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By Alameda County Environmental Health 10:15 am, Oct 05, 2017

September 14, 2017

Mr. Mark Detterman, P.G., C.E.G.  
Alameda County Health Care Services Agency  
Environmental Health Services  
Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**RE: Groundwater Monitoring Report - 3rd Quarter 2017**

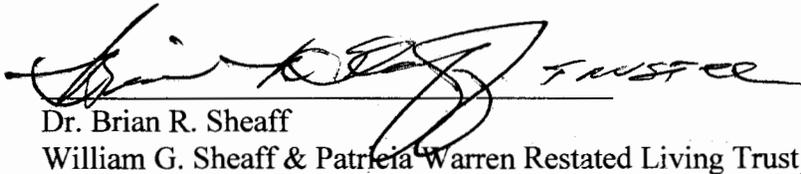
**SITE: Sheaff's Garage**  
**5930 College Avenue, Oakland, California**  
**ACHCSA Fuel Leak Case No. RO0000377**  
**WGE Project 2016106**

Dear Mr. Detterman:

Upon my authorization, Wheeler Group Environmental, LLC has prepared the attached *Groundwater Monitoring Report* for the semi-annual groundwater monitoring and sampling activities conducted during the 3rd Quarter 2017 at the above-referenced property on August 17, 2017. WGE 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, Manager of Wheeler Group Environmental, LLC at (415) 512-1555 at your convenience.

I have read and acknowledge the content, recommendations, and and/or conclusions contained in the attached document submitted on my behalf to ACDEH's FTP server and the State Water Resource Control Board's GeoTracker website.

Respectfully Submitted,

  
Dr. Brian R. Sheaff  
William G. Sheaff & Patricia Warren Restated Living Trust U/D/T 2/14/89

Distribution: (1) Addressee



## **GROUNDWATER MONITORING REPORT 3rd Quarter 2017**

Sheaffs Service Garage  
5930 College Avenue  
Oakland, California 94618

Alameda County Fuel Leak Case No. R00000377  
San Francisco Bay RWQCB (Region 2) Case No. 01-2296  
GeoTracker Global ID No. T0600102112

**Sampling Date: August 17, 2017**  
**Report Date: September 14, 2017**

Prepared For:

**William G. Sheaff & Patricia Warren Restated Living Trust U/D/T 2/14/89**

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

Prepared by:

**Wheeler Group Environmental, LLC**  
369-B Third Street, Suite #221, San Rafael, CA 94901  
Phone 415-686-8846

**WGE Project No. 2016106**

# STATEMENT OF PROFESSIONAL CERTIFICATION

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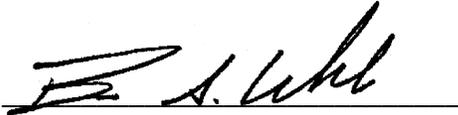
Document Title: 3rd Quarter 2017 Groundwater Monitoring Report

Location: Sheaffs Service Garage  
5930 College Avenue, Oakland, California  
Alameda County Fuel Leak Case No. RO0000377

Wheeler Group Environmental, LLC has prepared this document for the subject property in accordance with our proposal and signed contract utilizing methods and procedures that meet or exceed industry professional standards in effect at the time of this work.

The California Geologist and Geophysicist Act (Business and Professions Code sections 7800–7887) requires that all geologic plans, specifications, reports, or documents shall be prepared by a professional geologist or registered specialty geologist, or by a subordinate employee under his or her direction. In addition, the document shall be signed by the professional geologist or registered specialty geologist or stamped with his or her seal, either of which shall indicate his or her responsibility for them. This document was prepared and signed by a “professional geologist” in accordance with California Business and Professions Code Section 7835.

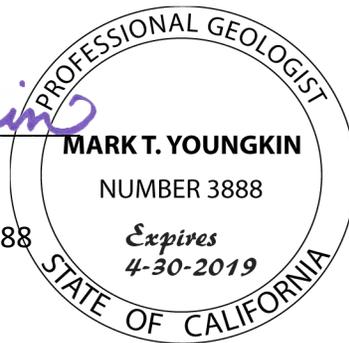
Date: September 14, 2017



Brent A. Wheeler  
Principal/Manger



Mark Youngkin  
Professional Geologist No. 3888



**Wheeler Group Environmental, LLC**

369-B Third Street, Suite #221, San Rafael, CA 94901  
Phone: 415-686-8846

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# GROUNDWATER MONITORING REPORT

5930 College Avenue, Oakland, CA

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3. Site Plan
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### TABLES

1. Historical Groundwater Levels & Hydrocarbon Analytical Results
2. Historical Groundwater VOC Analytical Results

### ATTACHMENTS

- A. Fluid-Level Monitoring Data Sheets  
Well Purging/Sampling Data Sheets
- B. Laboratory Certificate of Analysis  
Chain of Custody Record  
GeoTracker Upload Confirmation Sheets  
EPA On-Line Tools for Site Assessment Calculation Sheet  
Liquid Waste Manifest

# GROUNDWATER MONITORING REPORT

## 3rd Quarter 2017

### Sheaffs Service Garage

5930 College Avenue, Oakland, California  
ACHCSA Fuel Leak Case No. RO0000377



### INTRODUCTION

Wheeler Group Environmental, LLC (Wheeler Group or WGE) presents the results of the 3rd Quarter 2017 groundwater monitoring and sampling event conducted on August 17, 2017, at 5930 College Avenue in Oakland, California (the Site). The Alameda County Environmental Health (ACEH) Agency has designated the Site as Fuel Leak Case No. RO000377 and requires semi-annual groundwater monitoring and sampling as part of an ongoing Leaking Underground Storage Tank (LUST) cleanup investigation. Figure 1 presents a Site Location Map. Figure 2 titled Site Vicinity Map and Figure 3 titled Site Plan depict the pertinent features of the Site and adjacent properties along with the associated land use. Figure 4 titled Groundwater Data Diagram shows the groundwater flow direction for the most recent event. Table 1 provides a tabulated summary of the laboratory results of historical groundwater sample analyses for petroleum hydrocarbons and fluid-level monitoring data at the Site. Table 2 provides a tabulated summary of sample analyses for Volatile Organic Compounds (VOCs), predominantly in piezometer PW-1. Documentation of the monitoring, sampling and laboratory procedures are presented in the attachments.

### 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 level 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 business corridors. Harwood Creek is located in an underground box conduit about one block to the south of the Site with a flood water cutoff box conduit adjoining the Site beneath College Avenue.

## SITE DESCRIPTION

The property is currently 100% occupied by Stauder Automotive Service for the maintenance and repair of automobiles. Figure 3, Site Plan, shows features of the subject property.

Posted Site Address:	5930 College Avenue, Oakland, CA
Site Location:	Rockridge / Fairview Park
County:	Alameda
Assessor's Parcel No.	14-1266-60
Description:	Commercial repair garage
Use code:	8100
Building Type:	single-story industrial-style building
Building size:	Approximately 4,125 square feet
Lot Size:	Approximately 5,500 square feet
Date of Construction	1952
Basement:	None
Foundation:	Concrete slab on grade
HVAC:	Natural gas
Source of Water:	Municipal
Sewage Disposal:	Municipal
Solid Waste Disposal:	Municipal
Utilities:	Municipal water, electricity, natural gas and sewer infrastructure is provided to the area by utility district
Primary Access:	Driveway from College Avenue
Occupant:	Stauder Automotive Services

The subject building is a small single-story industrial-style building constructed in 1952. The subject property is approximately 5,500 square feet in area with about 75% utilized by the garage building and 25% used as an exterior paved storage yard and parking lot. Two underground storage tanks (UST) were formerly located beneath the sidewalk at the southwest corner of the Site on the College Avenue frontage. One 675-gallon gasoline and one 340-gallon waste oil UST were removed in August 1996 from the sidewalk. Product piping was removed from beneath sidewalk and former dispenser location in late 2002. No active USTs, fuel storage, or fuel distribution system currently exist onsite. Most of the building consists of an open work area with a small enclosed office. The property is completely paved with the building constructed on a concrete slab and surrounded by concrete sidewalk and asphalt-paved rear parking area.

A commercial-residential building is adjacent to the Site on the south with address of 5916-20 College Avenue. This building contains a parking garage and a retail store (T-Mobile) on the ground floor and 12 apartments on three 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 beneath College Avenue. A church and retail shopping building occur across College Avenue to the west.

The adjacent property to the north was formerly occupied by Chevron Service Station #209339 from 1938 to 1968. Former station facilities consisted of four USTs, one dispenser island, station building and a garage-service building. The station was replaced by a parking lot until redeveloped with a multi-tenant commercial-retail structure in 1978-1979 named 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. Conestoga-Rovers & Associates (CRA; Emeryville, CA) and Gettler-Ryan, Inc. (GR; Dublin, CA) conducted a separate groundwater investigation of the former Chevron Station utilizing two groundwater monitoring wells (GR-MW1 & GR-MW2) to evaluate the potential contamination in groundwater.

From April 2002 through October 2012, CRA / Gettler-Ryan monitored and sampled wells GR-MW1 & GR-MW2 on a biannual basis. Chevron performed additional investigation and submitted data gap and case closure request documents in 2013-2014. The ACEH submitted its Remedial Action Completion Certification & Case Closure Summary for the adjoining site on December 12, 2014. Both monitor wells were destroyed in October 2015 as a condition for case closure. Figures 2 and 3 show the location of each former CRA / Gettler-Ryan well relative to the monitor wells on the subject property.

## **GROUNDWATER MONITORING & SAMPLING**

The scope of work for the 3rd Quarter 2017 groundwater monitoring and sampling event included the following:

- Monitoring, purging and sampling of field points 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 and report submittal

On August 17, 2017, WGE in conjunction with Dysert Environmental, Inc. (DEI) monitored and sampled existing monitor wells MW-1, MW-2, and MW-3, and piezometer PW-1.

### **Scope/Sequence of Work Activities**

Prior to purging and sampling, DEI removed the well cover and locking compression cap and allowed the water in each well column to stabilize for a minimum of 20 minutes. DEI then measured and recorded the depth to product/groundwater using a Keck electronic oil/water interface meter. Fluid levels were measured relative to the north side of the top of each well casing to the nearest 0.01 foot. No floating petroleum product was detected at the Site. An odor of fuel was noted in wells MW-1, MW-2 and MW-3. Depth to groundwater ranged from 9.31 feet below grade (fbg) in piezometer PW-1 to 10.61 fbg in well MW-2.

DEI subsequently purged groundwater from the well casing using a peristaltic pump using an average flow rate at 200 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 1.8 to 2.4 liters of water from each well casing and three successive readings of each parameter varied by less than 0.1, 10%, and 3%, respectively.

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 laboratory-cleaned 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. Attachment A contains a copy of the Fluid-Level Monitoring Data Form and Well Purging/Sampling Data Sheets for this event.

### **Waste Management**

The well purge and equipment wash and rinse water generated during this event (@10-12 Gallons) was transferred directly to an existing D.O.T.-approved, 55-gallon liquid storage drum, appropriately labeled, sealed, and temporarily stored onsite in a secure area. Following waste profiling and facility acceptance, Big Sky Enterprises (US EPA ID No. CAL000301639), on September 18, 2017, transported one drum of waste liquid to the Big Sky Enterprises licensed disposal facility in Benicia, California, under Non-Hazardous Waste Manifest No. 071817001. A copy of the waste manifest is included in Appendix B.

### **Water Sample Analytical Methods**

On August 21, 2017, DEI submitted all 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 Method 8260TPH
- TPH as Diesel by Method SW8015B
- Volatile Organic Compounds (Full List) by Method SW8260B

The groundwater samples collected from both MW-1 and MW-1 were additionally analyzed for TPH as diesel with Silica Gel Cleanup. Tables 1 and 2 attached, present a summary of the laboratory analytical results for the sampling event as well as historic 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.

Torrent released their certified analytical report on August 25, 2017, as Work Order No.: 1708149. Torrent completed all volatile organic analyses within the 14-day required time limit for analysis. Torrent reported that no issues were encountered with the receiving, preparation, analysis or reporting of the results associated with the submitted samples.

## **GeoTracker Database Submittal**

Wheeler Group directed Torrent to deliver the finished analytical data in electronic deliverable format (EDF) in accordance with the State Water Resources Control Board's GeoTracker database system. WGE uploaded the analytical data as well as the Fluid-Level Monitoring Data (GEO\_WELL) for each event to the GeoTracker Database System. WGE also uploaded a copy of this report in Portable Data Format (PDF) to the GeoTracker Database System. Attachment B includes a copy of each associated GeoTracker Upload Confirmation Sheets.

## **Groundwater Monitoring Results**

For the August 17, 2017 event, the groundwater elevations, as referenced to Mean Sea Level (MSL) and calculated relative to the top of well casing ranged between 184.93 feet in well MW-3 to 187.86 feet in piezometer PW-1, a difference of 2.93 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. One site well MW-2 has previously been excluded from flow direction calculations for obvious inconsistencies in groundwater elevation data. The attached Figure 4, titled Groundwater Data Diagram-August 2017 shows the groundwater data for the subject monitoring event. The EPA On-Line Tools for Site Assessment Calculation sheet is included in Attachment B.

During the August 17, 2017 monitoring event, the groundwater flow direction beneath the Site was estimated at North 203° (southward) under a hydraulic gradient of approximately 0.027 ft/ft. The groundwater flow direction shifted approximately 23° to the west, as compared to the November 21, 2016 event. The new data is consistent with historical data for the Site with the flow direction ranging from south to northwest. The large variation in groundwater flow direction is inconsistent with previous studies at nearby former gasoline stations. The variation in flow direction data may be attributed to the subject monitor array consisting of few monitor wells arranged in a linear direction within the narrow site boundaries or to the influence of large underground storm water box conduits.

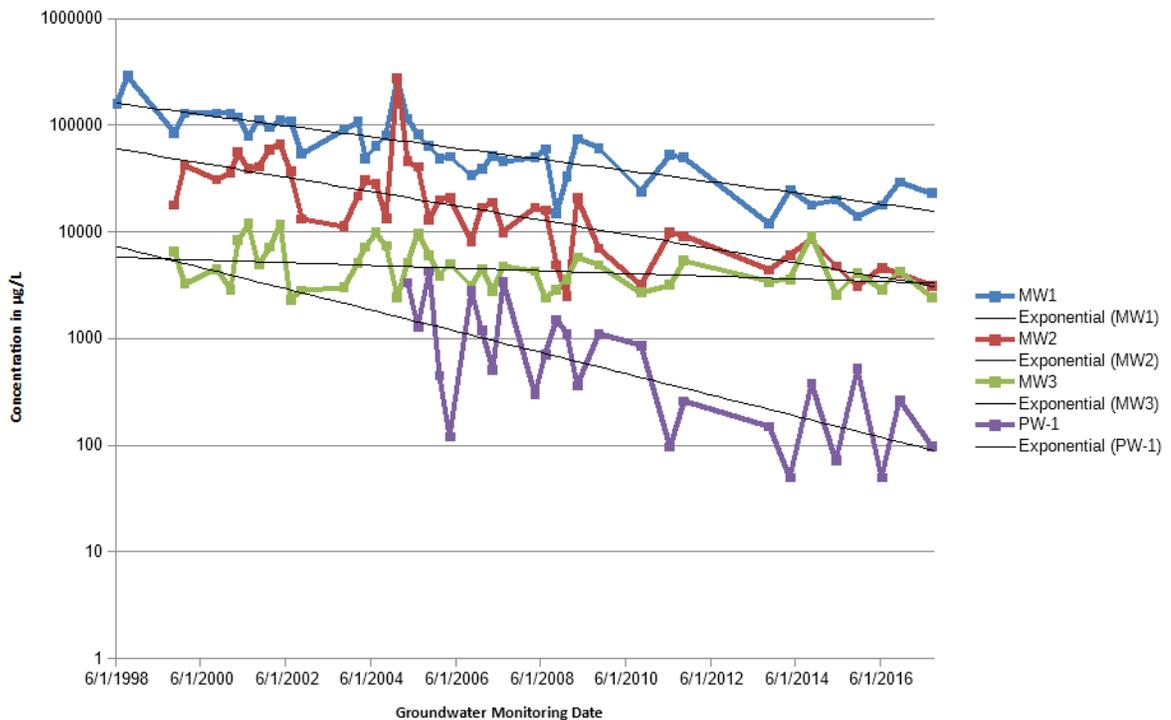
## **Results of Groundwater Sampling & Laboratory Analysis**

The attached Tables 1 & 2 tabulate recent and historical groundwater analysis results. The associated laboratory report is included in Attachment B. As shown on Table 1, *Historical Groundwater Levels & Hydrocarbon Analytical Results*, the laboratory reported concentrations of TPH as gasoline in groundwater samples collected during the August 2017 event ranging from 98 µg/l in piezometer PW-1 to 23,100 µg/l in well MW-1. Benzene concentrations ranged between 0.6 µg/l in piezometer PW-1 to 2700 µg/l in well MW-1. As compared with the November 2016 event, the TPH as gasoline concentrations decreased in

well MW-1 from 29,300 to 23,100  $\mu\text{g}/\text{l}$  and the Benzene concentration decreased from 4000 to 2700  $\mu\text{g}/\text{l}$ . The TPH as gasoline measured in MW-2 decreased from 5110 to 3130  $\mu\text{g}/\text{l}$  and in MW-3 from 4290 to 2460  $\mu\text{g}/\text{l}$ .

The following chart plots TPH as gasoline concentrations in four field points versus time displaying an overall decreasing trend line in contaminant concentrations following primary source removal in 1996. The recently measured concentrations appear consistent with the historical trend lines with pronounced seasonal fluctuations in TPH concentration.

Per the most recent ACDEH Letters dated April 11, 2014 and April 9, 2015, samples collected from each monitoring well were to be additionally analyzed for Naphthalene and TPH as diesel. During the August 2017 event, the laboratory reported Naphthalene at <2.0  $\mu\text{g}/\text{l}$  in well MW-1, 16  $\mu\text{g}/\text{l}$  in well MW-2, and 2.6  $\mu\text{g}/\text{l}$  in well MW-3, with concentrations decreasing in MW-1 & MW-3 since the November 2016 event. TPH as diesel was detected in MW-1, MW-2 and MW-3 at concentrations of 2210, 1970, and 903, respectively. With Silica Gel Cleanup performed on the samples from MW-1, MW-2 and MW-3, the TPH as diesel



decreased in MW-1 to 341  $\mu\text{g}/\text{l}$  and 601  $\mu\text{g}/\text{l}$  in well MW-2.

The laboratory analytical report noted that for each TPH as gasoline sample result, although TPH as gasoline constituents are present, the chromatographic pattern does not resemble the typical gasoline reference standard. The laboratory analytical report noted that for each TPH as diesel sample result, the chromatographic pattern does not resemble the typical diesel reference standard, and that unknown organics within the diesel range (lighter than diesel quantified as diesel) are present.

PCE was detected in the groundwater sample collected in piezometer PW-1 on August 17, 2017, at a concentration of 30  $\mu\text{g}/\text{l}$ , increasing from the 15  $\mu\text{g}/\text{l}$  concentration measured

during the November 2016 event. The recently measured PCE concentration of 30 µg/l exceeds its applicable San Francisco Bay Regional Water Quality Control Board's Tier 1 Environmental Screening Level (ESL) of 3 µg/l. The PCE breakdown products of TCE and Cis-1,2-DCE were measured in well PW-1, at a concentration of 0.84 µg/l and <0.5 µg/l during this event. Table 2 includes a summary of the historical groundwater VOC analysis results. As shown on the table, the current concentration is well below the historical high values for PCE of 120 and 110 µg/l reported in April 2009 and 2014, respectively. The complete full list VOC laboratory analysis results are included in Attachment B.

## **CONCLUSIONS AND RECOMMENDATIONS**

- Due to the elevated concentrations of TPH as gasoline and Benzene remaining in monitor wells MW-1 and MW-3, the existing groundwater monitoring and sampling at the subject property should continue on a semi-annual basis. Contaminant trend lines at the Site appear well established and groundwater monitoring and sampling on an annual basis may be sufficient.
- Unless otherwise directed by the ACDEH, groundwater samples will continue to be analyzed for TPH as gasoline by method 8260TPH; Volatile Organic Compounds (VOC), BTEX, MTBE and Naphthalene by EPA Method SW8260B (Full List); and TPH as diesel by SW8015B with and without Silica Gel Cleanup (MW-1 & MW-1 only).

## REPORT DISTRIBUTION

This report and future correspondence associated with WGE Project 2016106 will be submitted to:

Mr. Mark Detterman, P.G., C.E.G. Senior Hazardous Materials Specialist mark.detterman@acgov.org Alameda County Health Care Services Agency Department of Environmental Health Local Oversight Program (LOP) 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577	1 PDF Report via upload to GeoTracker Website 1 PDF Report via upload to ACDEH's FTP Server
Dr. Brian R. Sheaff, D.D.S. 1945 Parkside Drive Concord, CA 94519	1 Bound Hard Copy Report
John Accacian 5930 College Avenue Oakland, CA 94618 jjjracingaol@yahoo.com	1 PDF Report via email

## **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. Existing hazardous materials and contaminants can escape detection using existing 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. Wheeler Group'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.

WGE 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 report 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.



**GROUNDWATER MONITORING REPORT**  
**3rd Quarter 2017**

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

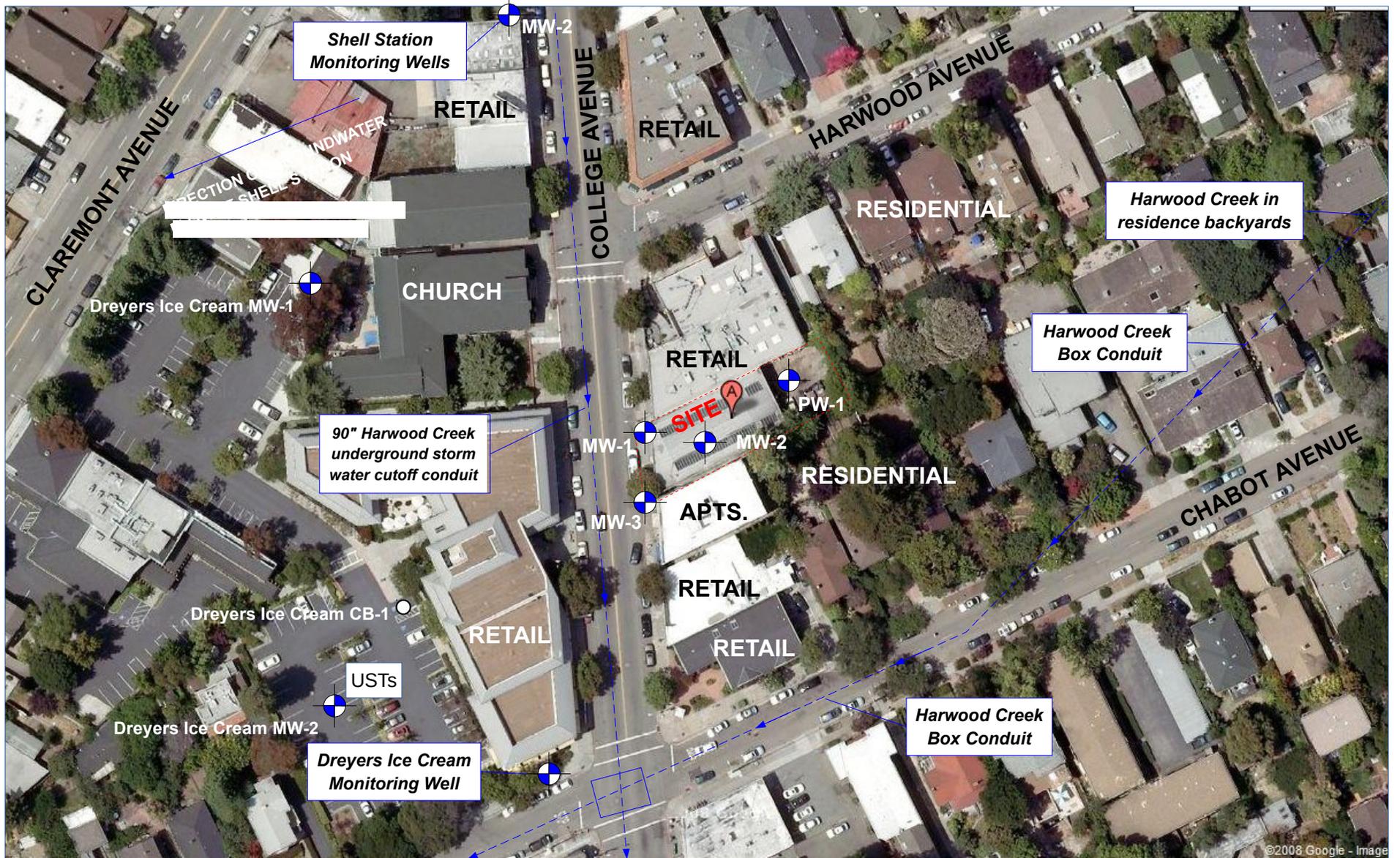
**ACHCSA Fuel Leak Case No. RO0000377**  
**WGE Project # 2016106**

**FIGURES**

- FIGURE 1 - SITE LOCATION MAP
- FIGURE 2 - SITE VICINITY MAP
- FIGURE 3 - SITE PLAN
- FIGURE 4 - GROUNDWATER DATA DIAGRAM

**Wheeler Group Environmental, LLC**  
369-B Third Street, Suite #221, San Rafael, CA 94901





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

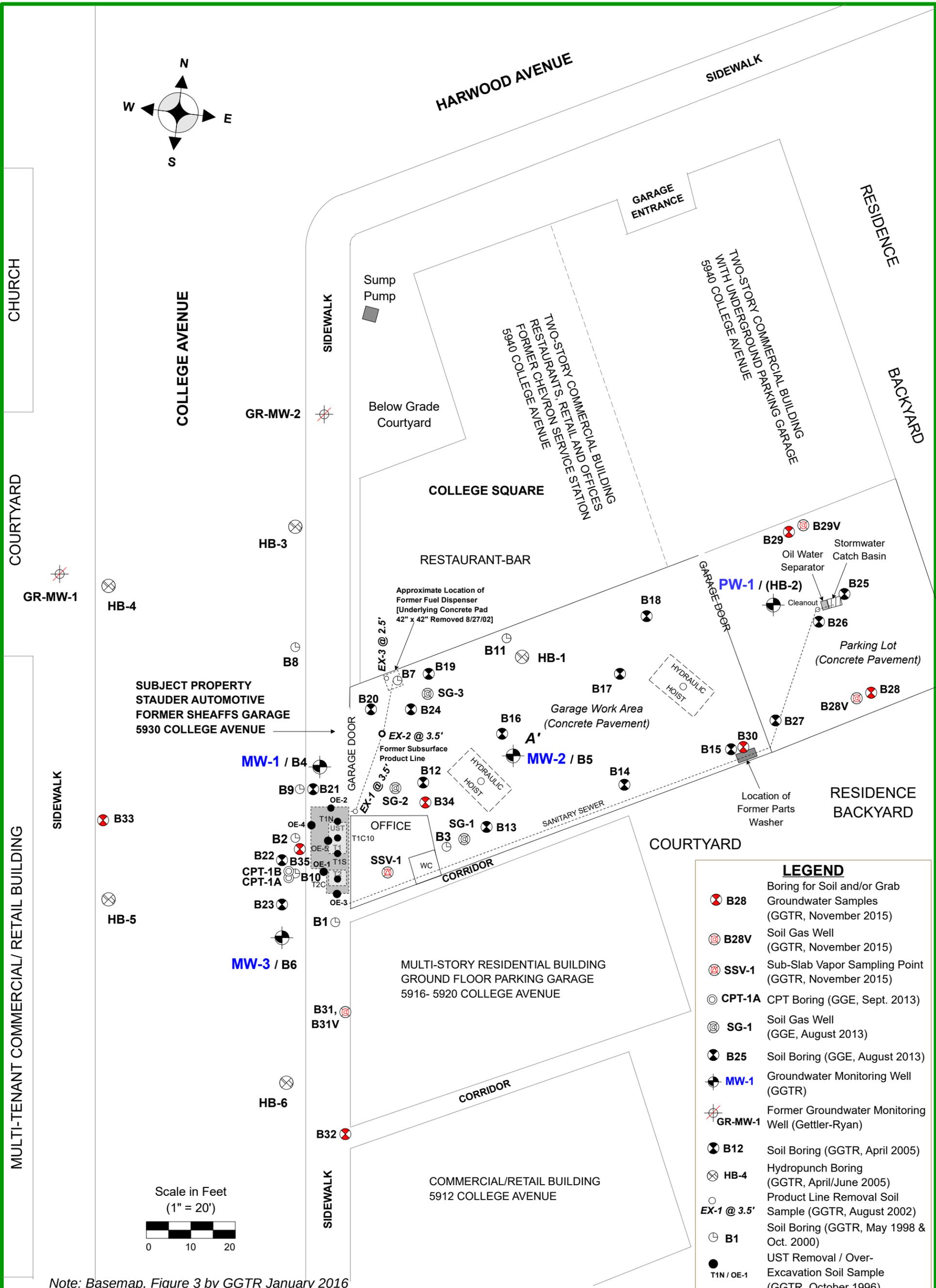
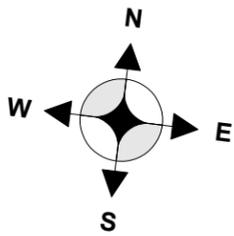


**WHEELER GROUP ENVIRONMENTAL, LLC**  
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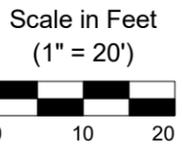


**SITE VICINITY MAP**  
**Groundwater Monitoring Report**  
**3<sup>rd</sup> Quarter 2017**

5930 College Avenue, Oakland, California



SUBJECT PROPERTY  
STAUER AUTOMOTIVE  
FORMER SHEAFFS GARAGE  
5930 COLLEGE AVENUE

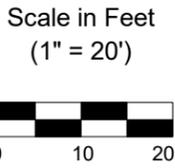
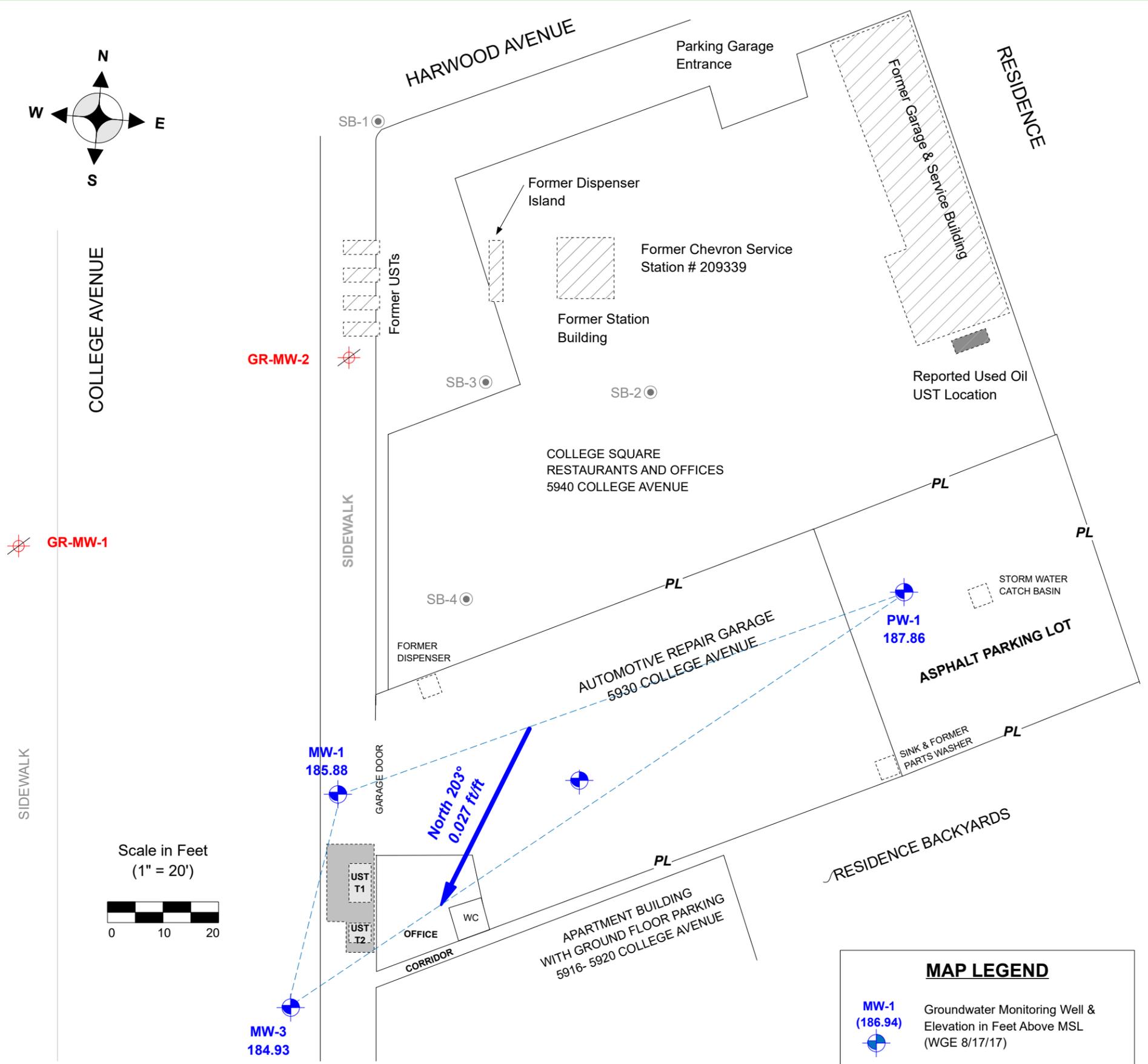
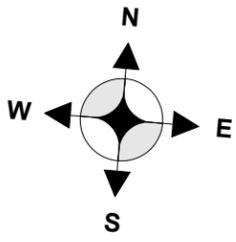


LEGEND	
	B28 Boring for Soil and/or Grab Groundwater Samples (GGTR, November 2015)
	B28V Soil Gas Well (GGTR, November 2015)
	SSV-1 Sub-Slab Vapor Sampling Point (GGTR, November 2015)
	CPT-1A CPT Boring (GGE, Sept. 2013)
	SG-1 Soil Gas Well (GGE, August 2013)
	B25 Soil Boring (GGE, August 2013)
	MW-1 Groundwater Monitoring Well (GGTR)
	GR-MW-1 Former Groundwater Monitoring Well (Gettler-Ryan)
	B12 Soil Boring (GGTR, April 2005)
	HB-4 Hydropunch Boring (GGTR, April/June 2005)
	EX-1 @ 3.5' Product Line Removal Soil Sample (GGTR, August 2002)
	B1 Soil Boring (GGTR, May 1998 & Oct. 2000)
	T1N / OE-1 UST Removal / Over-Excavation Soil Sample (GGTR, October 1996)

Note: Basemap, Figure 3 by GGTR January 2016

<p><b>WHEELER GROUP ENVIRONMENTAL, LLC</b> 369-B Third Street, Suite #221 San Rafael, CA 94901 P: (415) 686-8846 E: bwheeler@wheelegroupenvironmental.com</p>	<p><b>SITE PLAN</b></p> <p><b>Groundwater Monitoring Report 3<sup>rd</sup> Quarter 2017</b></p> <p>Former Sheaff's Service Garage 5930 College Avenue, Oakland, CA 94618</p>	
	<p>GGTR Project No. 2016106</p>	<p>2016106_Figure 3_Site Plan_Sept 2017.odg</p>

Figure 3



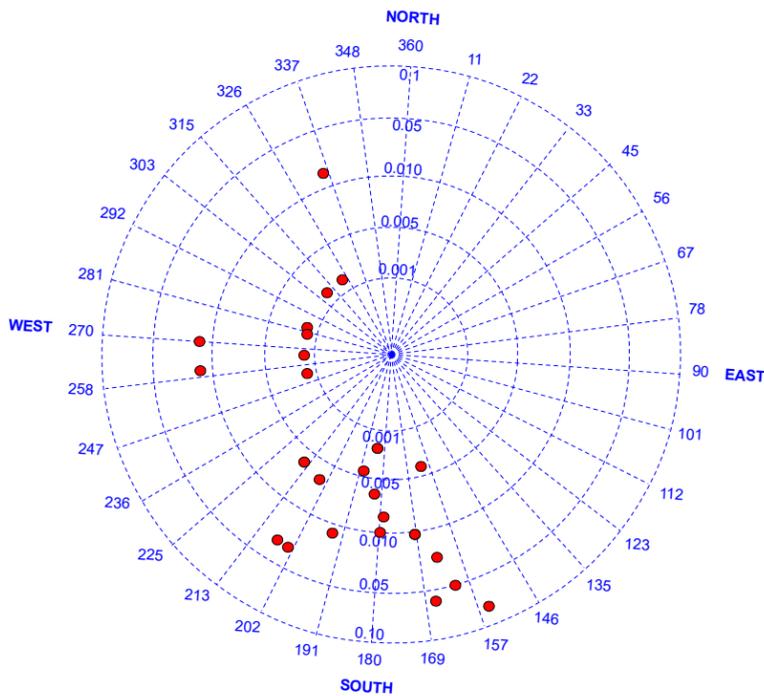
### MAP LEGEND

- MW-1 (186.94)** Groundwater Monitoring Well & Elevation in Feet Above MSL (WGE 8/17/17)
- GR-MW-1** Gettler-Ryan Groundwater Monitoring Well, Destroyed Oct. 2014
- Approximate Groundwater Flow Direction and Hydraulic Gradient (WGE 8/17/17)
- ug/L Micrograms per liter
- Approx. Limit of Former UST Excavation
- PL** Property Line

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

Date	Groundwater Flow Direction / Hydraulic Gradient (ft/ft)
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
4/14/2014	161.6@0.025
10/20/2014	333.4@0.014
5/13/2015	206 @ 0.007
11/11/2015	261 @ 0.015
6/7/2016	166 @ 0.052
11/21/2016	180 @ 0.010
8/17/2017	203 @ 0.027

**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.

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**GROUNDWATER DATA DIAGRAM**  
**Groundwater Monitoring Report 3<sup>rd</sup> Quarter 2017**  
 Sheaff's Service Garage  
 5930 College Avenue, Oakland, CA 94618



**GROUNDWATER MONITORING REPORT  
3rd Quarter 2017**

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

**ACHCSA Fuel Leak Case No. RO0000377  
WGE Project # 2016106**

**TABLES**

- TABLE 3A - HISTORICAL GROUNDWATER LEVELS & HYDROCARBON  
ANALYTICAL RESULTS
- TABLE 3B - HISTORICAL GROUNDWATER VOC ANALYTICAL RESULTS IN PW-1

**Wheeler Group Environmental, LLC**  
369-B Third Street, Suite #221, San Rafael, CA 94901

**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)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)
MW-1	6/1/98		4.81	191.09	slight sheen	160000	NA	1900	28000 / 21000 / 3800 / 21000	NA
	9/10/98		7.5	188.4	Odor	290000	NA	440	<50 / 25000 / 7100 / 32000	NA
	10/7/99		10.04	185.86	Odor	85000	NA	1100	20000 / 13000 / 3800 / 17000	NA
	1/26/00		8.26	187.64	slight sheen	130000	NA	470	25000 / 18000 / 4500 / 22000	NA
	10/25/00		10.1	185.8	Odor	130000	NA	1300	23000 / 12000 / 3900 / 18000	NA
	2/2/01		9.61	186.29	Odor	128000	NA	780	19000 / 11000 / 3800 / 18000	NA
	4/25/01	195.9	7.39	188.51	Odor	120000	NA	900	21000 / 13000 / 390 / 18000	NA
	7/10/01		9.72	186.18	Odor	79000	NA	660	15000 / 7800 / 3000 / 15000	NA
	10/8/01		10.88	185.02	Odor/sheen	112000	NA	374	25300 / 11800 / 4280 / 20600	NA
	1/7/02		4.34	191.56	Odor	96100	NA	596	21100 / 13500 / 4160 / 21900	NA
	4/8/02		6.84	189.06	slight odor	111000	NA	679	21200 / 13400 / 4230 / 21000	NA
	7/9/02		9.4	186.5	slight odor	110000	NA	570	20300 / 13300 / 4060 / 19800	NA
	10/23/02		11.04	184.86	None	54100	NA	1010 (1080)**	10800 / 3870 / 2320 / 9440	NA
	10/15/03		10.8	185.1	None	90700	NA	724	17800 / 4740 / 3150 / 13900	NA
	2/2/04		7.35	188.55	None	108000	NA	194	14200 / 7420 / 3450 / 19800	NA
	4/23/04		6.83	189.07	slight odor	49200	NA	114	7910 / 1480 / 1810 / 10100	NA
	7/19/04		8.95	186.95	Odor	63900	NA	303	7260 / 2270 / 2510 / 10100	NA
	10/22/04		10.15	185.75	None	80700	NA	493 (296)**	13900 / 1670 / 3550 / 15200	NA
	1/21/05		5.45	190.45	Odor	278000	NA	271 (174)**	14700 / 25300 / 10800 / 73500	NA
	4/14/05		5.3	190.6	Odor /sheen	116000	NA	366 (410)**	15100 / 7080 / 4220 / 20700	NA
	7/26/05		7.6	188.3	Odor	82000	NA	ND<250	12000 / 4500 / 3300 / 14000	NA
	10/14/05		9.58	186.32	Odor/sheen	64000	NA	ND<250	13000 / 5700 / 3400 / 16000	NA
	1/13/06		4.6	191.3	Odor/sheen	49000	NA	ND<250	12000 / 5300 / 3500 / 17000	NA
	4/14/06		3.08	192.82	Odor	51000	NA	270	14000 / 5300 / 3500 / 17000	NA
	10/26/06		9.22	186.68	Odor	34000	NA	ND<250	12000 / 1600 / 3100 / 8600	NA
	1/30/07		9.6	186.3	Odor	39000	NA	ND<200	10000 / 2200 / 2900 / 10000	NA
	4/13/07		9.24	186.66	NM	52000	NA	150	9100 / 2600 / 3100 / 11000	NA
	7/24/07		10.67	185.23	None	46000	NA	240	10000 / 1200 / 3500 / 6200	NA
	4/21/08		7.24	188.66	None	50000	NA	ND<100	7800 / 1500 / 3000 / 12000	NA
	7/22/08		9.71	186.19	Odor	60000	NA	470 <sup>1</sup>	8100 / 1500 / 2700 / 9800	NA
10/21/08	11.63		184.27	Odor	15000	NA	110	4900 / 430 / 1900 / 2260	NA	
1/19/09	10.91		184.99	Odor/Sheen	33000	NA	143	8830/837/2160/3880	NA	
4/27/09	7.7		188.2	Odor	75000	NA	53	8500/2100/2300/11000	NA	
10/27/09	9.34		186.56	Odor	61000	NA	75	8300/1500/2600/7900	NA	
10/14/10	10.3		185.6	Clear/Odor	24000 <sup>2</sup>	NA	220	8100/820/2200/4400	NA	
SF Bay RWQCB February 2016 ESL						100	100	1200	1.1 / 3600 / 13 / 1300	20

Table & Notes Following

**TABLE 1 (Cont'd)**  
**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)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)
<b>MW-1</b>	6/9/11	195.9	6.38	189.5	Clear/Odor	53000	NA	NA	14000/3000/3800/16900	NA
	10/7/11		9.08	186.82	None	50000 <sup>2</sup>	NA	89	9200/1500/4200/13500	NA
	10/16/13		10.83	185.07	Clear	12000 <sup>2</sup>	NA	ND<21	2400/330/1500/2780	NA
	4/14/14		10.92	184.98	Clear	25000 <sup>6</sup>	3000 <sup>7,8</sup>	ND<21	3000/480/2100/6700	500 <sup>9</sup>
	10/20/14		11.2	184.7	Clear/Odor	18000 <sup>2</sup>	2000 <sup>7,8</sup>	63	5600/300/2000/910	300 <sup>9</sup>
	5/13/15		9.33	186.57	Clear/Odor	20000	2600 <sup>7,8</sup>	57	2700/340/1600/2760	360 <sup>9</sup>
	11/11/15		12.42	183.48	Clear/Odor	14000 <sup>5</sup>	4100 <sup>7,8</sup>	49	3900/91/750/288.5	130 <sup>9</sup>
	6/7/16		8.96	186.94	Turbid/Odor	18000 <sup>2,5</sup>	2500(210) <sup>7,10</sup>	41	3100/220/1300/2390	180
	11/21/16		10.43	185.47		29300 <sup>2</sup>	4440 (1750) <sup>7,10</sup>	42	4000 / 390 / 1700 / 4600	400
	8/17/17		<b>10.02</b>	<b>185.88</b>	<b>Clear/Odor</b>	<b>23100<sup>2</sup></b>	<b>2210(341)<sup>7,10</sup></b>	<b>22</b>	<b>2700/230/1100/3090</b>	<b>ND&lt;2.0</b>
<b>SF Bay RWQCB February 2016 ESL</b>						<b>100</b>	<b>100</b>	<b>1200</b>	<b>1.1 / 3600 / 13 / 1300</b>	<b>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)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)
MW-2	10/7/99	51.42*	11.49	39.93	slight/odor	18000	NA	490	3000 / 1700 / 1000 / 3900	NA
	1/26/00	51.42*	7.85	43.57	None	42000	NA	560	9300 / 2200 / 2300 / 7700	NA
	10/25/00	51.42*	11.57	39.85	slight/odor	31000	NA	500	5500 / 370 / 1700 / 2600	NA
	2/2/01	51.42*	10.77	40.65	Odor	36000	NA	400	4300 / 530 / 1800 / 4500	NA
	4/25/01	197.28	8.52	188.76	Odor	56000	NA	460	6700 / 1700 / 2600 / 8200	NA
	7/10/01		11.05	186.23	Odor	39000	NA	180	6200 / 730 / 2300 / 6100	NA
	10/8/01		12.79	184.49	Odor/sheen	40700	NA	6460	6310 / 399 / 2100 / 5320	NA
	1/7/02		4.92	192.36	Odor	59600	NA	366**	10300 / 3250 / 4180 / 14400	NA
	4/8/02		8.4	188.88	slight odor	66700	NA	583**	10200 / 2670 / 3840 / 13200	NA
	7/9/02		10.55	186.73	slight odor	37100	NA	303 (298)**	5340 / 890 / 2110 / 6920	NA
	10/23/02		13.85	183.43	None	13300	NA	322 (360)**	2420 / 216 / 922 / 1470	NA
	10/15/03		12.38	184.9	None	11300	NA	264 (322)**	2660 / 51 / 1180 / 1220	NA
	2/2/04		8.8	188.48	None	21700	NA	168 (200)**	2130 / 51 / 1030 / 2060	NA
	4/23/04		8.4	188.88	Slight odor	30400	NA	112 (203)**	3570 / 322 / 1620 / 4140	NA
	7/19/04		10.3	186.98	Odor	28300	NA	283 (373)**	2540 / 239 / 1320 / 2300	NA
	10/22/04		10.25	187.03	Mod odor	13500	NA	273 (229)**	1790 / 54 / 892 / 915	NA
	1/21/05		6.65	190.63	Mod odor	278000	NA	161 (163)**	5980 / 1030 / 2890 / 9070	NA
	4/14/05		8.7	188.58	None	46100	NA	155 (150)**	5170 / 787 / 2530 / 6010	NA
	7/26/05		8.95	188.33	Mod odor	41000	NA	ND (ND)**	5600 / 550 / 2600 / 4600	NA
	10/14/05		10.92	186.36	Odor/sheen	13000	NA	130	2900 / 100 / 1300 / 1200	NA
	1/13/06		5.48	191.8	Odor	20000	NA	ND<100	4900 / 490 / 2400 / 4200	NA
	4/14/06		3.61	193.67	Odor	21000	NA	ND<100	4000 / 740 / 2300 / 5100	NA
	10/26/06		10.58	186.7	Odor	8200	NA	68	1400 / 51 / 840 / 500	NA
	1/30/07		10.98	186.3	Odor	17000	NA	62	3200 / 150 / 2200 / 1800	NA
	4/13/07		10.54	186.74	NM	19000	NA	57	2000 / 85 / 1300 / 1100	NA
	7/24/07		12.04	185.24	None	10000	NA	84	1300 / 41 / 710 / 270	NA
	4/21/08		8.01	189.27	None	17000	NA	48	1800 / 100 / 1400 / 1300	NA
	7/22/08		11.12	186.16	None	16000	NA	100 <sup>1</sup>	1900 / 98 / 1600 / 741	NA
	10/21/08		13.11	184.17	Odor/sheen	4900	NA	65	700 / 20 / 370 / 52	NA
	1/19/09		12.31	184.97	Odor	2500	NA	90	167/8.49/114/50.3	NA
4/27/09	9.01		188.27	Odor/sheen	21000	NA	ND<0.5	1700/130/1100/1800	NA	
10/27/09	10.52		186.76	Odor	7000	NA	ND<0.5***	510/19/330/160	NA	
10/14/2010	11.56		185.72	None	3200 <sup>2</sup>	NA	35	460/16/230/110	NA	
6/9/2011	7.67		189.61	Clear/Odor	9900	NA	NA	1900/75/1100/1013	NA	
SF Bay RWQCB February 2016 ESL						100	100	1200	1.1 / 3600 / 13 / 1300	20

**Table & Notes Following**

**TABLE 1 (Cont'd)**  
**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)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)
<b>MW-2</b>	10/7/2011	197.28	10.42	186.86	Clear/Odor	9200 <sup>4</sup>	NA	ND<22	810/34/610/100	NA
	10/16/2013		12.18	185.1	Clear/Odor	4400 <sup>2,5</sup>	NA	ND<4.2	780/33/200/39.8	NA
	4/14/2014		12.34	184.94	Clear/Odor	6100 <sup>2</sup>	2500 <sup>7,8</sup>	ND<2.1	530/270/19/47.6	86 <sup>9</sup>
	10/20/2014		12.54	184.74	Clear/Odor	8600 <sup>2</sup>	3700 <sup>7,8</sup>	15	140/5.6/73/20.9	24 <sup>9</sup>
	5/13/2015		10.48	186.8	Clear/Odor	4800 <sup>2</sup>	2300 <sup>7,8</sup>	7.7	220/10/96/38	30 <sup>9</sup>
	11/11/15		14.19	183.09	Clear/Odor	3100 <sup>2</sup>	2100 <sup>7,8</sup>	7.2	220/7.1/38/15	ND<11 <sup>9</sup>
	6/7/16		8.63	188.65	Clear/Odor	4600 <sup>2</sup>	2600(220) <sup>7,10</sup>	ND<5.3	160/ND<5.3/71/22	32
	11/21/16		11.75	185.53	Clear/Odor	5110 <sup>2</sup>	4060 (1170) <sup>7,10</sup>	4.7	300 / 12 / 43 / 18.7	13
	8/17/17		<b>10.61</b>	<b>186.67</b>	<b>Clear/Odor</b>	<b>3130</b> <sup>2,4</sup>	<b>1970(601)</b> <sup>7,10</sup>	<b>1.2</b>	<b>49/1.4/14/11.4</b>	<b>16</b>
SF Bay RWQCB February 2016 ESL						<b>100</b>	<b>100</b>	<b>1200</b>	<b>1.1 / 3600 / 13 / 1300</b>	<b>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)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)
MW-3	10/7/99		9.67	185.55	None	6600	NA	390	310 / 110 / 430 / 1000	NA
	1/26/00		5.4	189.82	None	3300	NA	40	110 / 8 / 100 / 32	NA
	10/25/00		9.24	185.98	Slight odor	4500	NA	ND	100 / 2 / 120 / 130	NA
	2/2/01		8.73	186.49	Slight odor	2900	NA	35	35 / 3 / 160 / 298	NA
	4/25/01	195.22	6.61	188.61	Slight odor	8400	NA	56	260 / 33 / 290 / 510	NA
	7/10/01		8.85	186.37	Slight odor	12000	NA	35	39 / 10 / 690 / 1600	NA
	10/8/01		9.75	185.47	Odor/sheen	4913	NA	52	108 / 4 / 99 / 133	NA
	1/7/02		4.25	190.97	Odor/sheen	7260	NA	81.7**	723 / 138 / 492 / 887	NA
	4/8/02		6.33	188.89	Odor	11700	NA	ND**	540 / 108 / 706 / 1710	NA
	7/9/02		8.56	186.66	Odor	2320	NA	28.3 (20)**	37.1 / 4.7 / 98.5 / 187	NA
	10/23/02		10.02	185.2	Odor/sheen	2830	NA	ND (ND)**	46.8 / 4.7 / 43.6 / 65.5	NA
	10/15/03		9.8	185.42	Odor/sheen	3040	NA	ND (ND)**	91.3 / 8.4 / 69.9 / 148	NA
	2/2/04		6.85	188.37	Odor/sheen	5140	NA	ND (ND)**	126 / 8.7 / 134 / 238	NA
	4/23/04		6.17	189.05	None	7210	NA	ND (ND)**	227 / 39.5 / 448 / 879	NA
	7/19/04		8.25	186.97	Slight odor	9860	NA	ND (ND)**	20.4 / 3.2 / 30.6 / 117	NA
	10/22/04		9.25	185.97	None	7420	NA	96 (21)**	152 / 12.8 / 267 / 480	NA
	1/21/05		5.22	190	Slight odor	2420	NA	ND (ND)**	111 / 11.4 / 139 / 265	NA
	4/14/05		6.64	188.58	Odor/sheen	5130	NA	54 (41.4)**	357 / 19.4 / 287 / 510	NA
	7/26/05		6.9	188.32	None	9800	NA	ND (21)**	200 / 23 / 220 / 360	NA
	10/14/05		8.83	186.39	Odor/sheen	6100	NA	ND	76 / 19 / 170 / 350	NA
	1/13/06		4.61	190.61	Odor	3900	NA	24	380 / 17 / 230 / 300	NA
	4/14/06		3.41	191.81	Odor	5000	NA	69	760 / 44 / 230 / 190	NA
	10/26/06		8.57	186.65	Odor	3100	NA	17	120 / 9.8 / 55 / 54	NA
	1/30/07		8.83	186.39	Odor	4500	NA	ND<10	90 / 7.6 / 75 / 44	NA
	4/13/07		8.57	186.65	NM	2800	NA	ND<5	55 / 4.9 / 19 / 6.1	NA
	7/24/07		9.98	185.24	None	4800	NA	ND<5	140 / 8.3 / 66 / 22	NA
	4/21/08		9.3	185.92	None	4300	NA	ND<5	200 / 11 / 30 / 14	NA
	7/22/08		9.05	186.17	None	2400	NA	53 <sup>1</sup>	140 / 13 / 26 / 18.5	NA
	10/21/08		11.12	184.1	Slight Odor	2900	NA	2.2	170 / 9.2 / 99 / 25.8	NA
	1/19/09		10.29	184.93	Odor	3600	NA	ND<0.5	148/6.73/24.5/22.1	NA
4/27/09	7.15		188.07	Odor/sheen	5800.00	NA	8.8	370/12/82/84	NA	
10/27/09	8.96		186.26	Odor	4900 <sup>2</sup>	NA	ND<0.5***	130/8.5/89/130	NA	
10/14/2010	9.76		185.46	None	2700 <sup>2</sup>	NA	ND<4.4	270/11/290/399.2	NA	
6/9/2011	5.92		189.3	Clear/Odor	3200 <sup>2</sup>	NA	NA	220/ND<4.4/37/20	NA	
10/7/2011	8.6	186.62	None	5400 <sup>2</sup>	NA	ND<4.4	140/7.0/160/67	NA		
<b>SF Bay RWQCB February 2016 ESL</b>						<b>100</b>	<b>100</b>	<b>1200</b>	<b>1.1 / 3600 / 13 / 1300</b>	<b>20</b>

Table & Notes Following

**TABLE 1 (Cont'd)**  
**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)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)
MW-3	10/16/2013	195.22	10.56	184.66	Lt. Gray/Odor	3400 <sup>2</sup>	NA	ND<4.2	990/58/75/71	NA
	4/14/2014		11.07	184.15	Clear	3600 <sup>2</sup>	700 <sup>7,8</sup>	ND<1.1	400/22/24/13.3	4.0 <sup>9</sup>
	10/20/2014		10.09	185.13	Clear/Odor	9200 <sup>2</sup>	25000 <sup>7,8</sup>	9.2	180/8.4/21/11	ND<2.1 <sup>9</sup>
	5/13/2015		8.89	186.33	Clear	2600 <sup>2</sup>	630 <sup>7,8</sup>	6.1	110/6.1/7.4/ND<8.4	ND<8.4 <sup>9</sup>
	11/11/15		11.89	183.33	Clear/Odor	4100 <sup>2</sup>	760 <sup>7,8</sup>	9.5	660/21/250/52	ND<8.4 <sup>9</sup>
	6/7/16		10.05	185.17	Clear/Odor	2900 <sup>2</sup>	840 <sup>7</sup>	5.9	190/6.0/4.2/ND<8.4	17
	11/21/16		10.13	185.17	Clear	4290 <sup>2</sup>	996 (351) <sup>7,10</sup>	4.6	300 / 16 / 170 / 27.6	30
	8/17/17		<b>10.29</b>	<b>184.93</b>	<b>Clear/Odor</b>	<b>2460</b> <sup>2,4</sup>	<b>903</b> <sup>7</sup>	<b>15</b>	<b>350/8.4/4.9/5.67</b>	<b>2.6</b>
SF Bay RWQCB February 2016 ESL						<b>100</b>	<b>100</b>	<b>1200</b>	<b>1.1 / 3600 / 13 / 1300</b>	<b>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)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)
PW-1	4/14/05	197.17	6.4	190.77	None	3360	NA	ND (ND**)	62.8 / 6.7 / 79.5/ 317	NA
	7/26/05		8.63	188.54	None	1300	NA	ND (ND**)	22 / ND / 48 / 110	NA
	10/14/05		10.71	186.46	None	4300	NA	ND	93 / 1.2 / 100 / 140	NA
	1/13/06		4.87	192.3	None	450	NA	ND<2.0	10 / ND / 37 / 72	NA
	4/14/06		2.27	194.9	Odor	120	NA	ND<2.0	2.3 / ND<1.0 / 3.5 / 9.3	NA
	10/26/06		10.3	186.87	Odor	2800	NA	ND<10	61 / ND<5.0 / 130 / 34	NA
	1/30/07		10.8	186.37	Odor	1200	NA	ND<2	22 / ND<1.0 / 100 / 200	NA
	4/13/07		10.31	186.86	NM	510	NA	ND<1	6 / ND<0.5 / 30 / 56	NA
	7/24/07		11.81	185.36	None	3400	NA	ND<5	63 / ND<2.5 / 180 / 5.6	NA
	4/21/08		9.08	188.09	None	300	NA	ND<1	3 / ND<0.5 / 16 / 26	NA
	7/22/08		9.83	187.34	None	710.00	NA	3.1 <sup>1</sup>	9.3 / 1.2 <sup>1</sup> / 49 / 67.86	NA
	10/21/08		12.9	184.27	None	1500 <sup>2</sup>	NA	1	20 / ND<0.5 / 57 / 20	NA
	1/19/09		12.11	185.06	Odor/sheen	1100 <sup>2</sup>	NA	ND<0.5	12.3/ND<0.5/30.8/9.20	NA
	4/27/2009		8.69	188.48	None	360 <sup>3</sup>	NA	ND<0.5	2.7/ND<0.5/12/18	NA
	10/27/2009		10.32	186.85	None	1100 <sup>2</sup>	NA	ND<0.5	12/ND<0.5/36/34	NA
	10/14/2010		11.38	185.79	None	860 <sup>3</sup>	NA	ND<0.5	8.8/.55/44/44	NA
	6/9/2011		7.43	189.74	None	96 <sup>3</sup>	NA	ND<0.5	ND<0.5/ND<0.5/3.1/2.5	NA
	10/7/2011		9.79	187.38	None	260 <sup>5</sup>	NA	ND<0.5	ND<0.5/ND<0.5/5.9/4.5	NA
	10/16/2013		11.91	185.26	Clear	150 <sup>2,5</sup>	NA	ND<0.5	0.87/ND<0.5/ND<0.5/ND≤1.0	NA
	4/14/2014		12.14	185.03	Clear	ND<50	ND<0.1 <sup>8</sup>	ND<0.5	ND<0.5/ND<0.5/ND<0.5/ND≤1.0	ND<0.5 <sup>9</sup>
10/20/2014	12.28	184.89	Clear	380 <sup>2</sup>	140 <sup>7,8</sup>	ND<0.5	2.4/ND<0.5/11/4.0	2.3 <sup>9</sup>		
5/13/2015	10.06	187.11	Clear	72 <sup>2</sup>	ND<0.1 <sup>7,8</sup>	ND<0.5	ND<0.5/ND<0.5/ND<0.5/ND≤1.0	ND<1.0 <sup>9</sup>		
11/11/15	14.02	183.15	Clear	520 <sup>2</sup>	140 <sup>7,8</sup>	ND<0.5	3.8/ND<0.5/0.55/ND≤1.0	ND<1.0 <sup>9</sup>		
6/7/16	9.7	187.47	Clear/Odor	ND<50	ND<100	ND<0.5	ND<0.5/ND<0.5/ND<0.5/ND≤1.0	ND<1.0		
11/21/16	11.32	185.85	Clear	265 <sup>2</sup>	170 (ND<100) <sup>7</sup>	ND<0.5	2.1 / ND<0.50 / 0.51 / ND<1.0	ND<2.0		
8/17/17	9.31	187.86	Clear	97.7 <sup>2,4</sup>	140 <sup>7</sup>	ND<0.5	0.60/ND<0.5/ND<0.5/ND≤1.0	ND<2.0		
SF Bay RWQCB February 2016 ESL						100	100	1200	1.1 / 3600 / 13 / 1300	20

Table Notes Following

**TABLE 1 (Cont'd)**  
**Historical Groundwater Levels & Hydrocarbon Analytical Results**  
**5930 College Avenue, Oakland, CA**

**Table 1 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 practical quantitation limit (PQL)

<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>=Reported value 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

<sup>6</sup>=Reported TPH value includes amount due to discrete peak (See 8260B results - elevated aromatic compounds)

<sup>7</sup>= Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range lighter than diesel quantified as diesel.

<sup>8</sup>= Sample also analyzed for TPH as Motor Oil (EPA Method SW8015B); See Lab Report for Sample Results

<sup>9</sup>= Sample also analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method SW8270C; See Lab Report for Sample Results

<sup>10</sup>= Sample also analyzed for TPH as Diesel w/Silica Gel Cleanup; results shown in parentheses adjacent to table entry

\* = 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)

SF Bay RWQCB/ESL = San Francisco Bay Regional Water Quality Control Board's Interim Final - February 2016, Environmental Screening Level for shallow groundwater at a residential use permitted site (Groundwater Vapor Intrusion Human Health Risk)

**Well Construction Data:**

<b>Well #</b>	<b>Total Depth (ft, TOC)</b>	<b>Screen Interval (ft)</b>	<b>Installation Date</b>
MW-1	14.5	5 to TD	5/20/1998
MW-2	19.6	5 to TD	10/2/1999
MW-3	19	5 to TD	10/2/1999
PW-1	19.8	5 to TD	4/5/2005

**TABLE 2**  
**Historical Groundwater VOC Analytical Results**  
**5930 College Avenue, Oakland, CA**

Well ID	Sample Date	Casing Elevation feet MSL	Depth to GW (feet) TOC	Water Elevation (ft, MSL)	IPB (ug/L)	N-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Naphthalene (ug/L)	TCE (ug/L)	cis-1,2-DCE (ug/L)	Vinyl Chloride (ug/L)	PCE (ug/L)
MW-1	6/7/16	195.9	8.96	186.94	39	110	100	370	180	ND<4.2	ND<4.2	ND<4.2	ND<4.2
	8/17/17	<b>195.9</b>	<b>10.02</b>	<b>185.88</b>	<b>31</b>	<b>66</b>	<b>75</b>	<b>580</b>	<b>ND&lt;2.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-2	6/7/16	197.28	8.63	188.65	30	96	ND<5.3	ND<5.3	32	ND<5.3	ND<5.3	ND<5.3	ND<5.3
	8/17/17	<b>197.28</b>	<b>10.61</b>	<b>186.67</b>	<b>23</b>	<b>9.9</b>	<b>1.4</b>	<b>5.1</b>	<b>16</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-3	6/7/16	195.22	10.05	185.17	16	47	ND<4.2	ND<4.2	17	ND<4.2	ND<4.2	ND<4.2	ND<4.2
	8/17/17	<b>195.22</b>	<b>10.29</b>	<b>184.93</b>	<b>14</b>	<b>31</b>	<b>ND&lt;5.0</b>	<b>0.55</b>	<b>2.6</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
PW-1	4/14/05	197.17	6.4	190.77	11	22	110	100	43	3.3	12	ND<0.5	84.9
	7/26/05		8.63	188.54	7.3	17	37	100	43	ND<1	7	ND<1	48
	10/14/05		10.71	186.46	28	72	67	120	43	4.1	29	ND<1	25
	1/13/06		4.87	192.3	ND<20	ND<10	ND<10	37	ND<10	1.4	5	ND<1	95
	4/14/06		2.27	194.9	ND<2	ND<10	ND<10	ND<10	ND<10	1.1	2.8	ND<1	68
	10/26/06		10.3	186.87	ND<10	ND<50	ND<50	ND<50	ND<50	6.2	32	ND<5.0	26
	1/30/07		10.8	186.37	ND<2	23	31	120	18	ND<1	11	ND<1	29
	4/13/07		10.31	186.86	2.4	6.1	7	30	6.8	0.84	4.7	ND<0.5	64
	7/24/07		11.81	185.36	ND<5.0	60	ND<25	ND<25	ND<25	ND<2.5	58	ND<2.5	50
	4/21/08		9.08	188.09	1.1	ND<5	ND<5	15	ND<5	0.88	3.7	ND<0.5	91
	7/22/08		9.83	187.34	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/21/08		12.9	184.27	17	14	5	15	5.1	6.2	56	0.6	44
	4/27/09		8.69	188.48	1.2	3.3	3.4	16	ND<1.0	1.4	4	ND<0.5	120
	10/27/09		10.32	186.85	6	4.8	ND<0.5	15	ND<1.0	ND<0.5	35	ND<0.5	78
	10/14/10		11.38	185.79	9.8	15	12	44	4	5	61	ND<0.5	35
	6/9/11		7.43	189.74	0.55	1.7	0.98	3.7	ND<1.0	0.85	1.4	ND<0.5	86
	10/7/11		9.79	187.38	0.79	1.8	0.99	3.8	1.2	0.63	2	ND<0.5	76
	10/16/13		11.91	185.26	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	2.7	12	ND<0.5	45
	4/14/14		12.14	185.03	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	1.4	3.3	ND<0.5	110
	10/20/14		12.28	184.89	1.8	2.9	1	2.3	2.3	6.4	33	ND<0.5	36
5/13/15	10.06	187.11	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	2.6	2.6	ND<0.5	93		
11/11/15	14.02	181.2	0.92	ND<0.5	ND<0.5	ND<0.5	ND<1.0	11	43	ND<0.5	39		
6/7/16	9.7	185.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	6.4	12	ND<0.5	79		
11/21/16	11.32	185.85	ND<0.5	ND<0.5	ND<0.5	1.7	ND<2.0	9	31	ND<0.5	15		
8/17/17	<b>9.31</b>	<b>187.86</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;2.0</b>	<b>0.84</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>30</b>	
SF Bay RWQCB February 2016 ESL					NC	NC	NC	NC	20	5.6	110	0.061	3

Notes Following

**TABLE 2 (Cont'd)**  
**Historical Groundwater VOC Analytical Results**  
**5930 College Avenue, Oakland, CA**

**Table 2 Notes:**

ft, MSL = feet Above Mean Sea Level

TOC = Top of Well Casing

GW = Depth to Groundwater in feet Below TOC

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 = Perchloroethene or Tetrachloroethene

ug/l = micrograms per liter

ND = Not detected above laboratory reporting limit

NC = No Criteria Listed

NA = Not Analyzed

SF Bay RWQCB/ESL = San Francisco Bay Regional Water Quality Control Board's Interim Final - February 2016, Environmental Screening Level for shallow groundwater at a residential use permitted site (Groundwater Vapor Intrusion Human Health Risk)

**Well Construction Data:**

<b>Well #</b>	<b>Total Well Depth (ft, TOC)</b>	<b>Screen Interval (ft)</b>	<b>Installation Date</b>
MW-1	14.5	5 to TD	4/5/2005
MW-2	19.6	5 to TD	5/20/1998
MW-3	19	5 to TD	10/2/1999
PW-1	19.8	5 to TD	10/2/1999



**GROUNDWATER MONITORING REPORT  
3rd Quarter 2017**

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

**ACHCSA Fuel Leak Case No. RO0000377  
WGE Project # 2016106**

**ATTACHMENT A**

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

**Wheeler Group Environmental, LLC  
369-B Third Street, Suite #221, San Rafael, CA 94901**

**FLUID-LEVEL MONITORING DATA**

Project Name: SHEAFAS <sup>SERVICE</sup> GARAGE Date: 8-17-17

Project/Site Location: 5930 COLLEGE AVE OAKLAND CA.

Technician: RICHARD VASQUEZ Method: ELECTRONIC

Boring/Well	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Total Well Depth (feet)	Comments
PW-1	9.31	N/D	N/A	19.78	⊕ 1000
MW-1	10.02			14.46	⊕ 1004
MW-2	10.61			19.58	⊕ 1007
MW-3	10.29			19.03	⊕ 1010
8-17-17					
				R. VASQUEZ	

Measurements referenced to top of well casing. NORTH

Page 1 of 1

SHEAFAS WARE

WELL NUMBER / FIELD POINT ID: DWH  
 DATE: 8/17/2017  
 PROJECT / GLOBAL ID: WGE2016106 / T0600102112  
 SITE LOCATION: 5930 COLLEGE AVENUE  
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  
 casing diameter (inches) circle one 0.75 1 1.5 2 4 6  
 casing volumes (gallons/liters) circle one 0.02/0.08 0.05/0.19 0.15/0.57 0.2/0.75 0.7/2.65 1.52/5.75

WELL DATA

SAMPLER/S: RUBBER  
 WELL NUMBER / FIELD POINT ID: PW-1  
 SCREEN INTERVAL (if known):  
 A. TOTAL WELL DEPTH: 9.31 9.78  
 B. DEPTH TO WATER: 9.31  
 C. WATER HEIGHT (A-B): 0.47  
 D. WELL CASING DIAMETER: 2  
 E. CASING VOLUME: 0.2  
 F. SINGLE CASE VOLUME (Cx E): 2.094  
 G. 80% RECHARGE LEVEL (F+B): 11.404

PURGE DATA

START TIME: 1615  
 PUMP DEPTH: 13-  
 FINISH TIME: 1628  
 PUMP DEPTH: 13-

SAMPLE TIME 1030

DEPTH TO WATER: 9.94 TIME MEASURED: 1028  
 SAMPLE APPEARANCE / ODOR: CLEAR NO ODOR  
 ~TOTAL LITERS PURGED: 2.4

WELL FLUID PARAMETERS

Time (interval 3 to 5 min.)	0	3	6	9	12		
~Total Volume Purged (L)	0	0.6	1.2	1.8	2.4		
pH (su)	6.50	6.50	6.49	6.51	6.49		
Temperature (Celsius)	18.7	18.9	18.9	19.0	19.1		2.1
COND / SC (us/cm)	741	739	738	735	731		
DO (mg/L / %)	<del>2.88</del> 27.6	<del>2.43</del> 26.4	<del>2.37</del> 25.8	<del>2.41</del> 25.1	<del>2.36</del> 25.0		
ORP (mV)	<del>1857</del> 176						176 POST.
DTW (ft.)	9.31	9.50	9.69	9.78	9.94		
~Pump Depth (ft)	13-						
~Pump Rate (mL/min.)	200ml 9 min						

WELL NUMBER / FIELD POINT ID: mw-1

DATE: 8/17/2017

PROJECT / GLOBAL ID: WGE2016106 / T0600102112

SITE LOCATION: 5930 COLLEGE AVENUE

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

casing diameter (inches) circle one 0.75 1 1.5 2 4 6

casing volumes (gallons/liters) circle one 0.02/0.08 0.05/0.19 0.15/0.57 0.2/0.75 0.7/2.65 1.52/5.75

WELL DATA

SAMPLER/S: R. VADUEZ

WELL NUMBER / FIELD POINT ID: mw-1

SCREEN INTERVAL (if known):

A. TOTAL WELL DEPTH: 14.46

B. DEPTH TO WATER: 10.02

C. WATER HEIGHT (A-B): 4.44

D. WELL CASING DIAMETER: 2

E. CASING VOLUME: 0.2

F. SINGLE CASE VOLUME (Cx E): 0.888

G: 80% RECHARGE LEVEL (F+B): 10.908

PURGE DATA

START TIME: 1123

PUMP DEPTH: 12

FINISH TIME: 1133

PUMP DEPTH: 12

SAMPLE TIME 1135

DEPTH TO WATER: 10.57 TIME MEASURED: 1133

SAMPLE APPEARANCE / ODOR: CLEAR FEEL ODOR

~TOTAL LITERS PURGED: 1.8

WELL FLUID PARAMETERS

Time (interval 3 to 5 min.)	0	3	6	9				
~Total Volume Purged (L)	0	0.6	1.2	1.8				
pH (su)	6.44	6.36	6.34	6.33				
Temperature (Celsius)	20.1	20.1	20.1	20.1				
COND / SC (us/cm)	2161	2020	2019	2019				
DO (mg/L / %)	<del>7.9</del>	<del>2.6</del>	<del>2.5</del>	<del>5.6</del>				
ORP (mV)				20 mV	POST			
DTW (ft.)	10.02	10.21	10.48	10.57				
~Pump Depth (ft)	12							
~Pump Rate (mL/min.)	200 mL p.m.v							

WELL NUMBER / FIELD POINT ID: MW-2

DATE: 8/17/2017

PROJECT / GLOBAL ID: WGE2016106 / T0600102112

SITE LOCATION: 5930 COLLEGE AVENUE

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

casing diameter (inches) circle one 0.75 1 1.5 2 4 6

casing volumes (gallons/liters) circle one 0.02/0.08 0.05/0.19 0.15/0.57 0.2/0.75 0.7/2.65 1.52/5.75

WELL DATA

SAMPLER/S: R. VASUY

WELL NUMBER / FIELD POINT ID: MW-2

SCREEN INTERVAL (if known):

A. TOTAL WELL DEPTH: 19.58

B. DEPTH TO WATER: 10.61

C. WATER HEIGHT (A-B): 8.97

D. WELL CASING DIAMETER: 2

E. CASING VOLUME: 0.2

F. SINGLE CASE VOLUME (Cx E): 1.794

G. 80% RECHARGE LEVEL (F+B): 12.404

PURGE DATA

START TIME: 1040

PUMP DEPTH: 14'

FINISH TIME: 1051

PUMP DEPTH: 14'

SAMPLE TIME 1053

DEPTH TO WATER: 10.61 11.33 TIME MEASURED: 1051

SAMPLE APPEARANCE / ODOR: TRANSPARENT CLEAR

TOTAL LITERS PURGED: 1.8

WELL FLUID PARAMETERS

Time (interval 3 to 5 min.)	0	.3	6	9			
~Total Volume Purged (L)	0	.6	1.2	1.8			
pH (su)	6.46	6.44	6.43	6.40			
Temperature (Celsius)	18.9	19.0	19.0	19.1			
COND / SC (us/cm)	2709	2706	2708	27.10			8.17-17
DO (mg/L / %)	1.80 10.4	1.94 10.3	2.05 6.2	1.55 6.4			
ORP (mV)				140 mV pos			
DTW (ft.)	10.61	10.88	11.01	11.33			
~Pump Depth (ft)	14'						
~Pump Rate (mL/min.)	200 ml 10 min						

WELL NUMBER / FIELD POINT ID: MW-3

DATE: 8/17/2017

PROJECT / GLOBAL ID: WGE2016106 / T0600102112

SITE LOCATION: 5930 COLLEGE AVENUE

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

casing diameter (inches) circle one 0.75 1 1.5 2 4 6

casing volumes (gallons/liters) circle one 0.02/0.08 0.05/0.19 0.15/0.57 0.2/0.75 0.7/2.65 1.52/5.75

WELL DATA

SAMPLER/S:

R. VASQUEZ

WELL NUMBER / FIELD POINT ID:

MW-3

SCREEN INTERVAL (if known):

A. TOTAL WELL DEPTH:

19.03

B. DEPTH TO WATER:

10.29

C. WATER HEIGHT (A-B):

8.74

D. WELL CASING DIAMETER:

2

E. CASING VOLUME:

0.2

F. SINGLE CASE VOLUME (Cx E):

1.748

G: 80% RECHARGE LEVEL (F+B):

20.976

PURGE DATA

START TIME: 1057

PUMP DEPTH: 11

FINISH TIME: 1108

PUMP DEPTH: 11

SAMPLE TIME 110

DEPTH TO WATER: 10.99

TIME MEASURED: 1108

SAMPLE APPEARANCE / ODOR:

FUEL, ODOOR

~TOTAL LITERS PURGED:

1.8

WELL FLUID PARAMETERS

Time (Interval 3 to 5 min.)	0	3	6	9				
~Total Volume Purged (L)	0	.6	1.2	1.8				
pH (su)	6.27	6.28	6.29	6.29				
Temperature (Celsius)	19.1	19.1	19.3	19.5				
COND/SC (us/cm)	1531	1470	1469	1465				
DO (mg/L / %)	/	/	/	/				
ORP (mV)	/	/	/	/				
DTW (ft.)	10.29	10.64	10.86	10.99				
~Pump Depth (ft)	11	/	/	/				
~Pump Rate (mL/min.)	200 mL / 1.1 L	/	/	/				

R.V. 8-17-17



Brent A. Wheeler  
Wheeler Group Environmental, LLC  
369-B Third Street, Suite #221  
San Rafael, California 94901  
Tel: P: 415-686-8846  
RE: 5930 College Avenue, Oakland

Work Order No.: 1708149

Dear Brent Wheeler:

Torrent Laboratory, Inc. received 4 sample(s) on August 21, 2017 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.

---

Belinda Vega  
Vice President of Operations

August 25, 2017

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Date



**Date:** 8/25/2017

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**Client:** Wheeler Group Environmental, LLC

**Project:** 5930 College Avenue, Oakland

**Work Order:** 1708149

### **CASE NARRATIVE**

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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.

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## Sample Result Summary

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date Received:** 08/21/17

**Date Reported:** 08/25/17

**MW-1**

1708149-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	84	2500	4200	23100	ug/L
TPH as Diesel	SW8015B	3	0.11	0.30	2.21	mg/L
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	0.341	mg/L
MTBE	SW8260B	1	0.077	0.50	22	ug/L
Bromoform	SW8260B	1	0.076	0.50	0.88	ug/L
Isopropyl Benzene	SW8260B	1	0.22	0.50	31	ug/L
n-Propylbenzene	SW8260B	1	0.30	0.50	66	ug/L
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	75	ug/L
Benzene	SW8260B	84	13	42	2700	ug/L
Toluene	SW8260B	84	12	42	230	ug/L
Ethyl Benzene	SW8260B	84	16	42	1100	ug/L
m,p-Xylene	SW8260B	84	33	84	2400	ug/L
o-Xylene	SW8260B	84	13	42	690	ug/L
1,2,4-Trimethylbenzene	SW8260B	84	19	42	580	ug/L

**MW-2**

1708149-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	21	610	1100	3130	ug/L
TPH as Diesel	SW8015B	2	0.074	0.20	1.97	mg/L
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	0.601	mg/L
MTBE	SW8260B	1	0.077	0.50	1.2	ug/L
Benzene	SW8260B	1	0.16	0.50	49	ug/L
Toluene	SW8260B	1	0.14	0.50	1.4	ug/L
Ethyl Benzene	SW8260B	1	0.20	0.50	14	ug/L
m,p-Xylene	SW8260B	1	0.39	1.0	9.6	ug/L
o-Xylene	SW8260B	1	0.15	0.50	1.8	ug/L
Isopropyl Benzene	SW8260B	1	0.22	0.50	23	ug/L
n-Propylbenzene	SW8260B	1	0.30	0.50	9.9	ug/L
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	1.4	ug/L
tert-Butylbenzene	SW8260B	1	0.26	0.50	0.58	ug/L
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	5.1	ug/L
sec-Butyl Benzene	SW8260B	1	0.30	0.50	8.2	ug/L
p-Isopropyltoluene	SW8260B	1	0.27	0.50	1.4	ug/L
n-Butylbenzene	SW8260B	1	0.27	0.50	6.8	ug/L
Naphthalene	SW8260B	1	1.2	2.0	16	ug/L



### Sample Result Summary

Report prepared for: Brent Wheeler  
Wheeler Group Environmental, LLC

Date Received: 08/21/17

Date Reported: 08/25/17

**MW-3**

1708149-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	10.5	310	530	2460	ug/L
TPH as Diesel	SW8015B	1	0.037	0.10	0.903	mg/L
MTBE	SW8260B	1	0.077	0.50	15	ug/L
Toluene	SW8260B	1	0.14	0.50	8.4	ug/L
Ethyl Benzene	SW8260B	1	0.20	0.50	4.9	ug/L
m,p-Xylene	SW8260B	1	0.39	1.0	5.0	ug/L
o-Xylene	SW8260B	1	0.15	0.50	0.67	ug/L
Isopropyl Benzene	SW8260B	1	0.22	0.50	14	ug/L
n-Propylbenzene	SW8260B	1	0.30	0.50	31	ug/L
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	0.55	ug/L
sec-Butyl Benzene	SW8260B	1	0.30	0.50	4.2	ug/L
n-Butylbenzene	SW8260B	1	0.27	0.50	4.5	ug/L
Naphthalene	SW8260B	1	1.2	2.0	2.6	ug/L
Benzene	SW8260B	10.5	1.6	5.3	350	ug/L

**PW-1**

1708149-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	1	29	50	97.7	ug/L
TPH as Diesel	SW8015B	1	0.037	0.10	0.141	mg/L
Benzene	SW8260B	1	0.16	0.50	0.60	ug/L
Trichloroethylene	SW8260B	1	0.15	0.50	0.84	ug/L
Tetrachloroethylene	SW8260B	1	0.24	0.50	30	ug/L



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1708149-001A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:35		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17 3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Methylene Chloride	SW8260B	1	0.13	0.50	ND		ug/L	08/23/17	22:29	BP	426345
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	22:29	BP	426345
MTBE	SW8260B	1	0.077	0.50	22		ug/L	08/23/17	22:29	BP	426345
tert-Butanol	SW8260B	1	7.4	10	ND		ug/L	08/23/17	22:29	BP	426345
Diisopropyl ether (DIPE)	SW8260B	1	0.12	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	08/23/17	22:29	BP	426345
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	08/23/17	22:29	BP	426345
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	22:29	BP	426345
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	08/23/17	22:29	BP	426345
TAME	SW8260B	1	0.072	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	08/23/17	22:29	BP	426345
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	08/23/17	22:29	BP	426345
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	08/23/17	22:29	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1708149-001A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:35		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	22:29	BP	426345
Bromoform	SW8260B	1	0.076	0.50	<b>0.88</b>		ug/L	08/23/17	22:29	BP	426345
Isopropyl Benzene	SW8260B	1	0.22	0.50	<b>31</b>		ug/L	08/23/17	22:29	BP	426345
n-Propylbenzene	SW8260B	1	0.30	0.50	<b>66</b>		ug/L	08/23/17	22:29	BP	426345
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	08/23/17	22:29	BP	426345
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	<b>75</b>		ug/L	08/23/17	22:29	BP	426345
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	22:29	BP	426345
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	08/23/17	22:29	BP	426345
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	08/23/17	22:29	BP	426345
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	08/23/17	22:29	BP	426345
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	08/23/17	22:29	BP	426345
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	22:29	BP	426345
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	08/23/17	22:29	BP	426345
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	08/23/17	22:29	BP	426345
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	08/23/17	22:29	BP	426345
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	08/23/17	22:29	BP	426345
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	08/23/17	22:29	BP	426345
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>120</b>		%	08/23/17	22:29	BP	426345
(S) Toluene-d8	SW8260B		75.1 - 127		<b>91.0</b>		%	08/23/17	22:29	BP	426345
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>93.1</b>		%	08/23/17	22:29	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1708149-001A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:35		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Benzene	SW8260B	84	13	42	<b>2700</b>		ug/L	08/23/17	22:58	BP	426345
Toluene	SW8260B	84	12	42	<b>230</b>		ug/L	08/23/17	22:58	BP	426345
Ethyl Benzene	SW8260B	84	16	42	<b>1100</b>		ug/L	08/23/17	22:58	BP	426345
m,p-Xylene	SW8260B	84	33	84	<b>2400</b>		ug/L	08/23/17	22:58	BP	426345
o-Xylene	SW8260B	84	13	42	<b>690</b>		ug/L	08/23/17	22:58	BP	426345
1,2,4-Trimethylbenzene	SW8260B	84	19	42	<b>580</b>		ug/L	08/23/17	22:58	BP	426345
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>122</b>		%	08/23/17	22:58	BP	426345
(S) Toluene-d8	SW8260B		75.1 - 127		<b>96.3</b>		%	08/23/17	22:58	BP	426345
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>98.1</b>		%	08/23/17	22:58	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1708149-001A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:35		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9210	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	84	2500	4200	<b>23100</b>	x	ug/L	08/23/17	22:58	BP	426345
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>106</b>		%	08/23/17	22:58	BP	426345

**NOTE:** x - Although TPH as Gasoline constituents are present, sample chromatogram does not resemble pattern of reference Gasoline standard.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1708149-001B
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:35		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 8/23/17 10:11:00PM
<b>Prep Batch ID:</b> 9205	<b>Prep Analyst:</b> LIMBAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	3	0.11	0.30	<b>2.21</b>	x	mg/L	08/25/17	9:59	mk	426362
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>80.5</b>		%	08/25/17	9:59	mk	426362

**NOTE:** x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range lighter than diesel quantified as diesel.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-1	<b>Lab Sample ID:</b>	1708149-001B
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:35		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 8/23/17	10:10:00AM
<b>Prep Batch ID:</b> 9257	<b>Prep Analyst:</b> LIMBAT	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	<b>0.341</b>	x	mg/L	08/25/17	8:07	mk	426382
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>87.8</b>		%	08/25/17	8:07	mk	426382

**NOTE:** x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range lighter than diesel quantified as diesel.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1708149-002A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:53		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17 3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Methylene Chloride	SW8260B	1	0.13	0.50	ND		ug/L	08/23/17	23:28	BP	426345
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	23:28	BP	426345
MTBE	SW8260B	1	0.077	0.50	1.2		ug/L	08/23/17	23:28	BP	426345
tert-Butanol	SW8260B	1	7.4	10	ND		ug/L	08/23/17	23:28	BP	426345
Diisopropyl ether (DIPE)	SW8260B	1	0.12	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	08/23/17	23:28	BP	426345
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	08/23/17	23:28	BP	426345
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	23:28	BP	426345
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Benzene	SW8260B	1	0.16	0.50	49		ug/L	08/23/17	23:28	BP	426345
TAME	SW8260B	1	0.072	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	08/23/17	23:28	BP	426345
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Toluene	SW8260B	1	0.14	0.50	1.4		ug/L	08/23/17	23:28	BP	426345
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	08/23/17	23:28	BP	426345
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	08/23/17	23:28	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1708149-002A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:53		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Ethyl Benzene	SW8260B	1	0.20	0.50	<b>14</b>		ug/L	08/23/17	23:28	BP	426345
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	08/23/17	23:28	BP	426345
m,p-Xylene	SW8260B	1	0.39	1.0	<b>9.6</b>		ug/L	08/23/17	23:28	BP	426345
o-Xylene	SW8260B	1	0.15	0.50	<b>1.8</b>		ug/L	08/23/17	23:28	BP	426345
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	08/23/17	23:28	BP	426345
Isopropyl Benzene	SW8260B	1	0.22	0.50	<b>23</b>		ug/L	08/23/17	23:28	BP	426345
n-Propylbenzene	SW8260B	1	0.30	0.50	<b>9.9</b>		ug/L	08/23/17	23:28	BP	426345
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	08/23/17	23:28	BP	426345
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	<b>1.4</b>		ug/L	08/23/17	23:28	BP	426345
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	08/23/17	23:28	BP	426345
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	08/23/17	23:28	BP	426345
tert-Butylbenzene	SW8260B	1	0.26	0.50	<b>0.58</b>		ug/L	08/23/17	23:28	BP	426345
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	<b>5.1</b>		ug/L	08/23/17	23:28	BP	426345
sec-Butyl Benzene	SW8260B	1	0.30	0.50	<b>8.2</b>		ug/L	08/23/17	23:28	BP	426345
p-Isopropyltoluene	SW8260B	1	0.27	0.50	<b>1.4</b>		ug/L	08/23/17	23:28	BP	426345
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	08/23/17	23:28	BP	426345
n-Butylbenzene	SW8260B	1	0.27	0.50	<b>6.8</b>		ug/L	08/23/17	23:28	BP	426345
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/23/17	23:28	BP	426345
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	08/23/17	23:28	BP	426345
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	08/23/17	23:28	BP	426345
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	08/23/17	23:28	BP	426345
Naphthalene	SW8260B	1	1.2	2.0	<b>16</b>		ug/L	08/23/17	23:28	BP	426345
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	08/23/17	23:28	BP	426345
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>113</b>		%	08/23/17	23:28	BP	426345
(S) Toluene-d8	SW8260B		75.1 - 127		<b>101</b>		%	08/23/17	23:28	BP	426345
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>101</b>		%	08/23/17	23:28	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1708149-002A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:53		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9210	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	21	610	1100	<b>3130</b>	x	ug/L	08/24/17	0:00	BP	426345
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>113</b>		%	08/24/17	0:00	BP	426345

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



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1708149-002B
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:53		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 8/23/17 10:11:00PM
<b>Prep Batch ID:</b> 9205	<b>Prep Analyst:</b> LIMBAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	2	0.074	0.20	<b>1.97</b>	x	mg/L	08/25/17	10:22	mk	426362
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>76.4</b>		%	08/25/17	10:22	mk	426362

**NOTE:** x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range lighter than diesel quantified as diesel.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-2	<b>Lab Sample ID:</b>	1708149-002B
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:53		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 8/23/17	10:10:00AM
<b>Prep Batch ID:</b> 9257	<b>Prep Analyst:</b> LIMBAT	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	<b>0.601</b>	x	mg/L	08/25/17	8:29	mk	426382
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>95.0</b>		%	08/25/17	8:29	mk	426382

**NOTE:** x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range lighter than diesel quantified as diesel.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1708149-003A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:10		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17 3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Methylene Chloride	SW8260B	1	0.13	0.50	ND		ug/L	08/24/17	0:32	BP	426345
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	0:32	BP	426345
MTBE	SW8260B	1	0.077	0.50	15		ug/L	08/24/17	0:32	BP	426345
tert-Butanol	SW8260B	1	7.4	10	ND		ug/L	08/24/17	0:32	BP	426345
Diisopropyl ether (DIPE)	SW8260B	1	0.12	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	08/24/17	0:32	BP	426345
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	08/24/17	0:32	BP	426345
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	0:32	BP	426345
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	08/24/17	0:32	BP	426345
TAME	SW8260B	1	0.072	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	08/24/17	0:32	BP	426345
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Toluene	SW8260B	1	0.14	0.50	8.4		ug/L	08/24/17	0:32	BP	426345
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	08/24/17	0:32	BP	426345
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	08/24/17	0:32	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1708149-003A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:10		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Ethyl Benzene	SW8260B	1	0.20	0.50	<b>4.9</b>		ug/L	08/24/17	0:32	BP	426345
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	08/24/17	0:32	BP	426345
m,p-Xylene	SW8260B	1	0.39	1.0	<b>5.0</b>		ug/L	08/24/17	0:32	BP	426345
o-Xylene	SW8260B	1	0.15	0.50	<b>0.67</b>		ug/L	08/24/17	0:32	BP	426345
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	08/24/17	0:32	BP	426345
Isopropyl Benzene	SW8260B	1	0.22	0.50	<b>14</b>		ug/L	08/24/17	0:32	BP	426345
n-Propylbenzene	SW8260B	1	0.30	0.50	<b>31</b>		ug/L	08/24/17	0:32	BP	426345
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	08/24/17	0:32	BP	426345
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	0:32	BP	426345
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	08/24/17	0:32	BP	426345
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	<b>0.55</b>		ug/L	08/24/17	0:32	BP	426345
sec-Butyl Benzene	SW8260B	1	0.30	0.50	<b>4.2</b>		ug/L	08/24/17	0:32	BP	426345
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	08/24/17	0:32	BP	426345
n-Butylbenzene	SW8260B	1	0.27	0.50	<b>4.5</b>		ug/L	08/24/17	0:32	BP	426345
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	0:32	BP	426345
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	08/24/17	0:32	BP	426345
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	08/24/17	0:32	BP	426345
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	08/24/17	0:32	BP	426345
Naphthalene	SW8260B	1	1.2	2.0	<b>2.6</b>		ug/L	08/24/17	0:32	BP	426345
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	08/24/17	0:32	BP	426345
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>120</b>		%	08/24/17	0:32	BP	426345
(S) Toluene-d8	SW8260B		75.1 - 127		<b>98.7</b>		%	08/24/17	0:32	BP	426345
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>100</b>		%	08/24/17	0:32	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1708149-003A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:10		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Benzene	SW8260B	10.5	1.6	5.3	<b>350</b>		ug/L	08/24/17	1:05	BP	426345
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>122</b>		%	08/24/17	1:05	BP	426345
(S) Toluene-d8	SW8260B		75.1 - 127		<b>96.1</b>		%	08/24/17	1:05	BP	426345
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>105</b>		%	08/24/17	1:05	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1708149-003A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:10		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9210	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	10.5	310	530	<b>2460</b>	x	ug/L	08/24/17	1:05	BP	426345
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>90.6</b>		%	08/24/17	1:05	BP	426345

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



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	MW-3	<b>Lab Sample ID:</b>	1708149-003B
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 11:10		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 8/23/17	10:11:00PM
<b>Prep Batch ID:</b> 9205	<b>Prep Analyst:</b> LIMBAT	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	<b>0.903</b>	x	mg/L	08/24/17	21:19	mk	426362
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>103</b>		%	08/24/17	21:19	mk	426362

**NOTE:** x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range lighter than diesel quantified as diesel.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	PW-1	<b>Lab Sample ID:</b>	1708149-004A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:30		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Methylene Chloride	SW8260B	1	0.13	0.50	ND		ug/L	08/24/17	1:37	BP	426345
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	1:37	BP	426345
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	08/24/17	1:37	BP	426345
tert-Butanol	SW8260B	1	7.4	10	ND		ug/L	08/24/17	1:37	BP	426345
Diisopropyl ether (DIPE)	SW8260B	1	0.12	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	08/24/17	1:37	BP	426345
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	08/24/17	1:37	BP	426345
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	1:37	BP	426345
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Benzene	SW8260B	1	0.16	0.50	<b>0.60</b>		ug/L	08/24/17	1:37	BP	426345
TAME	SW8260B	1	0.072	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Trichloroethylene	SW8260B	1	0.15	0.50	<b>0.84</b>		ug/L	08/24/17	1:37	BP	426345
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	08/24/17	1:37	BP	426345
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Tetrachloroethylene	SW8260B	1	0.24	0.50	<b>30</b>		ug/L	08/24/17	1:37	BP	426345
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	08/24/17	1:37	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	PW-1	<b>Lab Sample ID:</b>	1708149-004A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:30		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9208	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Ethyl Benzene	SW8260B	1	0.20	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	08/24/17	1:37	BP	426345
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	08/24/17	1:37	BP	426345
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	08/24/17	1:37	BP	426345
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	08/24/17	1:37	BP	426345
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	08/24/17	1:37	BP	426345
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	08/24/17	1:37	BP	426345
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	08/24/17	1:37	BP	426345
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	08/24/17	1:37	BP	426345
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	08/24/17	1:37	BP	426345
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	08/24/17	1:37	BP	426345
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	08/24/17	1:37	BP	426345
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	08/24/17	1:37	BP	426345
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	08/24/17	1:37	BP	426345
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	08/24/17	1:37	BP	426345
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	08/24/17	1:37	BP	426345
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	08/24/17	1:37	BP	426345
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>113</b>		%	08/24/17	1:37	BP	426345
(S) Toluene-d8	SW8260B		75.1 - 127		<b>92.1</b>		%	08/24/17	1:37	BP	426345
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>100</b>		%	08/24/17	1:37	BP	426345



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	PW-1	<b>Lab Sample ID:</b>	1708149-004A
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:30		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 8/23/17	3:25:00PM
<b>Prep Batch ID:</b> 9210	<b>Prep Analyst:</b> BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	<b>97.7</b>	x	ug/L	08/24/17	1:37	BP	426345
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>98.1</b>		%	08/24/17	1:37	BP	426345

**NOTE:** x - Does not match pattern of reference Gasoline standard. Reported TPH value due to discrete peak and non-target heavy hydrocarbons within range of C5-C12 quantified as gasoline.



## SAMPLE RESULTS

**Report prepared for:** Brent Wheeler  
Wheeler Group Environmental, LLC

**Date/Time Received:** 08/21/17, 12:43 pm  
**Date Reported:** 08/25/17

<b>Client Sample ID:</b>	PW-1	<b>Lab Sample ID:</b>	1708149-004B
<b>Project Name/Location:</b>	5930 College Avenue, Oakland	<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	3rd Qtr 2017 Groundwater Monitoring/Samp		
<b>Date/Time Sampled:</b>	08/17/17 / 10:30		
<b>SDG:</b>			
<b>Tag Number:</b>	5930 College Ave		

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 8/23/17 10:11:00PM
<b>Prep Batch ID:</b> 9205	<b>Prep Analyst:</b> LIMBAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	<b>0.141</b>	x	mg/L	08/24/17	21:42	mk	426362
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>111</b>		%	08/24/17	21:42	mk	426362

**NOTE:** x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range lighter than diesel quantified as diesel.



## MB Summary Report

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	3510_TPH	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9205
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	8/24/2017	<b>Analytical Batch:</b>	426362
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel	0.037	0.10	0.0533	
TPH as Motor Oil	0.11	0.40	ND	
Pentacosane (S)			99.9	

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9208
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	8/23/2017	<b>Analytical Batch:</b>	426345
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.26	0.50	ND	
Chloromethane	0.17	0.50	ND	
Vinyl Chloride	0.21	0.50	ND	
Bromomethane	0.21	0.50	ND	
Chloroethane	0.11	0.50	ND	
Trichlorofluoromethane	0.19	0.50	ND	
1,1-Dichloroethene	0.14	0.50	ND	
Freon 113	0.34	0.50	ND	
Methylene Chloride	0.13	0.50	ND	
trans-1,2-Dichloroethene	0.16	0.50	ND	
MTBE	0.077	0.50	ND	
tert-Butanol	7.4	10	ND	
Diisopropyl ether (DIPE)	0.12	0.50	ND	
1,1-Dichloroethane	0.12	0.50	ND	
ETBE	0.064	0.50	ND	
cis-1,2-Dichloroethene	0.15	0.50	ND	
2,2-Dichloropropane	0.094	0.50	ND	
Bromochloromethane	0.15	0.50	ND	
Chloroform	0.12	0.50	ND	
Carbon Tetrachloride	0.16	0.50	ND	
1,1,1-Trichloroethane	0.16	0.50	ND	
1,1-Dichloropropene	0.19	0.50	0.34	
Benzene	0.16	0.50	ND	
TAME	0.072	0.50	ND	
1,2-Dichloroethane	0.11	0.50	ND	
Trichloroethylene	0.15	0.50	ND	
Dibromomethane	0.11	0.50	ND	
1,2-Dichloropropane	0.089	0.50	ND	
Bromodichloromethane	0.076	0.50	ND	



## MB Summary Report

<b>Work Order:</b> 1708149	<b>Prep Method:</b> 5030VOC	<b>Prep Date:</b> 08/23/17	<b>Prep Batch:</b> 9208
<b>Matrix:</b> Water	<b>Analytical Method:</b> SW8260B	<b>Analyzed Date:</b> 8/23/2017	<b>Analytical Batch:</b> 426345
<b>Units:</b> ug/L			

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
cis-1,3-Dichloropropene	0.078	0.50	ND	
Toluene	0.14	0.50	ND	
Tetrachloroethylene	0.24	0.50	ND	
trans-1,3-Dichloropropene	0.22	0.50	ND	
1,1,2-Trichloroethane	0.076	0.50	0.080	
Dibromochloromethane	0.18	0.50	ND	
1,3-Dichloropropane	0.22	0.50	ND	
1,2-Dibromoethane	0.079	0.50	ND	
Chlorobenzene	0.16	0.50	ND	
Ethyl Benzene	0.20	0.50	ND	
1,1,1,2-Tetrachloroethane	0.087	0.50	ND	
m,p-Xylene	0.39	1.0	ND	
o-Xylene	0.15	0.50	ND	
Styrene	0.11	0.50	0.24	
Bromoform	0.076	0.50	ND	
Isopropyl Benzene	0.22	0.50	ND	
n-Propylbenzene	0.30	0.50	ND	
Bromobenzene	0.15	0.50	ND	
1,1,1,2-Tetrachloroethane	0.079	0.50	0.090	
2-Chlorotoluene	0.25	0.50	ND	
1,3,5-Trimethylbenzene	0.24	0.50	ND	
1,2,3-Trichloropropane	0.15	0.50	ND	
4-Chlorotoluene	0.22	0.50	ND	
tert-Butylbenzene	0.26	0.50	ND	
1,2,4-Trimethylbenzene	0.23	0.50	ND	
sec-Butyl Benzene	0.30	0.50	ND	
p-Isopropyltoluene	0.27	0.50	ND	
1,3-Dichlorobenzene	0.17	0.50	ND	
1,4-Dichlorobenzene	0.18	0.50	ND	
n-Butylbenzene	0.27	0.50	ND	
1,2-Dichlorobenzene	0.16	0.50	ND	
1,2-Dibromo-3-Chloropropane	0.76	2.0	ND	
Hexachlorobutadiene	0.62	2.0	ND	
1,2,4-Trichlorobenzene	0.93	2.0	ND	
Naphthalene	1.2	2.0	ND	
1,2,3-Trichlorobenzene	1.2	2.0	ND	
(S) Dibromofluoromethane			113	
(S) Toluene-d8			99.0	
(S) 4-Bromofluorobenzene			92.6	



### MB Summary Report

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	5030GRO	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9210
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	8/23/2017	<b>Analytical Batch:</b>	426345
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH(Gasoline)	29	50	48	
(S) 4-Bromofluorobenzene			118	

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	3510_TPH SG	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9257
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	8/25/2017	<b>Analytical Batch:</b>	426382
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.037	0.10	0.0532	
TPH as Motor Oil (SG)	0.11	0.40	ND	
Pentacosane (S)			77.1	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	3510_TPH	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9205
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	8/24/2017	<b>Analytical Batch:</b>	426362
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.037	0.10	0.0533	1.0	94.1	102	8.06	52 - 115	30	
Pentacosane (S)				200	96.4	106		59 - 129		

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9208
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	8/23/2017	<b>Analytical Batch:</b>	426345
<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	17.9	128	99.2	25.6	61.4 - 129	30	
Benzene	0.16	0.50	ND	17.9	101	105	3.26	66.9 - 140	30	
Trichloroethylene	0.15	0.50	ND	17.9	105	116	10.1	69.3 - 144	30	
Toluene	0.14	0.50	ND	17.9	101	109	6.93	76.6 - 123	30	
Chlorobenzene	0.16	0.50	ND	17.9	95.3	102	7.37	73.9 - 137	30	
(S) Dibromofluoromethane				17.9	102	107		61.2 - 131		
(S) Toluene-d8				17.9	101	112		75.1 - 127		
(S) 4-Bromofluorobenzene				17.9	92.7	101		64.1 - 120		

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	5030GRO	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9210
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	8/24/2017	<b>Analytical Batch:</b>	426345
<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(Gasoline)	29	50	48	238	101	84.8	17.2	52.4 - 127	30	
(S) 4-Bromofluorobenzene				11.9	106	94.1		41.5 - 125		

<b>Work Order:</b>	1708149	<b>Prep Method:</b>	3510_TPH SG	<b>Prep Date:</b>	08/23/17	<b>Prep Batch:</b>	9257
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	8/25/2017	<b>Analytical Batch:</b>	426382
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.037	0.10	0.0532	1.0	103	80.0	25.1	52 - 115	30	
TPH as Motor Oil (SG)			ND	200				59 - 129		



## 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/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ)</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/RLs/LODs 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/m3</b> , <b>mg/m3</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>ND</b> - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.</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: Wheeler Group Environmental, LLC

Date and Time Received: 8/21/2017 12:43:00PM

Project Name: 5930 College Avenue, Oakland

Received By: Kathie Evans

Work Order No.: 1708149

Physically Logged By: Helena Ueng

Checklist Completed By:

Carrier Name: FedEx

### 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? Temperature: 0.0 °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

### Comments:

- received 3 extra un-labeled voas not marked for analysis on CoC



## Login Summary Report

**Client ID:** TL6291      Wheeler Group Environmental, LLC  
**Project Name:** 5930 College Avenue, Oakland  
**Project # :** 3rd Qtr 2017 Groundwater Monitoring/Sampling  
**Report Due Date:** 8/24/2017

**QC Level:** II  
**TAT Requested:** 3 Day Std:3  
**Date Received:** 8/21/2017  
**Time Received:** 12:43 pm

**Comments:**

**Work Order # :** 1708149

<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>
1708149-001A	MW-1	08/17/17 11:35	Water	10/05/17			VOC_W_GRO VOC_W_8260B	
1708149-001B	MW-1	08/17/17 11:35	Water	10/05/17			TPHDO_W_8015B(M) TPHDOSG_W_8015B	
<b>Sample Note:</b> TPH-D: with & without silica gel for -001B, -002B; Without sg ONLY for -003B, -004B.								
1708149-002A	MW-2	08/17/17 10:53	Water	10/05/17			VOC_W_GRO VOC_W_8260B	
1708149-002B	MW-2	08/17/17 10:53	Water	10/05/17			TPHDO_W_8015B(M) TPHDOSG_W_8015B	
1708149-003A	MW-3	08/17/17 11:10	Water	10/05/17			VOC_W_GRO VOC_W_8260B	
1708149-003B	MW-3	08/17/17 11:10	Water	10/05/17			TPHDO_W_8015B(M)	
1708149-004A	PW-1	08/17/17 10:30	Water	10/05/17			VOC_W_GRO VOC_W_8260B	
1708149-004B	PW-1	08/17/17 10:30	Water	10/05/17			TPHDO_W_8015B(M)	



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  
 1708149

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

Company Name: <b>Wheeler Group Environmental, LLC</b>			Location of Sampling: 5930 College Avenue, Oakland		
Address: 369-B Third Street, Suite #221			Purpose: 3rd Quarter 2017 Groundwater Monitoring/Sampling		
City: San Rafael	State: CA	Zip Code: 94901	Special Instructions / Comments: Global ID: T0600102112. Field Point ID=Sample ID		
Telephone: 415-686-8846		FAX:			
REPORT TO: Brent Wheeler		SAMPLER: DEI	P.O. #: WGE 2016106	EMAIL: bwheeler@wheelergroupenvironmental.com	

TURNAROUND TIME:			SAMPLE TYPE:			REPORT FORMAT:				<b>ANALYSIS REQUESTED</b>
<input type="checkbox"/> 10 Work Days	<input checked="" 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	TPH-G (8260)	VOCs (Full List)	TPH-D (8015M)	TPH-D w/SGCU	
<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 type="checkbox"/> 5 Work Days	<input type="checkbox"/> 1 Work Day	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Ground Water	<input type="checkbox"/> Soil	<input type="checkbox"/> Excel / EDD					

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH-G (8260)	VOCs (Full List)	TPH-D (8015M)	TPH-D w/SGCU	REMARKS
001A/B	MW-1	8-17-17/ 1135 1030	GW	6	Misc.	✓	✓	✓	✓	Rev'd 7 cont.
002A/B	MW-2	8-17-17/ 1055	GW	7	Misc.	✓	✓	✓	✓	Rev'd 7 cont.
003A/B	MW-3	8-17-17/ 1110	GW	6	Misc.	✓	✓	✓		Rev'd 6 cont.
004A/B	PW-1	8-17-17/ 1030	GW	7	Misc.	✓	✓	✓		Rev'd 6 cont.

1	Relinquished By: <i>[Signature]</i> Print: <i>[Name]</i>	Date: 8-17-17	Time: 1600	Received By: <i>[Signature]</i> Print: <i>[Name]</i>	Date: 8/17/17	Time: 1600
2	Relinquished By: <i>[Signature]</i> Print: <i>[Name]</i>	Date: 8-17-17	Time: 12:43 PM	Received By: <i>[Signature]</i> Print: <i>[Name]</i>	Date:	Time:

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment Fed Ex City 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: 8/21/17 Log In Reviewed By: *[Signature]* Date: 8-21-17

Relinquished: *[Signature]* 8/21/17 12:43 PM Rec'd: *[Signature]* 8-21-17 12:43

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><u>Submittal Type:</u></b>	EDF
<b><u>Report Title:</u></b>	Groundwater Monitoring Report - 3rd Quarter 2017
<b><u>Report Type:</u></b>	Monitoring Report - Semi-Annually
<b><u>Facility Global ID:</u></b>	T0600102112
<b><u>Facility Name:</u></b>	SHEAFFS SERVICE GARAGE
<b><u>File Name:</u></b>	1708149 WGP College Ave EDF.zip
<b><u>Organization Name:</u></b>	Wheeler Group Environmental, LLC
<b><u>Username:</u></b>	WGE
<b><u>IP Address:</u></b>	76.126.107.191
<b><u>Submittal Date/Time:</u></b>	9/14/2017 11:37:29 AM
<b><u>Confirmation Number:</u></b>	<b>7044534504</b>

[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><u>Submittal Type:</u></b>	GEO_WELL
<b><u>Report Title:</u></b>	Groundwater Monitoring Report - 3rd Quarter 2017
<b><u>Facility Global ID:</u></b>	T0600102112
<b><u>Facility Name:</u></b>	SHEAFFS SERVICE GARAGE
<b><u>File Name:</u></b>	GEO_WELL.zip
<b><u>Organization Name:</u></b>	Wheeler Group Environmental, LLC
<b><u>Username:</u></b>	WGE
<b><u>IP Address:</u></b>	76.126.107.191
<b><u>Submittal Date/Time:</u></b>	9/14/2017 11:38:47 AM
<b><u>Confirmation Number:</u></b>	<b>8856405854</b>

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# EPA On-line Tools for Site Assessment Calculation

## Hydraulic Gradient -- Magnitude and Direction

**Gradient Calculation** from fitting a plane to as many as thirty points

$$a x_1 + b y_1 + c = h_1$$

$$a x_2 + b y_2 + c = h_2$$

$$a x_3 + b y_3 + c = h_3$$

...

$$a x_{30} + b y_{30} + c = h_{30}$$

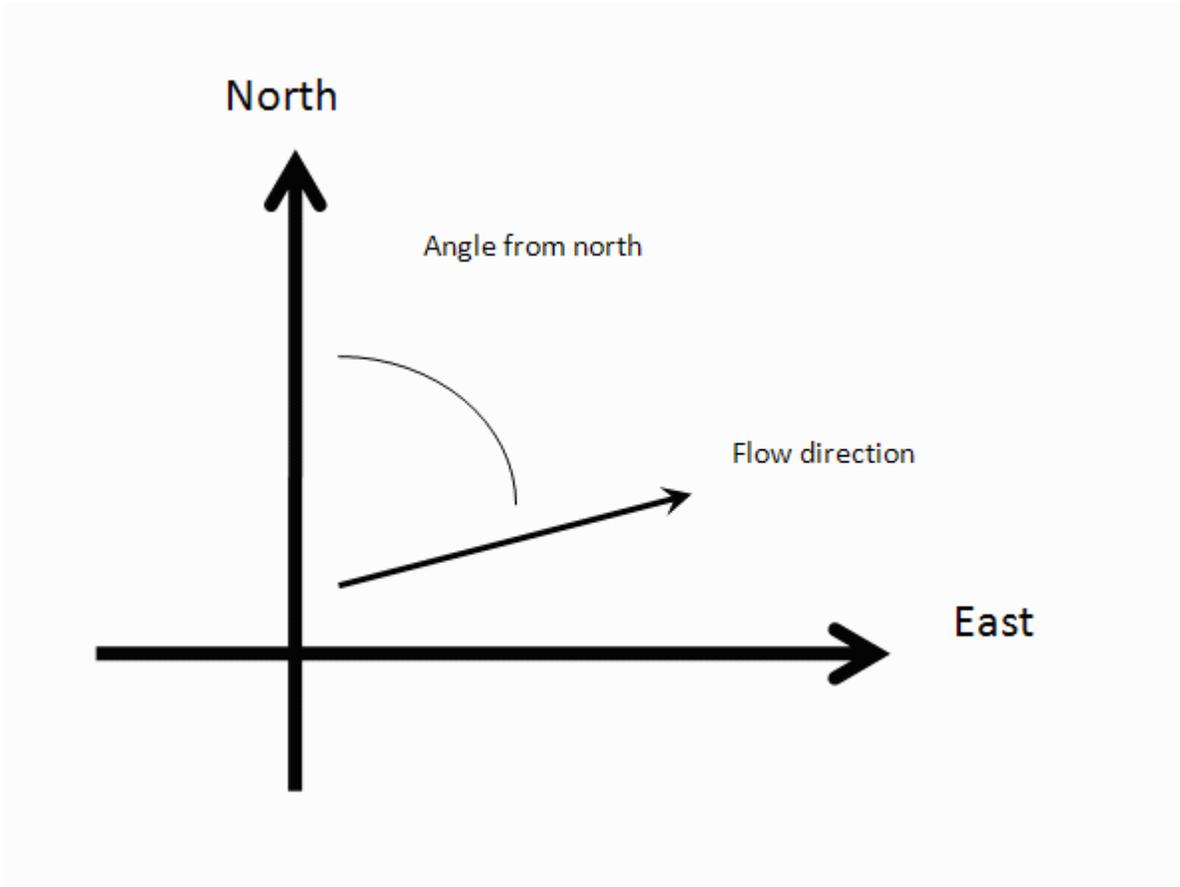
where  $(x_i, y_i)$  are the coordinates of the well and

$h_i$  is the head

$i = 1, 2, 3, \dots, 30$

The coefficients  $a$ ,  $b$ , and  $c$  are calculated by a least-squares fitting of the the data to a plane

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



**Inputs**

Example Data Set 1 Example Data Set 2 Calculate Clear

Save Data Recall Data Go Back

Site Name 5930 College Avenue

Date August 17, 2017 Current Date

Calculation basis Head ▼

Coordinates ft ▼

I.D.	x-coordinate	y-coordinate	head ft ▼
1) MW-1	6055822.91	2135878.96	185.88
2) MW-3	6055818.98	2135842.80	184.93
3) PW-1	6055924.91	2135914.96	187.86
4)			
5)			
6)			
7)			

8)				
9)				
10)				
11)				
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				
21)				
22)				
23)				
24)				
25)				
26)				
27)				
28)				
29)				
30)				

**Results**

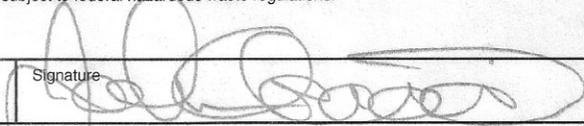
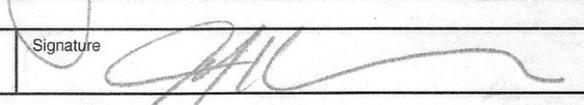
Number of Points Used in Calculation	3
Max. Difference Between Head Values	0.8931
Gradient Magnitude (i)	0.02725
Flow direction as degrees from North (positive y axis)	202.8
Coefficient of Determination ( $R^2$ )	1.00

WCMS

Last updated on 2/23/2016

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No. <b>1091917</b>	2. Page 1 of 1
3. Generator's Name and Mailing Address <b>Stauder Automotive 5930 College Ave Oakland, CA 94618</b>					
4. Generator's Phone ( )					
5. Transporter 1 Company Name <b>Big Sky Environmental Solutions</b>		6. US EPA ID Number <b>CAL 000 346010</b>		A. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone <b>800-479-7993</b>	
9. Designated Facility Name and Site Address <b>Big Sky Enterprises 401 V. Chamel Rd Benicia, CA 94510</b>		10. US EPA ID Number <b>CAL 000 301 639</b>		C. State Transporter's ID	
				D. Transporter 2 Phone	
				E. State Facility's ID	
				F. Facility's Phone <b>800-479-7993</b>	
11. WASTE DESCRIPTION			Containers		13. Total Quantity
			No.	Type	14. Unit Wt./Vol.
a. <b>Non Hazardous Waste Liquid (Purge Water)</b>			<b>001</b>	<b>DM</b>	<b>55 G</b>
b.					
c.					
d.					
G. Additional Descriptions for Materials Listed Above			H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information <b>Wear PPE      Emergency Contact: Jeff Rhodes</b>					
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.					
Printed/Typed Name <b>John Accacian</b>				Signature 	
				Date <b>9/19/17</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials				Date	
Printed/Typed Name <b>Jeff Rhodes</b>		Signature 		Month Day Year	
				Date	
18. Transporter 2 Acknowledgement of Receipt of Materials				Date	
Printed/Typed Name		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.					
Printed/Typed Name				Signature	
				Date Month Day Year	

NON-HAZARDOUS WASTE GENERATOR