

June 30, 2011

Mr. Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

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Alameda County  
Environmental Health

**Subject: Perjury Statement and Report Transmittal  
Quarterly Site Monitoring Report (Second Quarter, 2011)**

245 8<sup>th</sup> Street  
Oakland, California 94607  
AEI Project No. 116907  
ACEH RO#0000202

Dear Mr. Wickham:

I declare under penalty of perjury, that the information and/or recommendations contained in the attached report for the above-referenced site are true and correct to the best of my knowledge.

If you have any questions or need additional information, please do not hesitate to call me at (510) 832-9014, or Mr. Ricky Bradford at AEI Consultants, (925) 746-6000 extension 148.

Sincerely,



Victor Lum  
Owner  
Vic's Automotive

RB/vl

Attachment

cc: Mr. Ricky Bradford, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597



# AEI Consultants

Environmental & Engineering Services

June 30, 2011

## QUARTERLY SITE MONITORING REPORT (SECOND QUARTER, 2011)

**Property Identification:**

Vic's Auto  
245 8<sup>th</sup> Street  
Oakland, CA 94607

AEI Project No. 116907  
ACEH RO#0000202  
RWQCB #01-1244

**Prepared for:**

Mr. Vic Lum  
Vic's Automotive  
245 8<sup>th</sup> Street  
Oakland, CA 94607

**Prepared by:**

AEI Consultants  
2500 Camino Diablo  
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*LABORATORY ANALYTICAL REPORTS W/ CHAIN OF CUSTODY DOCUMENTATION*



June 30, 2011

Mr. Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Subject: Quarterly Site Monitoring Report (Second Quarter, 2011)**  
245 8<sup>th</sup> Street  
Oakland, California 94607  
AEI Project No. 116907

Dear Mr. Wickham:

## 1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report on behalf of Mr. Victor Lum, owner and operator of Vic's Auto automotive repair and former fuel service station located at 245 8<sup>th</sup> Street in the City of Oakland, Alameda County, California (Figure 1). AEI has been retained by Mr. Lum to provide environmental engineering and consulting services related to the release of gasoline fuel hydrocarbons from the former underground storage tank (UST) and dispensing system on the property. The ongoing investigation and remediation of the release is being performed under the direction of the Alameda County Environmental Health (ACEH) local oversight program. This report has been prepared to document the field activities and results of groundwater monitoring for the second quarter, 2011 performed on May 26, 2011.

## 2.0 SITE DESCRIPTION AND HISTORY

The subject property (hereafter referred to as the "site" or "property") is located in a mixed commercial and residential area of Oakland. The site is a lot on the south corner of Alice Street and 8<sup>th</sup> Street, and is currently developed with a gasoline service station and automotive repair facility (Figure 2). The property covers approximately 9,375 square feet and is improved with an approximately 1,200 square foot building located centrally on the property with two bays used for automotive repair, two restrooms, and a cashier's office. The current UST hold and the dispenser island are located to the north of the building, along 8<sup>th</sup> Street. The former UST hold was located to the south of the building, along Alice Street. The remainder of the property is paved with asphalt and used for parking and staging vehicles for repairs.

- Between June 1993 and August 1994, AEI removed seven underground storage tanks (USTs) from the property. The tanks consisted of four 1,000-gallon gasoline tanks located in the sidewalk along Alice Street, two 6,000-gallon gasoline tanks and one 250-gallon waste oil tank. Impacted soil was removed from beneath the former tank area. Groundwater was encountered beneath the former 6,000-gallon tanks. Light non-aqueous phase liquid (LNAPL) was observed on the water table beneath the southern tank. The

excavated soil was transported to an appropriate disposal facility and the excavation was backfilled with clean fill material. A new tank system was installed just west of the dispenser island.

- In July 1995, two groundwater monitoring wells (MW-1 and MW-2) were installed onsite. Total petroleum hydrocarbons as gasoline (TPH-g) and benzene were detected in MW-2 at concentrations up to 210,000 µg/L and 720 µg/L, respectively during the first two monitoring episodes. Light non-aqueous phase liquid (LNAPL) or free phase gasoline was discovered in MW-1. The apparent LNAPL thickness in MW-1 ranged from 1.20 to 4.39 feet between December 1995 and March 1996.
- In August 1996, AEI advanced three soil borings (SB-1 through SB-3) onsite. TPH-g and benzene were detected in the groundwater samples from these borings at concentrations ranging from 120,000 to 140,000 µg/L, and from 12,000 to 19,000 µg/L, respectively. Methyl tertiary-butyl ether (MTBE) was also detected in all three samples at concentrations up to 27,000 µg/L. Although free phase product was not observed in the field, qualitative laboratory observations indicated an immiscible sheen was present in the samples.
- Manual bailing and pumping of LNAPL from MW-1 occurred intermittently from 1997 to 1998.
- In May 2001, two additional groundwater monitoring wells (MW-3 and MW-4) were installed onsite. In June of 2001, a free product recovery system was installed in MW-1. The free product recovery system removed several hundred gallons of LNAPL between 2001 and 2003.
- In April 2003, AEI advanced 12 additional soil borings (SB-4 to SB-15) onsite and offsite for the collection of soil, shallow groundwater, and soil vapor samples to further characterize the magnitude and lateral extent of the release.
- In January 2005, AEI installed six additional monitoring/extraction wells (MW-5, MW-6 and MW-7 were installed onsite and wells MW-10 to MW-12 were installed offsite at the 708 Alice Street property). Wells MW-8 and MW-9 were proposed for installation in the parking lane along 7<sup>th</sup> and Alice Streets; however, due to difficult insurance wording requirements imposed by the City of Oakland, these wells were not installed until March of 2008.
- From July 11 to July 27, 2005, a 16-day HVDPE pilot test was performed on wells MW-1, MW-2, MW-5, MW-6, and MW-7. Combined vapor influent flow rates ranged from approximately 170 to 190 standard cubic feet per minute (scfm) under a sustained vacuum of 16 to 17 inches of mercury (in-Hg). The average water flow rate was approximately 4.1 gallons per minute (gpm). A total of 80,740 gallons of groundwater was recovered, treated, and discharged to the sanitary sewer under a short-term, limited-volume groundwater discharge permit from the East Bay Municipal Utilities District (EBMUD). Significant drawdown and vacuum influence was observed at the vadose and saturated zone monitoring points. Approximately 5 pounds per day (lbs/day) of dissolved phase and 697 lbs/day of vapor phase hydrocarbons were recovered during the test. A total of 10,719 pounds or 1,716 gallons of gasoline was removed during this test. As a result, AEI

recommended interim corrective action using HVDPE for 12 to 18 months using fixed equipment. Please refer to AEI's "HVDPE Event Report", dated December 14, 2005, for more information.

- In March 2006, the ACEH concurred with the implementation of HVDPE using fixed equipment and requested a system design, operations and maintenance, and monitoring plan. In this letter, the ACEH also requested soil vapor sampling to evaluate the potential for vapor intrusion due to the elevated concentrations of fuel hydrocarbons detected in the soil and groundwater onsite and offsite.
- In May 2006, a HVDPE system design, operations and maintenance, and monitoring plan and a separate soil gas investigation work plan were submitted to ACEH for review and comment. Please refer to AEI's "High Vacuum Dual Phase Extraction System Design, Operations, and Maintenance Plan," dated May 24, 2006 and "Soil Gas Investigation Work Plan", dated May 12, 2006, for more information.
- In November 2006, trenching and installation of the conveyance piping for HVDPE system was conducted. The system completion and delivery was scheduled for delivery during the first quarter, 2007; however, the system was not ready until in April 2007. The remaining infrastructure, such as the rotary phase converter, equipment, fence, and wellhead connections were installed in May of 2007 and the system was started up on June 26, 2007.
- On June 11, 2007, two 55-gallon drums, or approximately 100 gallons of water containing about 50% LNAPL, was removed from MW-1 and MW-6 by operating the HVDPE system in product skimming mode.
- In November 2007, additional HVDPE conveyance piping was installed above grade behind the onsite building to the rear of the property and the system was expanded to include monitoring/extraction wells MW-10, MW-11, and MW-12.
- In March 2008, wells (MW-8, MW-9 and MW-13) were installed. Elevated concentrations of TPH-g, BTEX, and MTBE were detected in samples collected from MW-9. Low to none-detectable concentrations of TPH-g, BTEX, and MTBE were detected in MW-8 and MW-13. Elevated concentrations of MTBE were detected in MW-13.
- Between August 21 and 22, 2008, soil gas probes GP-3 and GP-4 were decommissioned by physical removal and three horizontal HVDPE conveyance piping laterals were installed to MW-10 through MW-12 so that these wells could continue to be used for dual phase extraction while the 708 Alice Street property was being developed.
- In July 2009, monitoring wells (MW-14, MW-15, and MW-16) were installed. MW-14 was installed in the parking lane along Alice Street approximately 80 feet southwest of MW-8. MW-15 and MW-16 were installed in the parking lane on the southwest side of 7<sup>th</sup> Street approximately 60 feet apart. The monitoring wells were developed by surging and over-pumping on August 3, 2009. Elevated concentrations of TPH-g and BTEX were detected in samples collected from MW-14. MTBE was not detected in MW-14 at or above the laboratory reporting limit of 1.0 µg/L. Lower concentrations of TPH-g, BTEX, and MTBE

were detected in MW-15 and MW-16. Refer to AEI's "Monitoring Well Installation & Quarterly Site Monitoring Report (Third Quarter, 2009)", dated October 13, 2009, for more detailed information.

- On December 2, 2009, the property owner and AEI held a meeting with the ACEH to discuss the HVDPE remediation system status, results of the first rebound evaluation, and recommendations regarding future activities for the site.
- On March 17, 2010, AEI performed a source zone investigation by advancing four continuously cored soil borings (SB-16 to SB-19) to 30-foot bgs. Soil samples were collected from select depths and one discrete groundwater sample (SB-18W) was collected from boring SB-18 at 28 to 30 feet bgs. Based on the results of the analyses, a significant residual hydrocarbon source was identified below the water table. Relatively low concentrations of TPH-g and benzene were detected in discrete grab groundwater sample SB-18W. Further detail relating to the additional soil source investigation can be found in AEI's "Source Zone Delineation Report & Air Sparging Pilot Test Workplan", dated May 10, 2010.
- Between June 30 and July 1, 2010, AEI installed four air sparging wells (AS-1 to AS-4) to target the source of adsorbed-phase hydrocarbons identified below the water table during the March, 2010 source zone investigation.
- On November 8, 9 and 10, 2010, AEI conducted an air sparging pilot test. Refer to AEI's "Air Sparging Pilot Test Report", dated February 28, 2011, for more information.

### **3.0 GEOLOGY AND HYDROLOGY**

The elevation of the site is approximately 27 to 29 feet above mean sea level (amsl). The site is flat; however, the topography of the area slopes gently to the southwest. The site is located between Lake Merritt and the Oakland Inner Harbor channel, approximately one-half mile from each. The near surface sediments are mapped as Holocene and Pleistocene Merritt Sand (Qms), which are further described as "fine-grained, well-sorted, well-drained, Aeolian sand deposits" (Helley and Graymer, 1997 and Graymer, 2000). Depth to the Franciscan Formation basement underlying the unconsolidated deposits is approximately 400 feet (Norfleet Consultants, 1998).

Based on the logs of soil borings advanced on and offsite, the native soils generally consist of fine to medium grained sands with silt and clay present to at least 28 feet bgs, the deepest explored at the site. Typically, silty and clayey fine grained sand have been encountered to depths of 15 to 18 feet bgs. This is underlain by poorly graded, clean to slightly clayey and silty fine to medium sand. Both sand bodies represent a single hydro-geologic system. Sediments have been relatively uniform throughout the investigation area.

Groundwater depths have typically ranged from 14 to 19 feet bgs, corresponding to elevation of approximately 14 to 16 feet above mean sea level (msl). Annual groundwater levels fluctuate by approximately 3 to 4 feet. Groundwater has consistently flowed to the south, southeast, or southwest with a hydraulic gradient of approximately 0.010 ft/ft. Recent water levels have been affected by the groundwater extraction activities.



## **4.0 SUMMARY OF MONITORING ACTIVITIES**

### **4.1 Gauging and Sampling**

On May 26, 2011, the water levels in all of the monitoring wells were gauged, except MW-10 through MW-12. Although MW-10 through MW-12 can still be used for dual-phase extraction, gauging and sampling is no longer possible because these wells were buried beneath a new residential building in August 2008. Groundwater samples were collected from all the monitoring/dual-phase extraction wells, except MW-3, MW-4, MW-8, and MW-10 through MW-12, in accordance with the existing monitoring schedule approved by ACEH in December 2009. The well locations are shown on Figure 2.

Prior to sampling, the well caps and/or drop tubes were removed and the water levels were measured from the top of the well casings with an electronic water level indicator. Wells with historic free product (MW-1, MW-6, and MW-7) were checked with an oil-water interface meter. Low-flow samples were collected using a peristaltic pump by lowering a ¼-inch polyethylene drop tube to a depth ranging from 19 to 21-feet bgs. New, clean disposable tubing was used at each well. The pump was operated at a flow rate of approximately 250 milliliters per minute. Once the field parameters stabilized, groundwater samples were collected directly from the discharge side of peristaltic pump. The following parameters were measured during purging: temperature, pH, specific conductivity, dissolved oxygen (DO), and oxygen reduction potential (ORP). A visual estimate and description of turbidity was noted for each well.

The groundwater samples were collected into 40-millileter (mL) volatile organic analysis (VOA) vials and capped so that no head space or air bubbles were present within the sample containers. Samples were entered onto a chain of custody record and placed in a pre-chilled cooler on wet ice pending transportation to the laboratory. The samples were delivered on the day of collection under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (DHS Certification #1644) for analysis. Ten groundwater samples were analyzed for TPH-g by EPA Method 8015C and BTEX and MTBE by EPA Method 8021B.

### **4.2 Soil Gas Monitoring for Vapor Intrusion Evaluation**

Per concurrence from the ACEH in a letter dated October 3, 2008, quarterly soil gas sampling has been temporarily suspended during operation of the HVDPE system.

### **4.3 HVDPE System Operation, Maintenance and Monitoring**

The HVDPE system was shutdown on December 23, 2009 due to declining influent concentrations and asymptotic hydrocarbon recovery. The remediation system remained off throughout the first quarter and most of the second and third quarters, 2010 for a rebound evaluation. The remediation system was restarted during the fourth quarter, 2010 in preparation for the air sparging pilot test. The air sparging pilot test was completed in November, 2010 and the air sparging system has been running in conjunction with HVDPE since that time.

- During the first quarter 2011, HVDPE system was operated for approximately 56 days and cumulative mass removed was approximately 1,095 pounds or 182 gallons which is more than three (3) times from the previous quarter.

- During the second quarter 2011, HVDPE system was operated for approximately 64 days and cumulative mass removed was approximately 244 pounds or 41 gallons which is three (3) times less from the previous quarter.

The individual extraction well and the combined system influent vapor analytical and field screening data is summarized in Table 5. The mass removal rates are summarized in Table 6 and plotted on Figure 6. The quarterly mass removal data is summarized in Table 7. A summary of the air sparging system data is presented in Table 8.

## 5.0 RESULTS & CONCLUSIONS

### 5.1 Groundwater Elevations and Hydraulic Gradient

The results of the apparent LNAPL thickness measurements, groundwater elevations, and hydraulic gradient for this monitoring episode are summarized below:

- LNAPL was not detected in any of the monitoring wells, although elevated concentrations of dissolved-phase hydrocarbons remain onsite and offsite.
- The current groundwater flow direction was calculated towards the south-southwest with a hydraulic gradient of approximately 0.009 ft/ft. The groundwater flow direction and hydraulic gradient during this quarter was consistent with previous monitoring events.
- Since the HVDPE system was operating prior to this event, the groundwater elevations in the vicinity of the extraction wells are not likely representative of actual hydrogeologic conditions.

The groundwater elevation data is summarized in Table 1 and groundwater elevation contours are shown on Figure 4. A summary of the average groundwater elevations and flow directions is presented in Table 2.

### 5.2 Groundwater Analytical Data

The analytical results for the groundwater samples collected during this monitoring event using low-flow purging and sampling are summarized below.

- As compared with the previous quarter, slightly elevated in the concentrations of dissolved-phase hydrocarbons were observed in most monitoring wells, except MW-5 and MW-6 where significant reductions were observed.
- The highest concentration of TPH-g was detected in MW-6 at a concentration of 4,400 µg/L. The next highest concentrations of TPH-g were detected in MW-9, MW-5 and MW-7 at 4,100 µg/L, 830 µg/L, and 460 µg/L respectively.
- The highest concentration of benzene was detected in MW-9 at a concentration of 1,700 µg/L. The next highest concentrations of benzene were detected in MW-6 and MW-5 at 52 µg/L and 33 µg/L, respectively.

- Excluding wells with elevated reporting limits (MW-5, MW-6, MW-7, and MW-9), the highest concentration of MTBE was detected in MW-2 at a concentration of 51 µg/L. The next highest concentrations of MTBE was detected in MW-15 at concentrations of 7.3 µg/L, respectively.
- MTBE was not detected at or above the laboratory reporting limits in all the wells monitored, except MW-2 (51 µg/L).

The groundwater analytical data is summarized in Table 3 and the current data is shown on Figure 5. Refer to Appendix A for the monitoring well field sampling forms. The laboratory analytical reports with chain of custody and quality assurance/quality control documentation are included in Appendix B.

## **6.0 SUMMARY & PLANNED ACTIVITIES**

AEI completed the second quarter, 2011 groundwater monitoring and sampling activities in accordance with the approved monitoring schedule. This report presented the finding of these monitoring activities and an update on the HVDPE system status and hydrocarbon mass removal. Based on the review of the data, AEI has the following observations:

- Since the third quarter, 2010, the concentrations of TPH-g and BTEX in down gradient monitoring well MW-9 have decreased by over 90%. Since this area has not been treated directly, this is most likely attributed to source removal and natural attenuation.
- LNAPL has not been detected in any of the monitoring wells since the HVDPE system was installed and started up in June 2007. However, elevated concentrations of dissolved-phase hydrocarbons remain onsite and offsite.
- During this quarter, low-flow purging and sampling techniques were used on all monitoring wells. The highest concentrations of TPH-g and BTEX were detected in MW-5, MW-6, MW-7, and MW-9.
- The significant reductions in the concentrations of dissolved-phase hydrocarbons observed in the source zone monitoring wells were likely the result of air sparging in conjunction with HVDPE.

The following activities are planned for the third quarter 2011:

- Third quarter, 2011 groundwater monitoring and sampling activities are planned for late September, 2011 in accordance with the approved monitoring schedule using the low-flow sampling methodology.
- Evaluate the effectiveness and cost effectiveness of operating the HVDPE system in conjunction with air sparging based on mass removal as compared with the overall operations, maintenance and monitoring (OM&M) cost. Shutdown the HVDPE system if determined to be no longer effective and cost effective.

## 7.0 REFERENCES

California State Water Resources Control Board (SWRCB), 2010. "Draft for Public Comment – Leaking Underground Fuel Tank Guidance Manual", Version 1.0, prepared by Sullivan International Group, Inc., August 3, 2010.

Graymer, R.W., 2000. "Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California", U.S. Geologic Survey, Miscellaneous Field Studies MF2342, Online Version 1.0, includes 1 geologic map and 33 page pamphlet.

Helley, E.J. and Graymer, R.W., 1997. "Quaternary Geology of Alameda County, and parts of Contra Costa, Santa Clara, San Mateo, San Francisco, Stanislaus, and San Joaquin counties, California: A Digital Database", U.S. Geological Survey, Open-File Report 97-97, includes 1 geologic map, 1 map explanation sheet, and 9 page discussion booklet.

Miller, R.N., et al., 1995. "Test Plan and Technical Protocol for a Field Treatability Test for POL Free Product Recovery – Evaluating the Feasibility of Traditional and Bioslurping Technologies", prepared for the United States Air Force Center for Environmental Excellence by the Battelle, Columbus, Ohio.

Norfleet Consultants, 1998. "Groundwater Study and Water Supply History of the East Bay Plain, Alameda and Contra Costa Counties, California", prepared for the Friends of the San Francisco Estuary, P.O. Box 791, Oakland, California, and dated June 15, 1998.

Place, M.C., Coonfare, C.T., Chen, A., Hoeppel, R.E., and Rosansky, S.H., 2001. "Principles and Practices of Bioslurping", Battelle Press, Columbus, Ohio

Puls, R.W. and M.J. Barcelona, 1996, "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedure", *Ground Water Issue*. OSWER 540/S-95/504, Washington D.C.

United States Army Core of Engineers, 1999. "Multi-Phase Extraction Engineer Manual", EM 1110-1-4010, Washington, DC.

Zemo, D., 2006. "Sampling in the Smear Zone: Evaluation of Nondissolved Bias and Associated BTEX, MTBE, and TPH Concentrations in Ground Water Samples", *Ground Water Monitoring & Remediation* 26, No. 3: 124-133.

Zemo, D., 2009. "Suggested Methods to Mitigate Bias From Non-Dissolved Petroleum in Ground Water Samples Collected From the Smear Zone", *Ground Water Monitoring & Remediation* 29, No. 3: 77-83.

## 8.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide requested information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses and observations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work and were performed under the direction of appropriate California-licensed professionals. Should you have any questions regarding this report, we can be reached at (925) 746-6000.

Sincerely,

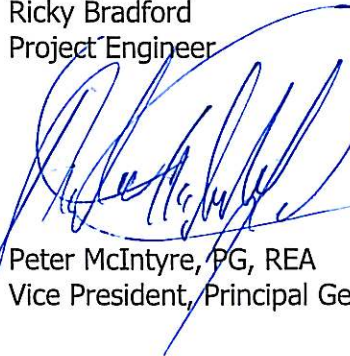
**AEI Consultants**



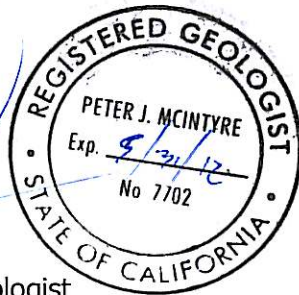
Ricky Bradford  
Project Engineer



Stephen Lao, REA  
Project Manager



Peter McIntyre, PG, REA  
Vice President, Principal Geologist



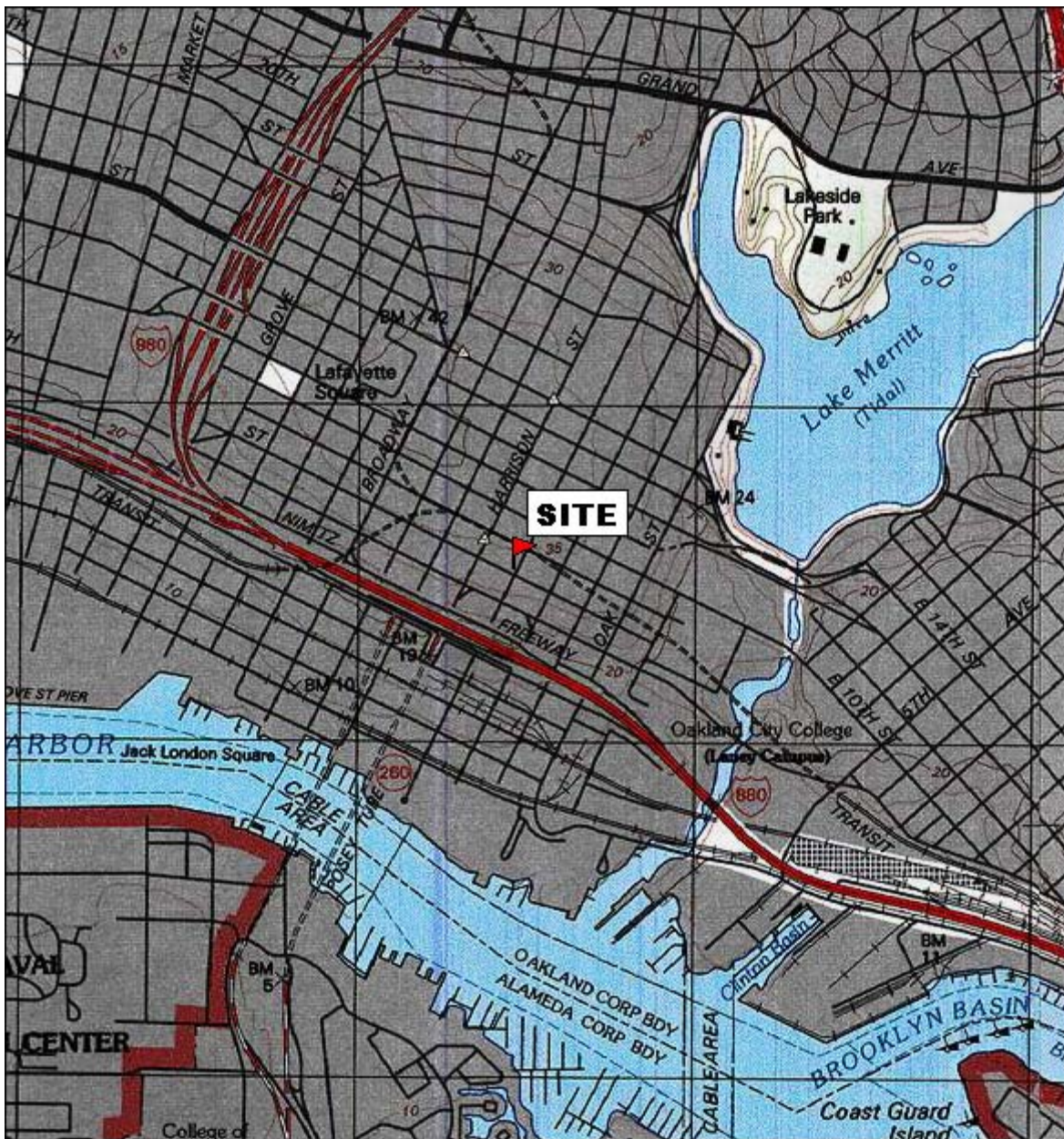
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GeoTracker (electronic)

## **FIGURES**



TN  $\star$  MN  
15 1/2°



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# AEI CONSULTANTS

2500 CAMINO DIABLO BLVD, SUITE 200, WALNUT CREEK, CA

## SITE LOCATION MAP

245 8<sup>th</sup> STREET  
OAKLAND, CALIFORNIA

**FIGURE 1**  
PROJECT No. 116907



**LEGEND**

- ⊕ MONITORING WELL
- SOIL BORING (8/9/96)
- SOIL BORING (04/02 & 03/03)
- ⊕ SOIL GAS PROBE
- ⊗ ABANDONED SOIL GAS PROBE

DRAFTED BY RJB 10-01-07  
 REVISED BY RJB 10-08-09

FORMER UST  
 LOCATION

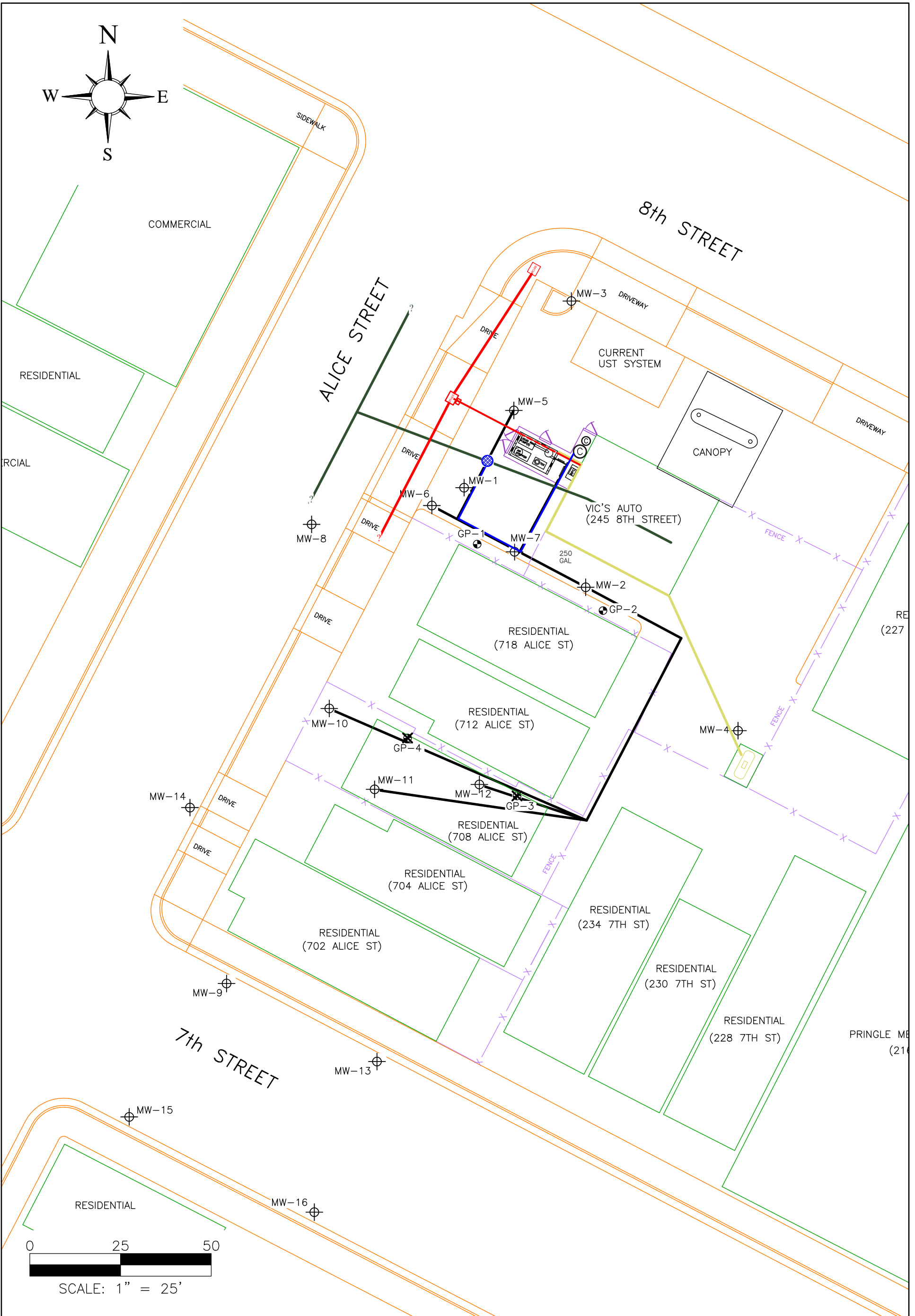
**AEI CONSULTANTS**  
 2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

**SITE PLAN**

245 8TH STREET  
 OAKLAND, CALIFORNIA

**FIGURE 2**  
 PROJECT NO. 116907





**LEGEND**

- MONITORING WELL
- SOIL BORING (8/9/96)
- SOIL BORING (04/02 & 03/03)
- SOIL GAS PROBE
- ABANDONED SOIL GAS PROBE
- HDVPE CONVEYANCE PIPING (~18 - 24" BGS)
- WATER DISCHARGE (~24" BGS)
- SANITARY SEWER (~36 - 48" BGS)
- TEMPORARY POWER SERVICE (~24" BGS)
- PROPANE LINE (~18 - 24" BGS)

DRAFTED BY RJB 10-01-07  
 REVISED BY RJB 10-08-09



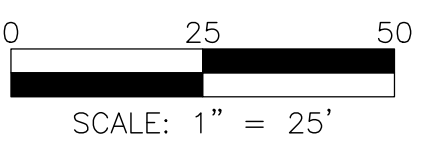
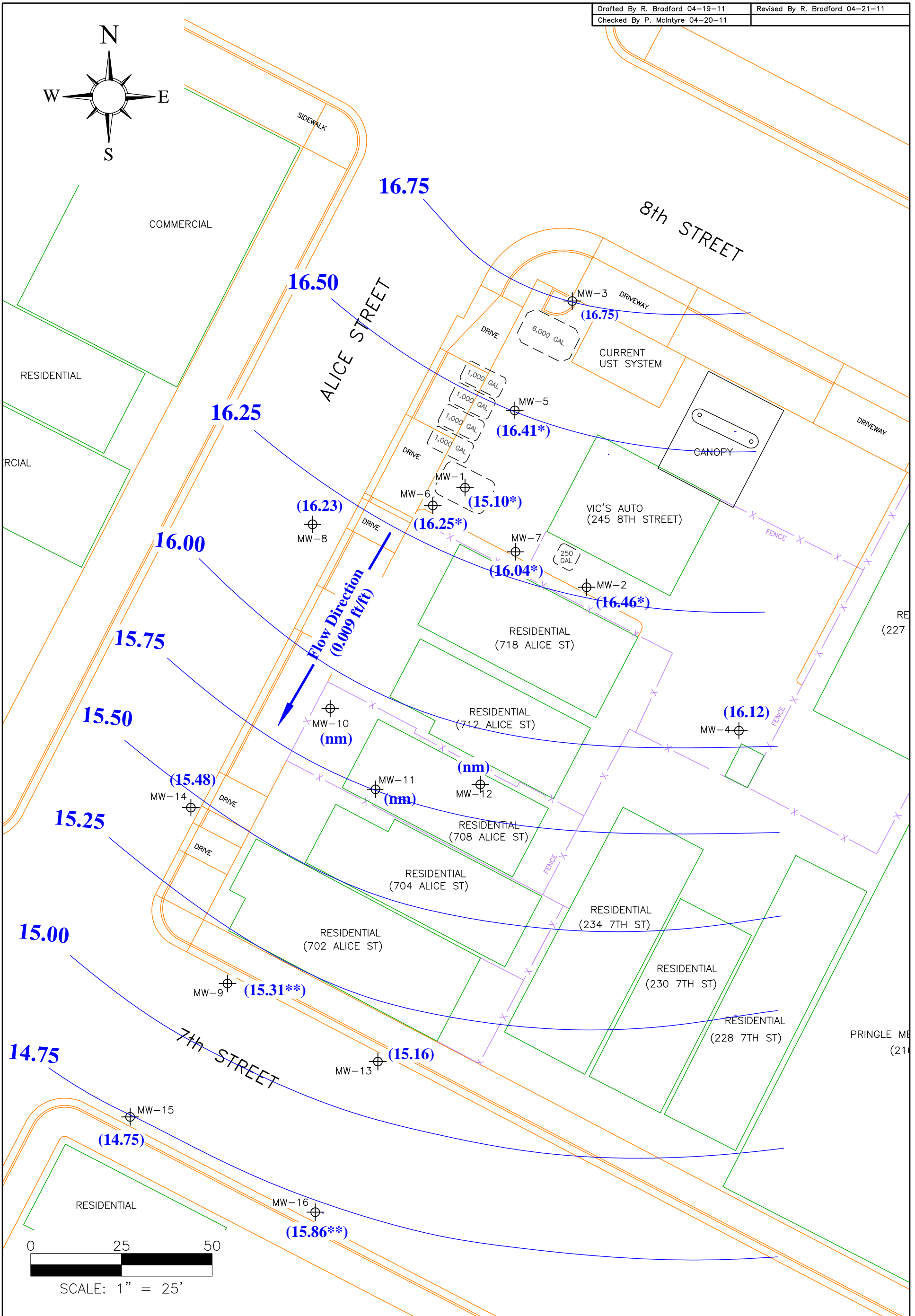
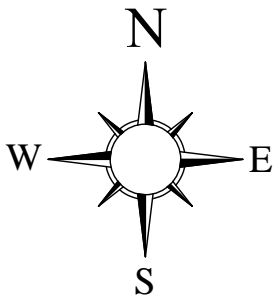
**AEI CONSULTANTS**

2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

**SYSTEM LAYOUT PLAN**

245 8TH STREET  
 OAKLAND, CALIFORNIA

**FIGURE 3**  
 PROJECT NO. 116907



X:\PROJECTS\CHARACTERIZATION & REMEDIATION\ADVANCED REMEDIATION\Vic's Auto (116907) Oakland - RJB, PM\G Groundwater Monitoring (116907) RJB\39 Event (March 2011)

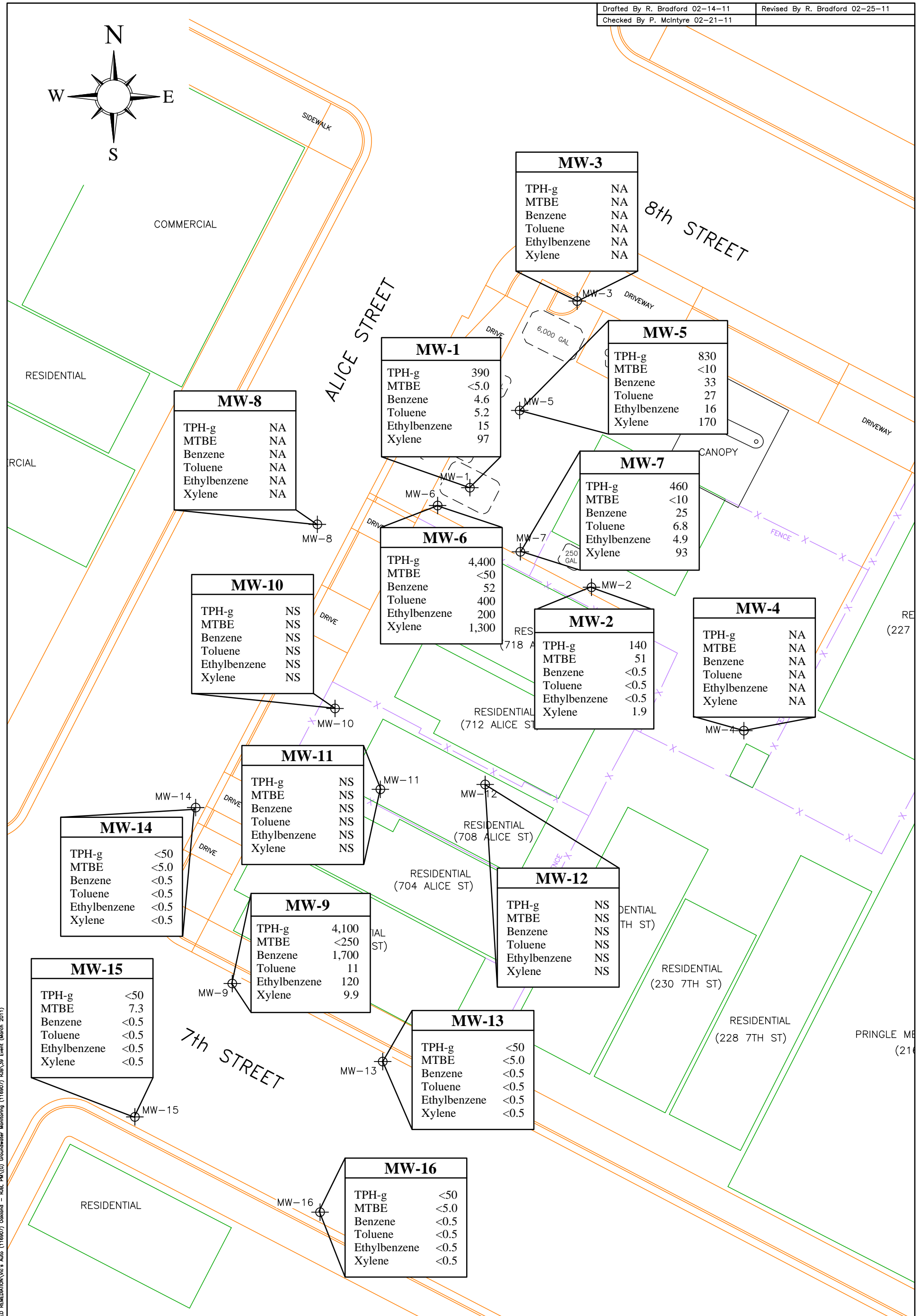
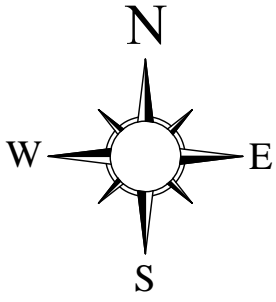
**LEGEND**

- MONITORING WELL
- MW-1 (15.46) = feet above mean sea level
- Contour Interval = 0.25feet
- Contours plotted with Surfer V7.00
- nm = depth to water not measured
- \*MW-1, MW-2, MW-5, MW-6, and MW-7 not used for contouring as the wellheads were modified for dual phase extraction
- \*\*MW-9 and MW-16 are not used for contouring.
- FORMER UST LOCATION

**AEI CONSULTANTS**  
 2500 CAMINO DIABLO, WALNUT CREEK, CALIFORNIA

**GROUNDWATER ELEVATION CONTOURS (05/26/11)**

245 8TH STREET OAKLAND, CALIFORNIA	<b>FIGURE 4</b> PROJECT NO. 116907
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X:\PROJECTS\CHARACTERIZATION & REMEDIATION\ADVANCED REMEDIATION\Oakland - RUB, PM\G\Groundwater Monitoring (116907) Oakland - RUB, PM\G\39 Event (March 2011)

**LEGEND**

⊕ MONITORING WELL

TPH-g = Total Petroleum Hydrocarbons as gasoline  
 MTBE = Methyl tertiary-butyl ether  
 NS = Not sampled / buried under a new building  
 ND = Not detected at or above the reporting limit

\*MTBE by EPA Method SW8260B

All groundwater sample analytical data in micrograms per liter (ug/L) or ppb

◻ FORMER UST LOCATION

**AEI CONSULTANTS**  
 2500 CAMINO DIABLO, WALNUT CREEK, CALIFORNIA

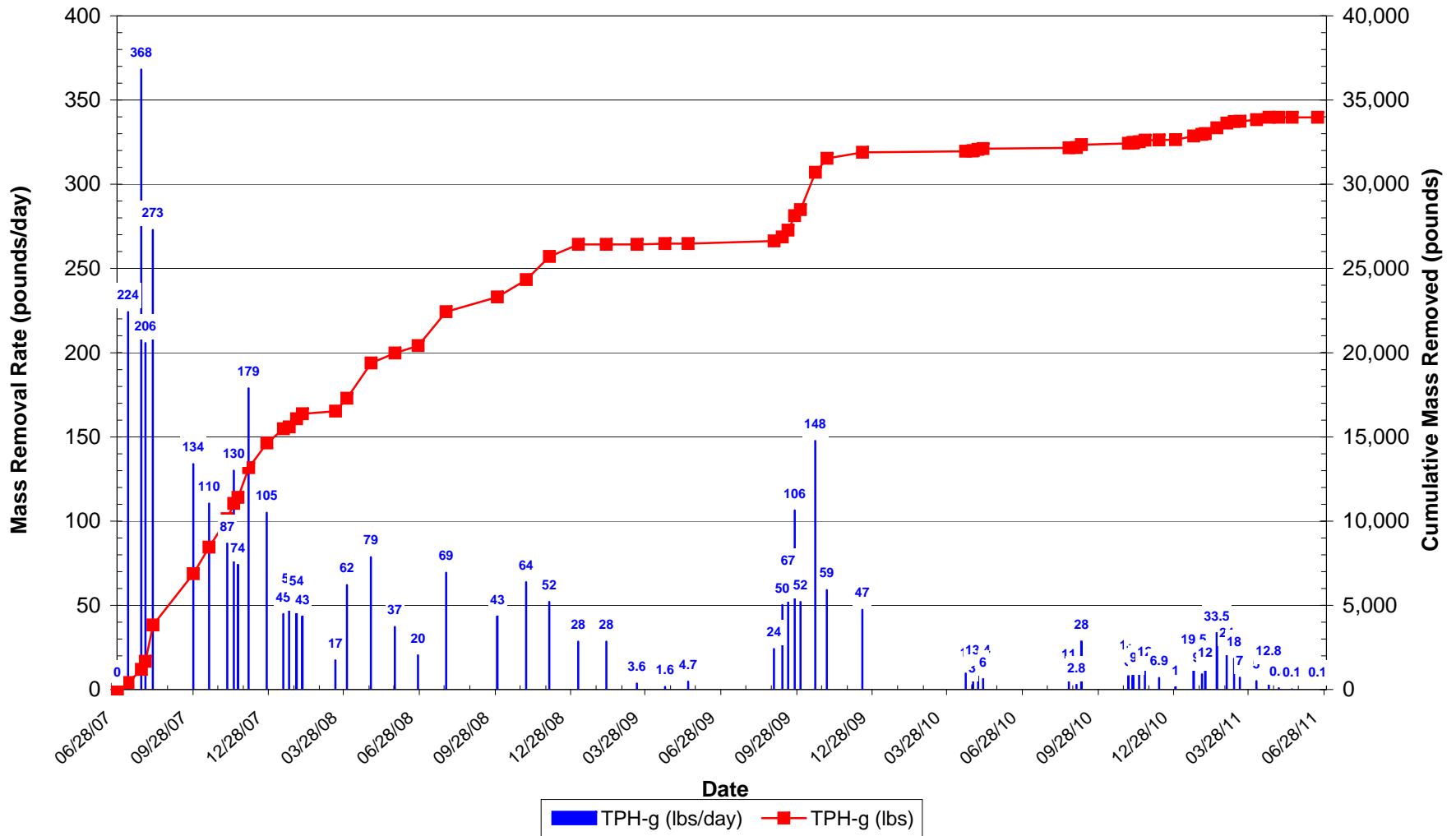
**GROUNDWATER ANALYTICAL DATA SUMMARY (05/26/11)**

245 8TH STREET  
 OAKLAND, CALIFORNIA

**FIGURE 5**  
 PROJECT NO. 116907

**FIGURE 6: HYDROCARBON MASS REMOVAL RATES OVER TIME**

Vic's Auto, 245 8th Street, Oakland, California



## **TABLES**

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-1*</b> (8-28)	06/29/01	27.73	16.52	11.21	14.89	1.63
	10/10/01	27.73	15.45	12.28	15.37	0.08
	01/09/02	27.73	12.61	15.12	-	<0.01
	04/24/02	27.73	13.35	14.38	-	<0.01
	07/24/02	27.73	14.19	13.54	-	<0.01
	11/05/02	27.73	14.85	12.88	-	<0.01
	02/04/03	27.73	14.91	12.82	-	<0.01
	05/02/03	27.73	14.43	13.30	-	0.08
	08/04/03	27.73	15.24	12.49	15.01	0.23
	11/03/03	27.73	16.94	10.79	15.67	1.27
	02/09/04	27.73	14.61	13.12	14.43	0.18
	05/10/04	27.73	Obstructed	-	-	-
	08/09/04	27.73	15.24	12.49	15.03	0.21
	11/09/04	27.73	15.95	11.78	15.71	0.24
	02/03/05	32.55	13.75	18.80	13.58	0.17
	05/09/05	32.55	13.93	18.62	13.81	0.12
	08/05/05	32.55	15.40	17.15	15.39	0.01
	11/09/05	32.55	15.76	16.79	15.75	0.01
	02/09/06	32.55	13.52	19.03	13.50	0.02
	05/04/06	32.55	12.47	20.08	12.46	0.01
	08/04/06	32.55	15.11	17.44	15.09	0.02
	11/08/06	32.55	16.03	16.52	16.02	0.01
	02/08/07	32.55	16.51	16.04	16.48	0.03
	05/29/07	32.55	15.56	16.99	15.51	0.05
	09/05/07	32.55	16.33	16.22	-	Sheen
	12/12/07	32.55	17.62	14.93	-	Sheen
	02/13/08	32.55	15.94	16.61	-	Sheen
	05/15/08	32.55	16.64	15.91	-	-
	08/05/08	32.55	16.99	15.56	-	-
	11/07/08	32.55	17.40	15.15	-	-
	02/05/09	32.55	16.89	15.66	-	-
	05/05/09	32.55	15.69	16.86	-	-
	08/21/09	32.55	17.09	15.46	-	-
11/23/09	32.55	16.92	15.63	-	-	
02/26/10	32.55	14.77	17.78	-	-	
05/12/10	32.55	16.02	16.53	-	-	
08/19/10	32.55	16.11	16.44	-	-	
12/22/10	32.55	17.37	15.18	-	-	
03/24/11	32.55	18.19	14.36	-	-	
<b>05/26/11</b>	<b>32.55</b>	<b>17.45</b>	<b>15.10</b>	-	-	

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-2* (8-28)	06/29/01	28.16	16.14	12.02	-	-
	10/10/01	28.16	16.43	11.73	-	-
	01/09/02	28.16	13.50	14.66	-	-
	04/24/02	28.16	14.40	13.76	-	-
	07/24/02	28.16	14.91	13.25	-	-
	11/05/02	28.16	16.96	11.20	-	-
	02/04/03	28.16	15.42	12.74	-	-
	05/02/03	28.16	15.24	12.92	-	-
	08/04/03	28.16	15.98	12.18	-	-
	11/03/03	28.16	16.60	11.56	-	Sheen
	02/09/04	28.16	15.22	12.94	-	Sheen
	05/10/04	28.16	15.34	12.82	-	Sheen
	08/09/04	28.16	15.92	12.24	-	Sheen
	11/09/04	28.16	16.51	11.65	-	Sheen
	02/03/05	33.24	14.44	18.80	-	Sheen
	05/09/05	33.24	14.67	18.57	-	Sheen
	08/05/05	33.24	16.27	16.97	-	Sheen
	11/09/05	33.24	16.53	16.71	-	Sheen
	02/09/06	33.24	14.36	18.88	-	Sheen
	05/04/06	33.24	13.46	19.78	-	Sheen
	08/04/06	33.24	15.95	17.29	-	Sheen
	11/08/06	33.24	16.86	16.38	-	Sheen
	02/08/07	33.24	17.13	16.11	-	Sheen
	05/29/07	33.24	16.51	16.73	-	Sheen
	09/05/07	33.24	17.48	15.76	-	-
	12/12/07	33.24	18.72	14.52	-	-
	02/13/08	33.24	16.91	16.33	-	-
	05/15/08	33.24	17.67	15.57	-	-
	08/05/08	33.24	17.94	15.30	-	-
	11/07/08	33.24	18.79	14.45	-	-
	02/05/09	33.24	17.98	15.26	-	-
	05/05/09	33.24	17.52	15.72	-	-
	08/21/09	33.24	18.02	15.22	-	-
11/23/09	33.24	17.94	15.30	-	-	
02/26/10	33.24	15.79	17.45	-	-	
05/12/10	33.24	16.69	16.55	-	-	
08/19/10	33.24	16.99	16.25	-	-	
12/22/10	33.24	17.67	15.57	-	-	
03/24/11	33.24	16.64	16.60	-	-	
<b>05/26/11</b>	<b>33.24</b>	<b>16.78</b>	<b>16.46</b>	-	-	

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-3</b> (10-25)	06/29/01	29.21	16.60	12.61	-	-
	10/10/01	29.21	16.92	12.29	-	-
	01/09/02	29.21	14.20	15.01	-	-
	04/24/02	29.21	15.07	14.14	-	-
	07/24/02	29.21	16.40	12.81	-	-
	11/05/02	29.21	16.47	12.74	-	-
	02/04/03	29.21	16.92	12.29	-	-
	05/02/03	29.21	15.45	13.76	-	-
	08/04/03	29.21	16.46	12.75	-	-
	11/03/03	29.21	17.15	12.06	-	-
	02/09/04	29.21	15.78	13.43	-	-
	05/10/04	29.21	15.77	13.44	-	-
	08/09/04	29.21	16.45	12.76	-	-
	11/09/04	29.21	17.26	11.95	-	-
	02/03/05	34.25	15.92	18.33	-	-
	05/09/05	34.25	15.03	19.22	-	-
	08/05/05	34.25	16.59	17.66	-	-
	11/09/05	34.25	16.82	17.43	-	-
	02/09/06	34.25	14.65	19.60	-	-
	05/04/06	34.25	13.61	20.64	-	-
	08/04/06	34.25	16.28	17.97	-	-
	11/08/06	34.25	17.28	16.97	-	-
	02/08/07	34.25	17.68	16.57	-	-
	05/29/07	34.25	17.37	16.88	-	-
	09/05/07	34.25	18.53	15.72	-	-
	12/12/07	34.25	19.61	14.64	-	-
	02/13/08	34.25	18.12	16.13	-	-
	05/15/08	34.25	18.64	15.61	-	-
	08/05/08	34.25	18.88	15.37	-	-
	11/07/08	34.25	19.60	14.65	-	-
	02/05/09	34.25	19.02	15.23	-	-
	05/05/09	34.25	17.78	16.47	-	-
	08/21/09	34.25	19.24	15.01	-	-
11/23/09	34.25	19.04	15.21	-	-	
02/26/10	34.25	16.96	17.29	-	-	
05/12/10	34.25	18.23	16.02	-	-	
08/19/10	34.25	17.99	16.26	-	-	
12/22/10	34.25	18.93	15.32	-	-	
03/24/11	34.25	17.57	16.68	-	-	
<b>05/26/11</b>	<b>34.25</b>	<b>17.50</b>	<b>16.75</b>	-	-	



**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-4</b> (10-25)	06/29/01	29.38	17.71	11.67	-	-
	10/10/01	29.38	18.00	11.38	-	-
	01/09/02	29.38	15.02	14.36	-	-
	04/24/02	29.38	15.74	13.64	-	-
	07/24/02	29.38	16.69	12.69	-	-
	11/05/02	29.38	17.64	11.74	-	-
	02/04/03	29.38	16.02	13.36	-	-
	05/02/03	29.38	16.72	12.66	-	-
	08/04/03	29.38	17.51	11.87	-	-
	11/03/03	29.38	18.09	11.29	-	-
	02/09/04	29.38	16.67	12.71	-	-
	05/10/04	29.38	16.89	12.49	-	-
	08/09/04	29.38	17.44	11.94	-	-
	11/09/04	29.38	17.89	11.49	-	-
	02/03/05	34.42	14.98	19.44	-	-
	05/09/05	34.42	16.20	18.22	-	-
	08/05/05	34.42	17.73	16.69	-	-
	11/09/05	34.42	17.91	16.51	-	-
	02/09/06	34.42	15.62	18.80	-	-
	05/04/06	34.42	15.12	19.30	-	-
	08/04/06	34.42	17.39	17.03	-	-
	11/08/06	34.42	18.30	16.12	-	-
	02/08/07	34.42	18.57	15.85	-	-
	05/29/07	34.42	18.29	16.13	-	-
	09/05/07	34.42	19.27	15.15	-	-
	12/12/07	34.42	20.44	13.98	-	-
	02/13/08	34.42	18.52	15.90	-	-
	05/15/08	34.42	19.42	15.00	-	-
	08/05/08	34.42	19.67	14.75	-	-
	11/07/08	34.42	20.42	14.00	-	-
	02/05/09	34.42	19.72	14.70	-	-
	05/05/09	34.42	18.51	15.91	-	-
	08/21/09	34.42	19.70	14.72	-	-
11/23/09	34.42	19.79	14.63	-	-	
02/26/10	34.42	17.52	16.90	-	-	
05/12/10	34.42	18.72	15.70	-	-	
08/19/10	34.42	18.88	15.54	-	-	
12/22/10	34.42	19.22	15.20	-	-	
03/24/11	34.42	18.25	16.17	-	-	
<b>05/26/11</b>	<b>34.42</b>	<b>18.30</b>	<b>16.12</b>	-	-	

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-5* (12-22)	02/03/05	33.33	14.23	19.10	-	-
	05/09/05	33.33	14.33	19.00	-	-
	08/05/05	33.33	15.89	17.44	-	-
	11/09/05	33.33	16.18	17.15	-	-
	02/09/06	33.33	14.02	19.31	-	-
	05/04/06	33.33	12.97	20.36	-	-
	08/04/06	33.33	15.63	17.70	-	-
	11/08/06	33.33	16.55	16.78	-	-
	02/08/07	33.33	16.12	17.21	-	-
	05/29/07	33.33	15.87	17.46	-	-
	09/05/07	33.33	16.95	16.38	-	-
	12/12/07	33.33	18.13	15.20	-	-
	02/13/08	33.33	16.58	16.75	-	-
	05/15/08	33.33	17.08	16.25	-	-
	08/05/08	33.33	17.42	15.91	-	-
	11/07/08	33.33	17.99	15.34	-	-
	02/05/09	33.33	17.42	15.91	-	-
	05/05/09	33.33	16.20	17.13	-	-
	08/21/09	33.33	17.66	15.67	-	-
	11/23/09	33.33	17.39	15.94	-	-
	02/26/10	33.33	15.41	17.92	-	-
	05/12/10	33.33	16.51	16.82	-	-
	08/19/10	33.33	17.05	16.28	-	-
12/22/10	33.33	17.79	15.54	-	-	
03/24/11	33.33	17.13	16.20	-	-	
<b>05/26/11</b>	<b>33.33</b>	<b>16.92</b>	<b>16.41</b>	-	-	

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-6* (12-22)	02/03/05	32.82	13.99	18.83	-	Sheen
	05/09/05	32.82	13.61	19.21	-	Sheen
	08/05/05	32.82	15.50	17.32	15.13	0.37
	11/09/05	32.82	15.87	16.95	15.50	0.37
	02/09/06	32.82	13.93	18.89	13.22	0.71
	05/04/06	32.82	12.88	19.94	12.13	0.75
	08/04/06	32.82	15.22	17.60	14.81	0.41
	11/08/06	32.82	16.16	16.66	15.78	0.38
	02/08/07	32.82	15.48	17.34	15.14	0.34
	05/29/07	32.82	15.35	17.47	15.04	0.31
	09/05/07	32.82	15.55	17.27	-	-
	12/12/07	32.82	17.22	15.60	-	Sheen
	02/13/08	32.82	15.54	17.28	-	Sheen
	05/15/08	32.82	16.25	16.57	-	-
	08/05/08	32.82	16.48	16.34	-	-
	11/07/08	32.82	17.33	15.49	-	-
	02/05/09	32.82	16.53	16.29	-	-
	05/05/09	32.82	15.46	17.36	-	-
	08/21/09	32.82	16.70	16.12	-	-
	11/23/09	32.82	16.53	16.29	-	-
	02/26/10	32.82	14.37	18.45	-	-
	05/12/10	32.82	15.18	17.64	-	-
	08/19/10	32.82	15.13	17.69	-	-
12/22/10	32.82	16.91	15.91	-	-	
03/24/11	32.82	17.47	15.35	-	-	
<b>05/26/11</b>	<b>32.82</b>	<b>16.57</b>	<b>16.25</b>	-	-	

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-7* (12-22)	02/03/05	33.07	14.17	18.90	-	Sheen
	05/09/05	33.07	14.47	18.60	14.44	0.03
	08/05/05	33.07	16.07	17.00	16.02	0.05
	11/09/05	33.07	16.47	16.60	16.35	0.12
	02/09/06	33.07	14.18	18.89	14.11	0.07
	05/04/06	33.07	13.12	19.95	13.11	0.01
	08/04/06	33.07	15.74	17.33	-	Sheen
	11/08/06	33.07	16.59	16.48	-	Sheen
	02/08/07	33.07	16.23	16.84	-	Sheen
	05/29/07	33.07	16.13	16.94	-	Sheen
	09/05/07	33.07	16.40	16.67	-	Sheen
	12/12/07	33.07	18.02	15.05	-	Sheen
	02/13/08	33.07	16.27	16.80	-	Sheen
	05/15/08	33.07	17.01	16.06	-	-
	08/05/08	33.07	17.23	15.84	-	-
	11/07/08	33.07	18.18	14.89	-	-
	02/05/09	33.07	17.26	15.81	-	-
	05/05/09	33.07	16.13	16.94	-	-
	08/21/09	33.07	17.39	15.68	-	-
	11/23/09	33.07	17.33	15.74	-	-
	02/26/10	33.07	15.15	17.92	-	-
	05/12/10	33.07	16.43	16.64	-	-
	08/19/10	33.07	16.79	16.28	-	-
12/22/10	33.07	17.09	15.98	-	-	
03/24/11	33.07	16.77	16.30	-	-	
	<b>05/26/11</b>	<b>33.07</b>	<b>17.03</b>	<b>16.04</b>	-	-
MW-8 (12-22)	05/15/08	31.73	16.47	15.26	-	-
	08/05/08	31.73	16.88	14.85	-	-
	11/07/08	31.73	17.28	14.45	-	-
	02/05/09	31.73	16.78	14.95	-	-
	05/05/09	31.73	16.05	15.68	-	-
	08/21/09	31.73	17.05	14.68	-	-
	11/23/09	31.73	16.72	15.01	-	-
	02/26/10	31.73	14.59	17.14	-	-
	05/12/10	31.73	15.79	15.94	-	-
	08/19/10	31.73	15.76	15.97	-	-
	12/22/10	31.73	16.37	15.36	-	-
	03/24/11	31.73	15.40	16.33	-	-
	<b>05/26/11</b>	<b>31.73</b>	<b>15.50</b>	<b>16.23</b>	-	-

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-9</b> (12-22)	05/15/08	29.02	15.16	13.86	-	-
	08/05/08	29.02	15.38	13.64	-	-
	11/07/08	29.02	15.84	13.18	-	-
	02/05/09	29.02	15.38	13.64	-	-
	05/05/09	29.02	14.38	14.64	-	-
	08/21/09	29.02	15.41	13.61	-	-
	11/23/09	29.02	15.36	13.66	-	-
	02/26/10	29.02	13.51	15.51	-	-
	05/12/10	29.02	14.30	14.72	-	-
	08/19/10	29.02	14.49	14.53	-	-
	12/22/10	29.02	14.61	14.41	-	-
	03/24/11	29.02	13.29	15.73	-	-
	<b>05/26/11</b>	<b>29.02</b>	<b>13.71</b>	<b>15.31</b>	-	-
	<b>MW-10</b> (12-22)	02/03/05	31.17	12.65	18.52	-
05/09/05		31.17	13.09	18.08	-	-
08/05/05		31.17	14.68	16.49	-	-
11/09/05		31.17	14.94	16.23	-	-
02/09/06		31.17	12.82	18.35	-	-
05/04/06		31.17	12.11	19.06	-	-
08/04/06		31.17	14.38	16.79	-	-
11/08/06		31.17	15.32	15.85	-	-
02/08/07		31.17	15.59	15.58	-	-
05/29/07		31.17	15.27	15.90	-	-
09/05/07		31.17	16.25	14.92	-	-
12/12/07		31.17	17.75	13.42	-	Sheen
02/13/08		31.17	15.59	15.58	-	-
05/15/08		31.17	16.40	14.77	-	-
08/05/08		31.17	16.67	14.50	-	-
11/07/08	Well now located beneath a new residential building. Impossible to gauge well.					

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-11</b> (12-22)	02/03/05	31.78	13.39	18.39	-	Sheen
	05/09/05	31.78	13.89	17.89	-	Sheen
	08/05/05	31.78	15.47	16.31	-	Sheen
	11/09/05	31.78	15.73	16.05	-	Sheen
	02/09/06	31.78	13.53	18.25	-	Sheen
	05/04/06	31.78	12.73	19.05	-	Sheen
	08/04/06	31.78	15.17	16.61	-	Sheen
	11/08/06	31.78	16.15	15.63	-	-
	02/08/07	31.78	16.36	15.42	-	Sheen
	05/29/07	31.78	16.06	15.72	-	Sheen
	09/05/07	31.78	17.03	14.75	-	Sheen
	12/12/07	31.78	18.68	13.10	-	-
	02/13/08	31.78	16.28	15.50	-	-
	05/15/08	31.78	17.12	14.66	-	-
	08/05/08	31.78	17.33	14.45	-	-
11/07/08	Well now located beneath a new residential building. Impossible to gauge well.					
<b>MW-12</b> (12-22)	02/03/05	32.05	13.70	18.35	-	Sheen
	05/09/05	32.05	14.17	17.88	-	Sheen
	08/05/05	32.05	15.69	16.36	-	Sheen
	11/09/05	32.05	15.93	16.12	-	Sheen
	02/09/06	32.05	13.78	18.27	-	Sheen
	05/04/06	32.05	12.98	19.07	-	Sheen
	08/04/06	32.05	15.39	16.66	-	Sheen
	11/08/06	32.05	16.29	15.76	-	-
	02/08/07	32.05	16.54	15.51	-	-
	05/29/07	32.05	16.27	15.78	-	-
	09/05/07	32.05	17.24	14.81	-	-
	12/12/07	32.05	18.65	13.40	-	-
	02/14/08	32.05	16.50	15.55	-	-
	05/15/08	32.05	17.34	14.71	-	-
	08/05/08	32.05	17.61	14.41	-	-
11/07/08	Well now located beneath a new residential building. Impossible to gauge well.					

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-13</b> (12-22)	05/15/08	28.84	14.87	13.97	-	-
	08/05/08	28.84	15.10	13.74	-	-
	11/07/08	28.84	15.61	13.23	-	-
	02/05/09	28.84	15.09	13.75	-	-
	05/05/09	28.84	14.09	14.75	-	-
	08/21/09	28.84	15.11	13.73	-	-
	11/23/09	28.84	15.11	13.73	-	-
	02/26/10	28.84	13.32	15.52	-	-
	05/12/10	28.84	14.10	14.74	-	-
	08/19/10	28.84	14.30	14.54	-	-
	12/22/10	28.84	14.25	14.59	-	-
	03/24/11	28.84	12.91	15.93	-	-
	<b>05/26/11</b>	<b>28.84</b>	<b>13.68</b>	<b>15.16</b>	-	-
<b>MW-14</b> (12-22)	08/21/09	29.53	15.66	13.87	-	-
	11/23/09	29.53	15.53	14.00	-	-
	02/26/10	29.53	13.65	15.88	-	-
	05/12/10	29.53	14.48	15.05	-	-
	08/19/10	29.53	14.61	14.92	-	-
	12/22/10	29.53	14.72	14.81	-	-
	03/24/11	29.53	13.47	16.06	-	-
	<b>05/26/11</b>	<b>29.53</b>	<b>14.05</b>	<b>15.48</b>	-	-
<b>MW-15</b> (12-22)	08/21/09	29.22	16.03	13.19	-	-
	11/23/09	29.22	15.95	13.27	-	-
	02/26/10	29.22	14.30	14.92	-	-
	05/12/10	29.22	14.89	14.33	-	-
	08/19/10	29.22	15.18	14.04	-	-
	12/22/10	29.22	15.02	14.20	-	-
	03/24/11	29.22	13.95	15.27	-	-
	<b>05/26/11</b>	<b>29.22</b>	<b>14.47</b>	<b>14.75</b>	-	-
<b>MW-16</b> (12-22)	08/21/09	28.87	15.61	13.26	-	-
	11/23/09	28.87	15.61	13.26	-	-
	02/26/10	28.87	13.81	15.06	-	-
	05/12/10	28.87	14.81	14.06	-	-
	08/19/10	28.87	14.88	13.99	-	-
	12/22/10	28.87	14.63	14.24	-	-
	03/24/11	28.87	13.39	15.48	-	-
	<b>05/26/11</b>	<b>28.87</b>	<b>13.01</b>	<b>15.86</b>	-	-

**NOTES:**

- not applicable

nm = not measured

ft = feet

LNAPL = light non-aqueous phase liquid

ft amsl = feet above mean sea level

\*Well head modified to serve as remediation well, top of casing elevation no longer considered surveyed

1) Monitoring well top of casing (TOC) elevations were resurveyed by Morrow Surveying on January 10, 2006 and February 7, 2006

2) Groundwater elevations for the February 3, 2005 and subsequent monitoring episodes use the new well survey data

3) Depth water is measured from the top of the well casing

4) When LNAPL is present at &gt;0.10 ft, the groundwater elevations are assumed to be affected by the LNAPL

5) Monitoring well top of casing (TOC) elevations for MW-8, 9, 13, 14, 15 &amp; 16 were surveyed by Morrow Surveying on September 30, 2009

**TABLE 2: GROUNDWATER FLOW SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Episode #	Date	Average Groundwater Elevation <sup>1</sup> (feet amsl)	Change from Previous Episode (feet)	Flow direction (gradient)
1	06/29/01	12.10	-	SSE (0.0074)
2	10/10/01	11.80	-0.30	SSE (0.0071)
3	01/09/02	14.68	2.88	SE (0.0054)
4	04/24/02	13.85	-0.83	SSW (0.005)
5	07/24/02	12.92	-0.93	NE (0.021)
6	11/05/02	11.89	-1.02	SW (0.019)
7	02/04/03	12.80	0.90	NNW (0.01)
8	05/02/03	13.11	0.32	SSE (0.01)
9	08/04/03	12.27	-0.85	SSE(0.007)
10	11/03/03	11.64	-0.63	SSE (0.006)
11	02/09/04	13.03	1.39	SSE (0.006)
12	05/10/04	12.92	-0.11	SSE (0.008)
13	08/09/04	12.31	-0.60	SSE (0.006)
14	11/09/04	11.70	-0.62	SSE (0.004)
15	02/03/05	18.75	-	W (0.007)
16	05/09/05	18.53	-0.22	S (0.010)
17	08/05/05	16.94	-1.59	S (0.010)
18	11/09/05	16.65	-0.28	S (0.010)
19	02/09/06	18.83	2.17	SSW (0.010)
20	05/04/06	19.72	0.90	SSW (0.012)
21	08/04/06	17.24	-2.48	SSW (0.010)
22	11/08/06	16.32	-0.93	SSW(0.0007)
23	02/08/07	16.25	-0.07	SSE (0.0009)
24	05/29/07	16.60	0.35	SSE (0.0009)
25*	09/05/07	15.77	-0.84	-
26*	12/12/07	14.38	-1.38	-
27*	02/13/08	16.24	1.86	-
28*	05/15/08	15.25	-1.00	-
29*	08/05/08	14.97	-0.27	-
30*	11/07/08	14.48	-0.49	-
31*	02/05/09	15.12	0.64	-
32*	05/05/09	16.15	1.03	-
33a	08/21/09	14.63	-1.51	SW (0.010)
34	11/23/09	14.74	0.11	SW (0.010)
35b	02/26/10	16.75	2.01	SSW (0.016)
36c	05/17/10	15.07	-1.68	SSW (0.006)
37d	08/19/10	14.97	-0.10	SSW (0.015)
38	12/22/10	15.10	0.13	SSW (0.005)
39	03/24/11	15.88	0.78	SSW (0.004)
<b>40</b>	<b>05/26/11</b>	<b>15.84</b>	<b>-0.04</b>	<b>SSW (0.009)</b>



## TABLE 2: GROUNDWATER FLOW SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

Episode #	Date	Average Groundwater Elevation <sup>1</sup> (feet amsl)	Change from Previous Episode (feet)	Flow direction (gradient)
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**NOTES:**

- not applicable

ft amsl = feet above mean sea level

1) MW-2 to MW-4 only used for episodes 1 through 14; all wells used for episodes 15 and later

\* Flow direction not calculated due to onsite operation of dual-phase extraction remediation system

a) HVDPE System was shutdown for approximately three (3) months prior to sampling; therefore, groundwater elevation data was contoured. The groundwater elevation data and contours are shown on Figure 4.

b) HVDPE System was shutdown for approximately four (4) months prior to sampling; therefore, groundwater elevation data was contoured. The groundwater elevation data and contours are shown on Figure 4.

c) HVDPE System was shutdown for approximately seven (7) months prior to sampling; therefore, groundwater elevation data was contoured. In addition, average elevation and change from previous was not calculated for remediation wells MW-1, 2, 5, 6, and 7, since these well heads have been modified since their survey. The groundwater elevation data and contours are shown on Figure 4.

d) HVDPE System was shutdown for approximately three (3) months prior to sampling; therefore, groundwater elevation data was contoured. In addition, average elevation and change from previous was not calculated for remediation wells MW-1, 2, 5, 6, and 7, since these well heads have been modified since their survey. The groundwater elevation data and contours are shown on Figure 4.

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)	
MW-1 (8-28)	06/29/01	1.63	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	10/10/01	0.08	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	01/09/02	<0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	04/24/02	<0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	07/24/02	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	11/05/02	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	02/04/03	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	05/02/03	0.08	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	08/04/03	0.23	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	11/03/03	1.27	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	02/09/04	0.18	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	05/10/04	Obstructed	-	-	-	-	-	-	-	-
	08/09/04	0.21	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/09/04	0.24	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/03/05	0.17	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/09/05	0.12	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/05/05	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/09/05	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/09/06	0.02	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/04/06	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/04/06	0.02	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/08/06	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/08/07	0.03	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/29/07	0.05	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	09/05/07	Sheen	47,000	<500	4,200	11,000	1,100	6,400	-	
	12/12/07	Sheen	80,000	<250	630	22,000	1,700	8,900	-	
	02/13/08	Sheen	22,000	<250	750	4,100	340	3,200	-	
	05/15/08	0.00	25,000	<600	580	9,200	970	4,200	-	
	08/05/08	0.00	110,000	<1,000	730	22,000	1,700	8,200	-	
	11/07/08	0.00	15,000	290	460	1,400	84	2,700	-	
	02/05/09	0.00	42,000	<1,000	1,100	8,500	880	4,500	-	
	05/05/09	0.00	44,000	<50*	1,300	6,500	1,300	6,800	-	
	08/21/09	0.00	63,000	<50*	1,900	15,000	1,200	7,600	-	
11/23/09	0.00	63,000	<17*	3,300	9,800	1,500	8,200	-		
02/26/10	0.00	62,000	<25*	3,500	14,000	1,600	9,300	-		
05/12/10	0.00	13,000	<5.0*	270	2,000	330	1,900	-		
Traditional	08/19/10	0.00	45,000	<25*	960	9,900	1,100	5,300	-	
Low-Flow	08/19/10	0.00	4,100	<110	520	540	190	290	-	
Low-Flow	12/22/10	0.00	12,000	<250	440	1,300	270	2,300	-	
Low-Flow	03/24/11	0.00	230	<5.0	<0.5	<0.5	<0.5	8.7	-	
<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>390</b>	<b>&lt;5.0</b>	<b>4.6</b>	<b>5.2</b>	<b>15</b>	<b>97</b>	-	

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
<b>MW-2</b> (8-28)	06/29/01	0.00	69,000	4,100/4,400*	7,200	6,100	1,500	7,000	-
	10/10/01	0.00	87,000	14,000	22,000	12,000	2,700	9,100	-
	01/09/02	0.00	130,000	11,000	30,000	19,000	3,800	14,000	-
	04/24/02	Sheen	210,000	32,000	38,000	23,000	4,600	19,000	-
	07/24/02	Sheen	170,000	36,000	48,000	12,000	3,700	8,600	-
	11/05/02	Sheen	190,000	36,000	45,000	25,000	4,600	16,000	-
	02/04/03	Sheen	150,000	27,000	51,000	24,000	4,200	14,000	-
	05/02/03	Sheen	150,000	35,000	39,000	11,000	3,800	9,900	-
	08/04/03	Sheen	120,000	29,000	32,000	5,000	3,200	7,200	-
	11/03/03	Sheen	120,000	24,000	33,000	4,300	3,200	5,400	-
	02/09/04	Sheen	130,000	19,000	27,000	7,700	3,100	7,600	-
	05/10/04	Sheen	67,000	13,000	20,000	3,000	2,300	4,100	-
	08/09/04	Sheen	100,000	22,000	27,000	7,100	2,800	6,600	-
	11/09/04	Sheen	100,000	23,000	27,000	6,100	3,000	5,600	-
	02/03/05	Sheen	84,000	11,000	23,000	5,000	3,000	5,500	-
	05/09/05	Sheen	74,000	14,000	21,000	4,200	2,300	3,300	-
	07/27/05	Sheen	9,500	910	1,400	1,000	180	960	-
	08/05/05	Sheen	74,000	4,000	8,800	11,000	1,300	7,600	-
	11/09/05	Sheen	120,000	16,000	21,000	14,000	2,300	13,000	-
	02/09/06	Sheen	120,000	10,000	18,000	16,000	2,200	13,000	-
	05/04/06	Sheen	71,000	8,300	14,000	11,000	1,500	7,600	-
	08/04/06	Sheen	160,000	14,000	22,000	14,000	2,400	11,000	-
	11/08/06	Sheen	110,000	6,400	17,000	9,200	1,600	6,800	<DL
	02/08/07 <sup>1</sup>	Sheen	68,000	5,400	11,000	7,800	1,500	7,700	-
	05/29/07	Sheen	49,000	4,800	7,600	4,400	940	4,600	-
	09/05/07	Sheen	25,000	1,000	3,300	3,400	490	2,800	-
	12/12/07	0.00	5,500	870	1,100	440	28	550	-
02/13/08	0.00	5,700	250	440	290	43	1,000	-	
05/15/08	0.00	490	68	110	11	0.90	42	-	
08/05/08	0.00	520	<25	26	57	7.6	70	-	
11/07/08	0.00	680	72	110	38	3.1	75	-	
02/05/09	0.00	1,000	82	130	50	15	120	-	
05/05/09	0.00	570	8.6*	22	33	9.2	73	-	
08/21/09	0.00	660	<10	13	41	13	48	-	
11/23/09	0.00	400	23*	20	10	1.0	33	-	
02/26/10	0.00	1,400	17*	56	83	18	230	-	
05/12/10	0.00	350	88	63	7.0	3.0	18	-	
Traditional Low-Flow	08/19/10	0.00	260	<10	4.6	1.1	0.93	3.4	-
Low-Flow	08/19/10	0.00	580	<15	18	4.4	4.4	25	-
Low-Flow	12/22/10	0.00	1,700	130	230	140	33	290	-
Low-Flow	03/24/11	0.00	65	81	<0.5	<0.5	<0.5	1.1	-
<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>140</b>	<b>51</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>1.9</b>	-

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
MW-3 (10-25)	06/29/01	0.00	550	<5.0	<0.5	3.1	3.2	1.2	-
	10/10/01	0.00	470	<5.0	0.77	5.3	3.3	5.9	-
	01/09/02	0.00	1,000	<5.0	0.90	7.6	7.8	25	-
	04/24/02	0.00	1,500	<5.0	0.64	7.2	12	14	-
	07/24/02	0.00	1,200	<5.0	10	17.0	11	25	-
	11/05/02	0.00	1,800	<25	33	43.0	18	31	-
	02/04/03	0.00	450	<5.0	<0.5	5.0	<0.5	0.77	-
	05/02/03	0.00	340	<5.0	7.3	10.0	2.5	7.3	-
	08/04/03	0.00	170	<5.0	5.8	5.9	1.5	4.9	-
	11/03/03	0.00	54	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/09/04	0.00	190	<5.0	<0.5	3.6	<0.5	<0.5	-
	05/10/04	0.00	280	<5.0	<0.5	3.4	<0.5	<0.5	-
	08/09/04	0.00	290	<5.0	<0.5	3.8	<0.5	<0.5	-
	11/09/04	0.00	220	<5.0	<0.5	4.0	<0.5	<0.5	-
	02/03/05	0.00	160	<5.0	13	30	3	21	-
	05/09/05	0.00	200	<5.0	<0.5	3.9	<0.5	<0.5	-
	08/05/05	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	11/09/05	0.00	130	<5.0	<0.5	2.3	<0.5	<0.5	-
	02/09/06	0.00	270	<5.0	<0.5	5.6	<0.5	<0.5	-
	05/04/06	0.00	220	<5.0	<0.5	4.3	<0.5	<0.5	-
	08/04/06	0.00	93	<5.0	<0.5	1.5	<0.5	<0.5	-
	11/08/06	0.00	160	<5.0	<0.5	2.9	<0.5	<0.5	<DL
	02/08/07 <sup>1</sup>	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	05/29/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	09/05/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	12/12/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/13/08	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	05/15/08	0.00	<50	<5.0	<0.5	0.99	<0.5	<0.5	0.68
	08/05/08	0.00	91	<5.0	<0.5	2.0	8.0	1.3	8.0
	11/07/08	0.00	150	<5.0	<0.5	0.70	6.5	1.3	26
	02/05/09	0.00	<50	<5.0	<0.5	1.7	<0.5	<0.5	<0.5
	05/05/09	0.00	<50	<5.0	<0.5	<0.5	0.76	<0.5	<0.5
08/21/09	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	
11/23/09	0.00	<50	<5.0	<0.5	0.90	<0.5	0.59	1.2	
02/26/10	-	-	-	-	-	-	-	-	
05/12/10	-	-	-	-	-	-	-	-	
08/19/10	-	-	-	-	-	-	-	-	
Low-Flow	12/22/10	0.00	<50	<5.0	<0.5	<0.5	<0.5	1.7	-
	03/24/11	-	-	-	-	-	-	-	-

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
MW-4 (10-25)	06/29/01	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	10/10/01	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	01/09/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	04/24/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	07/24/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	11/05/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/04/03	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	05/02/03	0.00	500	10	68	71	18	65	-
	08/04/03	0.00	270	<5.0	30	29	9.2	32	-
	11/03/03	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/09/04	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	05/10/04	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	08/09/04	0.00	130	<5.0	14	13	5.3	17	-
	11/09/04	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/03/05	0.00	370	<5.0	<0.5	4.1	<0.5	0.64	-
	05/09/05	0.00	840	<5.0	50	180	21	110	-
	07/27/05	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	08/05/05	0.00	310	<5.0	7.5	57	10	53	-
	11/09/05	0.00	290	<5.0	12	61	8.8	49	-
	02/09/06	0.00	250	<5.0	9.9	42	7.5	45	-
	05/04/06	0.00	300	<5.0	37	76	7.8	42	-
	08/04/06	0.00	270	<5.0	7.3	33	5.6	32	-
	11/08/06	0.00	1,300	<5.0	75	230	31	160	<DL
	02/08/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	05/29/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	09/05/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	12/12/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/13/08	0.00	75	<5.0	2.4	8.3	1.2	14	-
	05/15/08	0.00	<50	<5.0	0.65	<0.5	<0.5	0.52	-
	08/05/08	0.00	76	<5.0	1.2	8.1	1.5	9.7	-
	11/07/08	0.00	100	<5.0	2.8	7.7	1.1	15	-
	02/05/09	0.00	140	<5.0	0.87	19	3.9	29	-
	05/05/09	0.00	85	<5.0	1.2	8.0	2.5	19	-
08/21/09	0.00	390	<5.0	14	58	11	73	-	
11/23/09	0.00	<50	<5.0	2.6	<0.5	1.5	2.3	-	
02/26/10	-	-	-	-	-	-	-	-	
05/12/10	-	-	-	-	-	-	-	-	
08/19/10	-	-	-	-	-	-	-	-	
Low-Flow	12/22/10	0.00	<50	<5.0	<0.5	<0.5	<0.5	1.2	-
	<b>03/24/11</b>	-	-	-	-	-	-	-	-

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
<b>MW-5</b> (12-22)	02/03/05	0.00	78,000	<1,000	7,600	13,000	2,200	9,600	-
	05/09/05	0.00	60,000	<900	6,100	9,900	1,600	6,600	-
	07/27/05	nm	120,000	1,100	10,000	19,000	2,100	13,000	-
	08/05/05	0.00	59,000	<500	4,100	10,000	1,200	6,600	-
	11/09/05	0.00	44,000	<500	3,300	7,400	1,100	4,900	-
	02/09/06	0.00	110,000	<500	10,000	22,000	2,400	13,000	-
	05/04/06	0.00	110,000	<250	11,000	22,000	2,900	15,000	-
	08/04/06	0.00	73,000	<500	4,700	8,600	1,700	7,600	-
	11/08/06	0.00	51,000	<500	3,700	7,200	1,400	6,700	<DL
	02/08/07	0.00	67,000	<800	5,100	10,000	1,800	10,000	-
	05/29/07	0.00	86,000	<1000	6,200	12,000	2,000	11,000	-
	09/05/07	0.00	36,000	<350	2,100	4,000	560	4,600	-
	12/12/07	0.00	8,200	<100	160	56	290	1,200	-
	02/13/08	0.00	4,600	<50	77	440	41	1,300	-
	05/15/08	0.00	3,000	<10	59	330	47	670	-
	08/05/08	0.00	4,500	<50	64	490	46	1,100	-
	11/07/08	0.00	5,000	<17	66	400	29	1,200	-
	02/05/09	0.00	2,800	<0.5*	49	120	22	570	-
	05/05/09	0.00	12,000	<5.0*	360	1,300	250	2,000	-
	08/21/09	0.00	11,000	<1.0*	450	610	400	2,300	-
11/23/09	0.00	1,700	<0.5*	47	100	29	240	-	
02/26/10	0.00	3,100	<1.0*	55	220	27	520	-	
05/12/10	0.00	1,300	<5.0	55	190	13	180	-	
Traditional	08/19/10	0.00	3,600	<75	140	50	130	370	-
Low-Flow	08/19/10	0.00	3,600	<25	180	180	170	550	-
Low-Flow^	08/19/10	0.00	5,400	<25	210	230	230	660	-
Low-Flow	12/22/10	0.00	9,000	<100	300	1,100	180	1,700	-
Low-Flow	03/24/11	0.00	4,500	<50	120	600	12	900	-
<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>830</b>	<b>&lt;10</b>	<b>33</b>	<b>27</b>	<b>16</b>	<b>170</b>	-

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Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
<b>MW-6</b> (12-22)	02/03/05	Sheen	130,000	<1,000	2,400	33,000	2,400	15,000	-
	05/09/05	Sheen	170,000	<4,000	11,000	43,000	3,100	16,000	-
	08/05/05	0.37	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/09/05	0.37	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/09/06	0.71	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/04/06	0.75	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/04/06	0.41	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/08/06	0.38	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/08/07	0.34	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/29/07	0.31	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	09/05/07	0.00	74,000	<750	870	7,000	2,400	12,000	-
	12/12/07	Sheen	12,000	<10	556	560	550	1,800	-
	02/13/08	Sheen	27,000	<250	700	4,900	620	5,300	<DL
	05/15/08	0.00	25,000	<150	410	2,500	1,000	3,700	-
	08/05/08	0.00	33,000	<350	480	5,500	1,400	6,800	-
	11/07/08 <sup>2</sup>	0.00	54,000	<5.0	610	7,000	1,700	8,900	-
	02/05/09	0.00	92,000	<50*	1,100	8,600	2,800	14,000	-
	05/05/09	0.00	58,000	<50*	560	4,300	2,400	13,000	-
	08/21/09	0.00	53,000	<5.0*	1,800	8,100	1,200	12,000	-
	11/23/09	0.00	28,000	<10*	270	710	1,200	5,500	-
02/26/10	0.00	21,000	<10*	84	<5.0	800	3,900	-	
05/12/10	0.00	19,000	<12*	350	1,100	1,000	3,300	-	
Traditional	08/20/10	0.00	64,000	<50*	2,000	12,000	1,600	8,300	-
Low-Flow	08/20/10	0.00	1,900	<5.0	13	98	62	350	-
Low-Flow	12/22/10	0.00	21,000	<100	180	1,300	520	4,900	-
Low-Flow	03/24/11	0.00	6,500	<90	74	510	220	1,700	-
<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>4,400</b>	<b>&lt;50</b>	<b>52</b>	<b>400</b>	<b>200</b>	<b>1,300</b>	-

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
<b>MW-7</b> (12-22)	02/03/05	Sheen	220,000	18,000	45,000	44,000	3,500	18,000	-
	05/09/05	0.03	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/05/05	0.05	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/09/05	0.12	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/09/06	0.07	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/04/06	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/04/06	Sheen	230,000	19,000	37,000	37,000	3,100	14,000	-
	11/08/06	Sheen	240,000	13,000	41,000	39,000	3,000	14,000	<DL
	02/08/07	Sheen	230,000	15,000	41,000	37,000	3,700	20,000	-
	05/29/07	Sheen	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	09/05/07	Sheen	14,000	<450	41	210	99	1,600	-
	12/12/07	Sheen	9,200	<500	1,100	870	66	1,100	-
	02/13/08	0.00	17,000	590	2,800	2,700	300	1,900	-
	05/15/08	0.00	10,000	230	1,700	1,900	200	950	-
	08/05/08	0.00	6,100	<150	1,100	1,100	120	740	-
	11/07/08	0.00	4,200	<50	580	570	44	400	-
	02/05/09	0.00	7,800	26*	1,100	810	190	690	-
	05/05/09	0.00	7,200	77*	1,200	1,200	150	860	-
	08/21/09	0.00	28,000	390*	6,200	3,200	450	3,100	-
	11/23/09	0.00	17,000	32*	430	1,600	730	2,800	-
02/26/10	0.00	21,000	29*	1,500	1,500	870	3,300	-	
05/12/10	0.00	18,000	51*	1,300	2,700	540	3,100	-	
Traditional	08/19/10	0.00	11,000	<300	2,100	590	270	2,000	-
Low-Flow	08/19/10	0.00	24,000	<500	3,700	2,200	510	4,800	-
Low-Flow^	08/19/10	0.00	23,000	<300	3,300	2,000	520	3,900	-
Low-Flow	12/22/10	0.00	16,000	<200	1,600	1,700	250	2,800	-
Low-Flow	03/24/11	0.00	110	18	<0.5	<0.5	0.57	<0.5	-
<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>460</b>	<b>&lt;10</b>	<b>25</b>	<b>6.8</b>	<b>4.9</b>	<b>93</b>	-



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Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)	
MW-8 (12-22)	05/15/08	0.00	90	<5.0	0.62	2.4	<0.5	1.0	-	
	08/05/08	0.00	81	<5.0	0.66	7.2	1.2	9.1	-	
	11/07/08	0.00	430	<5.0	2.9	26	6.1	86	-	
	02/05/09	0.00	<50	<5.0	0.98	1.3	<0.5	<0.5	-	
	05/05/09	0.00	94	<5.0	0.91	7.1	2.2	17	-	
	08/21/09	0.00	480	<5.0	30	100	17	130	-	
	11/23/09	0.00	62	<5.0	5.3	2.0	2.4	3.3	-	
	02/26/10	-	-	-	-	-	-	-	-	
	05/12/10	-	-	-	-	-	-	-	-	
	08/19/10	-	-	-	-	-	-	-	-	
	Low-Flow 12/22/10	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	-
	<b>03/24/11</b>	-	-	-	-	-	-	-	-	-
	MW-9 (12-22)	05/15/08	0.00	60,000	960	14,000	410	1,500	3,500	-
08/05/08		0.00	42,000	<1,200	13,000	400	1,800	4,800	-	
11/07/08 <sup>2</sup>		0.00	53,000	400	13,000	350	1,800	3,100	-	
02/05/09		0.00	32,000	360*	11,000	310	1,600	2,700	-	
05/05/09		0.00	44,000	730*	14,000	520	1,900	3,400	-	
08/21/09		0.00	48,000	900*	15,000	550	2,000	3,300	-	
11/23/09		0.00	39,000	750	11,000	390	1,800	2,400	-	
02/26/10		0.00	44,000	760*	12,000	360	1,900	3,800	-	
05/12/10		0.00	34,000	390*	6,800	320	1,700	3,600	-	
Traditional 08/19/10		0.00	35,000	<1,200	9,600	220	2,300	3,600	-	
Low-Flow 08/19/10		0.00	30,000	<1,200	8,400	140	1,800	2,800	-	
Low-Flow 12/22/10		0.00	15,000	<300	3,600	47	870	730	-	
Low-Flow 03/24/11		0.00	2,100	<90	850	5.0	100	7.3	-	
<b>Low-Flow 05/26/11</b>	<b>0.00</b>	<b>4,100</b>	<b>&lt;250</b>	<b>1,700</b>	<b>11</b>	<b>120</b>	<b>9.9</b>	<b>-</b>		

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Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
MW-10 (12-22)	02/03/05	0.00	36,000	<500	4,700	7,200	660	3,400	-
	05/09/05	0.00	88,000	<1,500	6,900	20,000	2,300	9,900	-
	08/05/05	0.00	88,000	<1,100	10,000	21,000	1,900	9,800	-
	11/09/05	0.00	63,000	<1,100	5,400	13,000	1,900	7,900	-
	02/09/06	0.00	100,000	<500	6,600	19,000	2,900	13,000	-
	05/04/06	0.00	100,000	<500	8,500	25,000	3,000	13,000	-
	08/04/06	0.00	190,000	<2,200	17,000	35,000	2,800	13,000	-
	11/08/06	0.00	57,000	<500	2,500	7,600	1,600	5,700	<DL
	02/08/07	0.00	69,000	<1,000	4,400	14,000	2,200	8,800	-
	05/29/07	0.00	100,000	<1,000	5,300	19,000	2,600	12,000	-
	09/05/07	0.00	87,000	<1,000	6,100	20,000	2,400	12,000	-
	12/12/07	Sheen	4,700	<50	95	280	110	730	-
	02/13/08	0.00	4,500	<250	190	370	65	880	-
	05/15/08	0.00	4,800	<50	130	320	110	710	-
	08/05/08	0.00	3,500	<120	230	180	74	190	-
11/07/08 <sup>3</sup>	Well now located beneath a new residential building. Impossible to sample.								-

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
MW-11 (12-22)	02/03/05	Sheen	170,000	<3,000	23,000	35,000	3,100	16,000	-
	05/09/05	Sheen	210,000	3,500	29,000	40,000	3,400	16,000	-
	07/27/05	Sheen	220,000	2,500	26,000	37,000	3,200	18,000	-
	08/05/05	Sheen	210,000	<2,500	35,000	42,000	3,300	16,000	-
	11/09/05	Sheen	180,000	9,100	32,000	47,000	3,600	18,000	-
	02/09/06	Sheen	210,000	10,000	33,000	39,000	3,800	20,000	-
	05/04/06	Sheen	190,000	12,000	34,000	41,000	3,500	17,000	-
	08/04/06	Sheen	290,000	11,000	33,000	43,000	3,300	15,000	-
	11/08/06	0.00	240,000	14,000	34,000	44,000	3,300	16,000	<DL
	02/08/07	0.00	230,000	19,000	43,000	44,000	3,900	20,000	-
	05/29/07	0.00	230,000	19,000	35,000	39,000	3,600	20,000	-
	09/05/07	0.00	200,000	19,000	34,000	36,000	3,700	23,000	-
	12/12/07	0.00	81,000	4,000	9,400	9,500	1,700	9,700	-
	02/13/08	0.00	36,000	4,200	5,700	4,000	560	5,300	-
	05/15/08	0.00	15,000	2,300	2,800	1,400	120	1,900	-
08/05/08	0.00	12,000	1,100	1,800	760	98	630	-	
11/07/08 <sup>3</sup>	Well now located beneath a new residential building. Impossible to sample.								-

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
MW-12 (12-22)	02/03/05	Sheen	250,000	100,000	52,000	41,000	3,400	15,000	-
	05/09/05	Sheen	210,000	91,000	44,000	28,000	3,300	13,000	-
	08/05/05	Sheen	170,000	52,000	38,000	28,000	3,000	12,000	-
	11/09/05	Sheen	180,000	52,000	39,000	25,000	2,900	12,000	-
	02/09/06	Sheen	170,000	34,000	40,000	23,000	3,500	15,000	-
	05/04/06	Sheen	160,000	47,000	33,000	28,000	2,800	10,000	-
	08/04/06	Sheen	240,000	55,000	40,000	24,000	3,200	12,000	-
	11/08/06	0.00	190,000	33,000	40,000	23,000	2,700	13,000	<DL
	02/08/07	0.00	150,000	34,000	38,000	19,000	3,300	12,000	-
	05/29/07	0.00	150,000	30,000	30,000	15,000	3,100	13,000	-
	09/05/07	0.00	160,000	38,000	33,000	21,000	3,200	14,000	-
	12/12/07	0.00	58,000	6,700	10,000	7,100	1,200	4,900	-
	02/13/08	0.00	17,000	3,000	3,600	2,300	440	1,800	-
	05/15/08	0.00	7,800	1,900	2,000	500	130	640	-
	08/05/08	0.00	3,900	800	730	130	61	200	-
11/07/08 <sup>3</sup>	Well now located beneath a new residential building. Impossible to sample.								-

**TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)	
<b>MW-13</b> (12-22)	05/15/08	0.00	<250	6,700	18	<2.5	<2.5	<2.5	-	
	08/05/08	0.00	<250	3,400	<2.5	5.7	<2.5	4.3	-	
	11/07/08	0.00	61	380	2.8	1.4	0.55	0.87	-	
	02/05/09	0.00	<50	14	<0.5	<0.5	<0.5	<0.5	-	
	05/05/09	0.00	<50	<5.0	0.53	3.2	1.1	7.5	-	
	08/21/09	0.00	85	<5.0	2.0	10	2.2	13	-	
	11/23/09	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-	
	02/26/10	0.00	500	<5.0	9.8	58	20	110	-	
	05/12/10	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-	
	08/19/10	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-	
	Low-Flow	12/22/10	0.00	<50	<5.0	1.1	<0.5	<0.5	0.63	-
	Low-Flow	03/24/11	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-	
<b>MW-14</b> (12 - 22)	08/21/09	0.00	3,000	<1.0*	11	41	92	40	-	
	11/23/09	0.00	1,600	<5.0	6.1	16	33	4.9	-	
	02/26/10	0.00	1,800	<5.0	4.7	24	18	11	-	
	05/12/10	0.00	970	16	0.63	14	5.3	0.57	-	
	08/19/10	0.00	890	<30	1.3	16	2.6	1.3	-	
	Low-Flow	12/22/10	0.00	290	<5.0	<0.5	7.6	<0.5	0.52	-
	Low-Flow	03/24/11	0.00	93	<5.0	<0.5	1.8	<0.5	<0.5	-
	<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-
	<b>MW-15</b> (12 - 22)	08/21/09	0.00	190	23	23	15	6.6	25	-
		11/23/09	0.00	280	19	65	4.6	20	28	-
02/26/10		0.00	96	27	9.9	3.7	3.1	9.2	-	
05/12/10		0.00	<50	20	<0.5	<0.5	<0.5	<0.5	-	
08/19/10		0.00	<50	33	<0.5	<0.5	<0.5	<0.5	-	
Low-Flow		12/22/10	0.00	<50	12	<0.5	<0.5	<0.5	<0.5	-
Low-Flow		03/24/11	0.00	<50	6.2	<0.5	<0.5	<0.5	<0.5	-
<b>Low-Flow</b>		<b>05/26/11</b>	<b>0.00</b>	<b>&lt;50</b>	<b>7.3</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-
<b>MW-16</b> (12 - 22)		08/21/09	0.00	860	20	80	110	26	130	-
		11/23/09	0.00	870	31	280	13	46	63	-
	02/26/10	0.00	240	21	46	28	16	59	-	
	05/12/10	0.00	<50	15	2.3	0.62	<0.5	0.79	-	
	08/19/10	0.00	<50	15	<0.5	<0.5	<0.5	<0.5	-	
	Low-Flow	12/22/10	0.00	<50	10	<0.5	<0.5	<0.5	<0.5	-
	Low-Flow	03/24/11	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	<b>Low-Flow</b>	<b>05/26/11</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-

### TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
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**NOTES:**

- not sampled/analyzed

ft = feet

ns/fp = not sampled / free product present

µg/L = micrograms per liter or parts per billion (ppb)

TPH-g by EPA Method SW8015Cm

BTEX & MTBE by EPA Method SW8021B

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

HVOC= halogenated volatile organic compounds (e.g., PCE, TCE, DCE, VC)

DL = detection limit

\* = MTBE by EPA Method 8260

^ = Duplicate sample analyzed from different VOA

1) Analytical results for MW-2 and MW-3 reversed from lab data based on historical concentration trends observed

2) Groundwater sample re-analyzed for MTBE-only by EPA Method SW8260B

3) Wellheads removed and wells now located ~4' below grade beneath new residential construction; routine sampling is no longer possible

**TABLE 4: SOIL GAS ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID	Date Collected	Sample Depth (ft bgs)	TPH-g (µg/m3)	MTBE (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethylbenzene (µg/m3)	Xylenes (µg/m3)	Ethanol (µg/m3)	PCE (µg/m3)	2-propanol (µg/m3)
GP-1-5	08/04/06	5	331	<8.0	<7.1	<8.4	<9.7	<9.7	<17	17	23
GP-1-5D <sub>1</sub>	08/04/06	5	-	<8.0	<7.1	<8.4	<9.7	<9.7	<17	18	23
GP-1-5	11/08/06	5	1,100	<4.6	<4.0	<4.8	<5.5	<5.5	<9.5	12	<12
GP-1-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-1-5	05/17/07	5	457	<3.6	<3.2	<3.8	<4.4	<4.4	<7.6	14	<9.9
GP-1-5D <sub>1</sub>	05/17/07	5	-	<3.6	<3.2	<3.8	<4.4	<4.4	<7.6	14	<9.9
GP-1-5	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-1-5	02/14/08	5	<1,800	<48	<6.5	<7.7	<8.8	<27	<96	<14	<10,000
GP-1-5	05/08/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-1-5	08/15/08	5	<1800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-5 <sup>2</sup>	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-1-10	08/04/06	10	493	<4.1	<3.6	<4.3	<5.0	<5.0	<8.6	20	<11
GP-1-10	11/08/06	10	950	<4.2	<3.7	<4.4	<5.0	<5.0	<8.8	<7.9	<11
GP-1-10	03/06/07*	10	-	-	-	-	-	-	-	-	-
GP-1-10	05/17/07^	10	-	-	-	-	-	-	-	-	-
GP-1-10	12/12/07	10	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-1-10	02/14/08	10	<1,800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-1-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-10 <sup>2</sup>	11/07/08	10	-	-	-	-	-	-	-	-	-
GP-2-5	08/04/06	5	493	<4.4	<3.9	6.9	<5.4	10	<9.3	600	<12
GP-2-5	11/08/06	5	1,100	<4.0	<3.6	<4.2	<4.9	<4.9	<8.4	240	<11
GP-2-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-2-5	05/17/07	5	582	<4.0	<3.5	<4.1	<4.8	<4.8	<8.3	420	<11
GP-2-5	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-2-5	02/14/08	5	<1,800	<48	<6.5	<7.7	<8.8	<27	<14	<14	<10,000
GP-2-5	05/08/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-2-5	08/15/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	39	<10,000
GP-2-5 <sup>2</sup>	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-2-10	08/04/06	10	352	<10	<9.0	18	<12	<12	<21	270	<28
GP-2-10	11/08/06	10	910	<3.9	<3.4	<4.1	<4.7	<4.7	<8.1	450	<11
GP-2-10	03/06/07*	10	-	-	-	-	-	-	-	-	-
GP-2-10	05/17/07	10	748	<3.8	<3.3	<3.9	<4.5	<4.5	<7.9	440	<10
GP-2-10	12/12/07	10	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-2-10	02/14/08	10	<1,800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-2-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-2-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	48	<10,000
GP-2-10 <sup>2</sup>	11/07/08	10	-	-	-	-	-	-	-	-	-

**TABLE 4: SOIL GAS ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID	Date Collected	Sample Depth (ft bgs)	TPH-g (µg/m3)	MTBE (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethylbenzene (µg/m3)	Xylenes (µg/m3)	Ethanol (µg/m3)	PCE (µg/m3)	2-propanol (µg/m3)
GP-3-5	08/04/06	5	<240	<4.2	<3.7	<4.4	<5.0	<5.0	<8.8	<7.9	<11
GP-3-5	11/08/06	5	930	<4.4	<3.9	<4.6	<5.2	<5.2	<9.1	<8.2	<12
GP-3-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-3-5	05/17/07	5	582	<4.0	<3.5	<4.1	<4.8	<4.8	17	<7.5	<11
GP-3-5D <sub>f</sub>	05/17/07	5	582	<4.0	<3.5	<4.1	<4.8	<4.8	<8.3	16	<11
GP-3-5	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-3-5	02/14/08	5	<1,800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-5	05/08/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-3-5	08/15/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-5 <sup>1,2</sup>	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-3-10	08/04/06	10	564	<4.2	<3.7	<4.4	<5.0	<5.0	<8.8	<7.9	<11
GP-3-10	11/08/06	10	1,800	<4.0	<3.6	<4.2	<4.9	<4.9	<8.4	<7.6	<11
GP-3-10	03/06/07*	10	-	-	-	-	-	-	-	-	-
GP-3-10	05/17/07	10	1,538	<4.1	<3.6	<4.3	<5.0	<5.0	18	<7.8	12
GP-3-10	12/12/07	10	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	-
GP-3-10	02/14/08	10	<1,800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-3-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-10 <sup>1,2</sup>	11/07/08	10	-	-	-	-	-	-	-	-	-
GP-4-5	08/04/06	5	705	<4.4	5.4	<4.6	<5.4	<5.4	<9.3	<8.4	<12
GP-4-5D <sub>1</sub>	08/04/06	5	599	-	-	-	-	-	-	-	-
GP-4-5	11/08/06	5	540	<4	<3.5	<4.1	<4.8	<4.8	<8.3	<7.5	<11
GP-4-5D <sub>f</sub>	11/08/06	5	610	<7.7	<6.8	<8.0	<9.2	<9.2	<16	<14	<21
GP-4-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-4-5	05/17/07	5	873	<4	<3.6	<4.2	<4.9	<4.9	15	<7.6	<11
GP-4-5	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-4-5D <sub>f</sub>	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-4-5	02/14/08	5	<1,800	<48	<6.5	<7.7	<8.8	<27	<96	<14	<10,000
GP-4-5	05/08/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-4-5	08/15/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-4-5 <sup>1,2</sup>	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-4-10	08/04/06	10	564	<4.1	6.1	17	5.7	16	12	<7.8	<11
GP-4-10D <sub>f</sub>	08/05/06	10	529	<3.8	4.2	18	<4.6	17	18	<7.2	<10
GP-4-10	11/08/06	10	900	<4.0	<3.5	4.1	<4.8	5.2	<8.3	<7.5	<11
GP-4-10D <sub>1</sub>	11/08/06	10	880	<1.8	<1.6	<1.9	<2.2	<2.2	<3.8	<3.4	<4.9
GP-4-10	03/06/07*	10	-	-	-	-	-	-	-	-	-
GP-4-10	05/17/07^	10	-	-	-	-	-	-	-	-	-
GP-4-10	12/12/07	10	1,600	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-4-10	02/14/08	10	-	-	-	-	-	-	-	-	-
GP-4-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-4-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-4-10 <sup>1,2</sup>	11/07/08	10	-	-	-	-	-	-	-	-	-



**TABLE 4: SOIL GAS ANALYTICAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Well ID	Date Collected	Sample Depth (ft bgs)	TPH-g (µg/m3)	MTBE (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl-benzene (µg/m3)	Xylenes (µg/m3)	Ethanol (µg/m3)	PCE (µg/m3)	2-propanol (µg/m3)
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**NOTES:**

- not sampled/analyzed

2-propanol (i.e., isopropyl alcohol) tracer/leak check compound

ft bgs = feet below ground surface

µg/m3 = micrograms per cubic meter

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

PCE = tetrachloroethene

ESLs = Environmental Screening Levels - for residential land use

CHHSLs = California Human Health Screening Levels

pp = CHHSL postponed

\* = Sampling not possible due to seasonal wet soil conditions

^ = No sample analysis due to presence of free moisture in sample tubing

D<sub>f</sub> = after the probe/sample ID indicates a duplicate sample collected in the fieldD<sub>l</sub> = after the probe/sample ID indicates a duplicate sample prepared and analyzed by the lab

TPH-g by modified EPA Method TO-3

BTEX, MTBE, Ethanol, PCE, 2-propanol by modified EPA Method TO-15

1) On August 21, 2008, GP-3 and GP-4 were decommissioned during the installation of the HVDPE conveyance piping laterals

2) Per concurrence from ACHCSA in a letter dated October 3, 2008, quarterly soil gas sampling has been temporarily suspended during operation of the HVDPE system

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
MW-1S	08/10/07	1,2	100%	OFF	21	-	-	-	-	3,400	ND<14	68	210	30	160
	09/28/07		OFF	OFF	20	-	-	-	-	-	-	-	-	-	-
	10/17/07		OFF	50%	21	0	0.0	20.9	0.0	380	ND<14	26	58	5.7	46
	11/16/07	50%	50%	21	2,800	0.5	20.7	0.5	3,200	ND<14	69	220	20	110	
	12/26/07	50%	50%	18	3,000	1.5	20.7	0.4	3,900	ND<27	79	210	41	210	
	01/22/08	50%	OFF	18	160	0.0	19.7	0.3	660	ND<14	5.8	23	2.7	28	
	02/07/08	4	OFF	OFF	21.5	0	0.0	20.9	0.0	-	-	-	-	-	-
	03/18/08	OFF	OFF	14.5	0	xx	20.9	0.0	140	ND<0.68	1.3	6.9	0.78	6.9	
	04/30/08	OFF	OFF	18	50	0.0	20.9	0.1	520	3.3	13	38	6.7	53	
	05/29/08	OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-	
	06/26/08	OFF	OFF	23	-	-	-	-	-	-	-	-	-	-	
	07/30/08	7	OFF	OFF	17	310	0.0	18.3	1.1	17	-	-	-	-	-
	09/30/08	OFF	100%	100%	16.5	5	0.0	20.9	0.4	65	0.71	0.44	2.2	0.65	12
	11/04/08	100%	100%	100%	13	4,250	1.5	12.6	2.9	3,100	ND<180	63	140	14	120
	12/02/08	100%	100%	100%	10	2,710	0.5	20.3	0.9	3,300	ND<14	57	150	12	110
	01/06/09	100%	100%	100%	12	55	0.0	20.9	0.0	35	ND<0.68	3.6	5.6	0.22	1.8
	02/09/09	100%	100%	100%	12	15	0.0	20.9	0.0	36	ND<0.68	4.7	6.7	0.35	3.1
	03/18/09	100%	100%	100%	10	10	0.0	20.9	0.3	120	ND<1.0	1.8	9.6	0.69	4.2
	04/21/09	100%	100%	100%	11	10	0.0	20.4	0.2	42	ND<0.68	0.56	2.3	0.29	1.9
	05/19/09	100%	100%	100%	11.5	35	0.0	19.8	0.7	54	ND<0.68	1.1	6.2	0.79	4.0
	08/31/09	100%	OFF	OFF	12	540	0.0	13.7	3.2	39	ND<0.68	0.54	2.0	0.27	2.8
	09/10/09	OFF	OFF	OFF	15	-	-	-	-	-	-	-	-	-	-
	09/17/09	OFF	OFF	OFF	14	30	-	20.9	0.2	51	ND<2.7	1.3	8.8	0.59	4.2
	09/25/09	OFF	OFF	OFF	13	-	-	-	-	-	-	-	-	-	-
	10/02/09	OFF	OFF	OFF	14	-	-	-	-	-	-	-	-	-	-
	10/20/09	OFF	OFF	OFF	12	340	0.0	20.9	0.1	130	ND<2.7	5.2	15	1.8	13
	11/03/09	OFF	OFF	OFF	-	-	-	-	-	-	-	-	-	-	-
	12/11/09	OFF	OFF	OFF	13	250	0.0	20.9	0.0	160	ND<1.4	5.1	12	1.5	14
	04/20/10	OFF	100%	100%	13	0	0.0	16.1	0.8	42	3.6	11	1.3	0.53	1.3
	04/28/10	100%	OFF	OFF	15	25	0.0	20.4	0.7	13	5.6	1.5	0.48	0.11	0.75
	05/05/10	OFF	100%	100%	14	35	0.0	20.9	0.1	44	ND<2.0	2.4	21	1.7	9.0
	05/11/10	100%	100%	100%	12	25	0.0	20.9	0.2	34	ND<0.68	0.55	3.0	0.37	1.9
	08/23/10	100%	100%	100%	17	150	0.0	18.2	1.4	85	ND<3.0	2.6	18	1.2	6.6
	09/01/10	100%	100%	100%	14	15	0.5	20.9	0.2	23	ND<0.68	0.41	2.3	0.22	1.1
	09/07/10	100%	100%	100%	11.5	20	0.0	20.9	0.2	-	-	-	-	-	-
	09/07/10	100%	100%	100%	11.5	1,200	0.5	20.4	0.3	-	-	-	-	-	-
09/07/10	15	100%	100%	100%	11.5	4,500	1.5	19.8	0.4	1,900	ND<25	11	12	0.67	3.8
11/03/10	100%	100%	100%	15.0	15	0.0	20.9	0.2	43	ND<0.68	0.33	2.1	0.23	1.4	
11/08/10	100%	100%	100%	14.0	50	0.0	20.9	0.3	65	ND<0.68	0.42	2.6	0.24	1.6	
11/08/10	100%	100%	100%	14.0	1,200	0.0	20.9	0.3	730	ND<10	6.6	8.1	0.45	3.0	
11/09/10	100%	100%	100%	14.0	30	0.0	20.9	0.2	91	ND<5.0	0.95	2.6	0.22	1.9	
11/09/10	100%	100%	100%	14.0	1,650	0.5	20.4	0.1	360	ND<10	2.3	3.4	0.21	2.0	
11/16/10	100%	100%	100%	14.0	45	0.0	20.9	0.1	120	ND<0.68	0.71	3.5	0.39	4.8	
11/23/10	100%	100%	100%	15.0	220	0.0	20.5	0.2	200	ND<1.4	1.0	4.2	0.24	3.5	
12/10/10	100%	100%	100%	16.0	80	0.0	19.7	0.7	110	ND<0.68	0.92	3.9	0.37	3.0	
01/21/11	100%	100%	100%	17.0	1,850	0.0	18.7	0.3	880	ND<15	5.5	11	1.1	5.5	
02/04/11	100%	100%	100%	15.5	50	0.0	20.9	0.1	90	ND<0.68	0.15	0.96	0.10	5.1	
<b>02/04/11</b>	<b>16</b>	<b>100%</b>	<b>100%</b>	<b>15.5</b>	<b>60</b>	<b>0.0</b>	<b>20.9</b>	<b>0.1</b>	<b>120</b>	<b>ND&lt;0.68</b>	<b>0.19</b>	<b>1.2</b>	<b>0.15</b>	<b>5.7</b>	

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
MW-2S	08/10/07		100%	100%	21	-	-	-	-	11,000	ND<110	280	770	81	360
	09/28/07	1	100%	100%	20	5,900	2.5	20.6	0.4	5,100	ND<35	110	310	46	260
	10/17/07		100%	100%	21	1,450	1.0	20.9	0.1	1,900	ND<20	59	120	12	73
	11/16/07		100%	100%	21	4,600	2.5	20.7	0.5	5,800	ND<27	120	340	40	200
	12/26/07		100%	100%	18	2,600	1.5	20.9	0.4	3,100	ND<27	84	230	37	190
	01/22/08		100%	100%	18	1,000	0.5	17.7	0.6	3,000	ND<14	61	190	24	180
	02/07/08	5	100%	100%	21.5	1,000	0.5	20.9	0.2	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	100	xx	20.9	0.6	1,400	2.3	17	51	13	81
	04/30/08		100%	OFF	18	190	0.0	20.7	0.5	1,900	ND<6.8	22	75	16	110
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08	7	OFF	OFF	17	100	0.0	20.3	0.6	-	-	-	-	-	-
	09/30/08		OFF	100%	16.5	160	0.0	16.7	1.8	220	ND<0.68	0.44	3.1	1.0	17
	11/04/08		100%	100%	13	6,800	1.5	11.8	3.1	3,800	ND<14	78	170	18	150
	12/02/08		100%	100%	10	3,200	0.5	18.3	0.9	3,200	ND<14	66	170	14	130
	01/06/09		100%	100%	11	1,950	0.5	17.7	1.6	3,400	ND<30	69	150	13	95
	02/09/09		100%	100%	12	900	0.0	16.4	1.4	1,100	ND<10	25	53	4.9	49
	03/18/09		100%	100%	10	30	0.0	20.9	0.0	130	ND<0.68	1.1	5.6	0.43	2.6
	04/21/09		100%	100%	11	15	0.0	17.1	1.4	130	ND<0.68	1.3	3.9	0.36	4.9
	05/19/09		100%	100%	11.5	190	0.0	12.6	3.5	460	ND<2.0	4.3	13	2.0	19
	08/31/09		100%	100%	12	980	0.0	8.5	5.1	1,800	ND<20	29	57	8.6	79
	09/10/09		100%	100%	15	1,700	0.5	15.3	3.2	2,000	ND<15	52	100	6.4	74
	09/17/09		100%	100%	14	2,400	0.5	19.8	1.6	2,700	ND<25	80	140	11	100
	09/25/09		100%	100%	13	2,500	0.5	20.0	1.2	2,900	ND<10	67	130	10	77
	10/02/09		100%	100%	14	2,800	0.5	20.2	1.1	2,800	ND<10	63	130	8.5	72
	10/20/09		100%	100%	13	2,900	1.0	19.8	1.3	3,000	ND<35	85	170	9.7	82
	11/03/09		100%	100%	14	2,450	0.5	20.2	1.0	2,500	ND<14	68	130	8.6	69
	12/11/09		100%	100%	13	1,400	0.0	9.2	4.4	1,600	ND<10	39	81	6.6	52
	04/20/10		100%	100%	13	20	0.0	15.1	1.0	91	ND<5.0	18	2.6	1.2	5.4
	04/28/10		100%	100%	15	0	0.0	18.8	1.3	18	6.4	1.3	0.62	0.25	1.1
	05/05/10		100%	100%	18	-	-	-	-	-	-	-	-	-	-
	05/11/10		100%	100%	12	230	0.0	20	1.4	350	ND<1.5	5.4	16	1.5	13
	08/23/10		100%	100%	17	220	0.0	11.4	2.9	640	ND<6.8	7.2	21	2.9	25
	09/01/10		100%	100%	14	50	0.0	20.5	0.3	180	ND<1.0	3.7	9.4	0.74	7.2
	09/07/10		100%	100%	11.5	150	0.0	20.2	1.1	-	-	-	-	-	-
	09/07/10		100%	100%	11.5	65	0.0	20	1.2	-	-	-	-	-	-
11/03/10		100%	100%	15	20	0.0	20.3	1.2	650	ND<2.7	16	43	3.9	34	
11/08/10		100%	100%	14	420	0.0	20.1	1.5	970	ND<5.0	22	51	4.5	39	
11/08/10		100%	100%	14	450	0.0	20.2	1.3	1,000	ND<10	24	54	5.0	42	
11/09/10		100%	100%	14	500	0.0	20.0	1.2	990	ND<5.0	22	51	5.0	40	
11/09/10		100%	100%	14	600	0.0	19.7	1.1	1,000	ND<10	24	57	5.5	45	
11/16/10		100%	100%	14	650	0.0	20.2	1.0	1,400	ND<5.0	33	73	7.0	56	
11/23/10		100%	100%	15	620	0.0	19.9	1.0	1,300	ND<14	35	69	4.7	42	
12/10/10		100%	100%	16	950	0.0	10.8	3.4	1,500	ND<10	31	66	5.6	57	
01/21/11		100%	100%	17	100	0.0	15.8	1.8	460	ND<5.0	23	26	2.1	16	
03/02/11		100%	100%	18	180	0.0	20.9	0.3	980	ND<35	22	39	1.2	12	
04/07/11		100%	100%	17	220	0.0	16.6	1.7	790	ND<5.0	17	30	2.3	17	
05/04/11		100%	100%	10	80	0.0	20.6	0.6	160	ND<1.4	1.6	3.0	0.30	5.5	
	<b>06/20/11</b>		<b>100%</b>	<b>100%</b>	<b>10</b>	<b>20</b>	<b>0.0</b>	<b>12.5</b>	<b>3.8</b>	<b>ND&lt;7.0</b>	<b>ND&lt;0.68</b>	<b>ND&lt;0.077</b>	<b>0.10</b>	<b>ND&lt;0.057</b>	<b>ND&lt;0.057</b>

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
MW-5S	08/10/07		100%	100%	21	-	-	-	-	54	ND<0.68	0.60	2.7	0.60	3.7
	09/28/07	1	100%	100%	20	8,000	5.5	20.2	0.3	3,800	ND<60	70	150	19	120
	10/17/07		100%	100%	21	880	0.5	20.9	0.1	1,100	ND<14	27	56	5.3	36
	11/16/07		100%	100%	21	4,600	3.0	20.0	0.7	3,800	ND<110	64	170	21	170
	12/26/07		100%	OFF	18	200	0.0	20.9	0.0	140	ND<0.68	0.45	3.7	1.5	14
	01/22/08		OFF	OFF	18	300	0.0	18.0	0.4	760	ND<4.5	3.3	16	2.4	28
	02/07/08	4	OFF	OFF	21.5	-	-	-	-	-	-	-	-	-	-
	03/18/08		OFF	OFF	14.5	0	xx	19.9	0.3	580	ND<2.7	3.0	24	4.2	39
	04/30/08		OFF	OFF	18	0	0.0	19.4	1.0	2,000	ND<10	18	56	5.7	63
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08	7	OFF	50%	17	1,000	0.0	14.0	2.8	-	-	-	-	-	-
	09/30/08		50%	100%	16.5	1,850	0.0	16.0	2.8	2,000	ND<14	27	61	6.2	87
	11/04/08		100%	100%	13	2,450	0.5	14.6	2.3	3,900	ND<27	30	100	6.1	150
	12/02/08		100%	100%	10	1,810	0.0	19.7	0.1	1,900	ND<27	ND<3.1	29	2.9	81
	01/06/09	8	100%	100%	11	1,350	0.0	17.3	0.3	-	-	-	-	-	-
	02/09/09		100%	100%	12	260	0.0	19.7	0.3	270	ND<4.5	2.4	7.5	0.90	23
	03/18/09		100%	100%	10	50	0.0	20.8	0.3	99	ND<2.0	2.1	6.0	0.76	6.2
	04/21/09		100%	100%	11	20	0.0	20.3	0.3	40	ND<1.0	1.1	4.0	0.51	4.4
	05/19/09		100%	100%	11.5	400	0.0	19.4	0.5	450	ND<3.0	1.7	6.8	0.71	5.6
	08/31/09		100%	100%	-	660	-	13.5	3.3	1,300	ND<10	9.6	21	3.0	54
	09/10/09		100%	100%	15	1,100	0.0	16.8	1.9	1,800	ND<6.8	18	49	4.0	110
	09/17/09		100%	100%	14	1,050	0.0	19.2	1.2	2,200	ND<6.8	19	66	6.6	160
	09/25/09		100%	100%	13	1,100	0.0	19.1	1.3	2,100	ND<2.7	11	44	5.9	110
	10/02/09		100%	100%	14	1,300	0.0	19.2	1.3	2,100	ND<2.7	9.4	35	4.9	100
	10/20/09		100%	100%	13	1,150	0.0	19.4	1.1	1,700	ND<5.0	6.3	28	2.9	88
	11/03/09		100%	100%	14	550	0.0	19.5	1.0	1,300	ND<2.7	4.7	24	2.0	82
	12/11/09		100%	100%	13	350	0.0	18.2	1.0	440	ND<2.7	2.6	9.8	1.8	26
	04/20/10		100%	100%	13	0	0.0	19.3	0.2	29	ND<0.68	1.3	2.9	0.55	3.2
	04/28/10		100%	100%	15	0	0.0	20.8	0.1	14	ND<0.68	0.60	1.3	0.15	0.98
	05/05/10		100%	100%	18	-	-	-	-	-	-	-	-	-	-
	05/11/10		100%	100%	12	30	0.0	20.4	0.5	110	ND<1.4	1.2	5.4	0.67	7.4
	08/23/10		100%	100%	17	160	0.0	14.5	1.1	100	ND<1.9	2.0	8.2	1.5	9.3
	09/01/10		100%	100%	14	20	0.0	20.3	0.4	59	ND<0.68	0.67	2.8	0.30	2.6
	09/07/10		100%	100%	11.5	50	0.0	20	0.7	-	-	-	-	-	-
	09/07/10		100%	100%	11.5	40	0.0	20	0.8	-	-	-	-	-	-
	11/03/10		100%	100%	15	70	0.0	20.4	0.6	230	ND<4.5	1.2	7.9	0.73	15
	11/08/10		100%	100%	14	120	0.0	20.7	0.7	300	ND<2.7	1.5	8.2	0.65	20
	11/08/10		100%	100%	14	100	0.0	20.6	0.5	310	ND<2.7	1.7	9.1	0.74	21
	11/09/10		100%	100%	14	110	0.0	20.4	0.5	300	ND<1.4	1.4	7.8	0.84	19
11/09/10		100%	100%	14	110	0.0	20.0	0.5	340	ND<1.4	1.9	9.2	1.0	24	
11/16/10		100%	0%	14	190	0.0	20.4	0.6	400	ND<1.4	1.5	8.6	0.99	28	
12/10/10		0%	100%	16	150	0.0	17.8	1.6	310	ND<2.7	2.3	9.2	0.81	23	
01/21/11		100%	100%	17	250	0.0	18.8	0.2	140	ND<2.7	3.5	12	1.4	9.3	
03/02/11		100%	100%	18	75	0.0	20.9	0.3	380	ND<6.8	3.0	12	0.75	11	
04/07/11		100%	100%	17	55	0.0	20.9	0.2	43	ND<0.68	0.98	3.9	0.59	4.4	
05/04/11		100%	100%	10	0	0.0	20.9	0.0	18	ND<0.68	ND<0.077	0.22	ND<0.057	0.58	
	<b>06/20/11</b>		<b>100%</b>	<b>100%</b>	<b>10</b>	<b>10</b>	<b>0.0</b>	<b>15.4</b>	<b>2.3</b>	<b>ND&lt;7.0</b>	<b>ND&lt;0.68</b>	<b>ND&lt;0.077</b>	<b>0.14</b>	<b>ND&lt;0.057</b>	<b>ND&lt;0.057</b>

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
MW-6S	08/10/07	1	100%	100%	21	-	-	-	-	5,800	ND<30	69	280	24	140
	09/28/07		100%	100%	20	>11,000	8.0	19.7	0.5	6,800	ND<60	100	360	34	190
	10/17/07		100%	100%	21	1,350	0.5	20.9	0.1	1,700	ND<10	24	90	9.7	79
	11/16/07		100%	100%	21	6,300	4.5	19.2	1.0	6,400	ND<27	56	270	40	310
	12/26/07		100%	100%	18	4,600	2.5	18.5	1.3	4,200	ND<27	21	96	14	180
	01/22/08		100%	100%	18	1,050	0.5	15.6	1.0	1,900	ND<14	11	74	13	100
	02/07/08		-	-	21.5	-	-	-	-	-	-	-	-	-	-
	03/18/08	100%	100%	14.5	15	xx	20.5	0.1	230	ND<1.4	1.2	9.2	2.4	16	
	04/30/08	100%	OFF	18	140	0.0	20.7	0.7	760	ND<6.8	3.5	18	3.2	36	
	05/29/08	OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-	
	06/26/08	OFF	100%	23	210	0.0	19.8	0.4	400	ND<10	2.0	18	3.1	24	
	07/30/08	100%	100%	17	270	0.0	20.2	0.7	460	ND<4.5	1.7	14	2.2	19	
	09/30/08	100%	100%	16.5	570	0.0	17.4	2.0	640	ND<14	7.7	42	3.7	31	
	11/04/08	100%	100%	13	580	0.0	17.4	1.2	900	ND<2.7	4.6	21	4.6	46	
	12/02/08	100%	100%	10	460	0.0	20.6	0.3	710	ND<14	3.2	13	1.4	30	
	01/06/09	100%	100%	11	280	0.0	19.9	0.4	520	ND<14	4.1	17	2.3	32	
	02/09/09	100%	100%	12	80	0.0	20.9	0.1	60	ND<0.68	1.4	3.4	0.49	8.2	
	03/18/09	100%	100%	10	70	0.0	20.9	0.0	61	ND<3.0	1.3	1.7	0.38	4.0	
	04/21/09	100%	100%	11	10	0.0	20.9	0.0	18	0.98	0.41	0.47	0.13	1.4	
	05/19/09	100%	100%	11	-	-	-	-	20	ND<0.68	0.59	0.98	0.17	2.1	
	08/31/09	100%	OFF	12	170	0.0	18.9	0.9	330	ND<2.7	5.5	27	3.7	26	
	09/10/09	OFF	OFF	15	-	-	-	-	-	-	-	-	-	-	
	09/17/09	OFF	OFF	14	560	0.0	19.6	0.3	370	ND<3.0	1.9	6.9	1.4	9.2	
	09/25/09	OFF	OFF	13	-	-	-	-	-	-	-	-	-	-	
	10/02/09	OFF	OFF	14	-	-	-	-	-	-	-	-	-	-	
	10/20/09	OFF	OFF	12	80	0.0	20.9	0.0	78	ND<0.68	0.69	2.7	1.7	9.5	
	11/03/09	OFF	OFF	-	-	-	-	-	-	-	-	-	-	-	
	12/11/09	OFF	OFF	13	50	0.0	20.9	0.0	29	ND<0.68	0.20	1.1	0.30	3.1	
	04/20/10	OFF	100%	13	210	0.0	9.6	3.0	450	ND<25	46	29	6.7	37	
	04/28/10	100%	100%	15	150	0.0	20.4	0.9	250	ND<15	7.4	31	6.8	39	
	05/05/10	100%	100%	18	110	0.0	20.2	0.8	240	ND<6.8	3.9	11	1.1	7.4	
	05/11/10	100%	100%	12	0	0.0	20.9	0.0	13	ND<0.68	0.13	0.56	0.089	0.97	
	08/23/10	100%	100%	17	680	0.0	12.5	2.1	1,100	ND<14	34	170	22	100	
	09/01/10	100%	100%	14	35	0.0	20.5	0.3	110	ND<1.4	1.8	6.2	1.8	9.8	
	09/07/10	100%	100%	11.5	110	0.0	19.3	1.4	-	-	-	-	-	-	
	09/07/10	100%	100%	11.5	200	0.0	19	1.6	-	-	-	-	-	-	
	11/03/10	100%	100%	15	120	0.0	19	1.6	320	ND<6.8	1.9	9.9	3.3	18	
	11/08/10	100%	100%	14	200	0.0	19.3	1.6	430	ND<4.5	2.1	10	2.5	14	
	11/08/10	100%	100%	14	230	0.0	19.1	1.4	490	ND<2.7	2.3	11	2.6	16	
	11/09/10	100%	100%	14	230	0.0	19.1	1.4	500	ND<2.7	2.4	12	2.8	17	
	11/09/10	100%	100%	14	1,450	0.0	18.7	1.3	710	ND<10	2.7	12	2.4	15	
11/16/10	100%	100%	14	390	0.0	19.0	1.3	850	ND<2.7	3.4	16	2.6	22		
11/23/10	100%	100%	15	580	0.0	18.4	1.4	1,000	ND<2.7	3.5	19	2.4	21		
12/10/10	100%	100%	16	300	0.0	15.1	2.3	580	ND<4.5	4.5	18	5.3	29		
01/21/11	100%	100%	17	640	0.0	17.6	0.8	440	ND<4.5	4.7	10	3.6	20		
02/04/11	100%	100%	15.5	90	0.0	19.8	0.8	240	ND<1.4	2.2	8.3	2.0	18		
02/04/11	100%	100%	15.5	85	0.0	19.8	0.7	240	ND<10	2.1	7.4	2.0	17		
03/02/11	100%	100%	18.0	50	0.0	20.9	0.4	160	ND<4.5	2.1	7.9	0.68	8.6		
04/07/11	100%	100%	17.0	50	0.0	20.9	0.3	49	ND<1.0	0.96	3.3	1.0	6.5		
05/04/11	100%	100%	10.0	0	0.0	20.9	0.1	8.3	ND<0.68	0.081	0.36	0.16	0.80		
06/20/11	100%	100%	10.0	0	0.0	0.0	14.9	2.5	ND<7.0	ND<0.68	ND<0.077	0.12	ND<0.057	ND<0.057	

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data						
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)	
MW-7S	08/10/07	1			21	-	-	-	-	19,000	ND<450	620	590	27	100	
	09/28/07		100%	100%	20	11,000	19	20.0	0.5	13,000	ND<150	350	630	69	370	
	10/17/07		100%	100%	21	0	0.0	20.9	0.0	390	ND<14	27	60	60	51	
	11/16/07		100%	50%	21	10,000	8.0	20.5	0.4	7,700	ND<45	170	390	47	280	
	12/26/07		50%	100%	18	5,500	3.0	20.4	0.5	4,700	ND<45	100	220	27	190	
	01/22/08		100%	100%	18	2,050	1.0	18.2	0.4	3,900	ND<14	69	200	20	210	
	02/07/08		-	-		21.5	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	390	xx	20.2	0.3	2,000	ND<5.0	25	81	11	78	
	04/30/08		100%	OFF	18	600	1.0	19.0	1.2	4,100	ND<14	66	150	15	150	
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-	
	06/26/08		OFF	100%	23	5,200	1.5	15.8	2.7	4,800	ND<30	56	71	4.0	110	
	07/30/08		7	100%	100%	17	2,750	0.5	18.3	1.7	-	-	-	-	-	-
	09/30/08			100%	100%	16.5	4,200	1.0	12.6	5.9	2,800	ND<30	57	72	4.2	110
	11/04/08			100%	100%	13	9,100	1.5	7.5	3.5	4,100	ND<14	53	87	4.3	130
	12/02/08			100%	100%	10	4,350	0.5	19.5	1.1	3,900	ND<27	44	89	4.1	110
	01/06/09			100%	100%	11	3,150	0.5	15.4	2.3	2,000	ND<4.5	19	43	3.0	77
	02/09/09	100%		100%	12	1,050	0.0	13.4	2.5	1,100	ND<10	19	21	1.8	34	
	03/18/09	100%		100%	10	440	0.0	15.3	2.7	690	ND<14	28	22	1.9	17	
	04/21/09	100%		100%	11	30	0.0	20.4	1.3	53	4.5	2.7	2.2	0.28	3.0	
	05/19/09	100%		100%	11.5	490	0.0	9.2	5.2	890	ND<14	29	33	1.8	20	
	08/31/09	100%		100%	12	1,450	0.0	9.3	8.2	1,900	ND<30	52	37	3.0	64	
	09/10/09	100%		100%	15	3,800	0.0	10.6	4.2	3,100	ND<20	68	71	3.8	130	
	09/17/09	100%		100%	14	7,000	2.0	18.8	1.8	5,200	ND<35	120	140	9.0	200	
	09/25/09	100%		100%	13	7,600	2.0	18.8	1.6	5,500	ND<25	89	130	8.0	150	
	10/02/09	100%		100%	14	8,050	2.0	18.8	1.6	5,300	ND<35	100	160	11	210	
	10/20/09	100%		100%	13	5,450	1.5	18.8	1.7	3,800	ND<40	63	110	6.9	120	
	11/03/09	100%	100%	14	3,900	1.0	19.0	1.5	3,800	ND<20	42	87	6.3	140		
	12/11/09	100%	100%	13	1,250	0.0	9.5	7.0	1,300	ND<5.0	20	50	11	63		
	04/20/10	100%	100%	13	220	0.0	8.2	6.3	540	ND<25	36	21	5.3	31		
	04/28/10	100%	100%	15	220	0.0	19.0	1.7	720	ND<25	15	20	1.3	18		
	05/05/10	100%	100%	18	440	0.0	19.3	1.5	1,000	ND<35	21	28	1.3	16		
	05/11/10	100%	100%	12	740	0.0	18.2	2.2	1,800	ND<14	25	42	2.7	29		
	08/23/10	100%	100%	17	300	0.0	12.6	3.5	820	ND<2.7	26	18	2.2	15		
	09/01/10	100%	100%	14	85	0.0	20.5	0.4	450	ND<2.0	4.8	6.9	0.33	5.2		
	09/07/10	100%	100%	11.5	880	0.0	18.2	2.3	-	-	-	-	-	-		
	09/07/10	100%	100%	11	950	0.5	18	2.4	-	-	-	-	-	-		
	11/03/10	100%	100%	15	790	0.5	18.1	2.3	1,400	ND<6.8	18	31	1.5	24		
	11/08/10	100%	100%	14	1,150	0.0	18.7	1.9	2,100	ND<10	19	29	1.6	29		
	11/08/10	100%	100%	14	1,150	0.0	18.7	1.8	2,000	ND<15	17	28	1.4	29		
	11/09/10	100%	100%	14	1,500	0.0	18.5	1.8	2,100	ND<10	21	32	1.5	30		
	11/09/10	100%	100%	14	>11,000	13.5	15.4	2.4	4,700	ND<120	46	44	2.0	34		
11/16/10	100%	100%	14	2,200	0.5	18.8	1.5	2,800	ND<10	28	48	5.5	96			
11/23/10	100%	100%	15	9,250	2.5	17.6	1.8	3,500	ND<30	38	48	2.4	47			
12/10/10	100%	100%	16	>11,000	7.5	9.4	5.1	2,700	ND<25	42	46	3.3	44			
01/21/11	100%	100%	17	>11,000	7.0	16.1	2.7	5,800	ND<75	92	120	9.7	56			
02/04/11	100%	100%	15.5	390	0.0	20.6	0.4	1,100	ND<30	13	29	3.9	75			
02/04/11	16	100%	100%	15.5	2,400	0.0	17.1	1.0	3,300	ND<15	25	46	3.1	77		
03/02/11		100%	100%	18	150	0.0	20.8	0.4	390	ND<10	5.2	10	0.64	8.6		
04/07/11		100%	100%	17	120	0.0	18.4	0.2	120	ND<2.0	4.2	3.9	0.74	5.3		
05/04/11		100%	100%	10	0	0.0	20.9	0.1	12	ND<0.68	0.29	0.26	0.061	0.53		
06/20/11		100%	100%	10	15	0.0	14.7	2.6	12	ND<0.68	ND<0.077	0.23	ND<0.057	0.22		

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data						
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)	
MW-10S	11/21/07		100%	100%	19	>44,000	43.0	17.0	2.2	28,000	ND<68	300	800	63	230	
	12/26/07		100%	100%	18	3,900	2.5	19.4	0.5	6,300	ND<14	55	350	64	300	
	01/22/08		100%	100%	16.5	1,850	0.5	16.1	0.5	4,700	ND<14	38	230	49	310	
	02/07/08		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	270	xx	19.0	0.9	2,100	ND<14	13	73	31	190	
	04/30/08		100%	100%	18	310	0.5	19.6	0.9	2,500	ND<14	11	76	33	230	
	05/29/08		100%	100%	18	1,750	0.0	19.6	0.8	1,800	ND<6.8	13	47	17	120	
	06/26/08		100%	100%	23	370	0.0	20.7	0.1	780	ND<1.4	4.1	15	4.9	38	
	07/30/08	7	100%	100%	17	1,050	0.0	20.3	0.8	1,600	ND<14	16	50	9.5	95	
	09/30/08		100%	OFF	16.5	640	0.0	20.9	0.4	690	ND<4.0	10	29	5.1	53	
	11/04/08		OFF	100%	13	1,900	0.5	13.0	2.5	2,300	ND<14	36	89	8.1	120	
	12/02/08		100%	100%	10	1,550	0.0	20.3	0.6	1,500	ND<14	26	73	8.4	71	
	01/06/09		100%	100%	11	1,150	0.0	18.2	1.2	2,200	ND<15	31	64	6.7	64	
	02/09/09		100%	100%	12	310	0.0	17.8	0.7	400	ND<2.7	5.6	12	1.1	21	
	03/18/09		100%	100%	10	130	0.0	18.7	0.7	220	ND<10	8.9	7.7	1.4	10	
	04/21/09		100%	100%	11	110	0.0	16.9	1.0	240	ND<5.0	4.4	5.7	0.98	9.6	
	05/19/09		100%	100%	11.5	75	0.0	12.2	2.3	370	ND<5.0	4.9	7.7	1.2	13	
	08/31/09		100%	100%	12	650	-	8.3	0.0	1,700	ND<10	18	22	4.4	67	
	09/10/09		100%	100%	15	730	0.0	15.9	2.6	1,600	ND<10	29	63	5.3	75	
	09/17/09		100%	100%	14	1,300	0.0	19.4	1.5	1,900	ND<15	40	82	7.2	85	
	09/25/09		100%	100%	13	450	0.0	19.7	1.2	2,400	ND<10	37	81	8.1	72	
	10/02/09		100%	100%	14	2,150	0.0	19.6	1.1	1,700	ND<20	38	79	6.6	76	
	10/20/09		100%	100%	13	2,000	0.5	19.4	1.3	2,200	ND<20	47	97	7.2	65	
	11/03/09		100%	100%	14	1,400	0.0	19.3	1.3	2,300	ND<10	39	85	6.5	72	
	12/11/09		100%	100%	13	1,250	0.0	7.1	4.2	1,500	ND<14	24	40	3.0	37	
	04/20/10		100%	100%	13	50	0.0	15.4	0.9	140	ND<5.0	23	4.6	2.0	11	
	04/28/10		100%	100%	15	110	0.0	18.6	1.5	310	ND<3.0	4.5	6.1	0.55	7.5	
05/05/10		100%	100%	18	120	0.0	19.6	0.9	-	-	-	-	-	-		
05/11/10		100%	100%	12	25	0.0	19.4	1.0	190	ND<0.68	3.0	5.6	0.66	7.3		
08/23/10		100%	100%	17	85	0.0	6.8	3.1	430	ND<6.8	3.6	8.4	1.1	8.0		
09/01/10		100%	100%	14	35	0.0	20.3	0.4	270	ND<0.68	2.5	5.6	0.34	5.2		
09/07/10		100%	100%	11.5	180	0.0	18	1.9	-	-	-	-	-	-		
09/07/10		100%	100%	11.5	510	0.0	18.4	1.6	-	-	-	-	-	-		

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
MW-11S	11/21/07		100%	50%	19	36,600	26.5	19.2	2.2	20,000	ND<68	240	640	63	240
	12/26/07		50%	100%	18	1,350	0.5	20.9	0.2	3,400	ND<75	50	220	50	230
	01/22/08		100%	100%	16.5	1,000	0.0	19.3	0.2	3,000	ND<30	81	190	39	230
	02/07/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	130	xx	20.0	0.3	1,700	ND<14	26	66	26	150
	04/30/08		100%	100%	18	120	0.0	20.9	0.2	600	ND<5.0	6.7	23	5.9	49
	05/29/08		100%	100%	18	950	0.0	20.9	0.3	1,800	ND<30	24	47	18	120
	06/26/08		100%	100%	23	480	0.0	20.9	0.1	940	ND<15	12	28	8.4	57
	07/30/08	7	100%	100%	17	980	0.0	20.9	0.3	1,600	ND<30	22	50	13	100
	09/30/08		100%	OFF	16.5	510	0.0	20.9	0.2	490	ND<10	11	22	3.8	40
	11/04/08		OFF	100%	13	360	0.0	16.5	1.4	820	ND<20	22	21	5.2	57
	12/02/08		100%	100%	10	320	0.0	20.9	0.2	1,400	ND<35	23	57	6.3	73
	01/06/09		100%	100%	11	790	0.0	18.9	0.6	1,200	ND<20	29	53	5.7	56
	02/09/09		100%	100%	12	380	0.0	17.6	0.8	500	ND<6.0	14	18	2.3	28
	03/18/09		100%	100%	10	280	0.0	17.3	1.2	400	ND<3.0	48	18	3.4	20
	04/21/09		100%	100%	11	210	0.0	16.9	1.2	460	ND<20	32	20	3.3	31
	05/19/09		100%	100%	11.5	200	0.0	15.5	1.5	80	ND<3.0	5.1	3.2	0.58	6.7
	08/31/09		100%	100%	12	360	-	9.1	3.5	1,000	ND<20	36	17	3.7	63
	09/10/09		100%	100%	15	420	0.0	17.7	1.5	870	ND<30	38	32	5.7	68
	09/17/09		100%	100%	14	490	0.0	20.6	0.7	890	ND<25	27	39	4.1	63
	09/25/09		100%	100%	13	510	0.0	20.6	0.5	840	ND<30	19	31	2.6	33
	10/02/09		100%	100%	14	820	0.0	20.6	0.5	880	ND<15	22	40	3.9	55
	10/20/09		100%	100%	13	750	0.0	20.4	0.6	800	ND<15	20	32	3.4	39
11/03/09		100%	100%	14	400	0.0	20.7	0.4	820	ND<10	16	30	2.6	42	
12/11/09		100%	100%	13	350	0.0	13.0	2.5	660	ND<6.8	19	19	2.2	28	
04/20/10		100%	100%	13	140	0.0	9.0	2.4	440	16	77	12	4.7	30	
04/28/10		100%	OFF	15	80	0.0	20.8	0.5	150	15	15	4.9	1.6	9.4	
05/05/10		OFF	OFF	18	-	-	-	-	-	-	-	-	-	-	
05/11/10		OFF	OFF	12	-	-	-	-	-	-	-	-	-	-	
08/23/10		OFF	OFF	17	-	-	-	-	-	-	-	-	-	-	
09/01/10		OFF	OFF	11.5	-	-	-	-	-	-	-	-	-	-	



**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
MW-12S	11/21/07		50%	50%	19	110	0.0	20.9	0.7	1,400	ND<100	87	51	10	40
	12/26/07		50%	50%	18	720	0.0	20.9	0.1	1,200	ND<45	27	100	13	74
	01/22/08		100%	100%	16.5	630	0.0	19.3	0.2	1,100	ND<45	14	50	8.4	65
	02/07/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	0	xx	20.9	0.0	460	ND<30	42	32	4.2	36
	04/30/08		100%	100%	18	65	0.0	20.9	0.2	390	5	8.8	17	3.9	30
	05/29/08		100%	100%	18	150	0.0	20.9	0.3	490	ND<10	14	23	4.4	30
	06/26/08		100%	100%	23	140	0.0	20.9	0.1	300	4.1	5.1	14	2.6	22
	07/30/08	7	100%	100%	17	240	0.0	20.9	0.3	450	ND<5.0	4.5	20	3.8	32
	09/30/08		100%	OFF	16.5	190	0.0	20.9	0.2	230	ND<5.0	3.9	12	2.2	28
	11/04/08		OFF	100%	13	140	0.0	18	0.8	260	ND<5.0	6.5	7.4	1.2	14
	12/02/08		100%	100%	10	150	0.0	20.5	0.6	660	ND<5.0	7.3	29	4.5	66
	01/06/09		100%	100%	11	380	0.0	20.3	0.4	490	ND<6.8	9.1	18	2.2	37
	02/09/09		100%	100%	12	70	0.0	20.1	0.3	110	ND<5.0	4.2	4.0	0.58	8.1
	03/18/09		100%	100%	10	25	0.0	20.9	0.2	98	ND<5.0	7.6	4.2	0.53	2.5
	04/21/09		100%	100%	11	30	0.0	20.6	0.5	40	3.4	6.5	2.1	0.41	2.0
	05/19/09		100%	100%	11.5	20	0.0	19.2	0.7	52	ND<3.0	4.7	1.8	0.47	3.5
	08/31/09		100%	OFF	12	20	-	16.0	1.4	130	ND<3.0	3.9	3.0	0.67	8.0
	09/10/09		OFF	OFF	15	-	-	-	-	-	-	-	-	-	-
	09/17/09		OFF	OFF	14	20	-	20.8	0.4	24	ND<2.0	1.7	1.8	0.18	1.9
	09/25/09		OFF	OFF	13	-	-	-	-	-	-	-	-	-	-
	10/02/09		OFF	OFF	14	-	-	-	-	-	-	-	-	-	-
	10/20/09		OFF	OFF	12	20	0.0	20.9	0.2	120	ND<1.4	4.2	7.9	0.70	8.6
	11/03/09		OFF	OFF	-	-	-	-	-	-	-	-	-	-	-
	12/11/09		OFF	OFF	13	35	0.0	17.8	0.6	60	ND<1.0	2.6	4.4	0.45	5.6
	04/20/10		OFF	100%	13	0	0.0	16.2	0.8	46	2.9	5.0	1.1	0.62	3.7
	04/28/10		100%	OFF	15	15	0.0	20.8	0.5	31	5.5	3.5	0.54	0.44	1.6
05/05/10		OFF	OFF	18	-	-	-	-	-	-	-	-	-	-	
05/11/10		OFF	OFF	12	-	-	-	-	-	-	-	-	-	-	
08/23/10		OFF	OFF	17	-	-	-	-	-	-	-	-	-	-	
09/01/10		OFF	OFF	11.5	-	-	-	-	-	-	-	-	-	-	

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
AS	10/17/07	7	100%	100%	-	0	0.0	20.9	0.0	130	ND<1.4	4.3	11	1.4	12
	11/08/07		100%	100%	-	0	0.0	20.9	0.0	19	ND<0.68	0.60	1.8	0.18	3.2
	01/15/08		100%	100%	-	-	-	-	-	1,100	19	31	100	17	180
	01/31/08		100%	100%	-	-	-	-	-	69	ND<4.5	1.7	5.0	0.81	11
	02/07/08		100%	100%	-	0	0.0	20.9	0.0	31	1.4	0.47	1.5	0.21	4.1
	03/18/08		100%	100%	-	-	-	-	-	31	0.71	0.60	1.8	0.34	3.2
	04/30/08		100%	100%	-	10	0.0	20.9	0.0	37	ND<0.68	0.36	1.4	0.34	4.1
	05/29/08		100%	100%	-	60	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	0.16
	06/26/08		100%	100%	-	10	0.0	20.9	0.0	44	0.97	0.89	2.5	0.54	6.3
	07/30/08		100%	100%	-	0	0.0	20.9	0.0	41	ND<1.4	0.81	2.2	0.20	4.2
	09/30/08		100%	100%	-	0	0.0	20.9	0.0	-	-	-	-	-	-
	11/04/08		100%	100%	-	0	0.0	20.9	0.1	21	ND<0.68	0.38	0.91	0.13	2.6
	12/02/09		100%	100%	-	0	0.0	20.9	0.1	10	ND<0.68	ND<0.077	0.22	ND<0.057	0.79
	01/06/09		100%	100%	-	0	0.0	20.9	0.1	150	ND<1.5	1.9	6.9	1.1	22
	02/09/09		100%	100%	-	15	0.0	20.9	0.0	18	ND<0.68	0.28	0.57	0.078	1.5
	03/18/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	0.085	ND<0.057	0.15
	04/21/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	05/19/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	08/31/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	0.096	ND<0.057	0.24
	09/10/09		100%	100%	-	0	0.0	20.9	0.0	-	-	-	-	-	-
	09/17/09		100%	100%	-	0	0.0	20.9	0.0	-	-	-	-	-	-
	09/25/09		100%	100%	-	0	0.0	20.9	0.0	-	-	-	-	-	-
	10/02/09		100%	100%	-	0	0.0	20.9	0.0	7.3	ND<1.0	0.27	0.57	ND<0.057	0.93
	10/20/09		100%	100%	-	-	-	-	-	-	-	-	-	-	-
	11/03/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	12/11/09		100%	100%	-	-	-	-	-	-	-	-	-	-	-
	04/20/10		100%	100%	-	0	0.0	20.9	0.0	11	0.91	0.69	1.2	0.18	1.1
	08/23/10		100%	100%	-	-	-	-	-	-	-	-	-	-	-
	09/01/10		100%	100%	-	5	0.0	20.9	0.0	ND<7.0	ND<0.68	0.096	0.26	ND<0.057	0.51
	11/23/10		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	0.093	0.20	ND<0.057	0.37
	01/21/11		100%	100%	-	10	0.0	20.9	0.0	11	ND<0.68	0.41	0.69	0.12	0.90
	02/18/11		100%	100%	-	0	0.0	20.9	0.0	9.5	ND<0.68	0.11	0.66	0.083	1.6
03/18/11	100%	100%	-	0	0.0	20.9	0.0	11	ND<0.68	0.13	0.51	0.092	2.1		
04/22/11	100%	100%	-	-	-	-	-	14	ND<0.68	0.092	0.43	0.13	1.7		
05/20/11	100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057		
<b>06/20/11</b>						<b>0</b>	<b>0.0</b>	<b>20.9</b>	<b>0.0</b>	<b>ND&lt;7.0</b>	<b>ND&lt;0.68</b>	<b>ND&lt;0.077</b>	<b>ND&lt;0.065</b>	<b>ND&lt;0.057</b>	<b>ND&lt;0.057</b>

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
INF	06/28/07		-	-	18.5	-	-	-	-	-	-	-	-	-	-
	07/11/07		-	-	21.5	10,750	-	-	-	6,600	ND<90	180	340	39	190
	07/27/07		-	-	20	>11,000	-	-	-	11,000	ND<75	170	330	38	160
	08/01/07		-	-	19	6,000	9.1	18.5	1.1	5,500	ND<70	140	250	16	71
	08/10/07		-	-	21	-	-	-	-	7,700	ND<90	210	410	41	190
	09/28/07	1	-	-	20	5,700	3.5	20.7	0.3	4,000	ND<50	90	170	9.3	42
	10/17/07		-	-	21	9,050	-	-	-	5,100	ND<60	130	210	8.6	51
	11/08/07		-	-	21	0	0.0	20.9	0.0	4,000	ND<0.68	0.35	2.2	0.68	6.6
	11/16/07		-	-	21	3,050	2.0	20.7	0.4	3,700	ND<120	63	170	20	120
	11/16/07		-	-	21	6,100	4.5	20.3	0.7	6,000	ND<27	100	250	27	170
	11/21/07		-	-	19	12,000	13.5	19.4	1.2	2,500	ND<14	39	120	16	79
	12/04/07		-	-	20	10,500	9.5	18.8	0.9	7,900	ND<32	120	340	48	280
	12/26/07		-	-	18	3,650	2.0	20.9	0.5	4,100	ND<27	72	250	42	270
	01/08/08	3	-	-	18	-	-	-	-	-	-	-	-	-	-
	01/15/08		-	-	19	710	0.0	20.0	0.3	1,900	ND<14	29	89	16	100
	01/22/08		-	-	18	800	0.0	17.8	0.5	1,900	ND<14	34	100	13	100
	01/31/08		-	-	21	1,250	0.5	20.9	0.5	2,200	ND<14	36	120	19	160
	02/07/08		-	-	21.5	700	0.0	20.9	0.4	2,000	ND<35	34	110	10	130
	03/18/08		-	-	14.5	160	xx	15.3	0.9	630	ND<3.0	7.0	25	5.6	38
	04/30/08		-	-	18	280	0.5	20.2	0.0	2,100	ND<5.0	20	63	16	120
	05/29/08		-	-	19.5	1,500	0.0	19.6	0.8	2,100	ND<10	21	45	18	120
	06/26/08		-	-	23	280	0.5	20.2	0.0	860	ND<5.0	11	27	6.5	50
	07/30/08	7	-	-	17	1,350	0.0	19.3	1.1	2,200	ND<6.8	24	62	10	90
	09/30/08		-	-	16.5	1,650	0.5	16.1	1.8	1,100	ND<10	20	42	8.2	78
	11/04/08		-	-	13	2,500	0.5	16.1	1.8	2,700	ND<10	31	77	9.3	130
	12/02/08		-	-	10	1,100	0.0	20.5	0.6	2,200	ND<5.0	27	80	8.7	130

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Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
INF Cont.	01/06/09		-	-	11	1,300	0.0	18.4	1.2	1,200	ND<80	21	58	5.7	78
	02/09/09		-	-	12	880	0.0	15.6	1.5	1,200	ND<10	17	31	3.1	46
	03/18/09		-	-	10	60	0.0	20.8	0.4	130	ND<0.68	5.2	11	1.2	7.1
	04/21/09		-	-	11	35	0.0	19.9	0.3	58	ND<1.4	1.9	3.5	0.44	3.7
	05/19/09		-	-	11.5	100	0.0	19.2	0.8	190	ND<2.7	3.4	7.3	0.95	8.0
	08/31/09		-	-	12	400	-	13.8	26	870	ND<4.5	11	21	3.0	29
	09/10/09		-	-	15	1,650	0.5	15.9	2.5	1,700	ND<20	34	62	5.8	110
	09/17/09	8	-	-	14	1,950	0.5	19.4	1.4	2,600	ND<20	52	100	7.5	140
	09/17/09	9	-	-	7	520	0.0	20.3	0.5	-	-	-	-	-	-
	09/25/09		-	-	13	2,450	0.5	19.6	1.2	2,700	ND<6.8	36	80	6.6	91
	10/02/09		-	-	14	2,200	0.0	19.6	1.1	2,400	ND<20	43	85	8.3	110
	10/20/09	10	-	-	13	2,200	0.5	19.6	1.2	2,500	ND<20	38	80	6.7	110
	10/20/09	11	-	-	12	930	0.0	20.9	0.3	590	ND<5.0	7.7	19	2.0	30
	11/03/09		-	-	14	1,450	0.5	20.9	1.0	2,000	ND<10	27	58	4.5	71
	12/11/09	12	-	-	13	380	0.0	14.7	2.2	690	ND<2.7	10	20	2.0	25
	12/11/09	13	-	-	13	1,050	0.0	18.9	1.5	-	-	-	-	-	-
	12/16/09	14	-	-	13	1,200	0.0	20.1	1.2	1,200	ND<14	35	72	5.1	52
	04/20/10		-	-	13	140	0.0	16.5	1.4	240	ND<5.0	17	21	3.3	17
	04/28/10		-	-	15	65	0.0	20.9	0.5	120	ND<5.0	5.1	7.0	0.90	5.9
	04/29/10		-	-	20	150	0.0	19.3	1.3	300	ND<14	9.1	20	3.0	18
	05/05/10		-	-	18	210	0.0	19.7	1.2	340	ND<10	6.5	15	1.3	12
	05/11/10		-	-	12	60	0.0	20.9	0.5	160	ND<1.4	2.1	6.2	0.64	5.0
	08/23/10		-	-	17	150	0.0	16.8	1.7	220	ND<2.7	4.8	19	2.1	12
	09/01/10		-	-	14	35	0.0	20.9	0.1	110	ND<0.68	1.2	3.4	0.59	4.4
	09/07/10		-	-	11.5	50	0.0	20.7	0.5	-	-	-	-	-	-
	09/07/10		-	-	11.5	2,850	1.0	19.4	0.7	-	-	-	-	-	-
	09/07/10	15	-	-	11.5	3,300	1.0	19.4	0.7	1,600	ND<15	11	14	1.0	8.4
	11/03/10		-	-	15.0	20	0.0	20.7	0.6	250	ND<2.7	3.0	9.1	0.92	9.0
	11/08/10		-	-	14.0	150	0.0	20.9	0.7	350	ND<2.7	4.1	11	1.0	11
	11/08/10		-	-	14.0	900	0.0	20.6	0.6	830	ND<10	7.7	14	1.1	12
	11/09/10		-	-	14.0	250	0.0	20.7	0.6	330	ND<2.0	4.0	9.8	0.82	10
	11/09/10		-	-	14.0	2,900	3.5	19.8	0.5	700	ND<15	6.2	11	0.94	11
	11/16/10		-	-	14.0	210	0.0	20.8	0.4	460	ND<1.4	5.4	13	1.5	19
	11/23/10		-	-	15.0	670	0.0	20.2	0.6	630	ND<5.0	7.3	15	1.2	16
	12/10/10		-	-	18.0	260	0.0	18.1	2.3	350	ND<2.7	4.7	10	1.1	12
	12/30/10		-	-	15.0	100	0.0	18.9	0.5	64	<0.68	2.1	2.6	0.34	2.0
	01/21/11		-	-	17.0	1,850	4.5	18.3	0.8	1,100	ND<15	13	20	2.3	13
	01/31/11		-	-	15.5	220	0.0	20.9	0.4	460	ND<2.7	4.5	12	1.5	30
	02/04/11		-	-	15.5	110	0.0	20.8	0.4	350	ND<2.0	3.9	10	0.89	19
	02/04/11	16	-	-	15.5	260	0.0	20.0	0.4	600	ND<30	5.3	12	0.94	18
02/18/11		-	-	18.0	1,000	0.5	18.9	1.0	1,700	ND<4.5	21	97	9.6	100	
03/02/11		-	-	18.0	420	0.0	19.2	1.0	1,200	ND<25	12	34	2.5	30	
03/11/11		-	-	18.0	490	0.0	20.1	0.8	930	ND<6.8	12	43	4.4	49	
03/18/11		-	-	18.0	260	0.0	17.4	0.7	360	ND<5.0	3.4	15	3.1	29	
04/07/11		-	-	17.0	200	0.0	19.2	0.6	250	ND<2.8	8.3	11	1.1	7.0	
04/22/11		-	-	22.0	240	0.0	19.6	0.6	500	ND<5.0	5.0	18	2.3	23	
04/22/11		-	-	22.0	45	0.0	20.9	0.0	91	ND<5.0	0.80	3.1	0.48	5.7	
05/04/11		-	-	10.0	45	0.0	20.9	0.1	23	ND<0.68	0.20	0.53	0.080	0.97	
05/20/11		-	-	10.0	0	0.0	18.2	0.2	ND<7.0	ND<0.68	ND<0.077	0.16	ND<0.057	ND<0.057	
06/20/11		-	-	10.0	10.0	25	0.0	15.3	2.4	ND<7.0	ND<0.68	ND<0.077	0.097	ND<0.057	ND<0.057

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
POSTD	06/28/07		-	-	-	10,000	6.5	18.2	1.4	3,800	ND<60	120	160	22	110
	07/11/07		-	-	-	3,550	-	-	-	1,400	ND<14	36	82	12	67
	07/27/07		-	-	-	4,550	-	-	-	3,400	ND<14	56	120	15	70
	08/01/07		-	-	-	5,200	-	-	-	2,500	ND<27	59	140	17	95
	08/10/07		-	-	-	4,800	2.0	19.9	0.5	5,300	ND<45	130	290	37	180
	09/28/07		-	-	-	6,750	4.0	20.7	0.3	4,800	ND<60	100	210	23	120
	10/17/07		-	-	-	4,500	2.5	20.9	0.0	1,800	ND<14	41	110	14	100
	11/08/07		-	-	-	1,300	1.0	20.9	0.4	2,000	ND<15	42	100	12	88
	11/16/07		-	-	-	4,150	2.0	20.5	0.4	3,600	ND<14	58	190	25	180
	11/21/07		-	-	-	8,600	7.5	20.5	0.8	5,500	ND<25	75	210	28	130
	12/04/07		-	-	-	6,500	5.0	19.8	0.6	3,400	ND<16	44	120	22	120
	12/26/07		-	-	-	2,000	1.0	20.9	0.3	1,300	ND<45	26	96	15	100
	01/08/08		-	-	-	1,200	0.5	20.9	0.3	1,700	ND<14	23	79	13	83
	01/15/08		-	-	-	45	0.0	20.7	0.0	620	ND<14	11	39	6.6	44
	01/22/08		-	-	-	280	0.0	20.2	0.0	1,100	ND<14	14	50	8.4	65
	01/31/08		-	-	-	470	0.0	20.9	0.1	770	ND<14	12	38	6.9	62
	02/07/08		-	-	-	120	0.0	20.9	0.0	690	ND<6.8	10	37	6.6	58
	03/18/08		-	-	-	75	xx	20.2	0.4	310	ND<3.5	3.9	12	3.0	20
	04/30/08		-	-	-	55	0.0	20.9	0.2	700	ND<2.0	7.6	23	5.0	42
	05/29/08		-	-	-	630	0.0	20.7	0.2	500	ND<3.5	5.4	12	4.1	29
	06/26/08		-	-	-	55	0.0	20.9	0.2	620	ND<10	7.8	25	5.4	45
	07/30/08	6,7	-	-	-	-	-	-	-	-	-	-	-	-	-
	09/30/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	11/04/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	12/02/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	01/06/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	02/09/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	03/18/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	04/21/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	05/19/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	08/31/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	09/10/09		-	-	-	-	-	-	-	-	-	-	-	-	-
09/17/09		-	-	-	-	-	-	-	-	-	-	-	-	-	
09/25/09		-	-	-	-	-	-	-	-	-	-	-	-	-	
10/02/09		-	-	-	-	-	-	-	-	-	-	-	-	-	
10/20/09		-	-	-	-	-	-	-	-	-	-	-	-	-	
11/03/09		-	-	-	-	-	-	-	-	-	-	-	-	-	
12/11/09		-	-	-	-	-	-	-	-	-	-	-	-	-	

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)
EFF	06/28/07		-	-	-	0	0.0	12.3	5.4	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	07/27/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	08/10/07		-	-	-	-	-	-	-	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	09/28/07		-	-	-	0	0.0	14.0	4.5	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	10/17/07		-	-	-	-	-	-	-	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	11/08/07		-	-	-	-	-	-	-	21	ND<0.68	0.24	1.5	0.29	2.4
	11/16/07		-	-	-	0	0.0	14.8	4.8	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	12/26/07		-	-	-	-	-	-	-	-	-	-	-	-	-
	01/18/08		-	-	-	-	-	-	-	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	02/07/08		-	-	-	0	0.0	19.0	1.7	-	-	-	-	-	-
	03/18/08		-	-	-	0	xx	18.0	1.9	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	04/30/08		-	-	-	0	0.0	17.7	2.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	05/29/08		-	-	-	0	0.0	17.7	2.5	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	06/26/08		-	-	-	0	0.0	17.9	1.9	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	07/30/08	7	-	-	-	0	0.0	17.0	1.8	27	ND<0.68	0.09	0.64	0.16	2.1
	09/30/08		-	-	-	0	0.0	16.1	2.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	11/04/08		-	-	-	0	0.0	15.7	2.9	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	12/02/08		-	-	-	0	0.0	17.7	2.3	52	ND<0.68	0.19	1.5	0.34	4.4
	01/06/09		-	-	-	0	0.0	17.7	2.3	26	ND<0.68	ND<0.077	0.52	0.11	1.9
	02/09/09		-	-	-	0	0.0	16.1	2.6	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	03/18/09		-	-	-	0	0.0	18.3	2.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	04/21/09		-	-	-	0	0.0	18.3	2.2	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	05/19/09		-	-	-	0	0.0	17.9	2.2	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	08/31/09		-	-	-	0	0.0	16.0	3.0	ND<7.0	ND<0.68	ND<0.077	0.069	ND<0.057	0.35
	09/10/09		-	-	-	0	0.0	18.1	2.0	-	-	-	-	-	-
	10/02/09		-	-	-	0	0.0	17.6	2.5	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	10/20/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	11/03/09		-	-	-	0	0.0	17.7	2.4	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	12/11/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	04/20/10		-	-	-	20	0.0	17.3	3.1	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	08/23/10		-	-	-	0	0.0	18.2	2.1	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	11/23/10		-	-	-	0	0.0	19.2	1.0	ND<7.0	ND<0.68	ND<0.077	0.080	ND<0.057	ND<0.057
	12/30/10		-	-	-	0	0.0	20.0	0.6	ND<7.0	ND<0.68	0.22	ND<0.065	ND<0.057	ND<0.057
	01/31/11		-	-	-	35	0.0	18.8	1.7	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	02/18/11	17	-	-	-	150	0.0	18.3	1.7	94	ND<0.68	1.1	4.8	0.72	8.7
	03/11/11		-	-	-	-	-	-	-	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	0.22
	03/18/11		-	-	-	0	0.0	19.2	0.6	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	04/22/11		-	-	-	0	0.0	18.3	2.4	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	05/20/11		-	-	-	0	0.0	18.6	1.4	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	06/20/11		-	-	-	0	0.0	nm	nm	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057

**TABLE 5: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	Field Screening Data				Vapor Analytical Data					
						TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylenes (ppmv)

**NOTES:**

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

in-Hg = inches of mercury

ppmv = parts per million by volume

% = percent concentration by volume

PRED = pre-dilution sample port at combined inlet

POSTD = post-dilution sample part at thermal/catalytic oxidizer inlet

- not sampled/analyzed

TPH-g by EPA Method 8015C

BTEX & MTBE by EPA Method 8021B

xx = methane sensor damaged; pending replacement

TVH = total volatile hydrocarbons (calibrated w/ hexane)

CH<sub>4</sub> = methane by infrared detection (0 to 100% by volume)

O<sub>2</sub> = oxygen by electrochemical detection (0-40% by volume)

CO<sub>2</sub> = carbon dioxide by infrared detection (0 to 20% by volume)

TVH, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> measured w/ RKI Eagle gas detector

- 1) Individual well water separator trap used for the 1st time.
- 2) Vacuum leak detected at wellhead due to broken wellhead seal; well turned off.
- 3) Pump failed, not strong enough to collect sample from PRED @ 18 in-Hg.
- 4) Opened 100% for field screening, turned OFF after screening, no lab sample collected.
- 5) Opened 100% for field screening, no lab sample collected.
- 6) Discontinued POSTD process sampling port starting in the 3rd Quarter, 2008 because it no longer provides any additional useful information.
- 7) HVDPE system shutdown most of the month of August for quarterly soil gas monitoring and pending repair of the rotary phase converter.
- 8) Field screened and sampled with MW-1S, MW-6S, and MW-12S OFF.
- 9) Field screened and sampled with MW-1S, MW-6S, and MW-12S ON; note the significant loss of applied vacuum and decrease in the concentration of hydrocarbons.
- 10) Field screened and sampled with MW-1S, MW-6S, and MW-12S OFF.
- 11) Field screened and sampled with MW-1S, MW-6S, and MW-12S ON; note the slight loss of applied vacuum (~1 in-Hg) and decrease in the concentration of hydrocarbons.
- 12) Field screened and sampled with MW-1S, MW-6S, and MW-12S ON.
- 13) Field screened and sampled with MW-1S, MW-6S, and MW-12S OFF; note the significant increase in the concentration of hydrocarbons.
- 14) The 1-Liter Tedlar® bag was damaged during transportation to the laboratory on 12/11/09; therefore, the samples was recollected on 12/16/09.
- 15) Influent vapor sample collected after sparging into AS-1 for 2 to 3-hours.
- 16) Sample collected approximately 1-hour after shutting down AS-1 and AS-3 and turning on AS-2 and AS-4.
- 17) Anomalous field reading and analytical data possibly due to cross contamination. All subsequent sampling events have been in compliance.

**TABLE 6: HVDPE PERFORMANCE & MASS REMOVAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Date	Notes	Possible Runtime (days)	Possible Runtime (hrs)	Hour Meter Reading	Actual Runtime (days)	Actual Runtime (hrs)	System Runtime (%)	Inlet Temp (°F)	Inlet Vac (in-Hg)	Well Velocity (fpm)	Well Flow (scfm)	Influent TPH-g (ppmv)	Mass Removal Rate (lbs/day)	Total Mass Removed (pounds)	Total Mass Removed (gallons)
06/28/07	1 Startup	-	-	10	-	-	-	60	18	850	42	-	0	0	0
07/11/07		13	312	53	2	43	14%	60	22	1,725	85	6,600	224	402	67
07/27/07		16	384	103	2	51	13%	60	20	1,700	83	11,000	368	1,180	197
08/01/07		5	120	160	2	57	47%	60	19	1,900	93	5,500	206	1,668	278
08/10/07	2,3	9	216	350	8	189	88%	60	22	1,800	88	7,700	273	3,820	637
09/28/07	4	49	1,176	896	23	546	46%	60	20	1,700	83	4,000	134	6,865	1,144
10/17/07		19	456	1,239	14	343	75%	60	21	1,100	54	5,100	110	8,446	1,408
11/08/07		22	528	1,709	20	470	89%	60	22	1,100	54	4,000	87	10,141	1,690
11/16/07		8	192	1,874	7	166	86%	60	21	1,100	54	6,000	130	11,038	1,840
11/21/07	5	5	120	1,994	5	120	100%	60	20.5	1,500	74	2,500	74	11,407	1,901
12/04/07		13	312	2,231	10	236	76%	60	20	1,150	56	7,900	179	13,168	2,195
12/26/07		22	528	2,566	14	335	63%	60	18	1,300	64	4,100	105	14,633	2,439
01/15/08		20	480	3,016	19	451	94%	60	19	1,200	59	1,900	45	15,476	2,579
01/22/08	6,7	7	168	3,064	2	48	29%	60	18	1,500	74	1,900	56	15,589	2,598
01/31/08		9	216	3,276	9	212	98%	60	20	1,250	61	2,200	54	16,067	2,678
02/07/08		7	168	3,443	7	167	99%	60	22	1,100	54	2,000	43	16,368	2,728
03/18/08	8,9	40	960	3,653	9	210	22%	60	15	1,400	69	630	17	16,520	2,753
04/01/08		14	336	3,952	12	299	89%	60	19	1,500	74	2,100	62	17,292	2,882
04/30/08		29	696	4,591	27	639	92%	60	19	1,900	93	2,100	79	19,383	3,231
05/29/08		29	696	4,978	16	387	56%	60	19.5	900	44	2,100	37	19,983	3,331
06/26/08		28	672	5,489	21	511	76%	60	23	1,200	59	860	20	20,416	3,403
07/30/08		34	816	6,184	29	694	85%	60	17	1,600	79	2,200	69	22,422	3,737
09/30/08		62	1,488	6,673	20	489	33%	60	9	2,000	98	1,100	43	23,304	3,884
11/04/08		35	840	7,062	16	389	46%	60	11	1,200	59	2,700	64	24,339	4,057
12/02/08		28	672	7,697	26	635	94%	60	10	1,200	59	2,200	52	25,715	4,286
01/06/09		35	840	8,298	25	601	72%	60	11	1,200	59	1,200	28	26,425	4,404
02/09/09		34	816	8,300	0	2	0%	60	12	1,200	59	1,200	28	26,427	4,405
03/18/09		37	888	8,320	1	20	2%	60	10	1,400	69	130	3.6	26,430	4,405
04/21/09		34	816	8,975	27	655	80%	60	11	1,400	69	58	1.6	26,474	4,412
05/19/09		28	672	9,001	1	26	4%	60	10	1,250	61	190	4.7	26,479	4,413
08/31/09		104	2,496	9,149	6	148	6%	60	12	1,400	69	870	24	26,626	4,438



**TABLE 6: HVDPE PERFORMANCE & MASS REMOVAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Date	Notes	Possible Runtime (days)	Possible Runtime (hrs)	Hour Meter Reading	Actual Runtime (days)	Actual Runtime (hrs)	System Runtime (%)	Inlet Temp (°F)	Inlet Vac (in-Hg)	Well Velocity (fpm)	Well Flow (scfm)	Influent TPH-g (ppmv)	Mass Removal Rate (lbs/day)	Total Mass Removed (pounds)	Total Mass Removed (gallons)
09/10/09		10	240	9,260	5	111	46%	60	15	1,500	74	1,700	50	26,859	4,476
09/17/09		7	168	9,411	6	151	90%	60	14	1,300	64	2,600	67	27,277	4,546
09/25/09		8	192	9,602	8	192	100%	60	13	2,000	98	2,700	106	28,126	4,688
10/02/09		7	168	9,771	7	169	100%	60	14	1,100	54	2,400	52	28,491	4,749
10/20/09		18	432	10,131	15	360	83%	60	13	3,000	147	2,500	148	30,706	5,118
11/03/09		14	336	10,468	14	337	100%	60	14	1,500	74	2,000	59	31,536	5,256
12/16/09		43	1,032	10,648	7	180	17%	60	14	2,000	98	1,200	47	31,890	5,315
04/20/10		125	3,000	10,820	7	172	6%	60	13	2,000	98	240	9.5	31,958	5,326
04/28/10		8	192	11,009	8	189	100%	60	15	1,100	54	120	2.6	31,979	5,330
04/29/10		1	24	11,033	1	24	100%	60	20	2,000	98	300	12	31,990	5,332
05/05/10		6	144	11,179	6	146	100%	60	18	2,000	98	340	13	32,072	5,345
05/11/10		6	144	11,321	6	142	100%	60	12	2,000	98	160	6.3	32,109	5,352
08/23/10		104	2,496	11,416	4	95	4%	60	16.5	2,500	123	220	11	32,152	5,359
09/01/10		9	216	11,635	9	218	100%	60	14	1,300	64	110	3	32,178	5,363
09/07/10	10	6	144	11,773	6	138	96%	60	11.5	900	44	1,600	28	32,341	5,390
11/03/10		57	1,368	12,010	10	237	17%	60	15	1,600	79	250	7.9	32,419	5,403
11/08/10		5	127	12,133	5	123	100%	60	14	1,000	49	350	6.9	32,454	5,409
11/08/10		0	4	12,137	0	4	100%	60	14	1,000	49	830	16	32,457	5,409
11/09/10		1	20	12,157	1	20	100%	60	14	1,000	49	330	6.5	32,462	5,410
11/09/10		0	4	12,161	0	4	100%	60	14	1,000	49	700	14	32,465	5,411
11/16/10		7	157	12,320	7	159	100%	60	14	1,000	49	460	9.1	32,525	5,421
11/23/10		7	168	12,483	7	163	100%	60	15	1,000	49	630	12	32,609	5,435
12/10/10		17	408	12,545	3	63	15%	60	16	1,000	49	350	6.9	32,627	5,438
12/30/10		20	480	12,810	11	265	55%	60	15	1,000	49	64	1.3	32,640	5,440
01/21/11		22	528	13,088	12	278	53%	60	16.5	900	44	1,100	19	32,866	5,478
01/31/11		10	240	13,329	10	241	100%	60	15.5	1,000	49	460	9.1	32,957	5,493
02/04/11		4	96	13,426	4	97	100%	60	15.5	1,000	49	600	12	33,005	5,501
02/18/11		14	336	13,667	10	242	72%	60	15.5	1,000	49	1,700	33	33,342	5,557
03/02/11		12	288	13,953	12	285	99%	60	18	1,000	49	1,200	24	33,623	5,604
03/11/11		9	216	14,073	5	120	56%	60	18	1,000	49	930	18	33,714	5,619
03/18/11		7	168	14,144	3	71	42%	60	18	1,000	49	360	7.1	33,735	5,623
04/07/11		20	480	14,599	19	456	95%	60	17	1,000	49	250	4.9	33,829	5,638
04/22/11		15	360	14,858	11	259	72%	60	22	1,300	64	500	12.8	33,966	5,661
05/04/11		12	288	15,143	12	286	99%	60	10	1,800	88	23	0.8	33,976	5,663
05/20/11		16	384	15,529	16	385	100%	60	10	1,300	64	3.5	0.09	33,978	5,663
<b>06/20/11</b>		<b>31</b>	<b>744</b>	<b>15,672</b>	<b>6</b>	<b>144</b>	<b>19%</b>	<b>60</b>	<b>10</b>	<b>1,000</b>	<b>49</b>	<b>3.5</b>	<b>0.07</b>	<b>33,978</b>	<b>5,663</b>

**TABLE 6: HVDPE PERFORMANCE & MASS REMOVAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Sample Date	Notes	Possible Runtime (days)	Possible Runtime (hrs)	Hour Meter Reading	Actual Runtime (days)	Actual Runtime (hrs)	System Runtime (%)	Inlet Temp (°F)	Inlet Vac (in-Hg)	Well Velocity (fpm)	Well Flow (scfm)	Influent TPH-g (ppmv)	Mass Removal Rate (lbs/day)	Total Mass Removed (pounds)	Total Mass Removed (gallons)
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**NOTES:**

ppmv = parts per million by volume

TPH-g = total petroleum hydrocarbons as gasoline

TPH-g by EPA Method 8015C

in-Hg = inches of mercury (gauge pressure)

hrs = hours

- not analyzed/applicable

fpm = feet per minute

scfm = standard cubic feet per minute

Flow = Velocity x Cross Sectional Area of the Pipe

Cross Sectional Area of 3" Pipe = 0.0491 ft<sup>2</sup>

Well Flow = Well Velocity \* 0.0491

PRED = TPH-g influent concentration

1) System installed and started up on June 26, 2007

2) Propane delivery missed; system shutdown on 08/06/07

3) Propane delivery missed; system shutdown on 08/21/07

4) System down between 09/11 and 09/24/08 due to electrical problems

5) System expanded; MW-10, MW-11 and MW-12 extraction added online

6) Propane delivery missed; system shutdown on 01/02/08

7) Propane delivery missed; system shutdown on 01/22/08

8) System shutdown most of February to evaluate free product recovery

9) Catalyst module installed and started up in March of 2008

10) Combined influent samples collected after sparging into AS-1 for 2 to 3-hours

**MASS REMOVAL RATE (MRR) ESTIMATE ASSUMPTIONS:**

MRR Estimate = (20,000\*10<sup>-6</sup>)\*(50scfm)\*(1440min/day)\*(28.32L/ft<sup>3</sup>)\*(1mol/22.4L)\*(100g/mol)\*(1lb/454g)

MRR Estimate assumes negligible change in air density, constant concentration and average molecular weight

1 mole occupies 22.4 Liters at STP

STP is 21°C and 1 atm

MWgas = 100 grams/mole (weathered gasoline)

1 day = 1440 minutes

1ft<sup>3</sup> = 28.38 liters

1 lb = 454 grams

1 gallon gas ~ 6 pounds

**TABLE 7: QUARTERLY MASS REMOVAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

**2007 Average Mass Removal Rates**

<b>Period</b>	<b>Mass Removal Rate (lbs/day)</b>	<b>Mass Removal Rate (gpd)</b>	<b>Cumulative Mass Removed (pounds)</b>	<b>Cumulative Mass Removed (gallons)</b>
Q3, 2007	241	40	8,446	1,802
Q4, 2007	114	19	8,611	1,435

**2008 Average Mass Removal Rates**

<b>Period</b>	<b>Mass Removal Rate (lbs/day)</b>	<b>Mass Removal Rate (gpd)</b>	<b>Cumulative Mass Removed (pounds)</b>	<b>Cumulative Mass Removed (gallons)</b>
Q1, 2008	43	7.2	2,658	443
Q2, 2008	50	8.3	3,896	649
Q3, 2008	56	9.4	2,888	481
Q4, 2008	58	9.6	2,410	320

**2009 Average Mass Removal Rates**

<b>Period</b>	<b>Mass Removal Rate (lbs/day)</b>	<b>Mass Removal Rate (gpd)</b>	<b>Cumulative Mass Removed (pounds)</b>	<b>Cumulative Mass Removed (gallons)</b>
Q1, 2009	20	3.3	715	119
Q2, 2009	3	0.5	49	8
Q3, 2009	62	10.3	2,012	335
Q4, 2009	76	12.7	3,399	567

**TABLE 7: QUARTERLY MASS REMOVAL DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

**2010 Average Mass Removal Rates**

<b>Period</b>	<b>Mass Removal Rate (lbs/day)</b>	<b>Mass Removal Rate (gpd)</b>	<b>Cumulative Mass Removed (pounds)</b>	<b>Cumulative Mass Removed (gallons)</b>
Q1, 2010	0	0.0	0	0
Q2, 2010	9	1.5	219	36
Q3, 2010	14	2.3	232	39
Q4, 2010	9	1.5	299	50

**2011 Average Mass Removal Rates**

<b>Period</b>	<b>Mass Removal Rate (lbs/day)</b>	<b>Mass Removal Rate (gpd)</b>	<b>Cumulative Mass Removed (pounds)</b>	<b>Cumulative Mass Removed (gallons)</b>
Q1, 2011	18	2.9	1,095	182
Q2, 2011	3.7	0.6	243	40
Q3, 2011				
Q4, 2011				

NOTES:

**TABLE 8: AIR SPARGING SYSTEM DATA SUMMARY**

Vic's Auto, 245 8th Oakland, California

Date	Time	Notes	Hour <sup>1</sup> Meter	Actual Runtime (hrs)	Actual Runtime (days)	System Uptime (%)	System Status (ON/OFF)	Active Sparge Well	Manifold Temp (°F)	Manifold Pressure (psig)	Flow Rate (acfh)	Flow <sup>2</sup> Rate (acfm)	Flow <sup>3</sup> Rate (scfm)	Wellhead Pressure (psig)
11/08/10	11:20		12,133.16	0			ON	AS-1	60	5.0	120	2.0	2.2	5.0
11/09/10	11:15	a	12,157.36	24	1	100%	ON	AS-3	60	6.5	120	2.0	2.3	6.5
11/10/10	7:30		12,174.90	18	1	100%	ON	AS-3	58	6.5	100	1.7	1.9	6.5
11/11/10	6:30		12,198.80	24	1	100%	ON	AS-3	52	6.5	120	2.0	2.3	6.5
11/12/10	6:30		12,221.60	23	1	95%	ON	AS-3	50	6.5	120	2.0	2.3	6.5
11/16/10	6:30		12,320.12	99	4	100%	ON	AS-3	60	6.5	120	2.0	2.3	6.5
11/23/10	8:15		12,482.71	163	7	100%	ON	AS-3	50	6.5	120	2.0	2.3	6.5
12/10/10	10:45	b	12,542.71	60	3	15%	ON	AS-3/4	58	7.0	120	2.0	2.3	7.0
12/10/10	13:45		12,545.49	3	0	100%	ON	AS-4	64	5.0	120	2.0	2.2	5.0
12/30/10	7:30		12,810.13	265	11	55%	ON	AS-4	42	7.0	120	2.0	2.3	7.0
01/21/11	10:35	c, d, e	5,813.40	0.0	0.0	---	ON	AS-1/3	78	10.0	300	5.0	6.1	10/10
01/31/11	11:15		6,056.40	243	10	100%	ON	AS-1/3	78	9.0	---	6.0	7.1	9/9
02/04/11	10:15		6,151.00	95	4	89%	ON	AS-1/3	78	8.5	---	6.0	7.0	8.5/8.5
02/04/11	11:45	f	6,152.50	1.5	0.06	100%	ON	AS-2/4	82	10.0	---	6.0	7.2	10/10
02/18/11	10:30		6,442.00	289.5	12.06	86%	ON	AS-2/4	72	10.0	---	6.0	7.3	10/10
02/18/11	11:30	g	6,443.00	1.0	0.04	100%	ON	AS-1/3	68	9.0	---	6.0	7.2	9/9
03/02/11	7:00		6,726.40	283.4	11.81	100%	ON	AS-1/3	70	9.0	---	6.0	7.2	9/9
03/02/11	9:30	h	6,727.90	1.5	0.06	100%	ON	AS-2/4	72	10.0	---	6.0	7.3	10/10
03/11/11	9:45		6,848.40	120.5	5.02	53%	ON	AS-2/4	80	10.0	---	6.0	7.2	10/10
03/18/11	6:15		6,917.50	69.1	2.88	42%	OFF	AS-2/4	-	-	---	-	-	
03/18/11	8:15	i	6,919.40	1.9	0.08	95%	ON	AS-1/3	70	10.0	---	6.0	7.3	10/10
04/07/11	6:30		7,373.60	454.2	18.93	95%	ON	AS-1/3	72	8.0	---	6.0	7.0	6/6
04/07/11	8:15	j	7,374.90	1.3	0.05	74%	ON	AS-2/4	72	10.0	---	6.0	7.3	10/10
04/22/11	6:00		7,631.40	256.5	10.69	72%	ON	AS-2/4	72	10.0	---	6.0	7.3	-
04/22/11	7:52		7,633.20	1.8	0.08	96%	ON	AS-1/3	90	9.0	---	5.5	6.5	-

**TABLE 8: AIR SPARGING SYSTEM DATA SUMMARY**

Vic's Auto, 245 8th Oakland, California

Date	Time	Notes	Hour <sup>1</sup> Meter	Actual Runtime (hrs)	Actual Runtime (days)	System Uptime (%)	System Status (ON/OFF)	Active Sparge Well	Manifold Temp (°F)	Manifold Pressure (psig)	Flow Rate (acfh)	Flow <sup>2</sup> Rate (acfm)	Flow <sup>3</sup> Rate (scfm)	Wellhead Pressure (psig)
05/04/11	6:00		7,910.10	276.9	11.54	97%	ON	AS-1/3	92	8.0	---	5.0	5.7	8.0
05/04/11	8:00		7,912.20	2.1	0.09	100%	ON	AS-2/4	100	10.0	---	6.0	7.1	10.0
05/20/11	5:15		8,305.10	392.9	16.37	100%	ON	AS-2/4	92	8.0	---	6.0	6.9	8.0
05/20/11	8:00		8,307.70	2.6	0.11	100%	ON	AS-1/3	98	8.0	---	5.0	5.7	8.0
06/20/11	14:00		8,449.20	141.5	5.90	19%	ON	AS-2/3	98	10.0	---	5.0	6.0	-

**NOTES:**

psig = pounds per square inch

°F = degrees Fahrenheit

acfh = actual cubic feet per hour

acfm = actual cubic feet per minute

scfm = standard cubic feet per minute

1) Recording of HVDPE system and thermal oxidizer hour meter from 11/08/10 to 01/12/11

2) Flow Rate (acfm) = Flow Rate (acfh) / 60 (min/hour)

3) Flow Rate (scfm) = Flow Rate (acfm) \*  $\sqrt{((14.7 + \text{Manifold Pressure}) * 530) / (14.7 * (530 + \text{Manifold Temp}))}$

a) AS-3 left on after testing on 11/08/10; air sparging system interlocked w/ HVDPE system.

b) Turned off AS-3; turned on AS-4

c) Turned off AS-4; turned on AS-1 and AS-3

d) Repaired hour meter for refurbished AS system

e) Increased flow rate from 2 acfm per well to 5 -6 acfm per well

f) Turned off AS-1 and AS-3; turned on AS-2 and AS-4.

g) Turned off AS-2 and AS-4; turned on AS-1 and AS-3.

h) Turned off AS-1 and AS-3; turned on AS-2 and AS-4.

i) Turned off AS-2 and AS-4; turned on AS-1 and AS-3.

j) Turned off AS-1 and AS-3; turned on AS-2 and AS-4.

**TABLE 9: SOIL GAS FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H <sub>2</sub> O)	Purge Vacuum (in-H <sub>2</sub> O)	RKI Eagle Multi-Gas Detector				ppbRAE 3000 PID		
					TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	Equipment Blank (ppmv)	Background PID (ppmv)	PID Reading (ppmv)
GP-1-5'	05/17/07	1	0.00	-	0.11	0.0	18.0	2.2	-	-	-
	06/12/07		0.00	-	0	0.0	18.6	2.4	-	-	-
	08/01/07		-0.40	-	0	0.0	20.9	0.0	-	-	-
	08/10/07		-0.35	-	0	0.0	20.9	0.0	-	-	-
	10/05/07		0.00	-	0	0.0	20.9	0.3	-	-	-
	11/07/07		-0.24	1.5	0	0.0	20.9	0.0	-	-	-
	11/21/07		-0.84	1.5	0	0.0	20.9	0.0	-	-	-
	03/28/08		0.00	>50	0	xx	20.9	0.0	-	-	-
	04/30/08	2	0.00	<1.0	0	0.0	20.9	0.1	-	-	-
	08/15/08		0.00	1.5	0	0.0	20.9	0.0	-	-	-
	11/11/08		-0.20	1.1	0	0.0	20.9	0.0	-	-	-
	02/09/09	3	0.00	1.0	0	0.0	19.7	0.8	-	-	-
	03/10/09		0.00	1.8	0	0.0	19.3	1.3	-	-	-
	04/21/09		0.00	1.5	0	0.0	19.5	0.7	-	-	-
	05/01/09		0.00	1.5	0	0.0	20.4	0.6	-	-	-
	10/02/09		-0.10	1.7	0	0.0	19.9	0.5	-	-	-
	11/03/09		0.00	1.5	0	0.0	19.7	0.7	-	-	-
	12/11/09		0.00	1.8	0	0.0	18.3	1.3	-	-	-
	04/20/10	5	0.00	65	0	0.0	20.8	0.0	-	-	-
	04/28/10		0.00	60	0	0.0	20.9	0.0	-	-	-
	05/05/10	^	-0.11	-	-	-	-	-	-	-	-
	09/07/10		-0.64	nm	0	0.0	20.9	0.0	nm	0.7	1.7
	09/07/10		-0.18	nm	0	0.0	20.9	0.0	nm	0.4	1.8
	11/08/10		-0.85	nm	-	-	-	-	0.5	0.3	0.4
	11/09/10		-0.80	nm	-	-	-	-	1.0	0.2	0.7
	11/10/10		-0.80	nm	0	0.0	20.9	0.0	2.2	0.9	1.3
	11/11/10		-0.82	nm	0	0.0	20.9	0.0	0.4	0.3	0.4
	11/12/10		-0.80	nm	0	0.0	20.9	0.0	0.4	0.3	0.3
	11/16/10		-0.83	nm	0	0.0	20.9	0.0	0.2	0.1	0.2
	11/23/10		-0.71	nm	0	0.0	20.9	0.0	0.3	0.2	0.3
	12/10/10		-1.00	nm	0	0.0	20.9	0.0	0.3	0.2	0.3
	01/21/11		-0.45	nm	0	0.0	20.9	0.4	2.4	1.0	2.2
	02/04/11		nm	nm	0	0.0	20.9	0.0	0.6	0.0	0.1
02/18/11		nm	nm	0	0.0	20.9	0.0	1.3	1.2	1.2	
03/02/11		nm	nm	0	0.0	20.9	0.0	1.3	1.4	1.4	
03/18/11		nm	nm	0	0.0	20.9	0.0	1.7	1.6	1.7	
04/07/11		nm	nm	0	0.0	20.9	0.0	0.7	0.0	0.3	
04/22/11		0.05	nm	0	0.0	20.9	0.2	1.6	1.1	3.2	
05/04/11		0.04	nm	0	0.0	20.9	0.1	1.1	1.0	1.9	
05/20/11		0.02	nm	0	0.0	20.9	0.0	0.1	0.1	0.4	
<b>06/20/11</b>			<b>0.03</b>	<b>nm</b>	<b>0</b>	<b>0.0</b>	<b>20.9</b>	<b>0.0</b>	<b>1.3</b>	<b>1.3</b>	<b>2.0</b>

**TABLE 9: SOIL GAS FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H <sub>2</sub> O)	Purge Vacuum (in-H <sub>2</sub> O)	RKI Eagle Multi-Gas Detector				ppbRAE 3000 PID		
					TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	Equipment Blank (ppmv)	Background PID (ppmv)	PID Reading (ppmv)
GP-1-10'	05/17/07	1	0.00	-	-	-	-	-	-	-	-
	06/12/07		0.00	-	0	0.0	18.7	2.2	-	-	-
	08/01/07		-0.44	-	0	0.0	20.9	0.0	-	-	-
	08/10/07		-0.38	-	0	0.0	20.9	0.0	-	-	-
	10/05/07		0.00	-	0	0.0	20.9	0.3	-	-	-
	11/07/07		-0.27	2.0	0	0.0	20.9	0.0	-	-	-
	11/21/07		-0.60	1.5	0	0.0	20.9	0.0	-	-	-
	03/28/08	*	-	-	-	-	-	-	-	-	-
	04/30/08	2	-0.14	<1.0	0	0.0	20.9	0.1	-	-	-
	08/15/08		0.00	1.0	0	0.0	18.5	0.1	-	-	-
	11/11/08		-0.19	1.2	0	0.0	20.9	0.0	-	-	-
	02/09/09	3	0.00	1.2	10	0.0	19.8	0.7	-	-	-
	03/10/09		-0.39	9.0	0	0.0	19.5	1.0	-	-	-
	04/21/09		-0.10	6.0	0	0.0	19.8	0.5	-	-	-
	05/01/09	*	-	-	-	-	-	-	-	-	-
	10/02/09	*	-	-	-	-	-	-	-	-	-
	11/03/09	*	-	-	-	-	-	-	-	-	-
	12/11/09	*	-	-	-	-	-	-	-	-	-
	04/20/10	5	0.00	5.1	0	0.0	20.9	0.0	-	-	-
	04/28/10		-0.20	5.0	0	0.0	20.9	0.0	-	-	-
	05/05/10	^	0.00	-	-	-	-	-	-	-	-
	09/07/10		-0.60	nm	0	0.0	20.9	0.0	nm	0.5	1.6
	09/07/10		-0.53	nm	0	0.0	20.9	0.0	nm	0.5	2.2
	11/08/10		-0.90	nm	-	-	-	-	0.5	0.1	0.4
	11/09/10		-0.85	nm	-	-	-	-	1.3	0.2	0.9
	11/10/10		-0.78	nm	0	0.0	20.9	0.0	1.7	0.9	1.6
	11/11/10		-0.80	nm	0	0.0	20.9	0.0	0.3	0.4	0.6
	11/12/10		-0.79	nm	0	0.0	20.9	0.0	0.3	0.3	0.4
	11/16/10		-0.81	nm	0	0.0	20.9	0.0	0.2	0.1	0.3
	11/23/10		-0.75	nm	0	0.0	20.9	0.0	0.3	0.2	0.4
	12/10/10		-1.10	nm	0	0.0	20.9	0.0	0.4	0.3	0.4
	01/21/11		-0.40	nm	0	0.0	20.9	0.3	1.9	0.9	2.9
	02/04/11		nm	nm	0	0.0	20.9	0.0	0.6	0.0	0.2
02/18/11		nm	nm	0	0.0	20.9	0.0	1.6	1.2	1.4	
03/02/11		nm	nm	0	0.0	20.9	0.0	1.6	1.3	1.5	
03/18/11		nm	nm	0	0.0	20.9	0.0	1.5	1.6	1.6	
04/07/11		nm	nm	0	0.0	20.9	0.0	0.7	0.0	0.3	
04/22/11		0.05	nm	0	0.0	20.9	0.1	1.7	1.2	3.5	
05/04/11		0.04	nm	0	0.0	20.9	0.0	1.0	1.1	2.4	
05/20/11		0.03	nm	0	0.0	20.9	0.0	0.1	0.1	0.3	
<b>06/20/11</b>			<b>0.03</b>	<b>nm</b>	<b>0</b>	<b>0.0</b>	<b>20.9</b>	<b>0.0</b>	<b>1.3</b>	<b>1.3</b>	<b>2.0</b>



**TABLE 9: SOIL GAS FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H <sub>2</sub> O)	Purge Vacuum (in-H <sub>2</sub> O)	RKI Eagle Multi-Gas Detector				ppbRAE 3000 PID		
					TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	Equipment Blank (ppmv)	Background PID (ppmv)	PID Reading (ppmv)
GP-2-5'	05/17/07	1	0.00	-	0.14	0.0	19.0	1.5	-	-	-
	06/12/07		0.00	-	0	0.0	19.0	1.7	-	-	-
	08/01/07		0.00	-	0	0.0	20.9	0.3	-	-	-
	08/10/07		-0.04	-	0	0.0	20.9	0.2	-	-	-
	10/05/07		0.00	-	0	0.0	20.9	0.1	-	-	-
	11/07/07		-0.08	4.0	0	0.0	20.9	0.0	-	-	-
	11/21/07		-0.04	1.5	0	0.0	20.9	0.0	-	-	-
	03/28/08	*	-	-	-	-	-	-	-	-	-
	04/30/08	2	-0.01	2.0	0	0.0	20.9	0.0	-	-	-
	08/15/08		0.00	3.0	0	0.0	20.9	0.0	-	-	-
	11/11/08		-0.07	1.8	0	0.0	20.9	0.0	-	-	-
	02/09/09	3	0.00	2.2	0	0.0	20.7	0.2	-	-	-
	03/10/09	*	-	-	-	-	-	-	-	-	-
	04/21/09		0.00	2.0	0	0.0	20.9	0.0	-	-	-
	05/01/09		0.00	2.0	0	0.0	20.9	0.2	-	-	-
	10/02/09		-0.05	2.2	0	0.0	20.7	0.1	-	-	-
	11/03/09		0.00	2.0	0	0.0	20.5	0.0	-	-	-
	12/11/09	*	0.00	-	-	-	-	-	-	-	-
	04/20/10	5	0.00	2.0	0	0.0	20.9	0.0	-	-	-
	04/28/10		-0.05	2.2	0	0.0	20.8	0.0	-	-	-
	05/05/10	^	0.00	-	-	-	-	-	-	-	-
	09/07/10		0.00	nm	0	0.0	20.9	0.2	nm	0.8	1.9
	09/07/11		0.00	nm	0	0.0	20.9	0.1	nm	0.2	3.4
	11/08/10		0.00	nm	-	-	-	-	0.5	0.1	0.6
	11/09/10		0.00	nm	-	-	-	-	1.2	0.2	2.4
	11/10/10		0.00	nm	35	0.0	20.9	0.0	1.4	1.0	1.8
	11/11/10		0.00	nm	0	0.0	20.9	0.0	0.5	0.4	0.6
	11/12/10		0.00	nm	0	0.0	20.9	0.0	0.4	0.3	0.4
	11/16/10		0.00	nm	0	0.0	20.9	0.0	0.3	0.1	0.3
	11/23/10		0.00	nm	0	0.0	20.9	0.0	0.4	0.3	0.4
	12/10/10		0.00	nm	0	0.0	20.9	0.0	0.4	0.3	0.5
	01/21/11		0.00	nm	0	0.0	20.9	0.2	1.3	0.9	5.8
	02/04/11		nm	nm	0	0.0	20.9	0.1	0.7	0.0	0.4
02/18/11		nm	nm	0	0.0	20.9	0.0	1.7	1.8	2.0	
03/02/11		nm	nm	0	0.0	20.9	0.0	1.6	1.4	2.3	
03/18/11		nm	nm	0	0.0	20.9	0.0	1.9	1.7	2.0	
04/07/11		nm	nm	0	0.0	20.9	0.0	0.7	0.0	0.8	
04/22/11		0.00	nm	0	0.0	20.9	0.0	2.0	1.2	4.7	
05/04/11		0.00	nm	0	0.0	20.9	0.0	1.8	1.2	3.9	
05/20/11		0.00	nm	0	0.0	20.9	0.0	0.2	0.1	0.8	
<b>06/20/11</b>			<b>0.00</b>	<b>nm</b>	<b>0</b>	<b>0.0</b>	<b>20.9</b>	<b>0.0</b>	<b>1.6</b>	<b>1.3</b>	<b>3.0</b>

**TABLE 9: SOIL GAS FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H2O)	Purge Vacuum (in-H2O)	RKI Eagle Multi-Gas Detector				ppbRAE 3000 PID		
					TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	Equipment Blank (ppmv)	Background PID (ppmv)	PID Reading (ppmv)
GP-2-10'	05/17/07	1	0.00	-	0.18	0.0	18.0	1.5	-	-	-
	06/12/07	*	0.00	-	-	-	-	-	-	-	-
	08/01/07		0.08	-	0	0.0	20.8	0.5	-	-	-
	08/10/07		0.00	-	0	0.0	20.9	0.2	-	-	-
	10/05/07		0.00	-	0	0.0	20.9	0.1	-	-	-
	11/07/07		0.00	24	0	0.0	20.9	0.0	-	-	-
	11/21/07		-1.7	35	0	0.0	20.9	0.0	-	-	-
	03/28/08	*	-	-	-	-	-	-	-	-	-
	04/30/08	2	-3.5	2.0	0	0.0	20.9	0.0	-	-	-
	08/15/08		0.00	3.0	0	0.0	20.9	0.0	-	-	-
	11/11/08		-1.8	2.0	0	0.0	20.9	0.0	-	-	-
	02/09/09	3*	-	-	-	-	-	-	-	-	-
	03/10/09	*	-	-	-	-	-	-	-	-	-
	04/21/09		-0.50	3.0	0	0.0	20.9	0.0	-	-	-
	05/01/09	*	-	-	-	-	-	-	-	-	-
	10/02/09	*	-0.30	-	-	-	-	-	-	-	-
	11/03/09	*	0.00	-	-	-	-	-	-	-	-
	12/11/09	*	0.00	-	-	-	-	-	-	-	-
	04/20/10	5	0.00	50	0	0.0	20.9	0.0	-	-	-
	04/28/10		-0.12	48	0	0.0	20.9	0.0	-	-	-
	05/05/10	^	0.00	-	-	-	-	-	-	-	-
	09/07/10		0.00	nm	0	0.0	20.9	0.2	nm	0.6	2.2
	09/07/11		0.00	nm	0	0.0	20.9	0.2	nm	0.3	3.3
	11/08/10		0.00	nm	-	-	-	-	0.5	0.2	2.1
	11/09/10		0.00	nm	-	-	-	-	4.6	0.3	5.5
	11/10/10		0.00	nm	0	0.0	20.9	0.0	4.5	0.8	6.1
	11/11/10		0.00	nm	0	0.0	20.9	0.0	0.7	0.4	0.8
	11/12/10		0.00	nm	0	0.0	20.9	0.0	0.5	0.4	0.6
	11/16/10		0.00	nm	0	0.0	20.9	0.0	0.5	0.1	0.3
	11/23/10		0.00	nm	0	0.0	20.9	0.0	1.0	0.3	1.0
	12/10/10		0.00	nm	0	0.0	20.9	0.0	0.7	0.3	1.0
	01/21/11		0.00	nm	0	0.0	20.9	0.2	1.8	0.9	10.8
	02/04/11		nm	nm	0	0.0	20.9	0.2	0.7	0.0	0.1
02/18/11		nm	nm	0	0.0	20.9	0.0	1.2	1.8	3.0	
03/02/11		nm	nm	0	0.0	20.9	0.0	1.8	1.4	2.9	
03/18/11		nm	nm	0	0.0	20.9	0.0	2.0	1.7	2.1	
04/07/11		nm	nm	0	0.0	20.9	0.0	0.7	0.0	0.7	
04/22/11		0.00	nm	0	0.0	20.9	0.0	2.2	1.3	7.7	
05/04/11		0.00	nm	0	0.0	20.9	0.0	2.0	1.2	6.8	
05/20/11		0.00	nm	0	0.0	20.9	0.0	0.2	0.1	0.8	
<b>06/20/11</b>			<b>0.00</b>	<b>nm</b>	<b>0</b>	<b>0.0</b>	<b>20.9</b>	<b>0.0</b>	<b>1.8</b>	<b>1.8</b>	<b>5.9</b>

**TABLE 9: SOIL GAS FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H <sub>2</sub> O)	Purge Vacuum (in-H <sub>2</sub> O)	RKI Eagle Multi-Gas Detector				ppbRAE 3000 PID		
					TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	Equipment Blank (ppmv)	Background PID (ppmv)	PID Reading (ppmv)
GP-3-5'	05/17/07	1	0.00	-	0.14	0.0	20.0	0.48	-	-	-
	06/12/07		0.00	-	0	0.0	20.9	0.4	-	-	-
	08/10/07		-0.01	-	0	0.0	20.9	0.3	-	-	-
	10/05/07		0.00	-	0	0.0	20.9	0.2	-	-	-
	11/07/07		0.00	1.0	0	0.0	20.9	0.2	-	-	-
	11/21/07		-0.05	1.0	0	0.0	20.9	0.0	-	-	-
	03/28/08		0.00	43	0	xx	20.5	0.1	-	-	-
	04/30/08	2	-0.02	<1.0	0	0.0	20.9	0.1	-	-	-
	08/15/08		0.00	1.0	0	0.0	20.9	0.0	-	-	-
	11/11/08	4	-	-	-	-	-	-	-	-	-
GP-3-10'	05/17/07	1	0.00	-	0.37	0.0	2.4	3.4	-	-	-
	06/12/07		0.00	-	0	0.0	10.5	1.8	-	-	-
	08/10/07		-0.16	-	0	0.0	16.8	2.2	-	-	-
	10/05/07		0.00	-	0	0.0	20.8	1.2	-	-	-
	11/07/07		-0.30	55	0	0.0	20.9	0.5	-	-	-
	11/21/07		-5.2	47	0	0.0	20.9	0.2	-	-	-
	03/28/08	+	-1.0	>150	0	xx	20.0	0.0	-	-	-
	04/30/08	2	-9.0	110	0	0.0	20.9	0.1	-	-	-
	08/15/08		0.00	50	-	-	20.9	0.0	-	-	-
	11/11/08	4	-	-	-	-	-	-	-	-	-

**TABLE 9: SOIL GAS FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H <sub>2</sub> O)	Purge Vacuum (in-H <sub>2</sub> O)	RKI Eagle Multi-Gas Detector				ppbRAE 3000 PID		
					TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	Equipment Blank (ppmv)	Background PID (ppmv)	PID Reading (ppmv)
GP-4-5'	05/17/07	1	0.00	-	0.21	0.0	20.0	0.7	-	-	-
	06/12/07		0.00	-	0	0.0	20.8	0.6	-	-	-
	08/10/07		-0.02	-	0	0.0	20.9	0.4	-	-	-
	10/05/07		0.00	-	0	0.0	20.9	0.5	-	-	-
	11/07/07		0.00	0.9	0	0.0	20.9	0.3	-	-	-
	11/21/07		0.00	0.5	0	0.0	20.9	0.0	-	-	-
	03/28/08		0.00	47	0	xx	20.0	0.0	-	-	-
	04/30/08	2	-0.02	<1.0	0	0.0	20.9	0.2	-	-	-
	08/15/08		0.00	1.0	-	-	20.9	0.0	-	-	-
	11/11/08	4	-	-	-	-	-	-	-	-	-
GP-4-10'	05/17/07	1	0.00	-	-	-	-	-	-	-	-
	06/12/07	*	0.00	-	-	-	-	-	-	-	-
	08/10/07		-0.08	-	0	0.0	20.4	0.2	-	-	-
	10/05/07		0.00	-	0	0.0	20.9	0.5	-	-	-
	11/07/07		0.00	80	0	0.0	20.9	0.3	-	-	-
	11/21/07		0.00	>50	0	0.0	20.9	0.0	-	-	-
	03/28/08	+	0.00	>150	0	xx	20.5	0.0	-	-	-
	04/30/08	*	-0.20	>150	-	-	-	-	-	-	-
	08/15/08		0.00	>50	-	-	19.0	0.1	-	-	-
	11/11/08	4	-	-	-	-	-	-	-	-	-

**TABLE 9: SOIL GAS FIELD SCREENING DATA SUMMARY**

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H <sub>2</sub> O)	Purge Vacuum (in-H <sub>2</sub> O)	RKI Eagle Multi-Gas Detector				ppbRAE 3000 PID		
					TVH (ppmv)	CH <sub>4</sub> (%)	O <sub>2</sub> (%)	CO <sub>2</sub> (%)	Equipment Blank (ppmv)	Background PID (ppmv)	PID Reading (ppmv)

**NOTES:**

- not sampled / analyzed

in-H<sub>2</sub>O = inches of water

ppmv = parts per million by volume

% = percent concentration by volume

xx = methane sensor damaged; pending replacement

nm = not measured

TVH = total volatile hydrocarbons (calibrated w/ hexane)

CH<sub>4</sub> = methane

O<sub>2</sub> = oxygen

CO<sub>2</sub> = carbon dioxide

TVH, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> measured w/ RKI Eagle gas detector

\* Soil gas sample collection not possible due to wet or saturated soil conditions

+ High purge vacuum suggests wet or saturated soil conditions

^ Vacuum influence only check, soil gas probes not screened

1) TPH-g by modified EPA Method TO-3 GC/FID and CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> by modified method ASTM D-1946 GC/FID or GC/TCD

2) Soil gas probe screened for TVH, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> approximately one week prior to sampling for vapor intrusion evaluation

3) HVDPE system was shutdown on January 6, 2009, approximately one (1) month before screening GP-1 & GP-2

4) Nested soil gas probes GP-3 and GP-4 were abandoned on August 21, 2008 during the HVDPE conveyance lateral installation

5) Soil gas probes screened before restarting the HVDPE system which had been shutdown for 118 days or approximately four (4) months

## **APPENDIX A**

### **MONITORING WELL FIELD SAMPLING FORMS**

**AEI CONSULTANTS**

**GROUNDWATER MONITORING WORK ORDER (LOW-FLOW PURGING & SAMPLING)**

Project Name:	Vic's Auto	
Project Number:	116907	
Activity	Hours	
	Budget	Actual
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Client Contact:	Vic Lum
Project Manager:	Ricky Bradford
Gate / System Combo:	No combo – use keys
PO Number:	<b>WC083064</b>
Scheduled Work Date:	<sup>26</sup> <b>May 23, 2011</b>
Flexible:	<u>YES</u> NO
Site Contact:	Vic Lum
Site Phone:	(510) 832-9014
Site Address:	245 8 <sup>th</sup> Street Oakland, CA 94607

Summary of Work Requested	<b>Groundwater Monitoring Event (Q2, 2011)</b>
	1) Sample MW-1, 2, 5, 6, 7, 9, and 13 to 16 using low-flow purging and sampling method.
	2) Measure and record the depth to water before and after purging and sampling.
	3) Run the peristaltic pump at 150 rpms x 1.67 ml/rev = 250 ml/min.
	4) Stabilization criteria: pH ±0.1; conductivity ±3%; DO ±10%; ORP ±10 mV.
	5) Collect at least three (3) 40-mL VOAs from each well.
	<b>6) Make sure VOAs from MW-1, 2, 5, 6, and 7 do not contain any suspended solids.</b>

- |                                     |                          |  |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |  |
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- \* leave system off after monitoring*
- Removed standing water from well boxes; removed well caps; allowed water levels to stabilize.
  - Checked the depth to water in each well sampled before and after purging and sampling.
  - Continuously purged up to 10 liters of groundwater using peristaltic pump and flow-thru cell.
  - Recorded temp, pH, sc, DO, and ORP readings until stabilization criteria was achieved (see above).
  - Noted appearance of purge water (clear, dark, milky, etc.) and if an immiscible sheen was present.
  - Collected three (3) 40-ml VOA vials per well, capped with zero head space (no bubbles in the VOAs).
  - Noted condition of well boxes, well casing, and well plug; recorded wellhead info on the field sheets.
  - Recorded the amount of consumables (bailers, drums, well plugs, tubing, etc.) used.
  - Labeled purge water drums; recorded the total number of drums used and left onsite below.
  - Transported samples on water ice to McCampbell Analytical, Inc. of Pittsburg, CA for analyses.

Lab Analyses:      None      TPH-g      TPH-d      MBTEX      Fuel Oxygenates Other

Turnaround Time:      Rush      24 hours      48 hours      72 hours      Standard

Consumables: # of Bailers: 0      # of Drums: \_\_\_\_\_      # of Well Plugs: \_\_\_\_\_

Drums Onsite: # of Water: 5      # of Soil: \_\_\_\_\_      # of Other: \_\_\_\_\_

Requested by PM: [Signature]      Completed by Tech: [Signature]

Project Name: Vic's Automotive (Q2, 2011)

Field Person: J. Sigg

Location: 245 8th Street, Oakland, California

Project Manager: R. Bradford

Project No.: 116907 Date: 05/25/11

Weather: Clear 70°

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Daily Summary: **Groundwater Monitoring Event (Q2, 2011)**

- 1) Sample MW-1, 2, 5, 6, 7, 9, and 13 to 16 using low-flow purging and sampling method.
- 2) Measure and record the depth to water before and after purging and sampling.
- 3) Run the peristaltic pump at 150 rpms x 1.67 ml/rev = 250 ml/min.
- 4) Stabilization criteria: pH ±0.1; conductivity ±3%; DO ±10%; ORP ±10 mV.
- 5) Collect at least three (3) 40-mL VOAs from each well.

Materials: Silicon tubing (L/S 15), polyethylene tubing (1/4" OD), 55-gallon drum, 40-ml VOA vials, nitrile gloves.

Equipment: Peristaltic pump, water level meter, oil-water interface meter, orange traffic cones, hand tools.

TIME	SUMMARIZE FIELD ACTIVITIES
0445	leave home
0500	arrive @ site shut down system. Open all well covers & caps that are accessible. Measure DTW -
0530	Begin purging sampling wells
1130	Finish purging sampling of wells. Clean up - have vic sign form
1230	leave site Drop samples 5/27-11

Field Person Signature: John Sigg

Project Manager Signature: \_\_\_\_\_





**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-1**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	26 5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA			
Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition			
Elevation of Top of Casing (feet above msl)	32.55		
Depth of Well	28.00		
Depth to Water (from top of casing)	Before: 17.44	After: 17.45	
Depth to Free Product (from top of casing)	Before:	After:	
Water Elevation (feet above msl)	Before: 32.55	After: 32.55	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling		
Drop Tube Depth (feet bgs)	21.0		
Pump Speed (Default = 300 rpms)	150		
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250		
Actual Volume Purged (liters)	5		
Appearance of Purge Water	Slightly Yellow		
Free Product Present?		Thickness (ft):	

GROUNDWATER SAMPLES							
Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0602	1	18.09	327	.73	7.01	-147.9	Yellowish ↓
	2	18.11	329	.52	7.03	-162.6	
	3	18.13	331	.43	7.01	-174.8	
	4	18.14	331	.41	7.01	-182.2	
0613	5	18.14	331	.38	7.01	-191.0	

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 21-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV
Yellowish & Smelly

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-2**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	26 5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	▼		
Elevation of Top of Casing (feet above msl)	33.24		
Depth of Well	28.00		
Depth to Water (from top of casing)	Before: 16.76	After: 16.78	
Depth to Free Product (from top of casing)	Before:	After:	
Water Elevation (feet above msl)	Before: 33.24	After: 33.24	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling		
Drop Tube Depth (feet bgs)	21.0		
Pump Speed (Default = 300 rpms)	150		
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250		
Actual Volume Purged (liters)			
Appearance of Purge Water	Slightly yellow		
Free Product Present?		Thickness (ft):	

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0819	1	18.10	364	.66	7.01	-191.5	cloudy
	2	18.12	366	.60	7.05	-201.7	slt yellow
	3	18.15	368	.58	7.05	-210.5	"
	4	18.16	368	.56	7.04	-212.7	"
0830	5	18.16	368	.50	7.04	-214.8	"

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 21-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV
Slightly Cloudy / Smelly YELLOWISH

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-3**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	▼		
Elevation of Top of Casing (feet above msl)	34.25		
Depth of Well	25.00		
Depth to Water (from top of casing)	Before:	17.50	After:
Depth to Free Product (from top of casing)	Before:		After:
Water Elevation (feet above msl)	Before:	34.25	After: 34.25
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling		
Drop Tube Depth (feet bgs)	21.0		
Pump Speed (Default = 300 rpms)	150		
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?		Thickness (ft):	

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 21-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-4**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	26 5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA			
Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition			
Elevation of Top of Casing (feet above msl)	34.42		
Depth of Well	25.00		
Depth to Water (from top of casing)	Before:	18.30	After:
Depth to Free Product (from top of casing)	Before:		After:
Water Elevation (feet above msl)	Before:	34.42	After: 34.42
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling		
Drop Tube Depth (feet bgs)	21.0		
Pump Speed (Default = 300 rpms)	150		
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250		
Actual Volume Purged (liters)			
Appearance of Purge Water			
Free Product Present?		Thickness (ft):	

GROUNDWATER SAMPLES							
Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 21-feet bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-5**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	26 5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	▼		
Elevation of Top of Casing (feet above msl)	33.33		
Depth of Well	22.00		
Depth to Water (from top of casing)	Before: 16.90	After: 16.92	
Depth to Free Product (from top of casing)	Before:	After:	
Water Elevation (feet above msl)	Before: 33.33	After: 33.33	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling		
Drop Tube Depth (feet bgs)	19.0		
Pump Speed (Default = 300 rpms)	150		
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250		
Actual Volume Purged (liters)	5		
Appearance of Purge Water	Clear		
Free Product Present?	Thickness (ft):		

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0519	1	18.22	373	.82	7.10	-202.5	Clear
	2	18.24	382	.66	7.16	-210.8	"
	3	18.26	390	.53	7.16	-214.9	"
	4	18.26	392	.50	7.17	-218.1	"
0530	5	18.26	392	.48	7.17	-222.5	"

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV
Clear / Smelly

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-6**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	▼		
Elevation of Top of Casing (feet above msl)	32.82		
Depth of Well	22.00		
Depth to Water (from top of casing)	Before: 16.55	After: 16.57	
Depth to Free Product (from top of casing)	Before:	After:	
Water Elevation (feet above msl)	Before: 32.82	After: 32.82	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling		
Drop Tube Depth (feet bgs)	19.0		
Pump Speed (Default = 300 rpms)	150		
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250		
Actual Volume Purged (liters)			
Appearance of Purge Water	Yellowish		
Free Product Present?		Thickness (ft):	

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0649	1	18.10	468	1.10	7.18	-60.5	Yellowish
	2	18.12	470	.92	7.20	-66.8	"
	3	18.12	475	.73	7.22	-72.5	"
	4	18.13	476	.66	7.22	-80.4	"
0700	5	18.13	477	.60	7.22	-82.4	Yellowish

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV
Yellowish Smelly

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-7**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	33.07
Depth of Well	22.00
Depth to Water (from top of casing)	Before: 17.01      After: 17.03
Depth to Free Product (from top of casing)	Before:              After:
Water Elevation (feet above msl)	Before: 33.07      After: 33.07
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Drop Tube Depth (feet bgs)	19.0
Pump Speed (Default = 300 rpms)	150
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250
Actual Volume Purged (liters)	5
Appearance of Purge Water	Clear
Free Product Present?	Thickness (ft):

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0734	1	18.10	298	1.05	7.12	-180.2	Clear
	2	18.13	303	.95	7.14	-185.5	"
	3	18.16	313	.88	7.15	-188.3	"
	4	18.17	316	.76	7.15	-190.2	"
0745	5	18.17	318	.70	7.16	-192.7	"

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-feet bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV
Smelly



**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-8**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	26 5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	31.73
Depth of Well	22.00
Depth to Water (from top of casing)	Before: 15.50 After:
Depth to Free Product (from top of casing)	Before: After:
Water Elevation (feet above msl)	Before: 31.73 After: 31.73
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Drop Tube Depth (feet bgs)	19.0
Pump Speed (Default = 300 rpms)	150
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250
Actual Volume Purged (liters)	
Appearance of Purge Water	
Free Product Present?	Thickness (ft):

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-9**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	29.02
Depth of Well	22.00
Depth to Water (from top of casing)	Before: 13.68      After: 13.71
Depth to Free Product (from top of casing)	Before:              After:
Water Elevation (feet above msl)	Before: 29.02      After: 29.02
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Drop Tube Depth (feet bgs)	19.0
Pump Speed (Default = 300 rpms)	150
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250
Actual Volume Purged (liters)	5
Appearance of Purge Water	Clear
Free Product Present?	Thickness (ft):

GROUNDWATER SAMPLES							
Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0849	1	18.18	303	1.15	6.98	-202.8	Clear
	2	18.20	310	.98	7.00	-210.4	"
	3	18.22	310	.89	7.01	-211.7	"
	4	18.22	311	.80	7.01	-212.5	"
0900	5	18.22	311	.72	7.01	-213.6	"

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV
Smelly

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-10**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	31.17
Depth of Well	22.00
Depth to Water (from top of casing)	-
Water Elevation (feet above msl)	-
Well Volumes Purged (Default = 3)	Well Not Sampled
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	
Free Product Present?	

**GROUNDWATER SAMPLES**

Number of Samples/Container Size							
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments

Well plumbed to HVDPE system from beneath building slab as of August 2008.  
Therefore, well not used for groundwater monitoring.

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-11**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	31.78
Depth of Well	22.00
Depth to Water (from top of casing)	-
Water Elevation (feet above msl)	-
Well Volumes Purged (Default = 3)	Well Not Sampled
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	
Free Product Present?	

**GROUNDWATER SAMPLES**

Number of Samples/Container Size							
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Well plumbed to HVDPE system from beneath building slab as of August 2008. Therefore, well not used for groundwater monitoring.

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-12**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	32.05
Depth of Well	22.00
Depth to Water (from top of casing)	-
Water Elevation (feet above msl)	-
Well Volumes Purged (Default = 3)	Well Not Sampled
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	
Actual Volume Purged (gallons)	
Appearance of Purge Water	
Free Product Present?	

**GROUNDWATER SAMPLES**

Number of Samples/Container Size							
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Well plumbed to HVDPE system from beaneath building slab as of August 2008.  
Therefore, well not used for groundwater monitoring.

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-13**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	26 5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	28.84
Depth of Well	22.00
Depth to Water (from top of casing)	Before: 13.66      After: 13.68
Depth to Free Product (from top of casing)	Before:              After:
Water Elevation (feet above msl)	Before: 28.84      After: 28.84
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Drop Tube Depth (feet bgs)	19.0
Pump Speed (Default = 300 rpms)	150
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250
Actual Volume Purged (liters)	5
Appearance of Purge Water	Clear
Free Product Present?	Thickness (ft):

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0934	1	18.09	298	2.82	6.85	-125.7	Clear
	2	18.11	306	2.65	6.90	-130.3	"
	3	18.13	308	2.20	6.91	-133.8	"
	4	18.13	310	2.11	6.91	-136.7	"
0945	5	18.13	310	2.08	6.91	-140.2	"

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-14**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	29.53
Depth of Well	22.00
Depth to Water (from top of casing)	Before: 14.03      After: 14.05
Depth to Free Product (from top of casing)	Before:              After:
Water Elevation (feet above msl)	Before: 29.53      After: 29.53
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Drop Tube Depth (feet bgs)	19.0
Pump Speed (Default = 300 rpms)	150
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250
Actual Volume Purged (liters)	5
Appearance of Purge Water	Clear
Free Product Present?	Thickness (ft):

GROUNDWATER SAMPLES							
Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
0804	1	18.01	305	3.55	6.92	-120.1	clear
	2	18.05	313	3.02	6.95	-122.4	
	3	18.08	316	2.86	6.95	-126.7	
	4	18.10	318	2.80	6.95	-128.0	
0815	5	18.10	318	2.79	6.95	-130.3	

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-15**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	▼
Elevation of Top of Casing (feet above msl)	29.22
Depth of Well	22.00
Depth to Water (from top of casing)	Before: 14.44      After: 14.47
Depth to Free Product (from top of casing)	Before:              After:
Water Elevation (feet above msl)	Before: 29.22      After: 29.22
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Drop Tube Depth (feet bgs)	19.0
Pump Speed (Default = 300 rpms)	150
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250
Actual Volume Purged (liters)	5
Appearance of Purge Water	Clear
Free Product Present?	Thickness (ft):

GROUNDWATER SAMPLES							
Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
1019	1	18.10	400	1.62	6.98	-129.5	Clear
	2	18.12	408	1.40	7.01	-130.8	
	3	18.14	410	1.33	7.01	-137.7	
	4	18.14	410	1.28	7.01	-145.4	
1030	5	18.15	410	1.20	7.01	-148.1	

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-feet bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV



**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-16**

Project Name:	Vic's Automotive (Q2, 2011) Low-Flow	Date of Sampling:	26 5/23/2011
Job Number:	116907	Name of Sampler:	J. Sigg
Project Address:	245 8th Street, Oakland		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	▼		
Elevation of Top of Casing (feet above msl)	28.87		
Depth of Well	22.00		
Depth to Water (from top of casing)	Before:	12.98	After: 13.01
Depth to Free Product (from top of casing)	Before:		After:
Water Elevation (feet above msl)	Before:	28.87	After: 28.87
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling		
Drop Tube Depth (feet bgs)	19.0		
Pump Speed (Default = 300 rpms)	150		
Estimated Purge Rate (Pump Speed * 1.67 ml/rev)	250		
Actual Volume Purged (liters)	5		
Appearance of Purge Water	Clear		
Free Product Present?		Thickness (ft):	

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40ml VOA vials			
Time	Volume Removed (liters)	Temperature (deg C)	Conductivity (uS/cm)	DO (mg/l)	pH	ORP (meV)	Comments
1104	1	18.07	445	1.01	7.10	-150.8	Clear
	2	18.10	452	.92	7.08	-160.1	"
	3	18.11	458	.80	7.08	-162.5	"
	4	18.11	458	.75	7.09	-168.7	"
1115	5	18.12	459	.70	7.10	-170.2	"

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Use low-flow (minimal drawdown) purging and sampling method
Position 1/4" polyethylene drop tube at 19-foot bgs
Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

DATE: 5-26-11

**AEI CONSULTANTS**  
MONITORING WELL WELLHEAD CONDITION FORM

PAGE: 1 OF 1

Project Name: Vic's Automotive (Q2, 2011)

Field Technician: J. Sigg

Location: 245 8th Street, Oakland, California

Project Manager: R. Bradford

Project No.: 116907

Conditions: clear to

Well ID	Well Size	Well Box Size	Casing In Good Condition	Well Box In Good Condition	Water In Box	Well Plug Missing	Lock Missing	Bolts Missing	Bolts Stripped	Lid Cracked/Broken	Additional Notes / Comments
MW-1	4	22	Y	Y	2	2	2	2	2	2	
MW-2	2	22	Y	Y	2	2	2	2	2	2	
MW-3	2	12	Y	Y	2	2	2	2	Yes 1	2	
MW-4	2	12	Y	Y	2	2	2	2	2	2	
MW-5	4	22	Y	Y	2	2	2	2	Yes 1	2	
MW-6	4	22	Y	Y	2	2	2	2	2	2	
MW-7	4	22	Y	Y	2	2	2	2	2	2	
MW-8	4	8	Y	Y	2	2	2	2	2	2	
MW-9	2	8	Y	Y	2	2	2	2	2	2	
MW-10	4	n/a									Well plumbed to HVDPE system; not used for monitoring
MW-11	4	n/a									Well plumbed to HVDPE system; not used for monitoring
MW-12	4	n/a									Well plumbed to HVDPE system; not used for monitoring
MW-13	2	8	X	X	2	2	2	X <sup>3</sup>	2	2	
MW-14	2	8	X	Y	2	2	2	2	2	2	
MW-15	2	8	Y	Y	2	2	2	2	2	2	
MW-16	2	8	Y	Y	2	2	2	X	1	2	

Project Manager: \_\_\_\_\_

Field Technician: John Sigg

**McCAMPBELL ANALYTICAL INC.**

1538 Willow Pass Road, Pittsburg, CA 94565

Telephone: (925) 252-9262

Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**

EDF Required?  Yes  No  
 RUSH 24 HR  48 HR  72 HR  5 DAY  
 PDF Required?  Yes  No

Report To: **Ricky Bradford** Bill To: **AEI Consultants**  
 Company: **AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597**  
 PO# **WC083064** Global ID: **T0600101143**  
 E-Mail: **rbradford@aeiconsultatns.com**  
 Telephone: (925) 746-6048 Fax: (925) 746-6099  
 Project No: **116907** Project Name: **Vic's Auto (Q2, 2011)**  
 Project Location: **245 8<sup>th</sup> Street, Oakland, CA 94607**  
 Sampler Signature: *John Sugg*

**Analysis Request**

**Other**

**Comments**

TPH-g & MBTEX (SW8015C/8021B)

TPH-d (SW8015C)

MTBE Only (SW8260B)

Page 1 of 1

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other					
MW-1	MW-1	5-26-11	0615	3	VOA	X					X	X			X				
MW-2	MW-2		0830	3	VOA	X					X	X			X				HVDPE Well
MW-3	MW-3																		HVDPE Well
MW-4	MW-4																		DTW Only!!!
MW-5	MW-5		0530	3	VOA	X					X	X			X				DTW Only!!!
MW-6	MW-6		0700	3	VOA	X					X	X			X				HVDPE Well
MW-7	MW-7		0745	3	VOA	X					X	X			X				HVDPE Well
MW-8	MW-8																		HVDPE Well
MW-9	MW-9		0900	3	VOA	X					X	X			X				DTW Only!!!
MW-13	MW-13		0945	3	VOA	X					X	X			X				
MW-14	MW-14		0815	3	VOA	X					X	X			X				
MW-15	MW-15		1030	3	VOA	X					X	X			X				
MW-16	MW-16		1115	3	VOA	X					X	X			X				

Relinquished By: *John Sugg* Date: 5-27-11 Time: 4:26 Received By: *[Signature]*  
 Relinquished By: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/t° \_\_\_\_\_ PRESERVATION \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_ APPROPRIATE \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_ CONTAINERS \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_ PERSERVED IN LAB \_\_\_\_\_

## **APPENDIX B**

### **LABORATORY ANALYTICAL REPORTS W/ CHAIN OF CUSTODY DOCUMENTATION**



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants  2500 Camino Diablo, Ste. #200  Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Auto (Q2, 2011)	Date Sampled: 05/26/11
		Date Received: 05/27/11
	Client Contact: Ricky Bradford	Date Reported: 06/06/11
	Client P.O.: #WC083064	Date Completed: 06/06/11

**WorkOrder: 1105879**

June 06, 2011

Dear Ricky:

Enclosed within are:

- 1) The results of the **10** analyzed samples from your project: **#116907; Vic's Auto (Q2, 2011)**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

1105879

**McCAMPBELL ANALYTICAL INC.**  
 1538 Willow Pass Road, Pittsburg, CA 94565  
 Telephone: (925) 252-9262 Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**       
 RUSH 24 HR 48 HR 72 HR 5 DAY  
 EDF Required?  Yes  No PDF Required?  Yes  No

Report To: Ricky Bradford Bill To: AEI Consultants  
 Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597  
 PO# WC083064 Global ID: T0600101143  
 E-Mail: rbradford@aeiconsultatns.com  
 Telephone: (925) 746-6048 Fax: (925) 746-6099  
 Project No: 116907 Project Name: Vic's Auto (Q2, 2011)  
 Project Location: 245 8<sup>th</sup> Street, Oakland, CA 94607  
 Sampler Signature: *[Signature]*

Analysis Request												Other	Comments
													Page 1 of 1

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED				TPH-g & MBTEX (SW8015C/8021B) TPH-d (SW8015C)	MTBE Only (SW8260B)
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other		
MW-1	MW-1	5-26-11	0615	3	VOA	X					X	X			X	HVDPE Well
MW-2	MW-2		0830	3	VOA	X					X	X			X	HVDPE Well
MW-3	MW-3															DTW Only!!!
MW-4	MW-4															DTW Only!!!
MW-5	MW-5		0530	3	VOA	X					X	X			X	HVDPE Well
MW-6	MW-6		0700	3	VOA	X					X	X			X	HVDPE Well
MW-7	MW-7		0745	3	VOA	X					X	X			X	HVDPE Well
MW-8	MW-8															DTW Only!!!
MW-9	MW-9		0900	3	VOA	X					X	X			X	
MW-13	MW-13		0945	3	VOA	X					X	X			X	
MW-14	MW-14		0815	3	VOA	X					X	X			X	
MW-15	MW-15		1030	3	VOA	X					X	X			X	
MW-16	MW-16		1115	3	VOA	X					X	X			X	

Relinquished By: *[Signature]* Date: 5-27-11 Time: 1410 Received By: *[Signature]*  
 Relinquished By: *[Signature]* Date: 5/27/11 Time: 1615 Received By: *[Signature]*  
 Relinquished By: *[Signature]* Date: 5/27/11 Time: 1700 Received By: *[Signature]*

ICE/r<sup>o</sup> 46°C  
 GOOD CONDITION   
 HEAD SPACE ABSENT   
 DECHLORINATED IN LAB  PRESERVED IN LAB   
 VOAS  O&G  METALS  OTHER

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1105879

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Report to:	Ricky Bradford	Email: rbradford@aeiconsultants.com	Bill to:	Jeanette Brown	Requested TAT: 5 days
	AEI Consultants	cc:		AEI Consultants	Date Received: 05/27/2011
	2500 Camino Diablo, Ste. #200	PO: #WC083064		2500 Camino Diablo, Ste. #200	Date Printed: 05/27/2011
	Walnut Creek, CA 94597	ProjectNo: #116907; Vic's Auto (Q2, 2011)		Walnut Creek, CA 94597	
	(925) 283-6000 FAX (925) 944-2895			jbrown@aeiconsultants.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1105879-001	MW-1	Water	5/26/2011 6:15	<input type="checkbox"/>	A	A											
1105879-002	MW-2	Water	5/26/2011 8:30	<input type="checkbox"/>	A												
1105879-003	MW-5	Water	5/26/2011 5:30	<input type="checkbox"/>	A												
1105879-004	MW-6	Water	5/26/2011 7:00	<input type="checkbox"/>	A												
1105879-005	MW-7	Water	5/26/2011 7:45	<input type="checkbox"/>	A												
1105879-006	MW-9	Water	5/26/2011 9:00	<input type="checkbox"/>	A												
1105879-007	MW-13	Water	5/26/2011 9:45	<input type="checkbox"/>	A												
1105879-008	MW-14	Water	5/26/2011 8:15	<input type="checkbox"/>	A												
1105879-009	MW-15	Water	5/26/2011 10:30	<input type="checkbox"/>	A												
1105879-010	MW-16	Water	5/26/2011 11:15	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTX W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



**Sample Receipt Checklist**

Client Name: **AEI Consultants** Date and Time Received: **5/27/2011 5:11:47 PM**  
Project Name: **#116907; Vic's Auto (Q2, 2011)** Checklist completed and reviewed by: **Melissa Valles**  
WorkOrder N°: **1105879** Matrix Water Carrier: Client Drop-In

**Chain of Custody (COC) Information**

Chain of custody present? Yes  No   
Chain of custody signed when relinquished and received? Yes  No   
Chain of custody agrees with sample labels? Yes  No   
Sample IDs noted by Client on COC? Yes  No   
Date and Time of collection noted by Client on COC? Yes  No   
Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

Custody seals intact on shipping container/cooler? Yes  No  NA   
Shipping container/cooler in good condition? Yes  No   
Samples in proper containers/bottles? Yes  No   
Sample containers intact? Yes  No   
Sufficient sample volume for indicated test? Yes  No

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

All samples received within holding time? Yes  No   
Container/Temp Blank temperature Cooler Temp: 4.6°C NA   
Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted   
Sample labels checked for correct preservation? Yes  No   
Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA   
Samples Received on Ice? Yes  No   
(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

=====

Client contacted: Date contacted: Contacted by:

Comments:





# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants  2500 Camino Diablo, Ste. #200  Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Auto (Q2, 2011)	Date Sampled: 05/26/11
	Client Contact: Ricky Bradford	Date Received: 05/27/11
	Client P.O.: #WC083064	Date Extracted: 06/01/11-06/03/11
		Date Analyzed: 06/01/11-06/03/11

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1105879

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	390	ND	4.6	5.2	15	97	1	117	d1
002A	MW-2	W	140	51	ND	ND	ND	1.9	1	104	d2
003A	MW-5	W	830	ND<10	33	27	16	170	2	109	d1
004A	MW-6	W	4400	ND<50	52	400	200	1300	10	116	d1
005A	MW-7	W	460	ND<10	25	6.8	4.9	93	1	122	d1
006A	MW-9	W	4100	ND<250	1700	11	120	9.9	10	98	d1
007A	MW-13	W	ND	ND	ND	ND	ND	ND	1	106	
008A	MW-14	W	ND	ND	ND	ND	ND	ND	1	101	
009A	MW-15	W	ND	7.3	ND	ND	ND	ND	1	99	
010A	MW-16	W	ND	ND	ND	ND	ND	ND	1	99	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- d1) weakly modified or unmodified gasoline is significant
- d2) heavier gasoline range compounds are significant (aged gasoline?)



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 58677

WorkOrder 1105879

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1105858-001A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>f</sup>	ND	60	93.3	92.9	0.379	95.5	92.9	2.80	70 - 130	20	70 - 130	20
MTBE	ND	10	117	115	1.53	113	113	0	70 - 130	20	70 - 130	20
Benzene	ND	10	101	101	0	103	100	2.41	70 - 130	20	70 - 130	20
Toluene	ND	10	101	101	0	102	100	2.00	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	101	100	1.14	102	100	1.25	70 - 130	20	70 - 130	20
Xylenes	ND	30	103	103	0	104	102	1.55	70 - 130	20	70 - 130	20
%SS:	93	10	94	95	0.796	95	94	1.76	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 58677 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1105879-010A	05/26/11 11:15 AM	06/02/11	06/02/11 2:17 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 58679

WorkOrder 1105879

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1105879-007A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	87.7	95.4	8.37	97.3	95.2	2.14	70 - 130	20	70 - 130	20
MTBE	ND	10	99.7	106	6.59	107	105	2.32	70 - 130	20	70 - 130	20
Benzene	ND	10	88.5	97.7	9.95	101	95.3	6.11	70 - 130	20	70 - 130	20
Toluene	ND	10	88.8	97.4	9.31	101	95.5	5.98	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	88.7	96.5	8.48	101	95.3	6.07	70 - 130	20	70 - 130	20
Xylenes	ND	30	91.5	98.8	7.67	104	97.9	6.22	70 - 130	20	70 - 130	20
%SS:	106	10	97	97	0	100	98	2.86	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 58679 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1105879-001A	05/26/11 6:15 AM	06/02/11	06/02/11 3:15 AM	1105879-002A	05/26/11 8:30 AM	06/02/11	06/02/11 8:21 PM
1105879-003A	05/26/11 5:30 AM	06/01/11	06/01/11 10:06 PM	1105879-004A	05/26/11 7:00 AM	06/02/11	06/02/11 5:43 AM
1105879-005A	05/26/11 7:45 AM	06/03/11	06/03/11 1:47 AM	1105879-006A	05/26/11 9:00 AM	06/02/11	06/02/11 7:41 AM
1105879-007A	05/26/11 9:45 AM	06/02/11	06/02/11 6:42 AM	1105879-008A	05/26/11 8:15 AM	06/02/11	06/02/11 1:12 PM
1105879-009A	05/26/11 10:30 AM	06/02/11	06/02/11 1:44 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.