additional quarterly groundwater monitoring and sampling activities at the Site and submitted their associated Groundwater Monitoring Reports to the ACHCSA. GGTR was not contracted to conduct the Third Quarter 2006, First Quarter 2008, and Third Quarter 2009 groundwater monitoring events at the Site. The results of the October 2009 monitoring and sampling events are presented in the following sections.

Based on review of the conclusions and recommendations presented in the GGTR documents titled *Report of Additional Site Characterization* dated August 2006 and *Groundwater Monitoring Report* dated May 30, 2008, the ACHCSA on July 25, 2008, issued a letter requesting a work plan to implement the conditionally approved activities. The additional work activities are to include 1) vertical and horizontal delineation of dissolved contaminant plume(s), 2) resurveying the wellhead elevations of all existing Site wells and piezometer well, 3) further preferential pathway evaluation of the Harwood Creek conduit down gradient of the Site, 4) further characterization of the PCE-impacted groundwater in the vicinity of PW-1, and 5) updating the existing Site Conceptual Model with data acquired from the additional Site characterization activities. On June 1, 2009, GGTR submitted the *Soil and Water Investigation Work Plan & Site Conceptual Model* to the ACHCSA for review.

## **GROUNDWATER MONITORING & SAMPLING: OCTOBER 2009**

The scope of work for the Fourth Quarter 2009 groundwater monitoring and sampling event includes the following:

- Monitoring, purging and sampling of monitoring 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

### **Groundwater Monitoring and Sampling**

On October 27, 2009, GGE monitored and sampled wells MW-1, MW-2, MW-3 and PW-1. Prior to purging and sampling, GGE removed the well cover and locking compression cap from each well and allowed the groundwater in each well column to stabilize for approximately 20 minutes. GGE 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.

GGE subsequently purged groundwater from the monitor wells using a peristaltic pump (average flow rate @ 0.17 to 0.31 gallons per minute), and simultaneously monitored and recorded the pH, temperature, and specific conductivity of the purged well water. GGE terminated well purging after evacuation of approximately three well casing volumes and/or three successive readings of each parameter varied by less than 0.1, 10%, and 3%, respectively. GGE transferred the purge water directly to a 55-gallon, D.O.T.-approved steel drum.

After the groundwater in each well recharged to approximately 80% of its original level, GGE collected a groundwater sample using a peristaltic pump with dedicated tubing lowered just below the measured groundwater level. The sample was immediately removed from the well and the groundwater was carefully decanted from the end of the tubing into pre-cleaned, laboratory-provided sample containers. All volatile organic analysis (VOA) vials were inverted and checked to insure that no entrapped air was present. The samples were sealed with Teflon caps, properly labeled, and stored in a cooler chilled to approximately 4°C. Attachment A presents 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
- Fuel Oxygenates by EPA Method SW8260B

The groundwater sample collected from well PW-1 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. Tables 1 and 2 present a summary

of the analytical results for the current sampling event as well as previous monitoring/sampling events at the Site. Attachment B includes a copy of the Laboratory Certificate of Analysis and associated Chain of Custody Record for this event.

### **Waste Management**

On July 13, 2009, Uni Waste removed the drummed purge and wash/rinse water accumulated from the January and April 2009 (@ 50 gallons), and previous monitoring events (@ 40 gallons) and transported the RCRA Hazardous Waste Liquid under Uniform Hazardous Waste Manifest No.004450247 to the Siemens Water Technologies Corp. in Vernon, California. Appendix B includes a copy of the liquid waste manifest.

The well purge and equipment wash and rinse water generated during the October 2009 (@ 23 gallons) was transferred directly to a D.O.T.-approved, 55-gallon drum, appropriately labeled and sealed, and temporarily stored onsite in a secure area pending final disposal at a licensed facility.

### **GeoTracker Electronic Submittal**

GGE directed Torrent to submit all analytical data in electronic deliverable format (EDF) via the Internet. GGE uploaded the analytical data as well as the Fluid-Level Monitoring Data (GEO\_WELL) to the State Water Resources Control Board's GeoTracker Database System. GGE also uploaded a copy of this report in Portable Data Format (PDF) to the GeoTracker Database. Attachment B includes a copy of each associated GeoTracker Upload Confirmation Form.

## **RESULTS**

### **Groundwater Monitoring Results**

For the October 2009 event, the groundwater elevations calculated relative to the top of well casing in wells MW-1, MW-3 and PW-1 ranged between 186.26 (MW-3) and 186.85 (PW-1) feet, as referenced to Mean Sea Level (MSL).

The groundwater elevation and coordinate data for each monitoring event was entered into the EPA On-Line Tools for Site Assessment Calculation – Hydraulic Gradient. 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. Figure 3 titled *Groundwater Data Diagram* depicts the groundwater flow direction for the October 2009 monitoring event. Figure 3 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 EPA On-Line Tools for Site Assessment Calculation sheet for this event is included in Attachment B.

During the October 2009 monitoring event, the groundwater flow direction beneath the Site was estimated at South 1° East (179 °) under a hydraulic gradient of approximately 0.008 ft/ft. The groundwater flow direction for the October 2009 event is consistent with historical data for the Site with general flow direction towards the south. However, groundwater elevations measured in Gettler-Ryan wells on October 1, 2009, were inconsistent with those measured for the subject wells, showing groundwater elevations approximately 3 to 4 feet lower than that reported in onsite well MW-1.

### **Results of Groundwater Sampling and Laboratory Analysis**

Elevated concentrations of TPH as gasoline ranging between 1100 µg/l in well PW-1 and 61000 µg/l in well MW-1 were measured in groundwater samples collected during the October 2009 event. Benzene concentrations ranging between 12 µg/l in well PW-1 and 8300 µg/l in well MW-1 were measured in groundwater samples collected during the October 2009 event. The TPH as gasoline and benzene concentrations continue to exceed applicable groundwater ESL values. Figure 4 titled *TPH Gasoline in Groundwater* presents an isoconcentration map for TPH as gasoline in groundwater for the October 2009 event. Table 1 presents a summary of the historical petroleum hydrocarbon analysis results for these events. The laboratory analytical report provided for each event is included in Attachment B.

MTBE was detected at a concentration of 75 µg/l above the ESL value in monitoring well MW-1 only. Since April 2009, MTBE concentrations have been insignificant or below lab detection limits in wells MW-2, MW-3 and PW-1. Fuel oxygenates were again not detected in the groundwater samples collected in wells MW-1 to MW-3 & PW-1 during the October 2009 event.

PCE was detected in the groundwater sample collected in well PW-1 at a concentration of 78 µg/l exceeding its applicable ESL value of 5 µg/l. The concentration of PCE in well PW-1 continues to fluctuate ranging between 25 µg/l in October 2005 to 120 µg/l in April 2009. Cis-1,2-DCE was measured in well PW-1 at a concentration of 35 µg/l. TCE remains insignificant or not detected in the wells. Table 2 presents a summary of the historical groundwater VOC analysis results and the complete VOC laboratory report for well PW-1 is included in Attachment B.



## **CONCLUSIONS / RECOMMENDATIONS**

Due to the elevated concentrations of TPH-G and Benzene remaining in monitor wells MW-1 to MW-3 and PW-1, GGE recommends continuing the joint groundwater monitoring and sampling program with Gettler-Ryan. However, pursuant to the recently passed State Water Resources Control Board's (SWRCB) Resolution 2009-042, GGTR recommends reducing the sampling frequency for all onsite monitoring wells to a semi-annual basis. Sampling should be conducted during the 2<sup>nd</sup> & 4<sup>th</sup> Quarters, in which historical groundwater contaminant concentrations in MW-1 to MW-3 have generally been the highest, and to be consistent with Gettler-Ryan's semi-annual monitoring schedule at 5940 College Avenue. The next event is tentatively scheduled at the Site in April 2010.

Groundwater samples will continue to be analyzed for TPH-G and BTEX by EPA Method 8260B. Fuel Oxygenate concentrations measured in all site wells have been non-detectable and do not appear to be constituents of concern at the Site. Additionally, to further monitor the concentrations of PCE in groundwater in the vicinity of well PW-1, GGE will continue to analyze the groundwater sample from this well for VOCs (full list) by EPA Method 8260B.

Following review and authorization by the ACHCSA, GGE recommends implementation of GGTR's June 1, 2009 *Soil & Water Investigation Work Plan & Site Conceptual Model*.

## **REPORT DISTRIBUTION**

This report and future correspondence associated with GGE Project 2014 will be submitted to:

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

*Attention: Ms. Barbara Jakub (1 Electronic Copy via ACHCSA FTP Site)*

Dr. Brian R. Sheaff, D.D.S.  
1945 Parkside Drive  
Concord, CA 94519

*(1 Copy; Bound)*

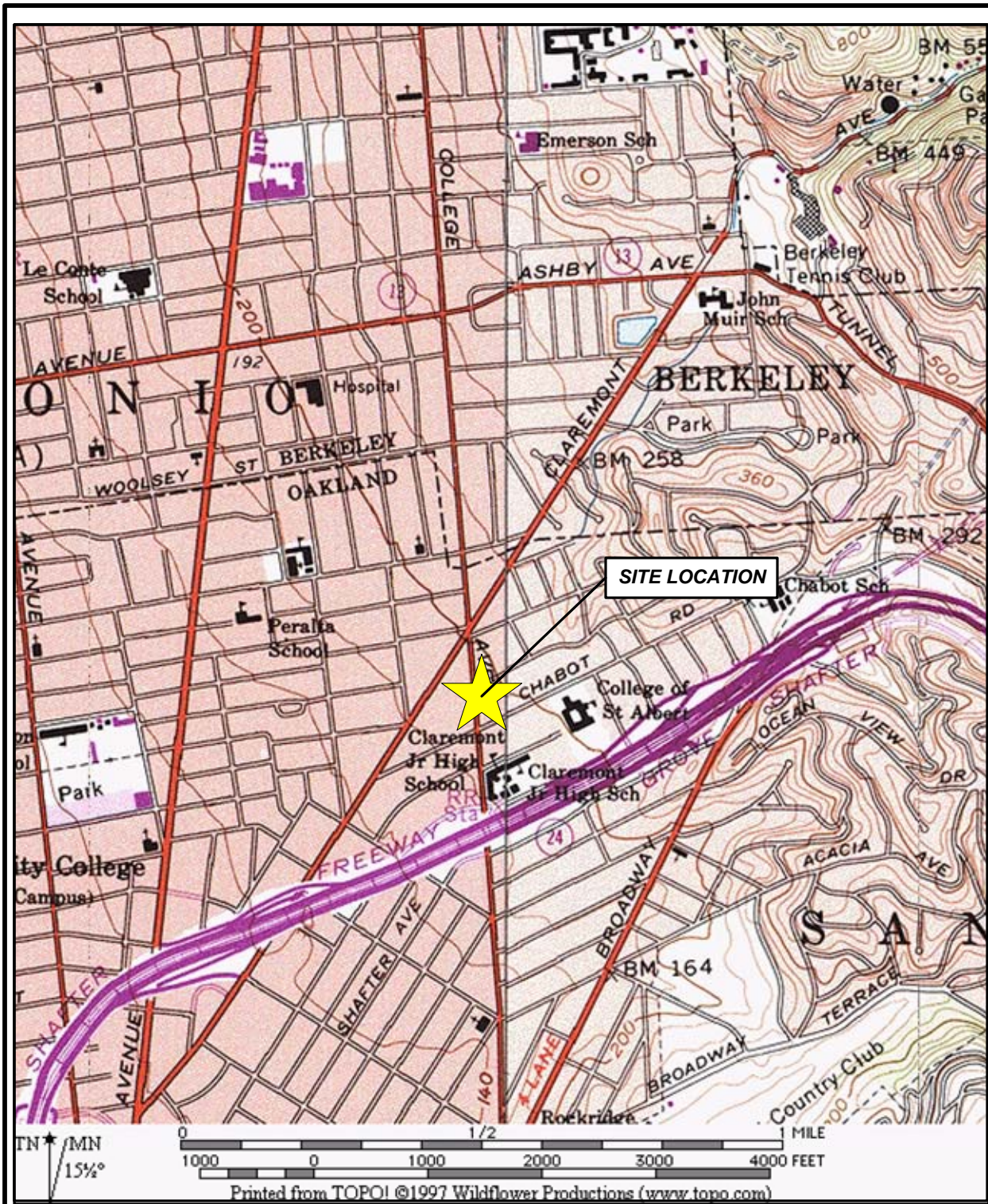
## **LIMITATIONS**

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 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 materials 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's 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. No other party may rely on this report for any other purpose.

***Golden Gate Environmental, Inc.***





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**SITE LOCATION MAP**  
 Sheaff's Garage  
 5930 College Avenue  
 Oakland, CA 94618

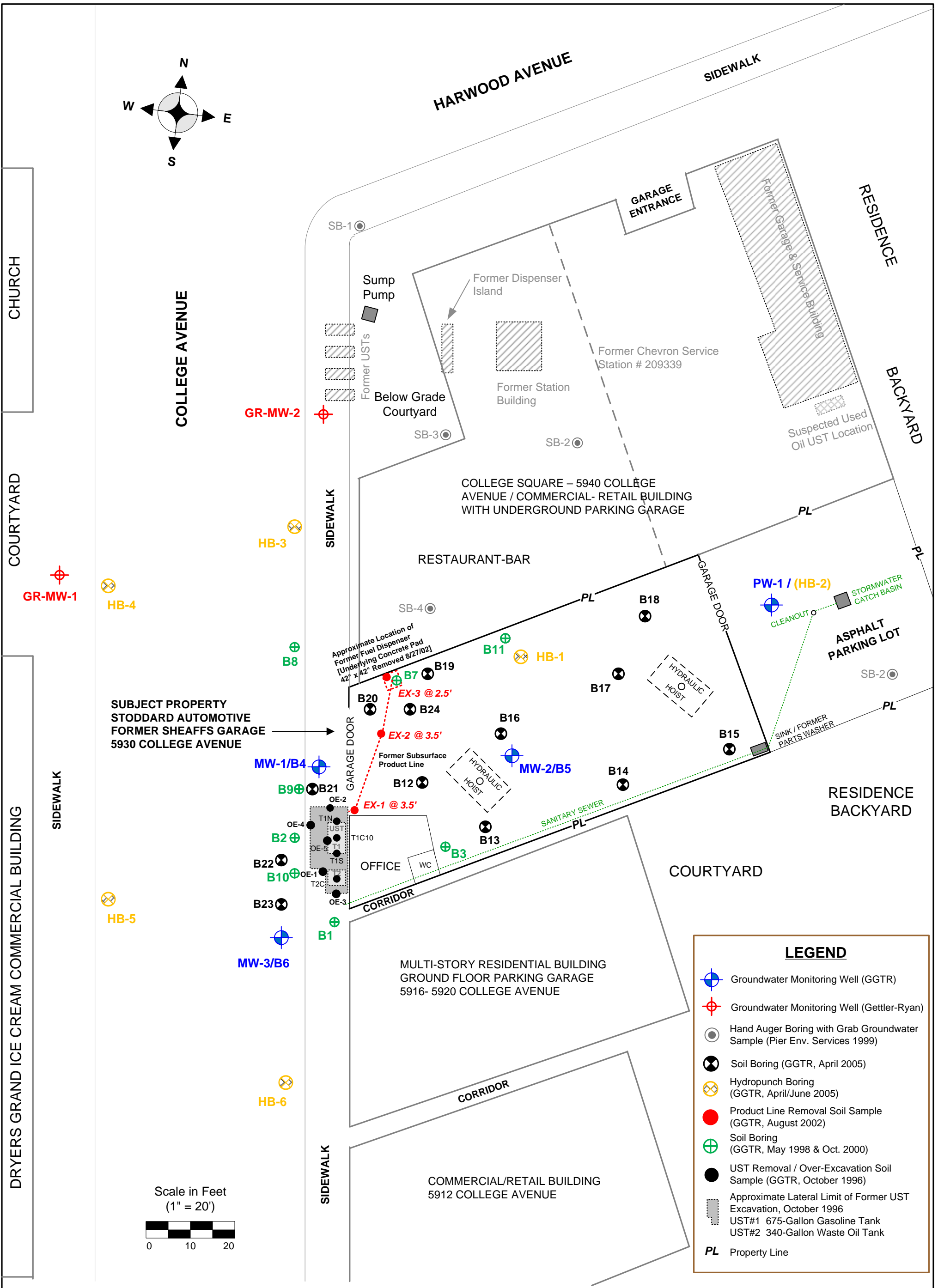
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Edited by: TF (2/09)

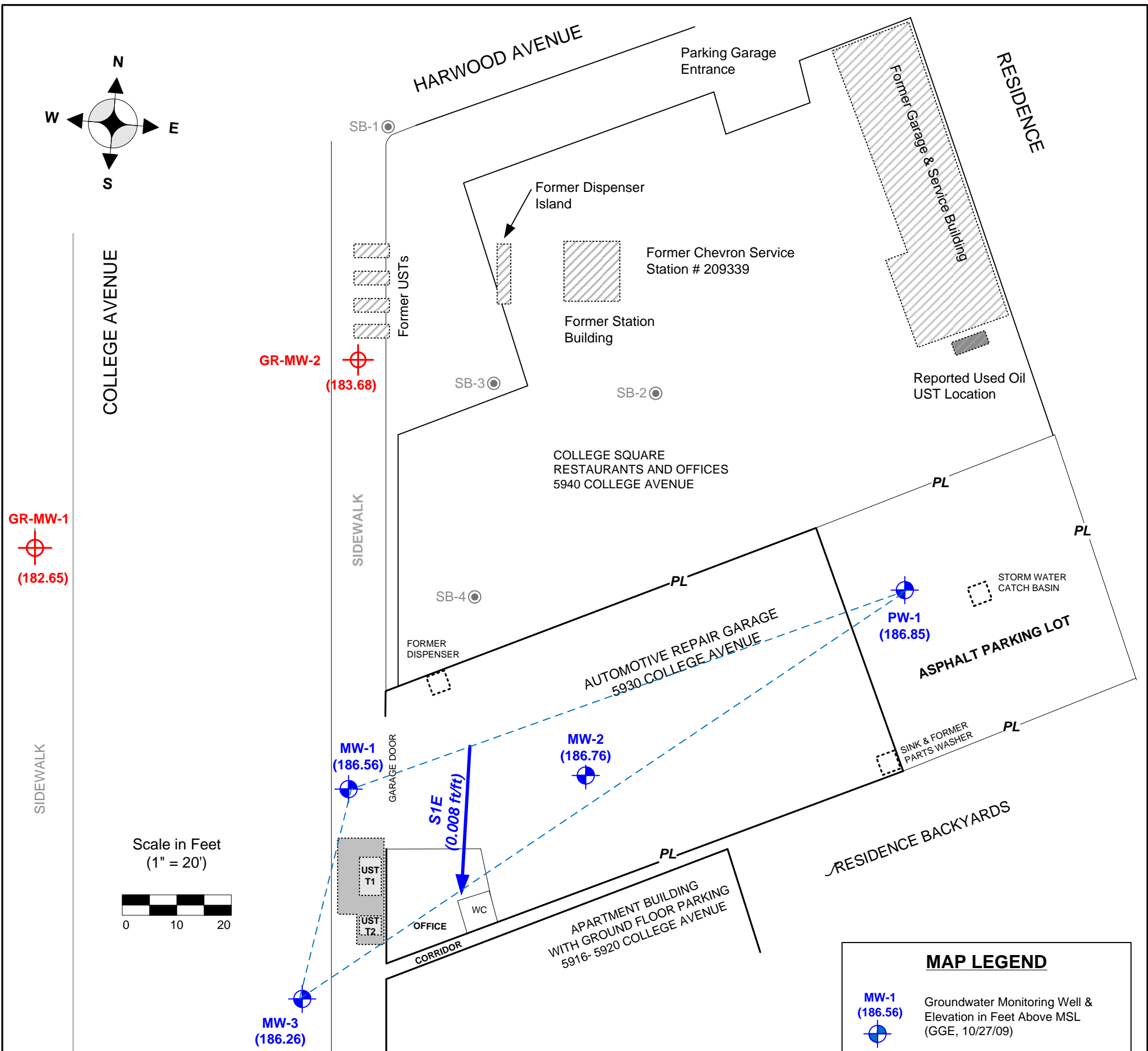
January 2009

Figure 1

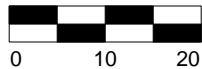




 <p><b>GOLDEN GATE ENVIRONMENTAL, INC.</b>          3730 Mission Street, San Francisco, CA 94110          Ph (415) 970-9088 Fx (415) 970-9089</p>	<p><b>SITE PLAN</b>          Sheffs Service Garage          5930 College Avenue, Oakland, CA 94618</p>
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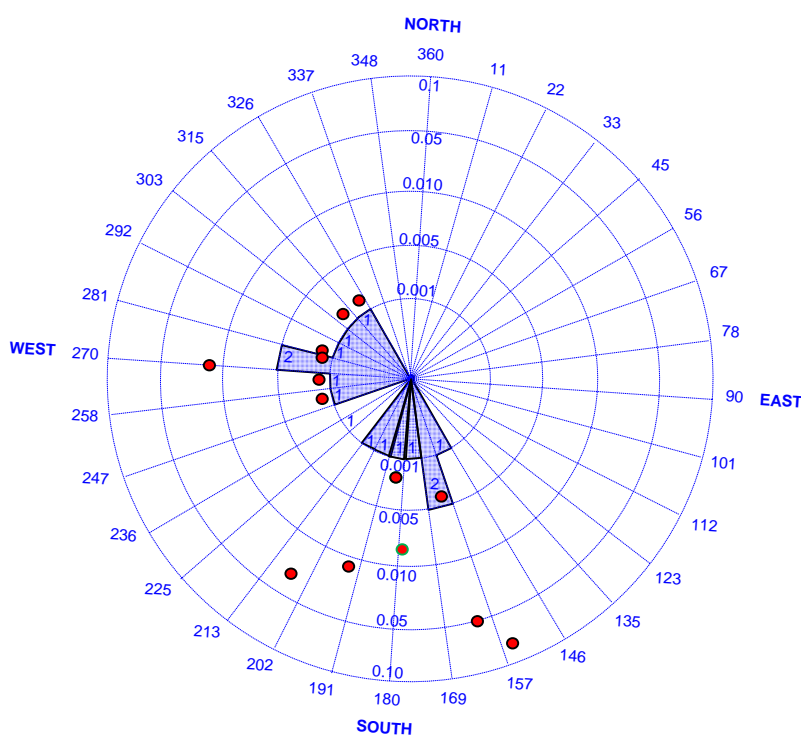
Scale in Feet  
(1" = 20')



**MAP LEGEND**

- MW-1 (186.56)**  
 Groundwater Monitoring Well & Elevation in Feet Above MSL (GGE, 10/27/09)
- GR-MW-1 (182.65)**  
 Groundwater Monitoring Well & Elevation in Feet Above MSL (Gettler-Ryan, 10/1/09)
- Approximate Groundwater Flow Direction and Hydraulic Gradient (10/27/09)
- 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 recent 2005-2009 data.

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

**Wells MW-1, MW-3 & PW-1:** ●

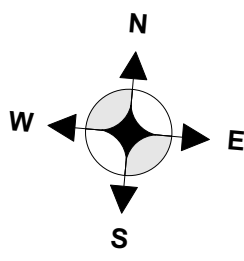
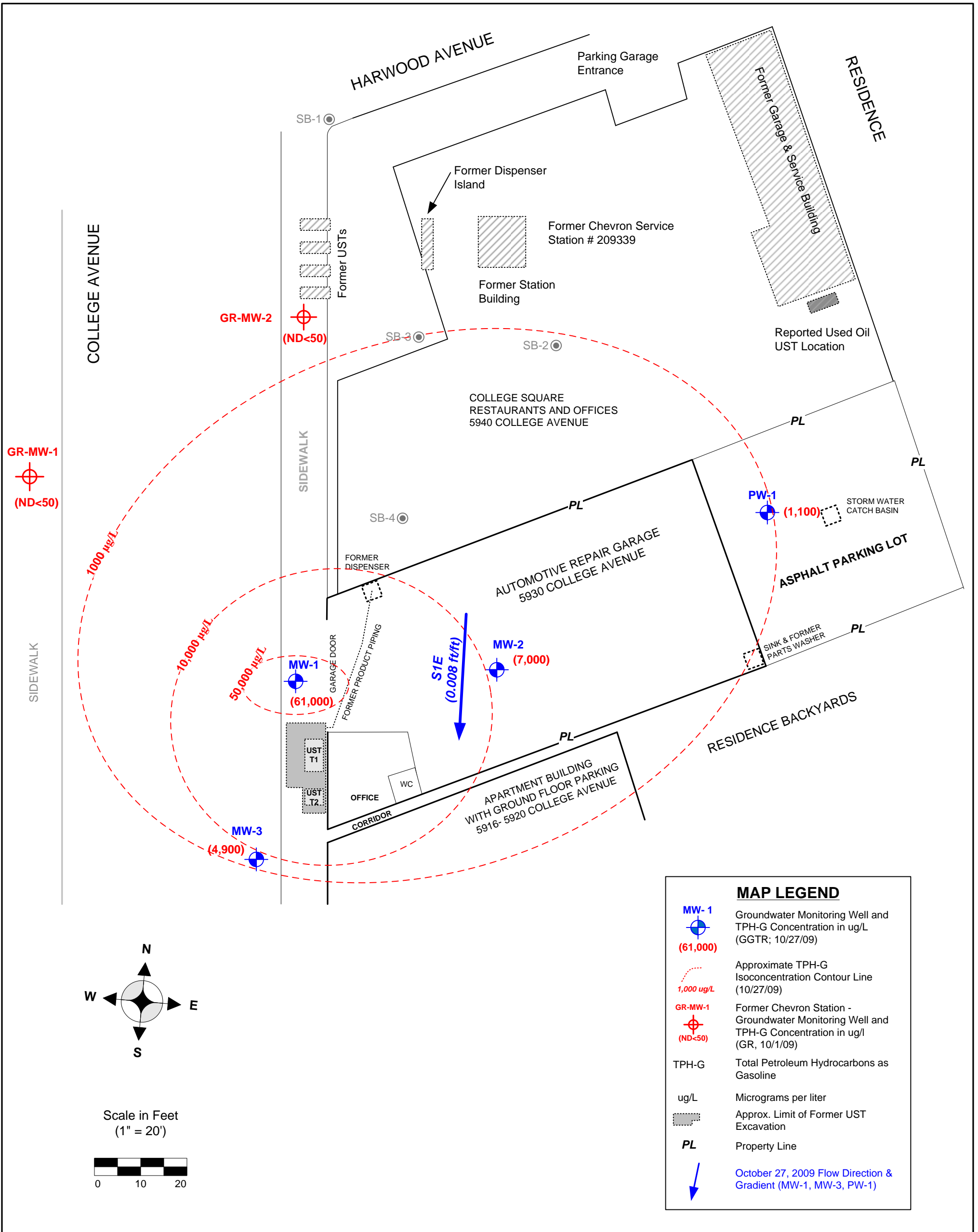
4/14/05	161.3@0.05
7/26/05	282.5@0.002
10/14/05	309.9@0.002
1/13/06	194.8@0.016
04/14/06	208.5@0.026
10/26/06	249.9@0.002
01/30/07	325@0.002
04/13/07	265.9@0.002
07/24/07	281.8@0.002
4/21/08	155.2@0.072
7/22/08	270.4@0.012
10/21/08	159.5@ 0.004
1/19/09	184 @ 0.0017
<b>10/27/09</b>	<b>179 @ 0.008</b>



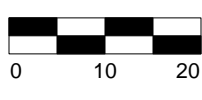
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**GROUNDWATER DATA DIAGRAM**  
**October 2009**  
Sheaffs Service Garage  
5930 College Avenue, Oakland, CA 94618



Scale in Feet  
(1" = 20')



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**TPH GASOLINE IN GROUNDWATER**  
**October 2009**  
Sheaffs Service Garage  
5930 College Avenue, Oakland, CA 94618

**TABLE 1**  
**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		
CRWQCB ESL - Nov 2007						100	5	1.0 / 40 / 30 / 20	

Table Notes Following

**TABLE 1 (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	
<b>10/27/09</b>	<b>10.52</b>		<b>186.76</b>	<b>Odor</b>	<b>7000</b>	<b>ND&lt;0.5***</b>	<b>510/19/330/160</b>	
<b>CRWQCB ESL - Nov 2007</b>						<b>100</b>	<b>5</b>	<b>1.0 / 40 / 30 / 20</b>

**Table Notes Following**



**TABLE 1 (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		
<b>10/27/09</b>	<b>8.96</b>		<b>186.26</b>	<b>Odor</b>	<b>4900<sup>2</sup></b>	<b>ND&lt;0.5***</b>	<b>130/8.5/89/130</b>		
<b>CRWQCB ESL - Nov 2007</b>						<b>100</b>	<b>5</b>	<b>1.0 / 40 / 30 / 20</b>	

Table Notes Following

**TABLE 1 (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
	<b>10/27/2009</b>		<b>10.32</b>	<b>186.85</b>	<b>None</b>	<b>1100 <sup>2</sup></b>	<b>ND&lt;0.5</b>	<b>12/ND&lt;0.5/36/34</b>
<b>CRWQCB ESL - Nov 2007</b>						<b>100</b>	<b>5</b>	<b>1.0 / 40 / 30 / 20</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

\* = 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 - November 2007, Tier 1 Environmental Screening Level for groundwater that **IS** a potential source of drinking water

**TABLE 2**  
**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)
<b>PW-1</b>	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	
<b>10/27/09</b>	<b>6</b>	<b>4.8</b>	<b>ND&lt;0.5</b>	<b>15</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;1.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;5.0</b>	<b>35</b>	<b>ND&lt;0.5</b>	<b>78</b>	
<b>CRWQCB ESL</b>		<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>	<b>17</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>0.5</b>	<b>5</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 - November 2007, Tier 1 Environmental Screening Level  
for groundwater that **IS** a potential source of drinking water

**GROUNDWATER MONITORING REPORT**  
**4<sup>th</sup> Quarter 2009**

**Sheaff's Garage**  
**5930 College Avenue**  
**Oakland, CA 94618**

**ACHCSA Fuel Leak Case No. RO0000377**

**ATTACHMENT A**

**Fluid-Level Monitoring Data Form**  
**Well Purging/Sampling Data Sheets**



# Golden Gate Environmental, Inc.

## Well Purging Sampling Data Form

Project #: 2014

Date: 10/27/09

Project/Site Address: Sheep's Auto - 5330 College Ave, Oak  
 Technician/Sampler: John Carver

Casing Diameter (Inches)	0.75	2	4	6	8	12
Casing Volume (Gallons/Linear Foot)	0.02	0.17	0.66	1.5	2.6	5.81

Well No. MW1

- A. Total Well Depth 14.00 Ft. (TOC) 3.7
- B. Depth to Groundwater (DTGW) 9.34 Ft. (TOC)
- C. Water Height (A-B) 4.66 Ft.
- D. Well Casing Diameter 2 In.
- E. Casing Volume Constant 17 Gallons/Ft.
- F. One (1) Casing Volume (Cx E) .8 Gallons
- G. Three (3) Casing Volumes (Cx Ex3) 2.4 Gallons
- H. 80% Recharge Level [A-(0.80xC)] 10.3 Ft.

**Purge Event**

Start Time: 1140 DTGW: 9.34  
 Finish Time: 1156 DTGW: 11.16  
 Purge Volume: 3 gal  
 Purge Intake Depth: 13.50  
 Purge Rate (Gals./Min.): 0.17 gpm  
 Purge Water Appearance: Clear

**Recharge Event**

Start Time: 1156 DTGW: 11.16  
 Finish Time: 1208 DTGW: 10.27  
 Recharge Rate (Ft./Min.): 0.09 FPM

**Water Quality Parameters:**

Casing Volume (Gallons)

	0	0.5	1	1.5	2	2.5	3
Time	<u>1140</u>		<u>1147</u>		<u>1151</u>		<u>1158</u>
DTGW	<u>9.34</u>		<u>10.25</u>		<u>10.74</u>		<u>11.16</u>
pH	<u>7.26</u>		<u>6.86</u>		<u>6.97</u>		<u>7.01</u>
T (°C)	<u>18.4</u>		<u>18.9</u>		<u>18.5</u>		<u>18.7</u>
Cond.	<u>420</u>		<u>306</u>		<u>163</u>		<u>153</u>
DO (mg/l)							
DO (%)							
ORP (mV)							

**Summary Data:**

Total Gallons Purged: 3  
 Purge Rate (Gals./Min.): 0.17  
 Purge Device: peristaltic pump  
 Sampling Device: "  
 Sample Intake Depth: 13.5  
 Sample Collection Time: 12:12  
 Sample Appearance: Clear

**Notes:**

Clear, No sheen, odor

Drums Remaining Onsite: 1 Total Drum Volume (Gals.): 20 gal

# Golden Gate Environmental, Inc

## Well Purging Sampling Data Form

Project #: 2014

Date: 10/27/09

Project/Site Address: Sheep's Auto - 5930 College Ave Oakland  
 Technician/Sampler: John Carver

Casing Diameter (Inches)	0.75	2	4	6	8	12
Casing Volume (Gallons/Linear Foot)	0.02	0.17	0.66	1.5	2.6	5.81

Well No. MW2

76

- A. Total Well Depth 20.00 Ft. (TOC)
- B. Depth to Groundwater (DTGW) 10.52 Ft. (TOC)
- C. Water Height (A-B) 9.48 Ft.
- D. Well Casing Diameter 2 In.
- E. Casing Volume Constant 1.7 Gallons/Ft.
- F. One (1) Casing Volume (Cx) 1.6 Gallons
- G. Three (3) Casing Volumes (CxEx3) 4.9 Gallons
- H. 80% Recharge Level [A-(0.80xC)] 12.4 Ft.

**Purge Event**

Start Time: 1043 DTGW: 10.52  
 Finish Time: 1105 DTGW: 17.40  
 Purge Volume: 5 gal  
 Purge Intake Depth: 13.0  
 Purge Rate (Gals./Min.): 0.22  
 Purge Water Appearance: Clear

**Recharge Event**

Start Time: 1105 DTGW: 17.40  
 Finish Time: 1115 DTGW: 16.15  
 Recharge Rate (Ft./Min.): 1.25

**Water Quality Parameters:**

1 gal      2 gal      3 gal      4 gal      5 gal

**Casing Volume (Gallons)**

	0	0.5	1	1.5	2	2.5	3
Time	<u>1043</u>	<u>1046</u>	<u>1050</u>	<u>1055</u>	<u>1100</u>	<u>1105</u>	
DTGW	<u>10.52</u>	<u>11.96</u>	<u>13.06</u>	<u>14.34</u>	<u>16.00</u>	<u>17.40</u>	
pH	<u>7.03</u>	<u>6.86</u>	<u>6.87</u>	<u>6.84</u>	<u>6.89</u>	<u>6.85</u>	
T (°C)	<u>17.7</u>	<u>18.3</u>	<u>18.3</u>	<u>18.6</u>	<u>18.3</u>	<u>18.3</u>	
Cond.	<u>410</u>	<u>342</u>	<u>332</u>	<u>316</u>	<u>313</u>	<u>162</u>	
DO (mg/l)							
DO (%)							
ORP (mV)							

**Summary Data:**

Total Gallons Purged: 5  
 Purge Rate (Gals./Min.): 0.22  
 Purge Device: peristaltic  
 Sampling Device: "  
 Sample Intake Depth: 13.0  
 Sample Collection Time: 1120  
 Sample Appearance: Clear

**Notes:**

No sheen  
Odor

Drums Remaining Onsite: \_\_\_\_\_ Total Drum Volume (Gals.): \_\_\_\_\_

# Golden Gate Environmental, Inc

## Well Purging Sampling Data Form

Project #: 2014

Date: 10/27/2009

Project/Site Address: Shoreline Auto 5930 College Ave Oakland  
 Technician/Sampler: John Carrier

Casing Diameter (Inches)	0.75	2	4	6	8	12
Casing Volume (Gallons/Linear Foot)	0.02	0.17	0.66	1.5	2.6	5.81

Well No. MW3

- A. Total Well Depth 18.00 Ft. (TOC)
- B. Depth to Groundwater (DTGW) 8.96 Ft. (TOC) 10.00
- C. Water Height (A-B) 9.04 Ft. 10.04
- D. Well Casing Diameter 2" In.
- E. Casing Volume Constant 0.17 Gallons/Ft.
- F. One (1) Casing Volume (Cx) 1.7 Gallons
- G. Three (3) Casing Volumes (CxEx3) 5.1 Gallons
- H. 80% Recharge Level [A-(0.80xC)] 11.0 Ft.

**Purge Event**

Start Time: 0935 DTGW: 8.96  
 Finish Time: 0959 DTGW: 14.20  
 Purge Volume: 5.92  
 Purge Intake Depth: 18.5  
 Purge Rate (Gals./Min.): 0.19  
 Purge Water Appearance: Clear

**Recharge Event**

Start Time: 0959 DTGW: 14.20  
 Finish Time: 1009 DTGW: 13.80  
 Recharge Rate (Ft./Min.): 0.04 fpm

**Water Quality Parameters:**

	Casing Volume (Gallons)						
	0	0.5	1	1.5	2	2.5	3
Time	<u>0935</u>	<u>0939</u>	<u>0943</u>	<u>0948</u>	<u>0954</u>	<u>0959</u>	
DTGW	<u>8.96</u>	<u>9.45</u>	<u>11.05</u>	<u>12.00</u>	<u>13.01</u>	<u>14.20</u>	
pH	<u>7.10</u>	<u>7.03</u>	<u>7.09</u>	<u>7.03</u>	<u>7.02</u>	<u>7.04</u>	
T (°C)	<u>16.3</u>	<u>17.1</u>	<u>17.4</u>	<u>17.4</u>	<u>17.3</u>	<u>17.2</u>	
Cond.	<u>151</u>	<u>142</u>	<u>137</u>	<u>139</u>	<u>140</u>	<u>140</u>	
DO (mg/l)							
DO (%)							
ORP (mV)							

**Summary Data:**

Total Gallons Purged: 5  
 Purge Rate (Gals./Min.): 0.19  
 Purge Device: peristaltic  
 Sampling Device: "  
 Sample Intake Depth: 18.5  
 Sample Collection Time: 1012  
 Sample Appearance: Clear

**Notes:**

No Sheen  
Odor

Drums Remaining Onsite: \_\_\_\_\_ Total Drum Volume (Gals.): \_\_\_\_\_



# Golden Gate Environmental, Inc

## Well Purging Sampling Data Form

8-10'

Project #: 2014

Date: 10/27/2009

Project/Site Address: Shaffer's Auto 5930 College Ave Oakland

Technician/Sampler: John Carver

Casing Diameter (Inches)	0.75	2	4	6	8	12
Casing Volume (Gallons/Linear Foot)	0.02	0.17	0.66	1.5	2.6	5.81

Well No. PW1

- A. Total Well Depth 20 Ft. (TOC)
- B. Depth to Groundwater (DTGW) 10.32 Ft. (TOC)
- C. Water Height (A-B) 9.68 Ft.
- D. Well Casing Diameter 2 In.
- E. Casing Volume Constant 0.17 Gallons/Ft.
- F. One (1) Casing Volume (Cx) 1.6 Gallons
- G. Three (3) Casing Volumes (CxEx3) 5 Gallons
- H. 80% Recharge Level [A-(0.80xC)] 10.20 Ft.

7.74

**Purge Event**

Start Time: 0845 DTGW: 10.32  
 Finish Time: 0904 DTGW: 13.04  
 Purge Volume: 5  
 Purge Intake Depth: 19.0'  
 Purge Rate (Gals./Min.): 0.312  
 Purge Water Appearance: Clear

**Recharge Event**

Start Time: — DTGW: —  
 Finish Time: — DTGW: —  
 Recharge Rate (Ft./Min.): —

**Water Quality Parameters:**

	0	0.5	1.0	1.5	2	2.5	3
Time	<u>0845</u>	<u>0844</u>	<u>0845</u>	<u>0853</u>	<u>0854</u>	<u>0904</u>	
DTGW	<u>10.32</u>	<u>11.08</u>	<u>11.92</u>	<u>12.55</u>	<u>12.72</u>	<u>13.04</u>	
pH	<u>7.12</u>	<u>7.36</u>	<u>7.15</u>	<u>7.07</u>	<u>7.02</u>	<u>7.02</u>	
T (°C)	<u>16.9</u>	<u>17.1</u>	<u>17.4</u>	<u>17.4</u>	<u>17.4</u>	<u>17.1</u>	
Cond.	<u>346</u>	<u>243</u>	<u>146</u>	<u>143</u>	<u>140</u>	<u>142</u>	
DO (mg/l)							
DO (%)							
ORP (mV)							

**Summary Data:**

Total Gallons Purged: 5  
 Purge Rate (Gals./Min.): 0.312  
 Purge Device: peristaltic  
 Sampling Device: —  
 Sample Intake Depth: 19.0  
 Sample Collection Time: 0904  
 Sample Appearance: clear

**Notes:**

Clear,  
No sheen, no odor

Drums Remaining Onsite: \_\_\_\_\_ Total Drum Volume (Gals.): \_\_\_\_\_

**GROUNDWATER MONITORING REPORT**  
**4<sup>th</sup> Quarter 2009**

**Sheaff's Garage**  
**5930 College Avenue**  
**Oakland, CA 94618**

**ACHCSA Fuel Leak Case No. RO0000377**

**ATTACHMENT B**

**Laboratory Certificate of Analysis**  
**Chain of Custody Record**  
**GeoTracker Upload Confirmation Forms**  
**Waste Disposal Manifest (July 2009)**  
**EPA On-Line Tools for Site Assessment Calculation Sheet**  
**Gettler-Ryan: Groundwater Monitoring Data and Analytical Results Table**



November 04, 2009

Brent Wheeler  
Golden Gate Environmental  
3730 Mission St  
San Francisco, CA 94110

TEL: (415) 686-8846

FAX

RE: GGE 2014/5930 College Ave, Oakland

Order No.: 0910256

Dear Brent Wheeler:

Torrent Laboratory, Inc. received 4 samples on 10/28/2009 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.

Reported data is applicable for only the samples received as part of the order number referenced above.

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

Sincerely,

  
Laboratory Director

11/4/09  
Date

Patti Sandrock  
QA Officer 



# TORRENT LABORATORY, INC.

483 Sinclair Frontage Road • Milpitas, CA • Phone: (408) 263-5258 • Fax: (408) 263-8293

Visit us at [www.torrentlab.com](http://www.torrentlab.com) email: [analysis@torrentlab.com](mailto:analysis@torrentlab.com)

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

**Date Received:** 10/28/2009  
**Date Reported:** 11/4/2009

**Client Sample ID:** MW-1  
**Sample Location:** 5930 College Ave, Oakland  
**Sample Matrix:** GROUNDWATER  
**Date/Time Sampled** 10/27/2009 12:12:00 PM

**Lab Sample ID:** 0910256-001  
**Date Prepared:** 10/30/2009

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Benzene	SW8260B	10/30/2009	0.5	88	44	8300	µg/L	R21582
Toluene	SW8260B	10/30/2009	0.5	88	44	1500	µg/L	R21582
Ethylbenzene	SW8260B	10/30/2009	0.5	88	44	2600	µg/L	R21582
Methyl tert-butyl ether (MTBE)	SW8260B	10/30/2009	0.5	88	44	75	µg/L	R21582
Diisopropyl ether (DIPE)	SW8260B	10/30/2009	0.5	88	44	ND	µg/L	R21582
Ethyl tert-butyl ether (ETBE)	SW8260B	10/30/2009	0.5	88	44	ND	µg/L	R21582
tert-Amyl methyl ether (TAME)	SW8260B	10/30/2009	0.5	88	44	ND	µg/L	R21582
t-Butyl alcohol (t-Butanol)	SW8260B	10/30/2009	5	88	440	ND	µg/L	R21582
Xylenes, Total	SW8260B	10/30/2009	1.5	88	130	7900	µg/L	R21582
Surr: Dibromofluoromethane	SW8260B	10/30/2009	0	88	61.2-131	97.5	%REC	R21582
Surr: 4-Bromofluorobenzene	SW8260B	10/30/2009	0	88	64.1-120	103	%REC	R21582
Surr: Toluene-d8	SW8260B	10/30/2009	0	88	75.1-127	111	%REC	R21582
TPH (Gasoline)	SW8260B(TPH)	10/30/2009	50	88	4400	61000	µg/L	G21582
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	10/30/2009	0	88	53-118	96.6	%REC	G21582

**Client Sample ID:** MW-2  
**Sample Location:** 5930 College Ave, Oakland  
**Sample Matrix:** GROUNDWATER  
**Date/Time Sampled** 10/27/2009 11:20:00 AM

**Lab Sample ID:** 0910256-002  
**Date Prepared:** 10/30/2009

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Benzene	SW8260B	10/30/2009	0.5	4.4	2.2	510	µg/L	R21582
Toluene	SW8260B	10/30/2009	0.5	4.4	2.2	19	µg/L	R21582
Ethylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	330	µg/L	R21582
Methyl tert-butyl ether (MTBE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Diisopropyl ether (DIPE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Ethyl tert-butyl ether (ETBE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
tert-Amyl methyl ether (TAME)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
t-Butyl alcohol (t-Butanol)	SW8260B	10/30/2009	5	4.4	22	ND	µg/L	R21582
Xylenes, Total	SW8260B	10/30/2009	1.5	4.4	6.6	160	µg/L	R21582
Surr: Dibromofluoromethane	SW8260B	10/30/2009	0	4.4	61.2-131	92.2	%REC	R21582
Surr: 4-Bromofluorobenzene	SW8260B	10/30/2009	0	4.4	64.1-120	86.4	%REC	R21582
Surr: Toluene-d8	SW8260B	10/30/2009	0	4.4	75.1-127	107	%REC	R21582
TPH (Gasoline)	SW8260B(TPH)	11/2/2009	50	11	550	7000	µg/L	G21617
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/2/2009	0	11	53-118	81.0	%REC	G21617

Note: Although TPH as Gasoline is present, result is elevated due to presence of non-target compounds within range of C5-C12 quantified as Gasoline.

**Client Sample ID:** MW-3  
**Sample Location:** 5930 College Ave, Oakland  
**Sample Matrix:** GROUNDWATER  
**Date/Time Sampled** 10/27/2009 10:12:00 AM

**Lab Sample ID:** 0910256-003  
**Date Prepared:** 10/30/2009

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Benzene	SW8260B	10/30/2009	0.5	4.4	2.2	130	µg/L	R21582
Toluene	SW8260B	10/30/2009	0.5	4.4	2.2	8.5	µg/L	R21582
Ethylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	89	µg/L	R21582
Methyl tert-butyl ether (MTBE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Diisopropyl ether (DIPE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Ethyl tert-butyl ether (ETBE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
tert-Amyl methyl ether (TAME)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
t-Butyl alcohol (t-Butanol)	SW8260B	10/30/2009	5	4.4	22	ND	µg/L	R21582
Xylenes, Total	SW8260B	10/30/2009	1.5	4.4	6.6	130	µg/L	R21582
Surr: Dibromofluoromethane	SW8260B	10/30/2009	0	4.4	61.2-131	91.2	%REC	R21582
Surr: 4-Bromofluorobenzene	SW8260B	10/30/2009	0	4.4	64.1-120	88.6	%REC	R21582
Surr: Toluene-d8	SW8260B	10/30/2009	0	4.4	75.1-127	97.8	%REC	R21582
TPH (Gasoline)	SW8260B(TPH)	10/30/2009	50	4.4	220	4900x	µg/L	G21582
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	10/30/2009	0	4.4	53-118	92.2	%REC	G21582

Note: x- Even though TPH as Gasoline constituents are present, sample chromatogram does not resemble gasoline standard pattern. Report value is elevated due to contribution from unidentified compounds within range of C5-C12 quantified as Gasoline.

<b>Client Sample ID:</b> PW-1	<b>Lab Sample ID:</b> 0910256-004
<b>Sample Location:</b> 5930 College Ave, Oakland	<b>Date Prepared:</b> 10/30/2009
<b>Sample Matrix:</b> GROUNDWATER	
<b>Date/Time Sampled:</b> 10/27/2009 9:04:00 AM	

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
1,1,1-Trichloroethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,1,2,2-Tetrachloroethane	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
1,1,2-Trichloroethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,1-Dichloroethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,1-Dichloroethene	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
1,1-Dichloropropene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,2,3-Trichlorobenzene	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
1,2,3-Trichloropropane	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
1,2,4-Trichlorobenzene	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
1,2,4-Trimethylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	15	µg/L	R21582
1,2-Dibromo-3-chloropropane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,2-Dibromoethane (EDB)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,2-Dichlorobenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,2-Dichloroethane (EDC)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,2-Dichloropropane	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
1,3,5-Trimethylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,3-Dichlorobenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,3-Dichloropropene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
1,4-Dichlorobenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
2,2-Dichloropropane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
2-Chloroethyl vinyl ether	SW8260B	10/30/2009	6	4.4	26	ND	µg/L	R21582
2-Chlorotoluene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
4-Chlorotoluene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
4-Isopropyltoluene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Acetone	SW8260B	10/30/2009	10	4.4	44	ND	µg/L	R21582
Benzene	SW8260B	10/30/2009	0.5	4.4	2.2	12	µg/L	R21582
Bromobenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Bromochloromethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Bromodichloromethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Bromoform	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
Bromomethane	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
Carbon tetrachloride	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
Chlorobenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Chloroform	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Chloromethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
cis-1,2-Dichloroethene	SW8260B	10/30/2009	0.5	4.4	2.2	35	µg/L	R21582
cis-1,3-Dichloropropene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Dibromochloromethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Dibromomethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Dichlorodifluoromethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Diisopropyl ether (DIPE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Ethyl tert-butyl ether (ETBE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582

<b>Client Sample ID:</b> PW-1	<b>Lab Sample ID:</b> 0910256-004
<b>Sample Location:</b> 5930 College Ave, Oakland	<b>Date Prepared:</b> 10/30/2009
<b>Sample Matrix:</b> GROUNDWATER	
<b>Date/Time Sampled:</b> 10/27/2009 9:04:00 AM	

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Ethylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	36	µg/L	R21582
Freon-113	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
Hexachlorobutadiene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Isopropylbenzene	SW8260B	10/30/2009	1	4.4	4.4	6.0	µg/L	R21582
Methyl tert-butyl ether (MTBE)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Methylene chloride	SW8260B	10/30/2009	5	4.4	22	ND	µg/L	R21582
Naphthalene	SW8260B	10/30/2009	1	4.4	4.4	ND	µg/L	R21582
n-Butylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
n-Propylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	4.8	µg/L	R21582
sec-Butylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Styrene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
t-Butyl alcohol (t-Butanol)	SW8260B	10/30/2009	5	4.4	22	ND	µg/L	R21582
tert-Amyl methyl ether (TAME)	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
tert-Butylbenzene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Tetrachloroethene	SW8260B	10/30/2009	0.5	4.4	2.2	78	µg/L	R21582
Toluene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
trans-1,2-Dichloroethene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
trans-1,3-Dichloropropene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Trichloroethene	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Trichlorofluoromethane	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Vinyl chloride	SW8260B	10/30/2009	0.5	4.4	2.2	ND	µg/L	R21582
Xylenes, Total	SW8260B	10/30/2009	1.5	4.4	6.6	34	µg/L	R21582
Surr: Dibromofluoromethane	SW8260B	10/30/2009	0	4.4	61.2-131	98.2	%REC	R21582
Surr: 4-Bromofluorobenzene	SW8260B	10/30/2009	0	4.4	64.1-120	92.6	%REC	R21582
Surr: Toluene-d8	SW8260B	10/30/2009	0	4.4	75.1-127	102	%REC	R21582
TPH (Gasoline)	SW8260B(TPH)	10/30/2009	50	4.4	220	1100x	µg/L	G21582
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	10/30/2009	0	4.4	53-118	86.2	%REC	G21582

Note: x- Result reported as TPH-gasoline, but sample chromatogram does not resemble gasoline standard pattern. Reported value due to contribution from unidentified hydrocarbons within the C5-C12 range quantified as Gasoline.



**Definitions, legends and Notes**

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

**CLIENT:** Golden Gate Environmental  
**Work Order:** 0910256  
**Project:** GGE 2014/5930 College Ave, Oakland

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: G21582**

Sample ID: <b>MBG-G21582</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/30/2009</b>	RunNo: <b>21582</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G21582</b>	TestNo: <b>SW8260B(TP)</b>	Analysis Date: <b>10/30/2009</b>	SeqNo: <b>310215</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofllurobenzene	9.800	0	11.36	0	86.3	53	118				

Sample ID: <b>LCSG-G21582</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/30/2009</b>	RunNo: <b>21582</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G21582</b>	TestNo: <b>SW8260B(TP)</b>	Analysis Date: <b>10/30/2009</b>	SeqNo: <b>310216</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	222.0	50	227	0	97.8	52.4	127				
Surr: 4-Bromofllurobenzene	8.000	0	11.36	0	70.4	53	118				

Sample ID: <b>LCSDG-G21582</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/31/2009</b>	RunNo: <b>21582</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G21582</b>	TestNo: <b>SW8260B(TP)</b>	Analysis Date: <b>10/31/2009</b>	SeqNo: <b>310217</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	223.0	50	227	0	98.2	52.4	127	222	0.449	20	
Surr: 4-Bromofllurobenzene	10.60	0	11.36	0	93.3	53	118	0	0	0	

**Qualifiers:** E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits

**CLIENT:** Golden Gate Environmental  
**Work Order:** 0910256  
**Project:** GGE 2014/5930 College Ave, Oakland

## ANALYTICAL QC SUMMARY REPORT

**BatchID: G21617**

Sample ID: <b>MBG-G21617</b>	SampType: <b>MBLK</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/2/2009</b>	RunNo: <b>21617</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G21617</b>	TestNo: <b>SW8260B(TP)</b>		Analysis Date: <b>11/2/2009</b>	SeqNo: <b>310513</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	ND	50									
Surr: 4-Bromofluorobenzene	10.20	0	11.36	0	89.8	53	118				

Sample ID: <b>LCSG-G21617</b>	SampType: <b>LCS</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/2/2009</b>	RunNo: <b>21617</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G21617</b>	TestNo: <b>SW8260B(TP)</b>		Analysis Date: <b>11/2/2009</b>	SeqNo: <b>310514</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	221.5	50	227	32.3	83.3	52.4	127				
Surr: 4-Bromofluorobenzene	8.600	0	11.36	0	75.7	53	118				

Sample ID: <b>LCSDG-G21617</b>	SampType: <b>LCSD</b>	TestCode: <b>TPH_GAS_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/2/2009</b>	RunNo: <b>21617</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>G21617</b>	TestNo: <b>SW8260B(TP)</b>		Analysis Date: <b>11/2/2009</b>	SeqNo: <b>310515</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline)	237.5	50	227	32.3	90.4	52.4	127	221.5	6.97	20	
Surr: 4-Bromofluorobenzene	9.400	0	11.36	0	82.7	53	118	0	0	0	

<b>Qualifiers:</b>	E Value above quantitation range	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted recovery limits

**CLIENT:** Golden Gate Environmental  
**Work Order:** 0910256  
**Project:** GGE 2014/5930 College Ave, Oakland

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R21582**

Sample ID: <b>MB-R21582</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/30/2009</b>	RunNo: <b>21582</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R21582</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>10/30/2009</b>	SeqNo: <b>310120</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane (EDB)	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane (EDC)	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chloroethyl vinyl ether	ND	6.0									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Acetone	ND	10									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromochloromethane	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									

<b>Qualifiers:</b>	E Value above quantitation range ND Not Detected at the Reporting Limit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	J Analyte detected below quantitation limits S Spike Recovery outside accepted recovery limits
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**CLIENT:** Golden Gate Environmental  
**Work Order:** 0910256  
**Project:** GGE 2014/5930 College Ave, Oakland

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R21582**

Sample ID: <b>MB-R21582</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/30/2009</b>	RunNo: <b>21582</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R21582</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>10/30/2009</b>	SeqNo: <b>310120</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Diisopropyl ether (DIPE)	ND	0.50									
Ethyl tert-butyl ether (ETBE)	ND	0.50									
Ethylbenzene	ND	0.50									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	1.0									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Methylene chloride	ND	5.0									
Naphthalene	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
t-Butyl alcohol (t-Butanol)	ND	5.0									
tert-Amyl methyl ether (TAME)	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
trans-1,3-Dichloropropene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									

<b>Qualifiers:</b>	E Value above quantitation range	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted recovery limits

**CLIENT:** Golden Gate Environmental  
**Work Order:** 0910256  
**Project:** GGE 2014/5930 College Ave, Oakland

## ANALYTICAL QC SUMMARY REPORT

**BatchID: R21582**

Sample ID: <b>MB-R21582</b>	SampType: <b>MBLK</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/30/2009</b>	RunNo: <b>21582</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R21582</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>10/30/2009</b>	SeqNo: <b>310120</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	1.5									
Surr: Dibromofluoromethane	12.10	0	11.36	0	107	61.2	131				
Surr: 4-Bromofluorobenzene	11.07	0	11.36	0	97.4	64.1	120				
Surr: Toluene-d8	9.590	0	11.36	0	84.4	75.1	127				

Sample ID: <b>LCS-R21582</b>	SampType: <b>LCS</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/30/2009</b>	RunNo: <b>21582</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R21582</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>10/30/2009</b>	SeqNo: <b>310121</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.13	1.0	17.04	0	106	61.4	129				
Benzene	19.86	0.50	17.04	0	117	66.9	140				
Chlorobenzene	19.38	0.50	17.04	0	114	73.9	137				
Toluene	19.08	0.50	17.04	0	112	76.6	123				
Trichloroethene	19.71	0.50	17.04	0	116	69.3	144				
Surr: Dibromofluoromethane	10.15	0	11.36	0	89.3	61.2	131				
Surr: 4-Bromofluorobenzene	11.76	0	11.36	0	104	64.1	120				
Surr: Toluene-d8	11.37	0	11.36	0	100	75.1	127				

Sample ID: <b>LCSD-R21582</b>	SampType: <b>LCSD</b>	TestCode: <b>8260B_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/30/2009</b>	RunNo: <b>21582</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R21582</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>10/30/2009</b>	SeqNo: <b>310122</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.55	1.0	17.04	0	103	61.4	129	18.13	3.25	20	
Benzene	16.96	0.50	17.04	0	99.5	66.9	140	19.86	15.8	20	
Chlorobenzene	16.85	0.50	17.04	0	98.9	73.9	137	19.38	14.0	20	
Toluene	18.63	0.50	17.04	0	109	76.6	123	19.08	2.39	20	
Trichloroethene	16.57	0.50	17.04	0	97.2	69.3	144	19.71	17.3	20	
Surr: Dibromofluoromethane	10.54	0	11.36	0	92.8	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	11.70	0	11.36	0	103	64.1	120	0	0	0	
Surr: Toluene-d8	11.94	0	11.36	0	105	75.1	127	0	0	0	

**Qualifiers:** E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits

# Torrent Laboratory, Inc.

## WORK ORDER Summary

29-Oct-09

**Work Order 0910256**

**Client ID:** GOLDEN GATE ENV

**Project:** GGE 2014/5930 College Ave,Oakland

**QC Level:**

**Comments:** 5 day TAT! Needs EDF!! Received 3 waters for TPHg,BTEX,Fuel oxys and 1 water for TPH Gas and Full list 8260B for sample (PW-1)!

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Hld	MS	SEL	Sub	Storage
0910256-001A	MW-1	10/27/2009 12:12:00 PM	10/28/2009	11/3/2009	Groundwater	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SR
						EDF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR
0910256-002A	MW-2	10/27/2009 11:20:00 AM		11/3/2009		TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR
						8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SR
0910256-003A	MW-3	10/27/2009 10:12:00 AM		11/3/2009		TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR
						8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SR
0910256-004A	PW-1	10/27/2009 9:04:00 AM		11/3/2009		8260B_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR



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  
 0910256

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>3730 Mission Street</b>			Purpose: <b>4th Quarter 2009 GWM</b>		
City: <b>San Francisco</b>	State: <b>CA</b>	Zip Code: <b>94110</b>	Special Instructions / Comments: <b>Global ID: T0600102112. Field Point ID=Sample ID</b>		
Telephone: <b>415-970-9088</b>		FAX: <b>415-970-9089</b>			
REPORT TO: <b>Brent Wheeler</b>		SAMPLER: <b>John Carver</b>		P.O. #: <b>GGE 2014</b>	EMAIL: <b>b.wheeler@ggtr.com</b>

**TURNAROUND TIME:**

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

**SAMPLE TYPE:**

- Storm Water     Air  
 Waste Water     Other  
 Ground Water  
 Soil

**REPORT FORMAT:**

- QC Level IV  
 EDF  
 Excel / EDD

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH-G, BTEX	Fuel Oxygenates	VOCs (Full List)										REMARKS
001A	MW-1	102709/ 1212	GW	3	Voa	✓	✓											
002A	MW-2	102709/ 1120	GW	3	Voa	✓	✓											
003A	MW-3	102709/ 1012	GW	3	Voa	✓	✓											
004A	PW-1	102709/ 0904	GW	3	Voa	✓		✓										

Temp 7°C

1	Relinquished By: <i>[Signature]</i>	Print: <b>John Carver</b>	Date: <b>10/28/09</b>	Time: <b>1120</b>	Received By: <i>[Signature]</i>	Print: <b>SHAH</b>	Date: <b>10/28/09</b>	Time: <b>1120</b>
2	Relinquished By: <i>[Signature]</i>	Print: <b>SHAH</b>	Date: <b>10/28/09</b>	Time: <b>8:30</b>	Received By: <i>[Signature]</i>	Print: <b>L. D. Lambert</b>	Date: <b>10-28-09</b>	Time: <b>8:30</b>

Were Samples Received in Good Condition?  Yes  NO    Samples on Ice?  Yes  NO    Method of Shipment Golden Bullet    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.

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_    Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

Page 1 of 1



## 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!

<b>Submittal Type:</b>	EDF - Monitoring Report - Quarterly
<b>Submittal Title:</b>	4Q09 Groundwater Sample Results (10/27/09 Activities)
<b>Facility Global ID:</b>	T0600102112
<b>Facility Name:</b>	SHEAFFS SERVICE GARAGE
<b>File Name:</b>	2014 - 4Q09 GWM Results_edf.zip
<b>Organization Name:</b>	Golden Gate Environmental, Inc.
<b>Username:</b>	GGE
<b>IP Address:</b>	75.55.192.158
<b>Submittal Date/Time:</b>	11/24/2009 2:13:49 PM
<b>Confirmation Number:</b>	4496209561

[VIEW QC REPORT](#)[VIEW DETECTIONS REPORT](#)

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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!

<b>Submittal Type:</b>	GEO_WELL
<b>Submittal Title:</b>	4Q09 Groundwater Monitoring Data (10/27/09 Activities)
<b>Facility Global ID:</b>	T0600102112
<b>Facility Name:</b>	SHEAFFS SERVICE GARAGE
<b>File Name:</b>	GEO_WELL.zip
<b>Organization Name:</b>	Golden Gate Environmental, Inc.
<b>Username:</b>	GGE
<b>IP Address:</b>	75.55.192.158
<b>Submittal Date/Time:</b>	11/24/2009 2:14:42 PM
<b>Confirmation Number:</b>	7994393765

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STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_REPORT FILE

**SUCCESS**

Your GEO\_REPORT file has been successfully submitted!

<b>Submittal Type:</b>	GEO_REPORT
<b>Report Title:</b>	Groundwater Monitoring Report - 4th Quarter 2009
<b>Report Type:</b>	Monitoring Report - Semi-Annually
<b>Report Date:</b>	12/2/2009
<b>Facility Global ID:</b>	T0600102112
<b>Facility Name:</b>	SHEAFFS SERVICE GARAGE
<b>File Name:</b>	2014_GWM Report_4Q09_Final_120209.pdf
<b>Username:</b>	Golden Gate Environmental, Inc.
<b>Username:</b>	GGE
<b>IP Address:</b>	75.55.192.158
<b>Submittal Date/Time:</b>	12/3/2009 11:49:14 AM
<b>Confirmation Number:</b>	3440370857

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<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number C A L 0 0 0 3 4 3 7 3 7	2. Page 1 of 1	3. Emergency Response Phone (510)476-1740	4. Manifest Tracking Number 004450247 JJK		
5. Generator's Name and Mailing Address WILLIAM SHEAFF TRUST 1945 PARKSIDE DRIVE CONCORD CA 94519			Generator's Site Address (if different than mailing address) 5930 COLLEGE AVE OAKLAND CA 94618				
Generator's Phone: 925-689-3450			U.S. EPA ID Number C A L 0 0 0 3 1 7 3 2 0				
6. Transporter 1 Company Name UNI WASTE			U.S. EPA ID Number				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address SIEMENS WATER TECHNOLOGIES CORP 5375 SOUTH BOYLE AVENUE VERNON CA 90058			U.S. EPA ID Number C A D 0 9 7 0 3 0 9 9 3				
Facility's Phone: (800)266-7747							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	1. ENVIRONMENTALLY HAZARDOUS SUBSTANCE, NOS 9, UN 3082, PG III (WATER WITH TRACE ORGANICS)	02	DM	90	G	F001	343
	2.						
	3.						
	4.						
14. Special Handling instructions and Additional Information WEAR PPE, ERG 171 GGTR#2005							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name TOM FERRICK				Signature 		Month Day Year 7 13 09	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name William Clark				Signature 		Month Day Year 7 13 09	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number: _____							
18b. Alternate Facility (or Generator)				U.S. EPA ID Number			
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1		2		3		4	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	



**Ecosystems Research Division**

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**EPA On-line Tools for Site Assessment Calculation**

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**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

Site Name: 5930 College Ave., Oak  
 Date: 10/27/09   
 Calculation basis: Head  
 Coordinates ft  

x-coordinate	y-coordinate	head ft
6055822.91	2135878.96	186.56
6055818.98	2135842.80	186.26
6055924.91	2135914.96	186.85

 Gradient Magnitude (i): 0.008307  
 Degrees from North (+ y axis): 179.4  
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Last updated on Thursday, August 27th, 2009.  
WCM5

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-1</b>									
01/03/01	196.91	12.75	184.16	930 <sup>1</sup>	2.9	6.9	2.7	7.6	14/<2.0 <sup>3</sup>
04/25/01	196.91	9.23	187.68	210 <sup>4</sup>	2.0	1.5	2.0	3.3	5.3/<2.0 <sup>3</sup>
07/09/01	196.91	11.86	185.05	290 <sup>5</sup>	1.8	2.0	2.5	0.96	<2.5
06/08/00	196.91	13.49	183.42	200	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	196.91	7.33	189.58	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/08/02	196.91	7.45	189.46	670	<0.50	<2.0	<1.0	5.6	<2.5
10/15/02	196.91	13.68	183.23	260	0.62	0.82	<0.50	<1.5	--
04/15/03	196.91	6.82	190.09	1,700	1.3	<5.0	<2.0	<5.0	--
10/31/03	196.91	13.72	183.19	150	<2.0	0.7	<2.0	<5.0	--
04/23/04	196.91	9.02	187.89	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/04	196.91	11.50	185.41	63	<0.5	<0.5	<0.5	<1.5	--
04/14/05	196.91	7.11	189.80	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/05	196.91	11.90	185.01	160	<0.5	<0.5	0.6	<5.0	--
04/14/06	196.91	6.95	189.96	<50	<0.5	<0.5	<0.5	<1.5	--
10/26/06	196.91	11.68	185.23	<50	<0.5	<0.5	<0.5	<1.5	--
04/13/07 <sup>6</sup>	196.91	10.71	186.20	1,200	3.4	<5.0	2.1	<20	--
10/22/07	196.91	13.75	183.16	<50	<0.5	<0.5	<0.5	<1.5	--
04/21/08	196.91	9.95	186.96	120	<0.5	<0.5	<0.5	<1.5	--
10/15/08	196.91	14.30	182.61	<50	<0.5	<0.5	<0.5	<1.5	--
04/15/09	196.91	9.20	187.71	<50	<0.5	<0.5	<0.5	<1.5	--
<b>10/01/09</b>	<b>196.91</b>	<b>14.26</b>	<b>182.65</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	<b>--</b>
<b>MW-2</b>									
01/03/01	197.35	12.48	184.87	2,100 <sup>2</sup>	110	11	63	25	83/2.2 <sup>3</sup>
04/25/01	197.35	8.90	188.45	1,700 <sup>4</sup>	150	12	30	15	150/<2.0 <sup>3</sup>
07/09/01	197.35	11.44	185.91	2,500 <sup>5</sup>	200	21	55	26	<50
04/08/02	197.35	13.37	183.98	4,200	87	2.8	29	9.8	<2.5
01/13/02	197.35	6.55	190.80	410	20	2.9	<2.5	4.4	27/<2.0 <sup>3</sup>
04/08/02	197.35	8.37	188.98	4,000	70	1.7	17	17	<2.5
10/15/02	197.35	13.00	184.35	3,100	41	2.2	16	<6.0	--
04/15/03	197.35	7.58	189.77	2,400	37	<2.5	12	<7.5	--
10/31/03	197.35	13.02	184.33	2,300	12	3.4	4.8	<7.5	--
04/23/04	197.35	8.38	188.97	960	8.9	1.0	2.4	<1.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
<b>MW-2 (cont)</b>									
10/22/04	197.35	11.41	185.94	2,200	24	<2.5	4.1	<10	--
04/14/05	197.35	6.69	190.66	640	2.1	<2.0	<2.0	7.5	--
10/14/05	197.35	11.14	186.21	1,200	6.9	<2.5	<2.5	<7.5	--
04/14/06	197.35	6.54	190.81	180	<0.5	<0.5	<0.5	<5.0	--
10/26/06	197.35	11.02	186.33	550	<2.0	0.5	<2.0	<10	--
04/13/07 <sup>6</sup>	197.35	9.95	187.40	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/07	197.35	12.63	184.72	3,200	12	<5.0	4.7	<20	--
04/21/08	197.35	9.31	188.04	860	1.0	<2.0 <sup>7</sup>	<2.0 <sup>7</sup>	<10 <sup>7</sup>	--
10/15/08	197.35	13.71	183.64	480	1.3	0.8	1.1	<5.0 <sup>8</sup>	--
04/15/09	197.35	8.79	188.56	370	0.7	1.3	0.9	6.5	--
<b>10/01/09</b>	<b>197.35</b>	<b>13.67</b>	<b>183.68</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	<b>--</b>
<b>TRIP BLANK</b>									
<b>TB-LB</b>									
01/03/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/25/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/09/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
<b>QA</b>									
10/08/01	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/08/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--
04/15/03	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/31/03	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/23/04	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/04	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/14/05	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/05	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/14/06	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/26/06	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/13/07	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/07	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron Service Station #209339  
5940 College Avenue  
Oakland, California

<b>WELL ID/ DATE</b>	<b>TOC* (ft.)</b>	<b>DTW (ft.)</b>	<b>GWE (msl)</b>	<b>TPH-GRO (µg/L)</b>	<b>B (µg/L)</b>	<b>T (µg/L)</b>	<b>E (µg/L)</b>	<b>X (µg/L)</b>	<b>MTBE (µg/L)</b>
<b>QA (cont)</b>									
04/21/08	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/15/08	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/15/09	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
<b>10/01/09</b>	--	--	--	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	--



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**EXPLANATIONS:**

TOC = Top of Casing  
(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation  
(msl) = Mean sea level

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

(µg/L) = Micrograms per liter

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

\* TOC elevations were surveyed on December 27, 2000, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elev. = 179.075 feet, msl).

<sup>1</sup> Laboratory report indicates unidentified hydrocarbons C6-C12.

<sup>2</sup> Laboratory report indicates gasoline C6-C12.

<sup>3</sup> MTBE by EPA Method 8260.

<sup>4</sup> Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.

<sup>5</sup> Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.

<sup>6</sup> Current laboratory analytical results do not coincide with historical data, although the laboratory results were confirmed.

<sup>7</sup> Laboratory report indicates that due to the presence of interferent near their retention time, normal reporting limits were not attained for toluene, ethylbenzene, and total xylenes. The presence or concentration of these compounds cannot be determined below the reporting limits due to the presence of these interferents.

<sup>8</sup> Laboratory report indicates that due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.