LRM consulting inc.

THIRD QUARTER 2006
GROUNDWATER MONITORING REPORT

FORMER VAL STROUGH CHEVROLET
327 34th STREET
OAKLAND, CALIFORNIA

Prepared For:

Mr. Don Strough
Strough Family Trust of 1983
P.O. Box 489
Orinda, California 94563

Prepared By:

LRM Consulting, Inc.
1534 Plaza Lane, #145
Burlingame, CA 94010

11 December 2006

Ram Rao, P.E.
Senior Engineer

12/11/06
Date

LRM
consulting inc.

December 11, 2006

Mr. Don Hwang
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Subject: Former Val Strough Chevrolet
327 34th Street, Oakland, California
Site ID #3035, RO#0000134

Dear Mr. Hwang:

This letter is to accompany the *Third Quarter 2006 Groundwater Monitoring Report* for the above-referenced site. If you have any questions, please contact the undersigned at (510) 414-9315.

Sincerely,

Ram Rao, P.E.
Senior Engineer

cc: Mr. Don Strough, Strough Family Trust, 2 Sea View Avenue, Piedmont, California 94611
Mr. Greggory Brandt, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607
Mr. Jonathan Redding, Esq., Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607

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1.0 INTRODUCTION

At the request of the Strough Family Trust of 1983, LRM Consulting, Inc. (LRM) has prepared this *Third Quarter 2006 Groundwater Monitoring Report* for the former Val Strough Chevrolet located in Oakland, California. This report documents the procedures and findings of the 29 September 2006 groundwater monitoring event. This report also summarizes data for the dual phase extraction (DPE) system at the site, which did not operate this quarter. Groundwater monitoring data and well construction details are shown on the figures and presented in the tables. Groundwater monitoring protocols, field data, and analytical results are provided in the appendices.

1.1 General Site Information

Site name:	Former Val Strough Chevrolet
Site address:	327 34th Street, Oakland, California
Current property owner:	Strough Family Trust of 1983
Current site use:	Automotive Dealership and Service Center
Current phase of project:	Groundwater monitoring and evaluation of need and approaches for additional remediation
Tanks at site:	Two former tanks (1 gasoline, 1 waste-oil) removed in 1993
Number of wells:	7 (all onsite)
Site ID #:	3035
RO #:	0000134

1.2 Site Contacts

Consultant:

Ram Rao, P.E.
LRM Consulting, Inc.
1534 Plaza Lane, # 145
Burlingame, CA 94010
(650) 343-4633

Regulatory agency:

Don Hwang
Alameda County Health Services Agency (ACHCSA)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6746

2.0 SITE BACKGROUND

2.1 Site Description

Site Location and Land Use: The former Val Strough Chevrolet site is currently an active Honda automobile dealership and service center located on the southwestern corner of the intersection of Broadway (Auto Row) and 34th Street (Figure 1). The property is located south of Interstate 580. Land use in the area is primarily commercial.

The site is situated approximately 2 miles east of San Francisco Bay at approximately 61 feet above mean sea level (msl) (EDR, 2003). The land surface in the vicinity slopes toward the south. The nearest surface water body is Lake Merritt, located approximately 1 mile south of the site (Figure 1).

Site Features: The site consists of a multi-level building and an adjacent parking lot (Figure 2). The former fuel dispenser and underground storage tanks (USTs) were located in the northwestern portion of the site. Seven groundwater monitoring wells are located at the site. Construction details for the wells are presented in Table 1.

Underground Utilities: A box culvert for a former tributary of Glen Echo Creek is located approximately 17 feet below ground surface (bgs) in the eastern portion of the site (Figure 2). The culvert consists of a reinforced concrete box measuring 5 feet by 6 feet. During the winter of 1983, a section of the culvert collapsed and was replaced with a 5-foot-diameter pipeline.

Sanitary sewer, electrical, and natural gas utilities are generally present at depths less than 2 feet bgs at the site. Approximately 40 feet north of the site, along the northern edge of 34th Street, a storm sewer pipeline flows toward the east and into the box culvert. Sanitary sewer lines run parallel to both 34th Street and Broadway, north and east of the site, respectively. A lateral pipeline located along the western edge of the site connects to the sanitary sewer line below 34th Street. Natural gas service is located on the east side of the property. Water service appears to enter the site from the north.

Water Supply Well Search: A 2003 report compiled by EDR indicates that there are no federal U.S. Geological Survey wells and no public water supply wells located within a 1-mile radius of the site. No water supply wells were identified by the Alameda County Department of Public Works within a ½-mile radius of the site (ETIC, 2003).

2.2 Summary of Previous Investigations and Monitoring Activities

As presented in previous reports, the USTs were removed and multiple investigations, including the installation of seven groundwater monitoring wells, were conducted. In addition, a routine groundwater monitoring program has been in place since 1993. The following paragraphs summarize the findings of these activities.

Site Hydrogeology: In general, the site is underlain by silt and clay to depths ranging from approximately 15 to 20 feet bgs. Silty sand and fine-grained sand interbedded with thin clay intervals are encountered from approximately 20 feet bgs to the total explored depth of 35 feet bgs.

The depth to groundwater beneath the site has ranged from approximately 12.5 to 23 feet bgs. As shown in the modified rose diagram on Figure 2, the direction of groundwater flow is generally toward the southwest to south-southeast, with an average hydraulic gradient of approximately 0.02 to 0.03 foot/foot.

Primary Sources: Two USTs (one gasoline and one waste-oil) were located beneath the sidewalk on the northern side of the property. A fuel dispenser was located inside the building (Figure 2). These primary sources of petroleum hydrocarbons were removed from the site in 1993.

Constituents of Potential Concern: Based on the type of fuel stored in the USTs and the results of previous subsurface investigations, the constituents of potential concern (COPCs) at the site include total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl t-butyl ether (MTBE). TPH as diesel (TPH-d) and TPH as motor oil (TPH-mo) are not routinely detected in groundwater samples and are considered secondary COPCs for the site.

Residual Source Area: Elevated concentrations of TPH-g, BTEX, and MTBE have been observed in soil in the vadose zone and upper portion of the water-bearing zone near the former USTs and fuel dispenser. Separate phase petroleum hydrocarbons (SPH) have been intermittently detected in wells MW2 and MW3. These data indicate that most of the residual petroleum hydrocarbon mass is present near the former USTs and fuel dispenser, herein referred to as the residual source area.

Petroleum Hydrocarbon Distribution in Groundwater: The highest concentrations of petroleum hydrocarbons have been detected in samples collected from wells MW2 and MW3. Generally lower levels of petroleum hydrocarbons have been detected in samples collected from well MW4, and the other site wells. The extent of dissolved-phase petroleum hydrocarbons in groundwater is largely defined by relatively low and stable TPH-g, BTEX, and MTBE concentrations detected in downgradient and cross-gradient monitoring wells MW5, MW6, and MW7 (Table 2). These data suggest that the petroleum hydrocarbon plume is stable.

In addition, fuel oxygenates (tertiary amyl methyl ether, ethyl tertiary butyl ether, di-isopropyl ether, tertiary butyl alcohol and ethanol) and lead scavengers (ethylene dibromide and ethylene dichloride) were detected near laboratory reporting limits or were not detected in groundwater samples collected from borings HP1 and HP3 in December 2003 (Table 3). Note that boring HP2 was dry during the December 2003 sampling event.

2.3 Summary of Interim Remedial Action Activities

Since 2004, in addition to the routine groundwater monitoring activities, remediation pilot testing and remediation activities were conducted at the site. A summary of these activities and associated regulatory correspondence with the ACHCSA are presented below:

DPE Pilot Test: In March 2004, ETIC Engineering, Inc. (ETIC) performed a DPE pilot test at the site. As summarized in the June 2004 *Dual Phase Extraction Pilot Test and Interim Remedial Action Plan* (DPE and IRAP Report), vacuum was applied to source area wells MW2 and MW3 while water and vacuum levels were measured in nearby monitoring wells. The DPE pilot test induced more than 1 foot of drawdown up to 50 feet from the extraction wells and an estimated radius of vacuum influence of 55 to 70 feet. Based on vapor flow rates and petroleum hydrocarbon concentrations in the vapor stream during the short-term pilot test, removal rates of approximately 90 pounds of petroleum hydrocarbons per day were estimated. These data suggested that DPE from wells MW2 and MW3 can successfully remove petroleum hydrocarbons from the site subsurface and induce vacuum influence across the source area.

June 2004 DPE and IRAP Report: The DPE and IRAP Report (ETIC, 2004) described the planned reduction of residual petroleum hydrocarbon mass in the source area through temporary DPE system installation and operation and dual phase extraction from source area wells MW2 and MW3 to extract soil vapor and groundwater simultaneously. The system was designed to consist of a knockout vessel to be used for separation of the soil vapor and water streams. A thermal oxidizer (with propane as a supplemental fuel) was proposed for treatment of extracted vapor, and aqueous-phase granular activated carbon was proposed for treatment of extracted groundwater.

20 August 2004 ACHCSA Correspondence: In a 20 August 2004 correspondence, the ACHCSA provided general concurrence with the scope of work presented in the DPE Report and IRAP and requested that additional activities be performed, including preparation of a work plan for source characterization and shallow soil remediation. In the 26 October 2004 *Technical Memorandum*, ETIC presented an evaluation of site data concluding that the source area was adequately characterized and that the planned DPE interim remedial action would address the shallow soil remediation requested by the ACHCSA.

4 February 2005 ACHSCA Correspondence: In a 4 February 2005 correspondence, the ACHCSA provided concurrence with initiation of DPE interim remedial activities and requested an *Addendum to the Interim Remedial Action Plan* for verification monitoring of remediation effectiveness. The following summarizes ETIC's response to this request.

During operation of the remediation system, petroleum hydrocarbon concentrations in vapor and water were anticipated to decline, resulting in reduction in mass removal rates. As mass removal rates approach asymptotic levels, operation of the DPE system would cease temporarily (2 to 4 weeks) to allow the subsurface to re-equilibrate. Following re-equilibration, the site data would be evaluated and if warranted the system would be restarted and operated until mass removal rates again approach asymptotic levels. This process may be repeated. ETIC's 24 June 2004 DPE Report and IRAP presented a process to verify the effectiveness of interim remedial action activities.

Interim Remedial Action: Between February 2005 and June 2006, ETIC operated a DPE system on site. Vacuum was applied to remove groundwater and soil vapor from up to two wells (MW2 and/or MW3). The system was shutdown on 30 January 2006 for conversion of vapor treatment from thermal oxidation to carbon filtration, and remained offline until 22 May 2006, when it was restarted. Operation of the dual phase extraction (DPE) system was ceased by ETIC on 30 June 2006 due to frequent shutdowns caused by reported overheating of the electrical phase-converter observed since operation of the system was resumed on 22 May 2006. Because the mass removal rates by the DPE system had reached asymptotic levels and high petroleum hydrocarbon concentrations continued to exist in extraction well MW-2 despite the DPE operation, the continuation of DPE in its configuration was not beneficial pending proposed system enhancements described below.

3 March 2006 ETIC Work Plan for Well Installation and Remediation Enhancements: In a 3 March 2006 ETIC *Work Plan for Well Installation and Remediation Enhancement*, ETIC recommended that three wells (MW8, MW9, and MW10) be installed and connected to the DPE system. However, this Work Plan met with significant ACHCSA comments as presented in a 19 July 2006 correspondence..

25 August 2006 LRM Consulting Correspondence: In a 25 August 2006 correspondence, LRM notified the ACHCSA of a project consultant change from ETIC to LRM. Also, based on a review of the available site data, the response of the hydrocarbon concentrations to past DPE operations, and the ACHCSA's comments on ETIC's Work Plan, LRM recommended a technical meeting with the ACHCSA to discuss the project direction. However, because of other commitments of Don Hwang and other ACHCSA staff, a technical meeting could not be scheduled. During a 19 October 2006 telephone conversation with Don Hwang, LRM presented an approach to conduct a limited investigation to define the magnitude and extent of the residual source area in the vicinity of the former fuel dispenser and well MW2. Based on these discussions and as agreed by Mr. Hwang, a work plan outlining the proposed scope of work is in preparation.

3.0 PROTOCOLS FOR GROUNDWATER MONITORING

The following sections of this report present information relevant to the methods employed during the collection of groundwater samples from site wells on 29 September 2006. The scope of work for the quarterly groundwater monitoring event at the site included:

- Checking all wells for SPH.
- Gauging the depth to groundwater in all wells.
- Purging the monitoring wells to be sampled.
- Collecting and analyzing groundwater samples from the wells where no SPH is detected.
- Estimating the hydraulic gradient and general flow direction.
- Evaluating the data and preparing a written report summarizing the results of the monitoring event.

3.1 Groundwater Gauging

The monitoring wells were opened prior to gauging to allow the groundwater level to equilibrate with atmospheric pressure. The depth to groundwater and depth to SPH, if present, were then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements were made from a fixed reference point at the top of the well casing.

The groundwater elevation map (Figure 2) for this monitoring event was constructed using depth-to-groundwater measurements collected during the current sampling event. Depth-to-groundwater measurements and calculated groundwater elevations are presented in Table 2. Field data forms are presented in Appendix B.

3.2 Well Purging

Approximately three well casing volumes of water were purged from wells MW1, MW2, MW3, MW4 and MW6. Field parameters including temperature, pH, specific conductance, and dissolved oxygen were measured during purging of all three wells. Groundwater monitoring protocols are presented in Appendix A.

3.3 Groundwater Sampling

After purging, groundwater in each well was sampled using dedicated tubing and a WaTerra inertial pump, or a disposable bailer. Sample containers were sealed, labeled, stored in a cooler and transported under chain-of-custody protocol to Kiff Analytical LLC (Kiff), a state-certified analytical laboratory in Davis, California. Groundwater analytical results and chain-of-custody documentation are presented in Appendix C.

4.0 MONITORING RESULTS

4.1 Separate-Phase Hydrocarbon Monitoring

The wells were monitored for the presence of SPH using a disposable bailer and/or interface probe. SPH was not detected in monitoring wells during this monitoring event.

4.2 Groundwater Elevation and Hydraulic Gradient

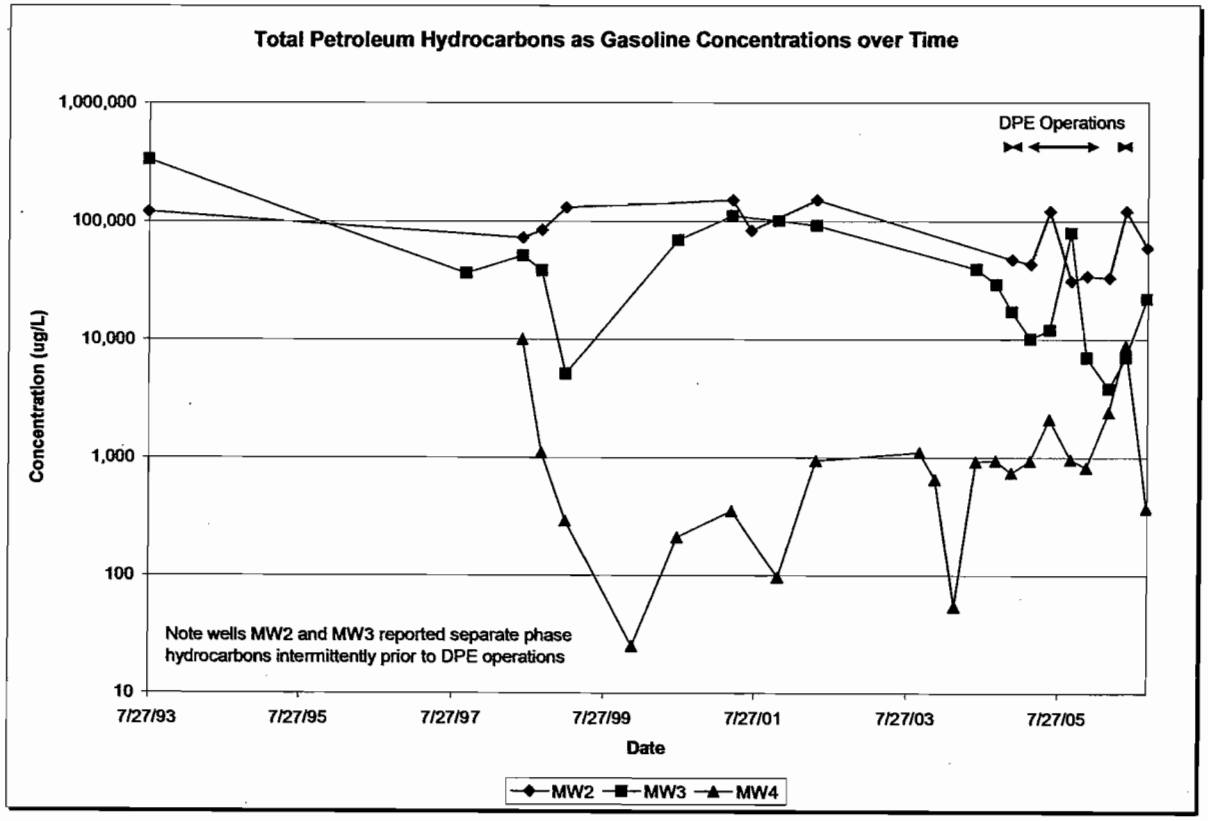
On 29 September 2006, the depth to water beneath the site ranged from 16.67 to 22.80 feet bgs (Table 1). Groundwater elevations in the site wells during this monitoring event ranged from 42.00 feet above msl in well MW6 to 44.84 feet above msl in wells MW3 (Figure 2). The hydraulic gradient is approximately 0.03 ft/ft and flow direction is generally towards the south-southeast. At the request of the ACHCSA, a rose diagram depicting historical hydraulic gradients and groundwater flow directions are also presented on Figure 2.

4.3 Groundwater Analytical Results

On 29 September 2006, groundwater samples were collected from wells MW1, MW2, MW3, MW4, and MW6 and analyzed by Kiff for TPH-g, BTEX, and MTBE by EPA Method 8260B and for TPH-d and TPH-mo by modified EPA Method 8015. Analytical results for this event are presented on Figure 3, and historical results are presented in Table 2. Copies of the chain-of-custody and laboratory analytical reports for the groundwater samples are presented in Appendix C. Laboratory analytical results are summarized below:

- TPH-g was detected in the samples collected from well MW2 at 59,000 µg/L, MW3 at 22,000 µg/L, and MW4 at 370 µg/L. TPH-g was not reported above laboratory reporting limits in wells MW-1 and MW-6.
- Benzene was detected in the samples collected from well MW2 at 1,200 µg/L, well MW3 at 1,300 µg/L, well MW4 at 18 µg/L, and MW6 at 0.87 µg/L. Benzene was not reported above laboratory reporting limits in well MW-1.
- MTBE was detected in the samples collected from well MW1 at 7.9 µg/L, well MW2 at 230 µg/L, well MW3 at 110 µg/L, well MW4 at 180 µg/L, and well MW6 at 140 µg/L.
- TPH-d was not detected in groundwater samples collected from any well this quarter.
- TPH-mo was detected at a concentration of 300 µg/L in well MW2, TPH-mo was not detected in groundwater samples collected from wells MW-1, MW3, MW4, and MW6 this quarter.

Concentration trends near the residual source area are shown below on the graph for wells MW2, MW3, and MW4:



5.0 INTERIM REMEDIAL ACTION SUMMARY

5.1 DPE System Operational Status

Operational Status: The DPE system began operation on 23 February 2005 and continued to operate until 30 January 2006. The system remained offline from 30 January 2006 to 22 May 2006, when it was restarted. In the interim, the vapor abatement system was modified from a thermal oxidizer with propane supplemental fuel to vapor-phase carbon adsorption. Following the restart in May 2006, operation of the DPE system was ceased by ETIC on 30 June 2006 due to frequent shutdowns caused by reported overheating of the electrical phase-converter. Currently, the skid-mounted DPE unit has been mobilized offsite.

Permits: The system operated in accordance with appropriate BAAQMD and East Bay Municipal Utility District (EBMUD) discharge permits. Prior to system startup, appropriate approvals were also obtained from the City of Oakland Building and Fire Departments.

System Construction: In its current configuration, wells MW2 and MW3 are connected to the treatment system compound via underground piping. While in operation, the DPE unit consisted of a liquid-ring pump, knock-out vessel, and thermal oxidizer/carbon vessels and was placed inside a fenced compound in a parking lot located to the west of the site structures.

5.2 DPE System Performance

A brief summary of the DPE system performance through 30 June 2006, when it was shutdown is presented below:

- From 23 February 2005 to 30 June 2006, the system operated for approximately 265 days (Table 7).
- Influent concentrations of TPH-g in groundwater decreased from 20,000 µg/L (12/8/05) to 1,300 µg/L (6/12/06) (Figure 4 and Table 4).
- The influent concentration of TPH-g in soil vapor decreased from 1,400 parts per million by volume (ppmv) (12/8/05) to 100 ppmv (6/12/06) (Figure 5 and Table 5).
- Through 30 June 2006, the DPE system extracted approximately 736,605 gallons of groundwater at an average flow rate of 1.9 gallons per minute (Table 6).
- Approximately 113.57 pounds of TPH-g and 2.2 pounds of benzene have been removed in the aqueous phase during the operation of the DPE system (Figure 4 and Table 6).
- The average system vapor flow rate has been 38 cubic feet per minute (CFM) since operation began (Table 7).

- Approximately 9,021 pounds of TPH-g and 98.9 pounds of benzene have been removed in the vapor phase during the operation of the DPE system (Table 7). These mass removal calculations are based on influent vapor samples typically collected while the system was operational for more than 3 days prior to vapor sample collection. The estimated amounts of TPH-g and benzene removed have been recalculated since the first quarter of 2006, corresponding to more recent and updated data that have been obtained.

5.3 DPE System Performance Evaluation

The DPE system has extracted significant quantities of petroleum hydrocarbons; however, the system did not operate efficiently while simultaneously extracting from both wells MW2 and MW3. Therefore, the system operated with only well MW-2, except from 23 February 2005 to 15 July 2005 during which both Wells MW2 and MW3 were online. Operation of the DPE system was ceased on 30 June 2006 due to recurring system shutdown resulting from overheating of the electrical phase-converter.

Although, the existing configuration of the DPE system has removed significant quantities of petroleum hydrocarbons from the subsurface, future removal is anticipated to be low. The curves representing the cumulative mass of TPH-g removed shown on Figures 4 and 5 illustrate asymptotic removal rates (flattening of the curves) and diminishing returns for operating the system in its current configuration.

The concentrations of TPH-g and BTEX in groundwater at well MW2 increased in June 2006 (compared to March 2006). The increase is likely due to operation of the system in its current configuration and pulling the plume toward the well from the residual source area. However, the TPH-g concentration in this well was lower in September 2006 compared to June 2006. Additionally, significantly lower concentrations of TPH-g and BTEX reported in well MW4 compared to those in well MW2 indicate a limited and isolated extent of petroleum hydrocarbon plume near the residual source area and well MW2.

6.0 PLANNED ACTIVITIES

6.1 Monitoring Activities

Groundwater will be monitored in accordance with the schedule presented in Table 8.

6.2 Additional Investigation/Remediation Activities

Based on the operational behavior of the DPE system, the absence of rebounding hydrocarbon concentrations following DPE system shutdown, and the observed increase in hydrocarbon concentrations in well MW2 after restart of the DPE system, LRM recommends further investigation of the extent and magnitude of residual hydrocarbons in the area targeted by the DPE system (i.e., former residual source area in the vicinity of well MW2). Through this investigation, LRM plans to determine the need, extent, and nature of corrective action, including additional remediation and/or monitoring. To this end, LRM is currently preparing a work plan to investigate this residual source area for ACHCSA approval.

7.0 REFERENCES

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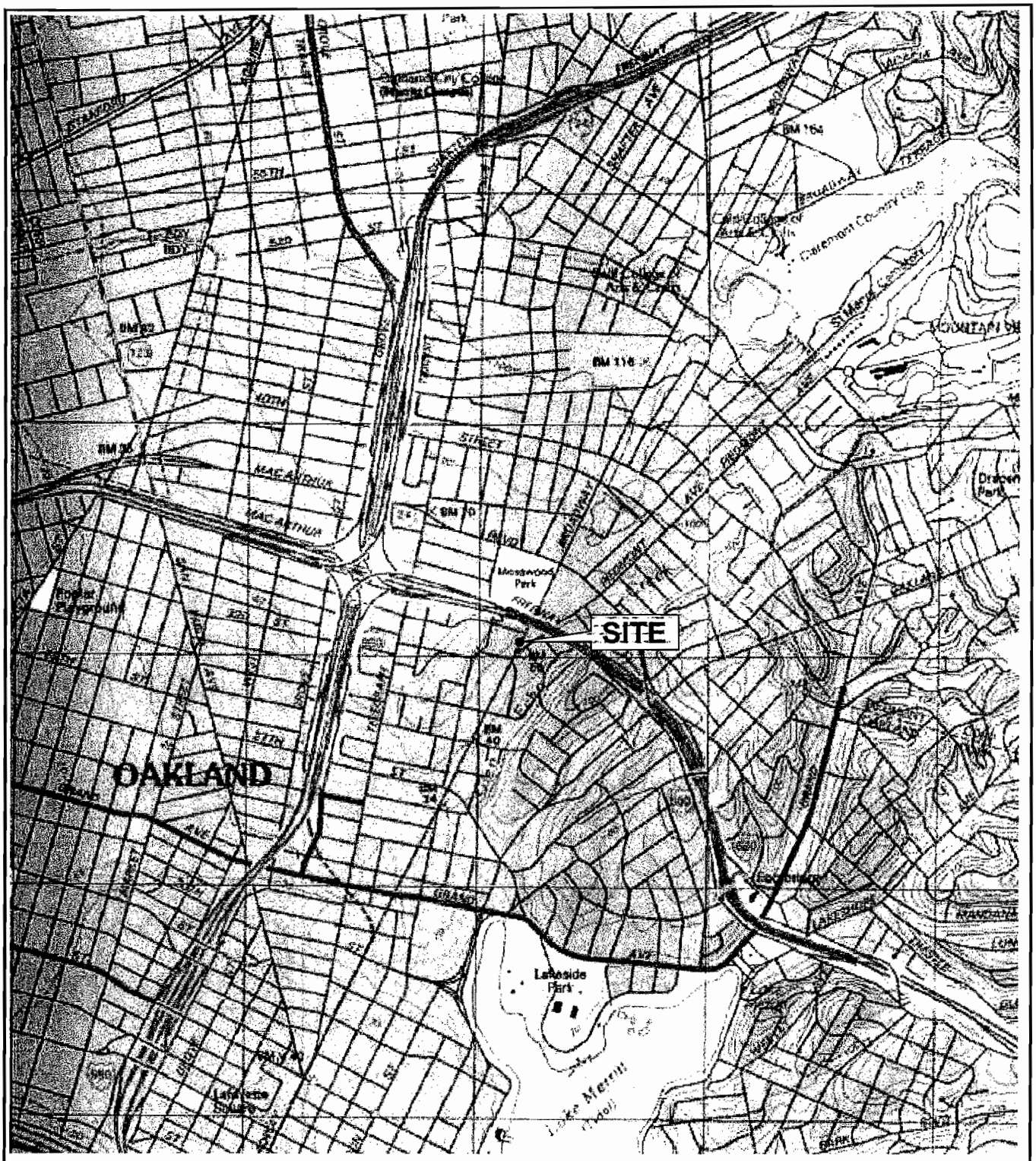
LRM Consulting, Inc.. 2006. Second Quarter 2006 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34th Street, Oakland, California. August.

FIGURES



N

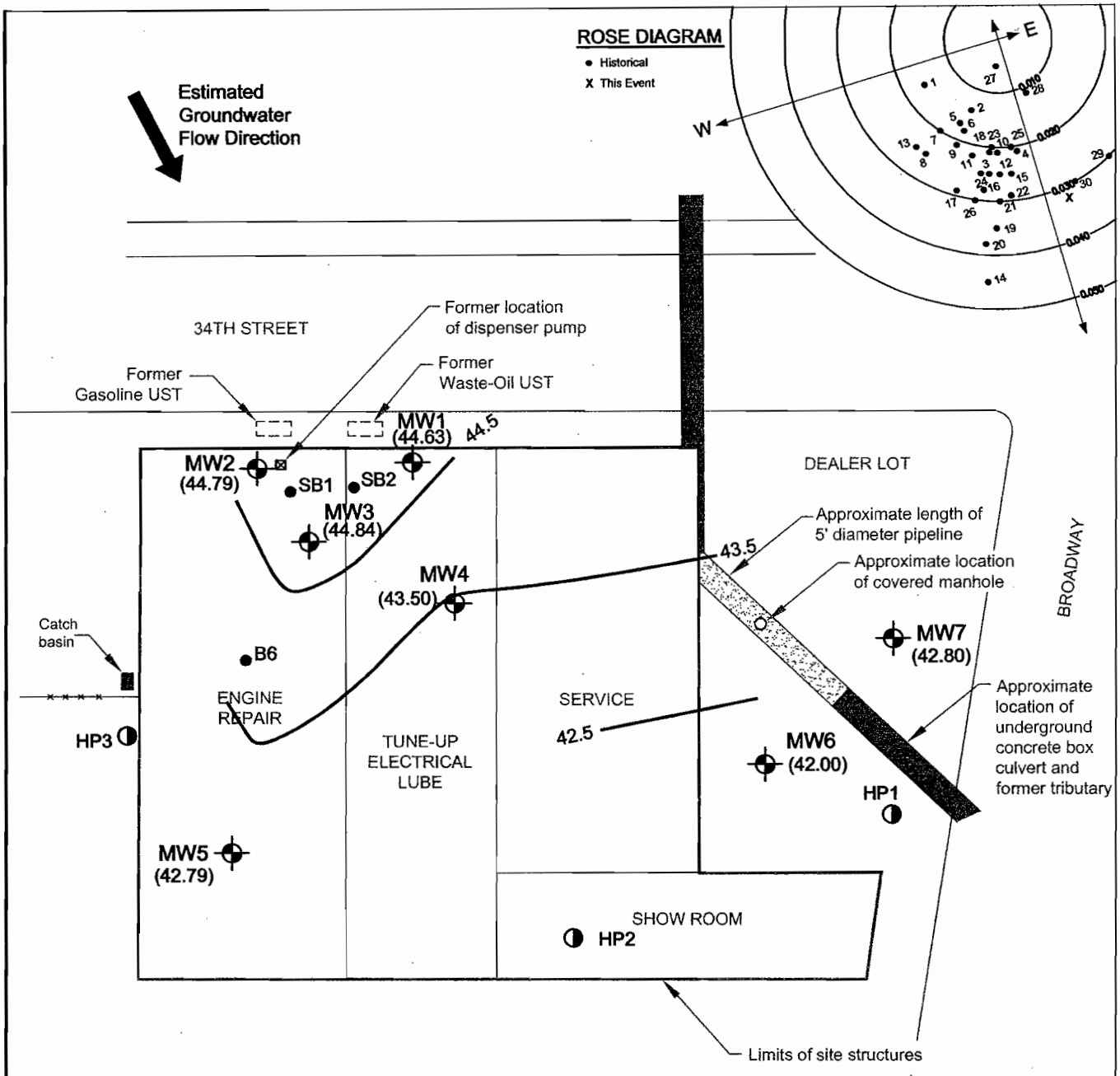
0 2,000

Scale (feet)

LRM

SITE LOCATION MAP
FORMER VAL STROUGH CHEVROLET
327 34TH STREET, OAKLAND, CALIFORNIA

FIGURE:
1



LEGEND:

- SB1 ● Soil boring
- HP2 ◑ Grab graoundwater sampling location
- MW2 ⊕ Groundwater monitoring well
- 42.79 Groundwater elevation (feet above mean sea level)
- 43.5 Groundwater elevation contour (feet above mean sea level)

Note: MW2 and MW-3 previously operated as dual phase extraction wells.

N

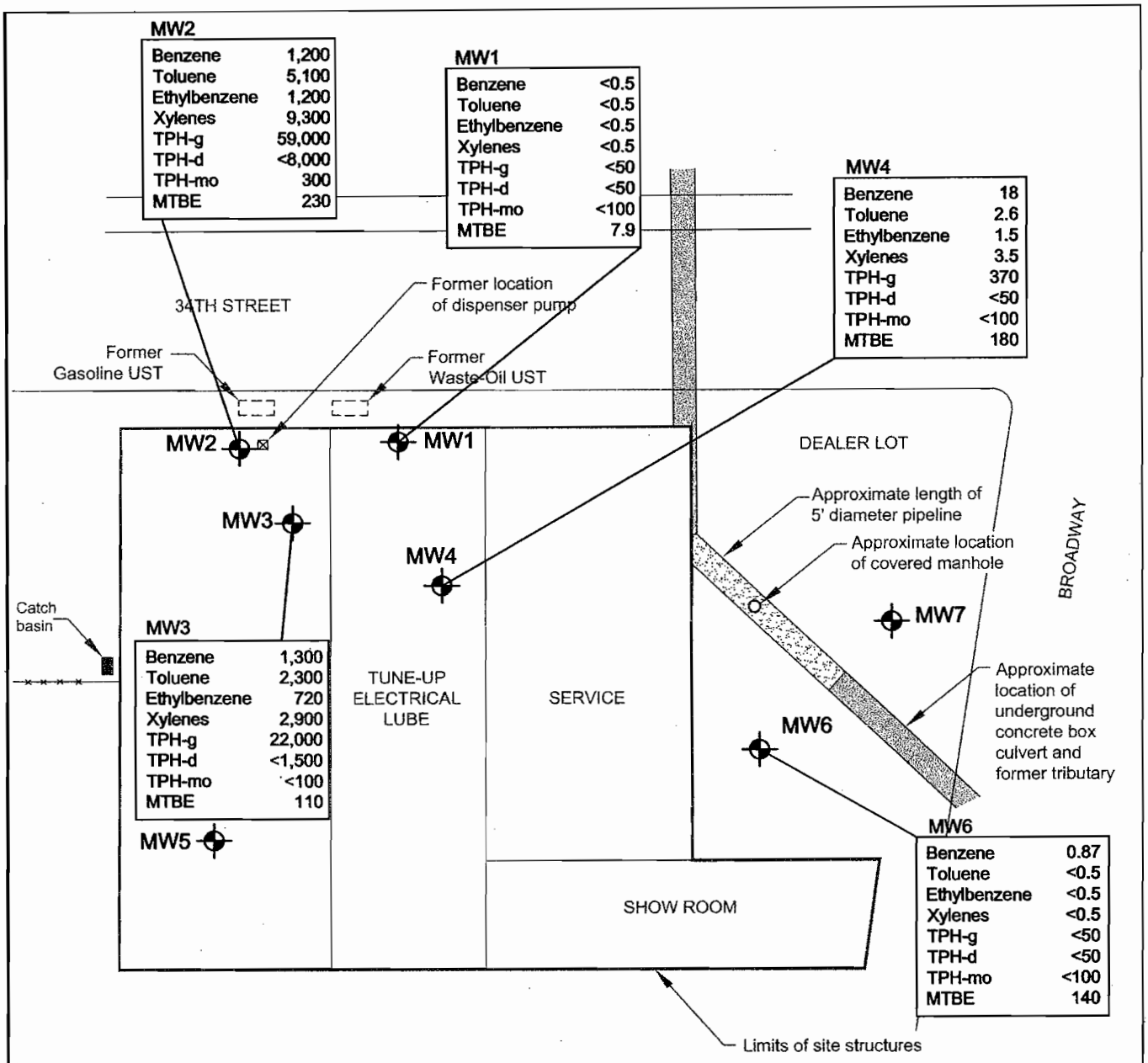
0 25 50

Scale (feet)

LRM consulting inc.

GROUNDWATER CONTOUR MAP AND ROSE DIAGRAM
FORMER VAL STROUGH CHEVROLET
327 34TH STREET, OAKLAND, CALIFORNIA

FIGURE: **2**



LEGEND:

- Groundwater monitoring well
- **TPH-g** Total Petroleum Hydrocarbons as gasoline
- **TPH-d** Total Petroleum Hydrocarbons as diesel
- **TPH-mo** Total Petroleum Hydrocarbons as motor oil
- **MTBE** Methyl Tertiary Butyl Ether

All concentrations are reported in micrograms per liter (ug/L)

N

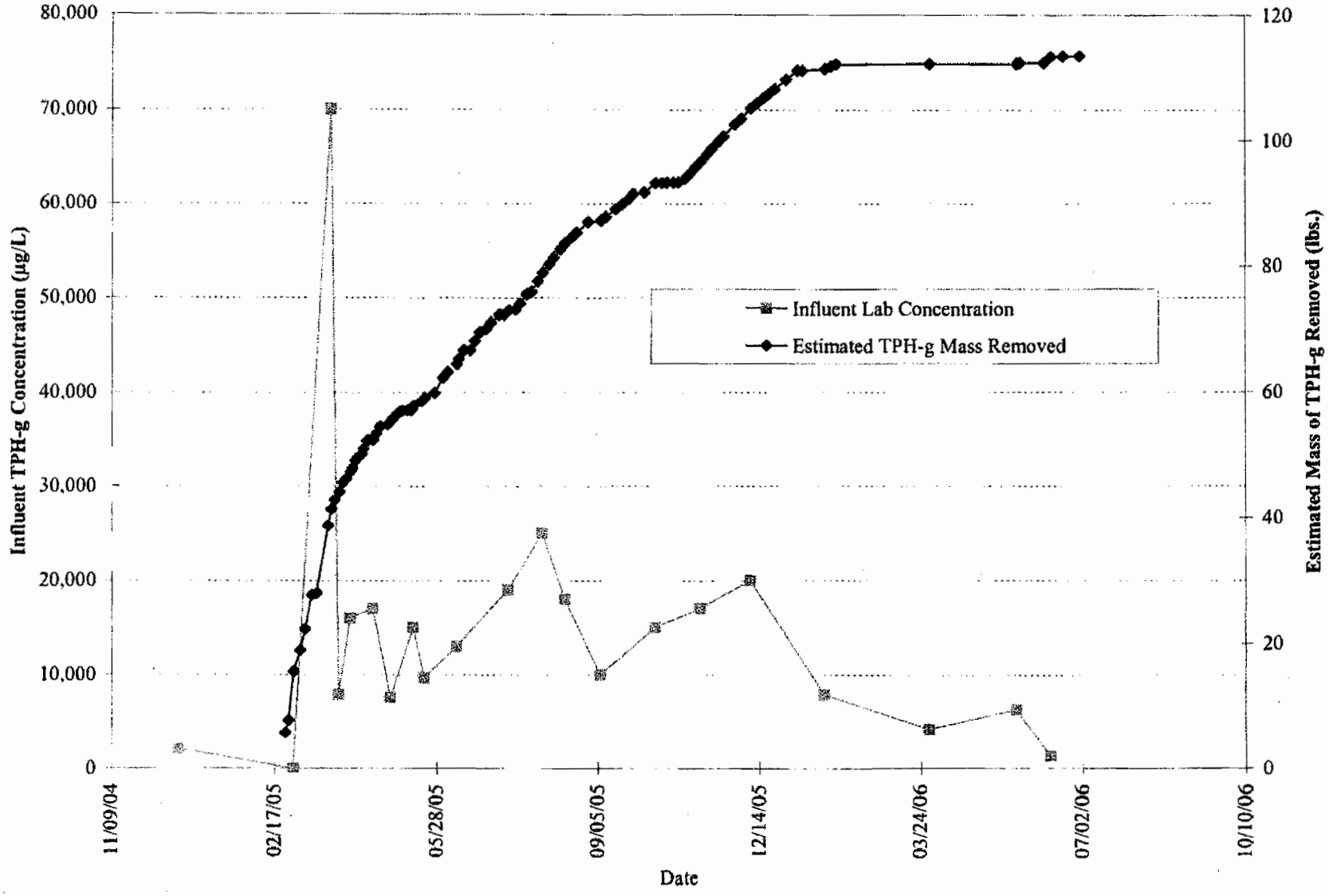
0 25 50

Scale (feet)

LRM consulting inc.

GROUNDWATER ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET
327 34TH STREET, OAKLAND, CALIFORNIA
29 SEPTEMBER 2006

FIGURE: **3**



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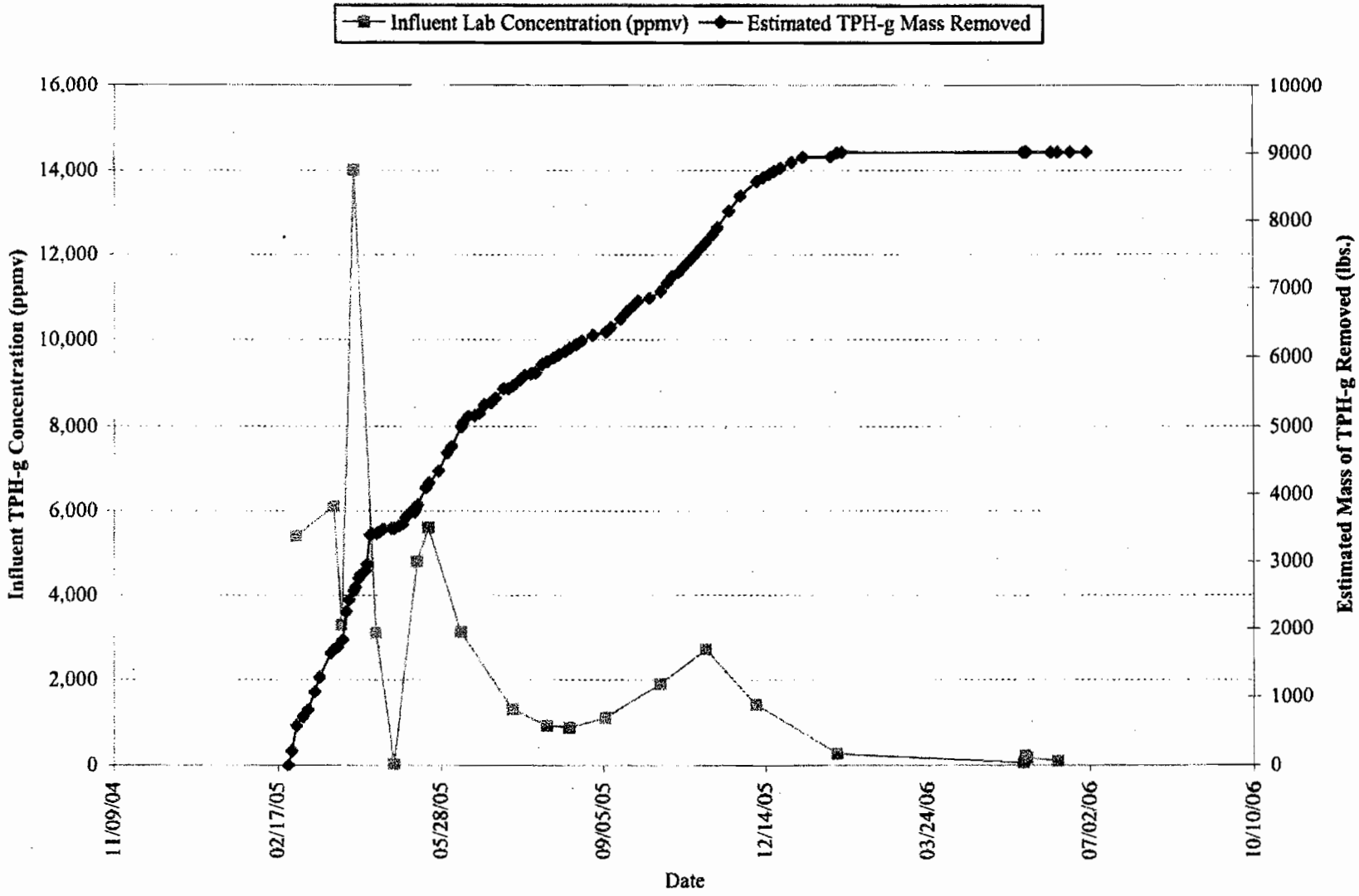
INFLUENT TPH-g CONCENTRATIONS AND ESTIMATED MASS REMOVED BY GROUNDWATER PHASE
FORMER VAL STROUGH CHEVROLET
327 34TH STREET, OAKLAND, CALIFORNIA
30 OCTOBER 2006

FIGURE: **4**



LRM consulting inc

INFLUENT TPH-g CONCENTRATIONS AND ESTIMATED MASS REMOVED BY VAPOR PHASE
FORMER VAL STROUGH CHEVROLET
327 34TH STREET, OAKLAND, CALIFORNIA
30 OCTOBER 2006

FIGURE: **5**

TABLES

TABLE 1 WELL CONSTRUCTION DETAILS
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well ID	Well Installation Date	Top-of-Casing Elevation* (feet)	Casing Material	Total Depth of Borehole (ft bgs)	Casing Diameter (inches)	Screened Interval (ft bgs)	Slot Size (inches)	Filter Pack Interval (ft bgs)	Filter Pack Material
MW1	07/19/93	64.69	PVC	32	2	17-32	0.020	15-32	Gravel Pack
MW2	07/20/93	65.95	PVC	33	2	18-33	0.020	16-33	Gravel Pack
MW3	07/20/93	65.99	PVC	34	2	18-34	0.020	16-34	Gravel Pack
MW4	06/26/98	63.35†	PVC	31	2	15-31	0.020	13-31.5	Lonestar #3 Sand
MW5	06/26/98	65.59	PVC	31	2	15-31	0.020	13-31.5	Lonestar #3 Sand
MW6	07/17/00	59.60	PVC	31.5	2	10-30	0.020	8-30	Lonestar #3 Sand
MW7	07/17/00	59.47	PVC	36.5	2	15-35	0.020	13-35	Lonestar #3 Sand

* Elevations based on a survey conducted August 2002 and referenced benchmark with known elevation (NGVD 29) of 60.40 feet above mean sea level.
† The casing elevation is uncertain.
PVC Polyvinyl chloride.
ft bgs Feet below ground surface.

TABLE 2 CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)		GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)									
								Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	Eh (mv) (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW1	07/27/93	100.00	a	20.79		79.21	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	--	--	--	--	--	--	--	--	--	--	--	--
MW1	10/02/97	100.00	a	21.22		78.78	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<2.0	--	--	--	--	--	--	--	--	--	--
MW1	06/30/98	100.00	a	18.21		81.79	0.00	<0.50	<0.50	2.1	0.6	84	--	--	2.1	204	5	--	6.16	0.15	0.046	55	<0.10	<0.10	2
MW1	07/29/98	100.00	a	18.74		81.26	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	08/26/98	100.00	a	19.28		80.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	10/01/98	100.00	a	19.93		80.07	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	192	3.6	--	6.49	--	--	--	--	--	--
MW1	10/30/98	100.00	a	20.22		79.78	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/30/98	100.00	a	19.99		80.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/28/98	100.00	a	19.81		80.19	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	01/25/99	100.00	a	19.62		80.38	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	389	3.4	--	6.72	--	--	--	--	--	--
MW1	02/26/99	100.00	a	17.18		82.82	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/24/99	100.00	a	17.28		82.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/12/99	100.00	a	17.91		82.09	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/15/99	100.00	a	21.01		78.99	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<0.50	--	3.31	--	6.52	--	--	--	--	--	--
MW1	03/20/00	100.00	a	16.25		83.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	07/20/00	100.00	a	19.63		80.37	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	3.4	120	7.37	--	6.66	0.13	<0.01	54	<0.10	3.4	<0.2
MW1	10/11/00	100.00	a	20.80		79.20	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	04/10-11/01	100.00	a	18.81		81.19	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	1.2	117	NR	--	NR	<0.10	0.045	57	<0.10	6.6	0.15
MW1	07/10/01	100.00	a	20.51		79.49	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/20/01	64.69	b	21.36		43.33	0.00	<0.50	1.3	<0.50	0.81	<50	<50	<300	<2.0	--[c]	0.65	--	6.47	0.32	1.8	63	<0.10	--	<0.20
MW1	02/19/02	64.69	b	18.95		45.74	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/21/02	64.69	b	19.82		44.87	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<2.0	120	0.96	--	6.25	<0.10	0.5	58	<0.10	5.5	<0.20
MW1	06/27/03	64.69	b	19.93		44.76	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/29/03	64.69	b	21.24		43.45	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	--	--	--	--	--	--	--	--	--
MW1	12/12/03	64.69	b	21.27		43.42	0.00	<0.50	<0.50	<0.50	1.1	<50	58	<500	<0.50	--	--	--	--	--	--	--	--	--	--
MW1	03/15/04	64.69	b	18.18		46.51	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	0.14	--	--	--	--	--	--	--	--
MW1	06/24/04	64.69	b	20.48		44.21	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	0.15	--	--	--	--	--	--	--	--
MW1	09/29/04	64.69	b	21.37		43.32	0.00	<0.50	0.51	<0.50	<1.0	<50	<50	<500	<0.50	--	1.01	--	6.42	--	--	--	--	--	--
MW1	12/13/04	64.69	b	20.63		44.06	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/14/05	64.69	b	18.69		46.00	0.00	<0.50	<0.50	<0.50	<1.0	<50	73	h <500	<0.50	--	1.96	--	6.04	--	--	--	--	--	--
MW1	06/15/05	64.69	b	20.32		44.37	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/26/05	64.69	b	22.10		42.59	0.00	<0.50	<0.50	<0.50	<1.0	<50	i <50	<500	<0.50	--	1.84	317.4	6.43	--	--	--	--	--	--
MW1	12/12/05	64.69	b	22.39		42.30	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/29/06	64.69	b	15.24		49.45	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	74	--	1.57	--	6.73	--	--	--	--	--	--
MW1	06/19/06	64.69	b	18.27		46.42	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/29/06	64.69	b	20.06		44.63	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	7.9	--	0.43	--	6.40	--	--	--	--	--	--
MW2	07/27/93	101.27	a	22.10		79.17	0.00	10,000	27,000	2,900	20,000	120,000	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	10/02/97	101.27	a	22.91		78.36	0.43	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2	06/30/98	101.27	a	19.69		81.58	0.45	7,300	18,000	2,500	15,600	72,000	--	--	5,500	185	2.2	--	5.98	--	--	--	--	--	--
MW2	07/29/98	101.27	a	20.11		81.16	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	08/26/98	101.27	a	20.54		80.73	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	10/01/98	101.27	a	21.52		79.75	0.42	6,400	17,000	2,600	17,000	84,000	--	--	2,000	--	2.7	--	6.47	--	--	--	--	--	--
MW2	10/30/98	101.27	a	21.54		79.73	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	11/30/98	101.27	a	21.21		80.06	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/28/98	101.27	a	21.10		80.17	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	01/25/99	101.27	a	20.80		80.47	0.01	9,000	26,000	3,800	27,500	130,000	--	--	5,800	386	0.3	--	6.69	--	--	--	--	--	--
MW2	02/26/99	101.27	a	18.00		83.27	sheen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	03/24/99	101.27	a	18.27		83.00	trace	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2 CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L) Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	Concentration (mg/L) CO_2 (lab)	DO (field)	Eh (mv) (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW2	05/12/99	101.27	a	19.08	82.19	trace	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/15-16/99	101.27	a	22.42	78.85	0.025	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2	03/20/00	101.27	a	17.09	84.18	0.026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	07/20/00	101.27	a	20.86	80.41	0.017	*	*	*	*	*	*	*	*	*	0.88	*	6.37	*	*	*	*	*	*
MW2	10/11/00	101.27	a	22.10	79.17	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	04/10-11/01	101.27	a	19.98	81.29	0.00	8,000	22,000	2,600	23,500	150,000	1,500	<600	3,600	168	NR	--	NR	3.1	2.5	16	0.14	0.19	<0.20
MW2	07/10/01	101.27	a	21.85	79.42	0.00	5,900	15,000	2,300	12,100	83,000	5,700	<1,500	2,800	--	--	--	--	--	--	--	--	--	--
MW2	11/20/01	65.95	b	22.75	43.20	0.00	--	--	--	--	--	--	--	--	120	NR	--	6.15	1.8	2	16	<0.10	--	<0.20
MW2	02/19/02	65.95	b	20.12	45.83	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	05/21/02	65.95	b	21.10	44.85	0.00	8,600	25,000	3,500	26,000	150,000	31,000	<3,000	4,800	160	0.88	--	5.99	3.9	1.7	13	<0.10	0.54	<0.20
MW2	06/27/03	65.95	b	21.48	44.47	0.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	09/29/03	65.95	b	23.04	42.91	0.48	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[e]	12/12/03	65.95	b	22.75	43.31	0.16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[e]	03/15/04	65.95	b	19.24	46.72	0.01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[e]	06/24/04	65.95	b	22.10	44.06	0.31	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[e]	09/29/04	65.95	b	22.81	43.14	sheen	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[e]	12/13/04	65.95	b	22.06	43.95	0.08	3,700	12,000	1,900	10,000	47,000	2,600	<500	1,200	*	0.27	*	6.63	*	*	*	*	*	*
MW2[j]	03/14/05	65.95	b	25.00	40.95	0.00	780	3,700	920	6,400	43,000	43,000 h	<5,000	<200	*	*	*	*	*	*	*	*	*	*
MW2	06/15/05	65.95	b	21.14	44.81	0.00	2,900	15,000	2,400	22,000	120,000	13,000	<2,500	810	--	3.05	-147.6	--	--	--	--	--	--	--
MW2	07/18/05	65.95		NM	NC	NM	2,700	13,000	1,800	15,000	120,000	17,000	--	530	--	--	--	--	--	--	--	--	--	--
MW2	09/26/05	65.95		22.93	43.02	0.00	570	4,000	620	6,200	31,000	63,000	28,000 k	<50	--	--	--	--	--	--	--	--	--	--
MW2	12/12/05	65.95		25.40	40.55	0.00	670	5,300	1,100	9,800	34,000	2,800	<500	65	--	--	--	--	--	--	--	--	--	--
MW2	03/29/06	65.95		15.66	50.29	sheen	620	2,800	540	4,700	33,000	<4,000	<100	37	--	7.59	--	6.9	--	--	--	--	--	--
MW2	06/19/06	65.95		19.14	46.81	sheen	680	5,200	990	16,000	120,000	<30,000	1,900	170	--	1.78	--	6.21	--	--	--	--	--	--
MW2	09/29/06	65.95	b	21.16	44.79	0.00	**1,200**	**5,100**	**1,200**	**9,300**	**59,000**	<8000	**300**	**230**	--	1.71	--	6.66	--	--	--	--	--	--
MW3	07/27/93	101.29	a	22.28	79.01	0.02	9,100	24,000	5,300	33,000	330,000	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/02/97	101.29	a	22.71	78.58	0.03	4,200	11,000	1,800	10,600	36,000	--	--	3,500	--	--	--	--	--	--	--	--	--	--
MW3	06/30/98	101.29	a	19.47	81.82	0.00	4,800	11,000	1,200	7,100	51,000	--	--	3,900	300	2	--	6.03	1.4	9.8	13	1.4	<0.10	2.4
MW3	07/29/98	101.29	a	20.01	81.28	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	08/26/98	101.29	a	20.62	80.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/01/98	101.29	a	21.33	79.96	0.00	3,900	8,500	1,200	6,000	38,000	--	--	2,300	240	2	--	6.65	--	--	--	--	--	--
MW3	10/30/98	101.29	a	21.62	79.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/30/98	101.29	a	21.31	79.98	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/28/98	101.29	a	21.15	80.14	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	01/25/99	101.29	a	20.79	80.50	0.00	4,000	10,000	1200	6700	5,100	--	--	2900	238	1	--	7.01	--	--	--	--	--	--
MW3	02/26/99	101.29	a	18.02	83.27	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	03/24/99	101.29	a	18.37	82.92	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/12/99	101.29	a	19.22	82.07	0.0083	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/15-16/99	101.29	a	22.43	78.86	0.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3	03/20/00	101.29	a	17.14	84.15	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	07/20/00	101.29	a	20.98	80.31	0.00	5,700	14,000	1,600	9,300	69,000	2,900	<300	3,300	128	2.05	--	6.73	3.9	6.6	20	<0.10	0.55	<0.20
MW3	10/11/00	101.29	a	22.24	79.05	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	04/10-11/01	101.29	a	20.70	80.59	0.00	7,200	<0.001	2,300	12,900	110,000	4,700	<1,500	4,300	137	NR	--	NR	1	6	8.2	<0.10	0.13	<0.20
MW3	07/10/01	101.29	a	21.97	79.32	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/20/01	65.99	b	22.80	43.19	0.00	6,300	16,000	2,400	14,900	100,000	5,900	<900	4,000	120	2.93	--	6.67	0.84	12	31	<0.10	--	<0.20
MW3	02/19/02	65.99	b	20.11	45.88	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/21/02	65.99	b	21.20	44.79	0.00	6,500	17,000	2,200	12,700	91,000	14,000	<3,000	2,200	130	1.01	--	6.62	4.2	9.6	25	<0.10	0.77	<0.20
MW3	06/27/03	65.99	b	21.32	44.67	sheen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2 CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	Eh (mv) (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW3	09/29/03	65.99	b	22.79	43.20	sheen	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3[e]	12/12/03	65.99	b	22.73	43.27	0.01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3[e]	03/15/04	65.99	b	19.32	46.67	sheen	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3	06/24/04	65.99	b	21.99	44.00	0.00	3,400	7,700	1,000	4,800	39,000	1,700	<500	1,100	--	0.07	--	--	--	--	--	--	--	--
MW3	09/29/04	65.99	b	22.54	43.45	0.00	2,900	6,700	980	4,300	29,000	2,200	<500	1,100	--	0.80	--	6.42	--	--	--	--	--	--
MW3	12/13/04	65.99	b	22.06	43.93	0.00	1,700	2,900	790	3,400	17,000	1,300	<500	490	--	0.16	--	6.7	--	--	--	--	--	--
MW3[j]	03/14/05	65.99	b	24.00	41.99	0.00	680	1,700	380	1,600	10,000	670 h	<500	67	--	--	--	--	--	--	--	--	--	--
MW3	06/15/05	65.99	b	21.13	44.86	0.00	260	960	330	1,400	12,000	1,200	<500	31	--	1.93	-150.4	--	--	--	--	--	--	--
MW3	07/18/05	65.99	b	NM	NC	NM	1,000	5,600	1,100	4,300	23,000	1,700	--	81	--	--	--	--	--	--	--	--	--	--
MW3	09/26/05	65.99	b	22.92	43.07	0.00	4,000	17,000	1,900	17,000	79,000	5,100	540 k	270	--	--	--	--	--	--	--	--	--	--
MW3	12/12/05	65.99	b	23.30	42.69	0.00	200	710	450	1,400	7,000	550	<500	<10	--	--	--	--	--	--	--	--	--	--
MW3	03/29/06	65.99	b	15.70	50.29	0.00	110	300	130	490	3,800	<200	<100	13	--	1.23	--	6.89	--	--	--	--	--	--
MW3	06/19/06	65.99	b	19.11	46.88	0.00	160	500	320	840	7,000	<300	<100	3.1	--	2.30	--	6.40	--	--	--	--	--	--
MW3	09/29/06	65.99	b	21.15	44.84	0.00	**1,300**	**2,300**	**720**	**2,900**	**22,000**	<1500	<100	**110**	--	1.05	--	6.78	--	--	--	--	--	--
MW4	06/30/98	98.65	a	16.93	81.72	0.00	2,200	930	850	2,100	10,000	--	--	1,800	222	2.6	--	6.18	0.14	4.3	14	0.8	0.8	1.5
MW4	07/29/98	98.65	a	17.48	81.17	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	08/26/98	98.65	a	18.65	80.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	10/01/98	98.65	a	18.74	79.91	0.00	570	46	130	36	1,100	--	--	1,300	320	3.4	--	<0.001	--	--	--	--	--	--
MW4	10/30/98	98.65	a	19.02	79.63	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/30/98	98.65	a	18.74	79.91	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/28/98	98.65	a	18.60	80.05	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	01/25-26/99	98.65	a	18.32	80.33	0.00	230	<8.3	<8.3	<8.3	290	--	--	1,300	475	6.7	--	7	--	--	--	--	--	--
MW4	02/26/99	98.65	a	15.81	82.84	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	03/24/99	98.65	a	16.01	82.64	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/12/99	98.65	a	17.71	80.94	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/15-16/99	98.65	a	19.83	78.82	0.00	5.8	<0.50	<0.50	<0.50	<50	--	--	1,400	--	1.75	--	7.02	--	--	--	--	--	--
MW4	03/20/00	98.65	a	14.9	83.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	07/20/00	98.65	a	18.38	80.27	0.00	91	4.6	19	12.9	210	<50	<300	1,500	126	3.88	--	6.67	9.5	5.3	11	<0.10	0.04	<0.20
MW4	10/11/00	98.65	a	19.61	79.04	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	04/10-11/01	98.65	a	17.55	81.10	0.00	110	<5.0	<5.0	<5.0	350	<50	<300	1,100	107	NR	--	NR	0.8	6.3	10	<0.10	<0.05	<0.20
MW4	07/10/01	98.65	a	19.34	79.31	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/20/01	63.35	b	20.16	43.19	0.00	<2.5	4	<2.5	3.7	96	<50	<300	2,500	130	0.83	--	6.51	1.6	10	11	<0.10	--	<0.20
MW4	02/19/02	63.35	b	17.34	46.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/21/02	63.35	b	18.57	44.78	0.00	340	5.7	70	<1.0	940	83	<300	1,600	150	1.65	--	6.32	3.1	8.4	9	<0.10	0.06	<0.20
MW4	06/27/03	63.35	b	18.72	44.63	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	09/29/03	63.35	b	20.11	43.24	0.00	<5.0	<5.0	<5.0	<10	1,100	<50 d	<500	1,700	--	--	--	--	--	--	--	--	--	--
MW4	12/12/03	63.35	b	20.06	43.29	0.00	<13	<13	<13	<25	<1,300	<50	<500	1,000	--	--	--	--	--	--	--	--	--	--
MW4	03/15/04	63.35	b	16.89	46.46	0.00	1.5	<0.50	<0.50	<1.0	54 d	<50	<500	41	--	0.16	--	--	--	--	--	--	--	--
MW4	06/24/04	63.35	b	19.31	44.04	0.00	69	<5.0	<5.0	<10	920 d	<50	<500	1,100	--	0.15	--	--	--	--	--	--	--	--
MW4	09/29/04	63.35	b	20.20	43.15	0.00	<5.0	<5.0	<5.0	<10	940 g	<50	<500	1,200	--	0.13	--	6.63	--	--	--	--	--	--
MW4	12/13/04	**	b	20.44	NC	0.00	<5.0	<5.0	<5.0	<10	740	<50	<500	860	--	0.58	--	6.84	--	--	--	--	--	--
MW4	03/14/05	**	b	18.30	NC	0.00	20	<5.0	<5.0	<10	930 i	<50	<500	930	--	0.28	--	6.34	--	--	--	--	--	--
MW4	06/15/05	**	b	20.03	NC	0.00	350	6.1	<5.0	<10	2100	89	<500	1,100	--	0.46	-98.9	--	--	--	--	--	--	--
MW4	07/18/05	**		NM	NC	NM	11	<5.0	<5.0	<10	540 i	<50	--	1,100	--	--	--	--	--	--	--	--	--	--
MW4	09/26/05	**		21.79	NC	0.00	<5.0	<5.0	<5.0	<10	960 i	<50	<500	660	--	2.20	210.4	6.73	--	--	--	--	--	--
MW4	12/12/05	**		21.89	NC	0.00	<5.0	<5.0	<5.0	<10	820	<50	<500	1,000	--	2.05	--	6.62	--	--	--	--	--	--
MW4	03/29/06	**		14.85	NC	0.00	49	160	120	300	2,400	<100	<100	130	--	1.07	--	6.82	--	--	--	--	--	--
MW4	06/19/06	**		17.96	NC	0.00	100	940	540	1,800	8,800	<400	<100	55	--	2.49	--	5.76	--	--	--	--	--	--

TABLE 2 CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L) Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d		TPH-mo		MTBE	Concentration (mg/L) CO_2 (lab)	DO (field)	Eh (mv) (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW4	09/29/06	63.35	b	19.85	43.50	0.00	**18.0**	**2.6**	**1.5**	**3.5**	**370.0**	<50		<100	#	**180**	--	0.25	--	6.66	--	--	--	--	--	--
MW5	06/30/98	100.9	a	20.60	80.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	--		--		23	220	4.3	--	6.1	--	--	--	--	--	--
MW5	07/29/98	100.9	a	21.52	79.38	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	08/26/98	100.9	a	22.21	78.69	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	10/01/98	100.9	a	22.95	77.95	0.00	<1.0	<1.0	<1.0	<1.0	<50	--		--		<2.0	256	4.8	--	6.71	--	--	--	--	--	--
MW5	10/30/98	100.9	a	23.23	77.67	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	11/30/98	100.9	a	23.12	77.78	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	12/28/98	100.9	a	23.18	77.72	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	01/25-26/99	100.9	a	22.61	78.29	0.00	<1.0	<1.0	<1.0	<1.0	<50	--		--		<2.0	305	9.7	--	7.04	--	--	--	--	--	--
MW5	02/26/99	100.9	a	19.78	81.12	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	03/24/99	100.9	a	20.25	80.65	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	05/12/99	100.9	a	21.06	79.84	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	12/15-16/99	100.9	a	24.19	76.71	0.00	<0.50	<0.50	<0.50	<0.50	<50	--		--		<0.50	--	2.72	--	7.19	--	--	--	--	--	--
MW5	03/20/00	100.9	a	19.15	81.75	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	07/20/00	100.9	a	21.84	79.06	0.00	<0.50	0.98	<0.50	<0.50	<50	<50		<300		1.9	134	5.58	--	6.35	0.11	0.017	49	<0.10	3.9	<0.20
MW5	10/11/00	100.9	a	23.4	77.50	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	04/10-11/01	100.9	a	22.3	78.60	0.00	<0.50	2.6	<0.50	0.6	<50	<50		<300		1.5	183	66	--	NR	<0.10	0.042	45	<0.10	2.9	0.11
MW5	07/10/01	100.9	a	23.64	77.26	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	11/20/01	65.59	b	24.65	40.94	0.00	0.83	12	1.2	11	140	860		2,500		10	--[e]	66	--	6.01	0.2	2.5	42	<0.10	--	<0.20
MW5	02/19/02	65.59	b	22.37	43.22	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	05/21/02	65.59	b	23.10	42.49	0.00	<0.50	<0.50	<0.50	<0.50	<50	2,200		<300		<2.0	140	66	--	6.3	<0.1	0.22	44	<0.10	3	<0.20
MW5	06/27/03	65.59	b	23.07	42.52	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	09/29/03	65.59	b	24.38	41.21	0.00	<0.50	0.52	7.1	35	100	<50	d	<500		1.4	--	--	--	--	--	--	--	--	--	--
MW5	12/12/03	65.59	b	23.90	41.69	0.00	<0.50	<0.50	<0.50	<1	<50	<50		<500		1.5	--	--	--	--	--	--	--	--	--	--
MW5	03/15/04	65.59	b	20.82	44.77	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50		<500		<0.50	--	6.4	--	--	--	--	--	--	--	--
MW5	06/24/04	65.59	b	23.57	42.02	0.00	<0.50	<0.50	<0.50	<1.0	<50	130	f	<500		0.79	--	5.56	--	--	--	--	--	--	--	--
MW5	09/29/04	65.59	b	24.44	41.15	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	12/13/04	65.59	b	23.87	41.72	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	03/14/05	65.59	b	20.18	45.41	0.00	<0.50	1.3	1.5	8.6	82	<50		<500		<0.50	--	3.91	--	5.57	--	--	--	--	--	--
MW5	06/15/05	65.59	b	12.96	52.63	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	09/26/05	65.59	b	23.60	41.99	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	12/12/05	65.59	b	23.84	41.75	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW5	03/29/06	65.59	b	17.19	48.40	0.00	<0.50	<0.50	<0.50	<0.50	73	<50		<100		<0.50	--	2.3	--	6.3	--	--	--	--	--	--
MW5	06/19/06	65.59	b	20.22	45.37	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW-5	09/29/06	65.59	b	22.80	42.79	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW6	07/20/00	96.60	a	18.30	78.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50		<300		160	122	2.72	--	6.66	120	1.9	53	6	0.05	<0.20
MW6	10/11/00	96.60	a	18.69	77.91	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW6	04/10-11/01	96.60	a	17.85	78.75	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50		<300		180	142	NR	--	NR	22	2.2	0.69	5.2	<0.05	<0.20
MW6	07/10/01	96.60	a	18.43	78.17	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW6	11/20/01	59.60	b	18.67	40.93	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50		<300		450	100	2.03	--	6.44	29	5.2	1.1	3.4	--	<0.20
MW6	02/19/02	59.60	b	17.40	42.20	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW6	05/21/02	59.60	b	17.68	41.92	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50		<300		170	100	0.76	--	6.6	11	3.4	1.4	8.9	0.65	<0.20
MW6	06/27/03	59.60	b	17.73	41.87	0.00	--	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--
MW6	09/29/03	59.60	b	18.48	41.12	0.00	<1.0	<1.0	<1.0	<2.0	230	<50	d	<500		340	--	--	--	--	--	--	--	--	--	--
MW6	12/12/03	59.60	b	17.89	41.71	0.00	<2.5	<2.5	<2.5	<5.0	<250	51		<500		190	--	--	--	--	--	--	--	--	--	--
MW6	03/15/04	59.60	b	16.46	43.14	0.00	<1.0	<1.0	<1.0	<2.0	200	<50		<500		220	--	0.11	--	--	--	--	--	--	--	--
MW6	06/24/04	59.60	b	17.97	41.63	0.00	<1.0	<1.0	<1.0	<2.0	130	<50		<500		190	--	0.05	--	--	--	--	--	--	--	--

TABLE 2 CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L) Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g		TPH-d		TPH-mo	MTBE	Concentration (mg/L) CO_2 (lab)	DO (field)	Eh (mv) (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW6	09/29/04	59.60	b	18.55	41.05	0.00	<0.50	0.61	<0.50	1.2	210	g	<50		<500	190	--	0.37	--	6.60	--	--	--	--	--	--
MW6	12/13/04	59.60	b	17.88	41.72	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW6	03/14/05	59.60	b	16.82	42.78	0.00	<0.50	<0.50	<0.50	1.8	160		<50		<500	190	--	0.08	--	5.65	--	--	--	--	--	--
MW6	06/15/05	59.60	b	17.60	42.00	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/26/05	59.60	b	NM	NM	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW6	12/12/05	59.60	b	18.33	41.27	0.00	0.62	<0.50	<0.50	1.0	81		<50		<500	140	--	1.52	--	6.61	--	--	--	--	--	--
MW6	03/29/06	59.60	b	14.53	45.07	0.00	<0.50	<0.50	<0.50	<0.50	<50		<50		<100	120	--	6.93	--	6.06	--	--	--	--	--	--
MW6	06/19/06	59.60	b	16.46	43.14	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/29/06	59.60	b	17.60	42.00	0.00	**0.87**	<0.50	<0.50	<0.50	<50		<50		<100	**140**	--	0.16	--	6.49	--	--	--	--	--	--
MW7	07/20/00	96.75	a	15.93	80.82	0.00	<0.50	<0.50	<0.50	<0.50	<50		<50		<300	<0.50	32.2	7.15	--	7.43	<0.1	0.002	7.5	<0.10	2.6	0.13
MW7	10/11/00	96.75	a	16.90	79.85	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	04/10-11/01	96.75	a	15.80	80.95	0.00	<0.50	<0.50	<0.50	<0.50	<50		<50		<300	<0.50	77.6	NR	--	NR	0.18	0.048	49	<0.10	2.7	0.31
MW7	07/10/01	96.75	a	16.71	80.04	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	11/20/01	59.47	b	16.17	43.30	0.00	<0.50	<0.50	<0.50	<0.50	<50		<50		<300	<2.0	62	0.96	--	7.11	0.16	1.8	63	<0.10	--	<0.20
MW7	02/19/02	59.47	b	14.92	44.55	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	05/21/02	59.47	b	15.18	44.29	0.00	<0.50	<0.50	<0.50	<0.50	<50		<50		<300	<0.50	68	1.03	--	7.57	0.11	0.35	51	<0.10	2.8	0.11
MW7	06/27/03	59.47	b	16.28	43.19	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	
MW7	09/29/03	59.47	b	16.88	42.59	0.00	<0.50	<0.50	<0.50	<1.0	<50		<50		<500	0.62	--	--	--	--	--	--	--	--	--	--
MW7	12/12/03	59.47	b	14.95	44.52	0.00	<0.50	<0.50	<0.50	<1.0	<50		<50		<500	<0.50	--	--	--	--	--	--	--	--	--	--
MW7	03/15/04	59.47	b	14.77	44.70	0.00	<0.50	<0.50	<0.50	<1.0	<50		<50		<500	<0.50	--	0.54	--	--	--	--	--	--	--	--
MW7	06/24/04	59.47	b	16.33	43.14	0.00	<0.50	<0.50	<0.50	<1.0	<50		300	f	<500	<0.50	--	0.20	--	--	--	--	--	--	--	--
MW7	09/29/04	59.47	b	16.88	42.59	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	12/13/04	59.47	b	15.26	44.21	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	03/14/05	59.47	b	15.00	44.47	0.00	<0.50	<0.50	<0.50	<1.0	<50		<50		<500	<0.50	--	0.47	--	6.15	--	--	--	--	--	--
MW7	06/15/05	59.47	b	15.32	44.15	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/26/05	59.47	b	NM	NM	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	12/12/05	59.47	b	15.99	43.48	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	03/29/06	59.47	b	12.65	46.82	0.00	<0.50	<0.50	<0.50	<0.50	<50		<50		<100	<0.50	--	8.72	--	5.81	--	--	--	--	--	--
MW7	06/19/06	59.47	b	14.49	44.98	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/29/06	59.47	b	16.67	42.80	0.00	--	--	--	--	--		--		--	--	--	--	--	--	--	--	--	--	--	--

SPH Separate-phase hydrocarbons.
CO_2 Carbon dioxide.
DO Dissolved oxygen.
Fe(II) Ferrous iron.
Mn Manganese.
SO_4 Sulfate.
$N\text{-}NH_3$ Ammonia.
$N\text{-}NO_3$ Nitrate.
$o\text{-}PO_4$ Ortho-Phosphate.
GW Groundwater.
TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-d Total Petroleum Hydrocarbons as diesel.
TPH-mo Total Petroleum Hydrocarbons as motor oil.
MTBE Methyl tertiary butyl ether.
NC Not calculated.
NM Not measured.

TABLE 2 CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								Concentration (mg/L)								
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	Eh (mv) (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$

NR Not reported.
µg/L Micrograms per liter.
mg/L Milligrams per liter.
* SPH present; not sampled.
** Well MW4 elevation modified due to site renovation activities. Not Surveyed.
-- Not analyzed or not sampled.
< Less than the laboratory reporting limits.
a Elevations are referenced to monitoring well MW1, with assumed datum of 100.00 feet.
b Elevations based on a survey conducted August 2002 and referenced benchmark with known elevation (NGVD 29) of 60.40 feet above mean sea level.
c Analysis not conducted due to broken sample containers.
d Hydrocarbon reported in the gasoline range does not match laboratory gasoline standard.
e Groundwater elevation in wells with LPH are corrected by multiplying the specific gravity of gasoline (0.69) by the LPH thickness and adding this value to the water elevation.
f Hydrocarbon reported is in the early diesel range, and does not match the laboratory diesel standard.
g Sample contained discrete peak in gasoline range and identified by lab as MTBE.
h Quantity of unknown hydrocarbon(s) in sample based on diesel.
i The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.
j Depth to groundwater is based on the depth of the stingers.
k Quantity of unknown hydrocarbon(s) in sample based on mtor oil.

TABLE 3 HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

			Concentrations (µg/L)													
Boring ID	Date	Depth (feet)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
HP1	12/18/2003	26-30	<5.0	<5.0	<5.0	**11**	**410**	**180**	<500	<50	**480**	<10	<5.0	<5.0	<5.0	<5.0
HP3	12/18/2003	32-36	<0.50	<0.50	<0.50	<1.0	<50	**75**	<500	<5.0	**0.55**	<1.0	<0.50	<0.50	**1.3**	<0.50

TPH-g	Total Petroleum Hydrocarbons as gasoline.
TPH-d	Total Petroleum Hydrocarbons as diesel.
TPH-mo	Total Petroleum Hydrocarbons as motor oil.
TBA	t-butyl alcohol.
MTBE	Methyl tertiary butyl ether.
DIPE	di-isopropyl ether.
ETBE	ethyl t-butyl ether.
TAME	t-amyl methyl ether.
1,2-DCA	1,2-dichloroethane.
EDB	ethylene dibromide.
<	less than the laboratory reporting limits.

TABLE 4 DPE SYSTEM - GROUNDWATER ANAYLTICAL RESULTS
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Sample Location	Sample Date	Concentrations (µg/L)						
		TPH-g	TPH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Influent								
	12/08/05	20,000	3,100	260	1,500	51	5,300	NA
	01/23/06	7,900	< 3,000	78	350	18	1,400	58
	03/29/06	4,200	< 1,500	110	410	60	690	38
	05/22/06	6,300	< 2,000	210	680	100	860	120
	06/12/06	1,300	< 800	17	72	4.1	200	27
Midfluent								
	12/08/05	< 50	80	< 0.50	< 0.50	< 0.50	< 1.0	NA
	01/23/06	< 50	< 50	< 0.50	< 0.50	< 0.50	1.1	< 0.50
	03/29/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	05/22/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	06/12/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Effluent								
	12/08/05	< 50	< 50	< 0.50	< 0.50	< 0.50	< 1.0	NA
	01/23/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	03/29/06	110	72	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	05/22/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	06/12/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

µg/L - micrograms per liter
TPH-g - Total Petroleum Hydrocarbons as gasoline
TPH-d - Total Petroleum Hydrocarbons as diesel
MTBE - Methyl tert-butyl ether

NA- Not analyzed

Reviewer: RRao
Date: 11/19/06

TABLE 5 DPE SYSTEM - VAPOR ANALYTICAL RESULTS
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Sample Location	Date	Concentration (ppmv) by EPA Method 8015M/8020						POC Abatement Efficiency Based on Lab results
		TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	
Influent								
	12/08/05	1,400	58	470	63	550		
	01/27/06	270	7.7	28	2.2	16		
	05/22/06	60	2.4	6.2	1.0	8.9	0.32	
	05/23/06	230	7.6	27	4.4	29	0.58	
	05/24/06	180	5.8	22	3.4	26	0.43	
	06/12/06	100	2.2	9.6	1.1	12	0.21	
Intermediate								
	05/22/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	
	05/23/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	
	05/24/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	
	06/12/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	
Effluent								
	12/08/05	< 11	< 0.15	< 0.13	< 0.11	< 0.23		99.2%
	01/27/06	< 2.5	< 0.063	< 0.05	< 0.046	< 0.092		99.1%
	05/22/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	91.7%
	05/23/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	97.8%
	05/24/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	97.2%
	06/12/06	< 5.0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	95.0%

Note: When analyte is not detected, laboratory reporting limit is used for destruction efficiency calculations.
TPHg - Total petroleum hydrocarbons as gasoline
ppmv- Parts Per Million by Volume
POC- Precursor Organic Compound

Reviewer: RRao
Date: 11/19/06

TABLE 6 DPE SYSTEM OPERATION AND PERFORMANCE DATA - GROUNDWATER
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Cumulative Total (gallons)	Average Operational Flow rate (gpm)	Influent Conc. (µg/L) TPH-g	Influent Conc. (µg/L) Benzene	Est. Pounds Removed* TPH-g	Cumulative Pounds Removed TPH-g	Est. Pounds Removed* Benzene	Cumulative Pounds Removed Benzene
12/20/04	0.0	0%	0	0.0	2,100	440	0.00	0.00	0.00	0.00
02/23/05	0.0	0%	19,148	0.0			5.75	5.75	0.08	0.08
02/25/05	2.0	99%	25,840	2.3			2.01	7.77	0.03	0.11
02/28/05	3.0	100%	51,770	5.9	NA	550	7.79	15.56	0.12	0.23
03/04/05	1.5	38%	63,010	5.1			3.38	18.94	0.04	0.27
03/07/05	1.4	48%	73,950	5.3			3.29	22.23	0.04	0.31
03/11/05	4.0	98%	92,050	3.2			5.44	27.67	0.07	0.38
03/14/05	3.1	100%	93,080	0.2			0.31	27.98	0.00	0.38
03/21/05	5.1	73%	128,800	4.9			10.74	38.71	0.14	0.52
03/21/05	0.0	0%	128,810	0.0			0.00	38.71	0.00	0.52
03/23/05	0.6	30%	133,270	5.3	70,000	360	2.60	41.32	0.01	0.53
03/25/05	0.6	26%	137,720	5.4			1.45	42.76	0.01	0.54
03/28/05	2.6	94%	156,980	5.2	7,900	240	1.27	44.03	0.04	0.58
03/30/05	2.2	98%	172,040	4.8			1.50	45.53	0.02	0.61
04/01/05	1.7	95%	177,610	2.3			0.55	46.09	0.01	0.61
04/04/05	1.3	45%	186,830	4.8	16,000	150	1.23	47.32	0.01	0.63
04/05/05	0.5	51%	190,620	5.1			0.52	47.84	0.01	0.64
04/07/05	1.3	64%	199,220	4.7			1.18	49.02	0.03	0.67
04/08/05	0.5	53%	203,140	5.0			0.54	49.56	0.01	0.68
04/11/05	0.5	18%	206,960	4.9			0.53	50.08	0.01	0.69
04/12/05	0.9	96%	213,660	4.9			0.92	51.01	0.02	0.71
04/14/05	2.1	100%	222,830	3.1			1.26	52.27	0.03	0.74
04/15/05	0.1	14%	223,760	4.7			0.13	52.40	0.00	0.74
04/18/05	0.0	1%	223,960	6.7	17,000	610	0.03	52.42	0.00	0.74
04/18/05	0.0	0%	223,960	0.0			0.00	52.42	0.00	0.74
04/20/05	1.5	76%	234,520	4.9			1.08	53.51	0.04	0.78
04/22/05	2.0	99%	244,950	3.7			1.07	54.58	0.03	0.81
04/27/05	0.7	13%	249,050	4.3			0.42	55.00	0.01	0.83
04/29/05	1.5	76%	257,120	3.7	7,600	190	0.51	55.51	0.01	0.84

TABLE 6 DPE SYSTEM OPERATION AND PERFORMANCE DATA - GROUNDWATER
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Cumulative Total (gallons)	Average Operational Flow rate (gpm)	Influent Conc. (µg/L) TPH-g	Influent Conc. (µg/L) Benzene	Est. Pounds Removed* TPH-g	Cumulative Pounds Removed TPH-g	Est. Pounds Removed* Benzene	Cumulative Pounds Removed Benzene
05/02/05	1.3	44%	265,580	4.4			0.80	56.30	0.01	0.85
05/04/05	0.8	41%	270,850	4.5			0.50	56.80	0.01	0.86
05/06/05	1.9	99%	273,650	1.0			0.26	57.07	0.00	0.86
05/09/05	1.5	47%	273,980	0.2			0.03	57.10	0.00	0.86
05/11/05	0.0	1%	274,000	1.1			0.00	57.10	0.00	0.86
05/12/05	0.7	100%	276,900	2.7			0.27	57.37	0.00	0.87
05/13/05	1.0	59%	278,000	2.7	15,000	130	0.50	57.87	0.00	0.87
05/18/05	2.5	47%	285,030	2.0			0.72	58.60	0.01	0.88
05/20/05	1.0	61%	291,370	4.2	9,700	210	0.51	59.11	0.01	0.89
05/26/05	3.4	57%	299,570	1.7			0.78	59.88	0.02	0.91
05/31/05	5.2	99%	325,600	3.5			2.46	62.35	0.06	0.97
06/03/05	1.8	65%	334,930	3.7			0.88	63.23	0.02	1.00
06/09/05	4.2	70%	347,080	2.0	13,000	360	1.32	64.55	0.04	1.03
06/10/05	1.1	100%	353,340	3.8			0.84	65.38	0.03	1.06
06/13/05	1.9	63%	363,280	3.6			1.33	66.71	0.05	1.11
06/17/05	0.3	7%	363,650	0.9			0.05	66.76	0.00	1.11
06/20/05	1.8	62%	374,370	4.1			1.43	68.19	0.05	1.16
06/23/05	2.2	77%	384,660	3.2			1.37	69.56	0.05	1.21
06/27/05	1.2	30%	389,010	2.6			0.58	70.14	0.02	1.23
06/30/05	1.3	45%	396,470	3.9			1.00	71.14	0.03	1.26
07/05/05	3.2	64%	405,550	2.0			1.21	72.35	0.04	1.31
07/08/05	0.1	2%	405,910	3.8			0.05	72.39	0.00	1.31
07/11/05	1.5	52%	410,020	1.9	19,000	760	0.65	73.05	0.03	1.33
07/15/05	4.0	94%	410,880	0.2			0.16	73.20	0.00	1.34
07/18/05	2.2	79%	416,100	1.6			0.96	74.16	0.03	1.36
07/22/05	3.3	80%	423,910	1.6			1.43	75.59	0.04	1.41
07/25/05	1.0	36%	426,060	1.5			0.39	75.99	0.01	1.42
07/29/05	4.0	99%	435,140	1.6			1.67	77.65	0.05	1.46
08/01/05	3.0	100%	441,790	1.5	25,000	490	1.39	79.04	0.03	1.49

TABLE 6 DPE SYSTEM OPERATION AND PERFORMANCE DATA - GROUNDWATER
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Cumulative Total (gallons)	Average Operational Flow rate (gpm)	Influent Conc. (µg/L) TPH-g	Influent Conc. (µg/L) Benzene	Est. Pounds Removed* TPH-g	Cumulative Pounds Removed TPH-g	Est. Pounds Removed* Benzene	Cumulative Pounds Removed Benzene
08/05/05	3.4	82%	449,130	1.5			1.32	80.35	0.03	1.52
08/08/05	2.8	97%	455,200	1.5			1.09	81.44	0.03	1.55
08/12/05	3.3	81%	462,270	1.5			1.27	82.71	0.03	1.58
08/15/05	3.0	100%	468,700	1.5	18,000	540	0.96	83.67	0.03	1.61
08/19/05	3.9	99%	476,890	1.4			0.96	84.63	0.03	1.64
08/22/05	3.1	100%	483,190	1.4			0.74	85.37	0.02	1.66
08/29/05	7.0	100%	497,280	1.4			1.64	87.01	0.05	1.71
09/06/05	8.1	99%	499,380	0.2	10,000	310	0.25	87.26	0.01	1.72
09/09/05	2.8	99%	505,100	1.4			0.60	87.85	0.02	1.73
09/15/05	6.2	99%	517,140	1.4			1.25	89.11	0.03	1.77
09/19/05	4.0	100%	524,690	1.3			0.79	89.89	0.02	1.79
09/23/05	4.0	98%	533,140	1.5			0.88	90.77	0.02	1.81
09/26/05	2.1	74%	540,516	2.5			0.77	91.54	0.02	1.83
10/03/05	2.1	30%	543,336	0.9			0.29	91.84	0.01	1.84
10/10/05	4.9	70%	557,440	2.0	15,000	380	1.47	93.31	0.04	1.88
10/14/05	3.9	100%	557,860	0.1			0.06	93.36	0.00	1.88
10/17/05	3.1	100%	557,980	0.0			0.02	93.38	0.00	1.89
10/21/05	2.3	56%	558,100	0.0			0.02	93.39	0.00	1.89
10/24/05	3.2	100%	558,340	0.1			0.03	93.43	0.00	1.89
10/28/05	3.7	94%	562,391	0.8			0.54	93.97	0.01	1.90
10/31/05	3.1	100%	569,085	1.5			0.89	94.86	0.02	1.92
11/04/05	3.9	100%	577,073	1.4			1.07	95.92	0.02	1.94
11/07/05	3.1	100%	583,268	1.4	17,000	330	0.83	96.75	0.02	1.96
11/11/05	4.0	100%	590,939	1.3			1.18	97.93	0.02	1.98
11/14/05	3.1	100%	596,620	1.3			0.88	98.81	0.01	1.99
11/18/05	4.0	100%	603,850	1.3			1.12	99.93	0.02	2.01
11/21/05	3.0	99%	609,160	1.2			0.82	100.74	0.01	2.02
11/28/05	7.0	100%	621,840	1.3			1.96	102.70	0.03	2.05
12/02/05	3.2	80%	627,560	1.2			0.88	103.58	0.01	2.07

TABLE 6 DPE SYSTEM OPERATION AND PERFORMANCE DATA - GROUNDWATER
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Cumulative Total (gallons)	Average Operational Flow rate (gpm)	Influent Conc. (µg/L) TPH-g	Influent Conc. (µg/L) Benzene	Est. Pounds Removed* TPH-g	Cumulative Pounds Removed TPH-g	Est. Pounds Removed* Benzene	Cumulative Pounds Removed Benzene
12/08/05	6.1	100%	638,590	1.2	20,000	260	1.70	105.28	0.03	2.10
12/12/05	3.9	100%	645,340	1.2			0.79	106.07	0.01	2.11
12/16/05	3.9	98%	652,310	1.3			0.81	106.88	0.01	2.12
12/19/05	3.0	99%	657,670	1.2			0.62	107.50	0.01	2.12
12/23/05	4.0	100%	664,650	1.2			0.81	108.31	0.01	2.13
12/30/05	7.0	100%	677,540	1.3			1.50	109.81	0.02	2.15
01/06/06	6.1	88%	690,030	1.4			1.45	111.27	0.02	2.17
01/09/06	0.1	4%	690,040	0.1			0.00	111.27	0.00	2.17
01/23/06	0.6	5%	691,940	2.0	7,900	78	0.22	111.49	0.00	2.17
01/27/06	3.9	98%	700,350	1.5			0.42	111.91	0.01	2.18
01/30/06	3.1	100%	707,110	1.5			0.34	112.25	0.01	2.18
03/29/06	1.1	2%	708,670	1.0	4,200	110	0.05	112.31	0.00	2.18
05/22/06	0.2	0%	708,950	0.8	6,300	210	0.01	112.32	0.00	2.18
05/23/06	0.8	85%	711,211	1.9			0.07	112.39	0.00	2.19
05/24/06	1.0	96%	714,250	2.2			0.10	112.49	0.00	2.19
06/08/06	0.1	0%	714,360	1.2			0.00	112.49	0.00	2.19
06/12/06	4.1	100%	725,143	1.8	1,300	17	0.96	113.45	0.01	2.20
06/20/06	7.9	100%	734,150	0.8			0.10	113.55	0.00	2.20
06/30/06	1.7	16%	736,605	1.0			0.03	113.57	0.00	2.20
Total	**268**		**736,605**	**1.9**			**113.57**		**2.20**	

Gallons dicharged from 2/23/05 to 3/30/05	**172,040**
Gallons dicharged from 3/30/05 to 6/30/05	**224,430**
Gallons dicharged from 7/1/05 to 12/30/05	**281,070**
Gallons dicharged from 1/1/06 to 6/30/06	**59,065**

Note: When analyte is not detected, laboratory reporting limit is used for concentration and mass removed calculations.

* Est. Mass TPH Removed (pounds) = Average influent conc. (µg/L) * period flow total (gallons) * 1 lb/454 g * 1/1,000,000 * 3.785 L/gallon

TABLE 6 DPE SYSTEM OPERATION AND PERFORMANCE DATA - GROUNDWATER
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Cumulative Total (gallons)	Average Operational Flow rate (gpm)	Influent Conc. (µg/L) TPH-g	Influent Conc. (µg/L) Benzene	Est. Pounds Removed* TPH-g	Cumulative Pounds Removed TPH-g	Est. Pounds Removed* Benzene	Cumulative Pounds Removed Benzene

Note: Extraction from well MW3 was discontinued on 15 July 2005.

TPH - Total Petroleum Hydrocarbons (measured as Total Petroleum Hydrocarbons as both gasoline and diesel as analyzed by EPA Method 8015 modified).

gpm - Gallons per minute.

µg/L - Micrograms per liter.

NM - Not Measured.

Reviewer: RRao
Date: 11/19/06

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TABLE 7 DPE SYSTEM OPERATION AND PERFORMANCE DATA - VAPOR
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Throughput Cu-ft	Average Flow rate (CFM)	Influent Field FID/PID Concentration (ppmv)	Influent Lab Concentration TPH-g (ppmv)	Influent Lab Concentration Benzene (ppmv)	Estimated Pounds TPH-g Removed	Estimated Pounds TPH-g Emitted	Estimated Pounds Benzene Removed	Estimated Pounds Benzene Emitted
02/23/05	0.0	0%	0	55	4,000			0.0	0.00	0.00	0.00
02/25/05	2.0	99%	149,448	52	4,000			211.7	0.06	2.56	0.00
02/28/05	3.0	100%	257,712	59	3,996	5,400	77	365.0	0.05	4.42	0.00
03/04/05	1.5	38%	85,878	39	NM			129.5	0.00	1.47	0.00
03/07/05	1.4	48%	65,583	32	3,996			98.9	0.00	1.12	0.00
03/11/05	4.0	98%	176,347	31	NM			265.9	0.01	3.02	0.00
03/14/05	3.1	100%	144,576	32	4,026			218.0	0.01	2.48	0.00
03/21/05	5.1	73%	233,645	32	NM			352.4	0.01	4.01	0.00
03/21/05	0.0	0%	0	0	0			0.0	0.00	0.00	0.00
03/23/05	0.6	30%	38,493	46	4,000	6,100	92	61.6	0.01	0.72	0.00
03/25/05	0.6	26%	26,082	32	4,000			32.2	0.02	0.35	0.00
03/28/05	2.6	94%	117,558	32	4,000	3,300	40	101.7	0.14	0.95	0.00
03/30/05	2.2	98%	185,496	59	NM	0	150	420.8	0.22	3.58	0.01
04/01/05	1.7	95%	76,923	32	4,000			174.5	0.09	1.48	0.00
04/04/05	1.3	45%	60,480	32	4,000			137.2	0.06	1.17	0.00
04/05/05	0.5	51%	23,247	32	4,000			52.1	0.02	0.46	0.00
04/07/05	1.3	64%	57,834	32	4,000			129.7	0.07	1.15	0.00
04/08/05	0.5	53%	24,759	32	4,000			55.5	0.03	0.49	0.00
04/11/05	0.5	18%	24,759	32	4,000			55.5	0.03	0.49	0.00
04/12/05	0.9	96%	43,092	32	4,000			96.6	0.04	0.86	0.00
04/14/05	2.1	100%	196,812	66	4,000			441.3	0.30	3.91	0.01
04/15/05	0.1	14%	6,237	32	4,000			14.0	0.01	0.12	0.00
04/18/05	0.0	1%	945	32	4,000	3,100	46	2.1	0.00	0.02	0.00
04/18/05	0.0	0%	0	32	4,000			0.0	0.00	0.00	0.00
04/20/05	1.5	76%	69,312	32	4,000			28.5	0.12	0.33	0.00
04/22/05	2.0	99%	91,008	32	1,978			37.4	0.16	0.43	0.00
04/27/05	0.7	13%	30,051	32	4,000			12.4	0.03	0.14	0.00
04/29/05	1.5	76%	68,418	32	3,984	37	0.77	0.7	0.06	0.01	0.00
05/02/05	1.3	44%	60,480	32	4,000			38.4	0.18	0.45	0.00
05/04/05	0.8	41%	36,666	32	NM			23.3	0.09	0.27	0.00
05/06/05	1.9	99%	163,548	59	3,982			103.7	0.05	1.21	0.00
05/09/05	1.5	47%	123,900	59	NM			78.6	0.04	0.91	0.00
05/11/05	0.0	1%	567	32	904			0.4	0.00	0.00	0.00
05/12/05	0.7	100%	70,092	66	NM			44.5	0.01	0.52	0.00
05/13/05	1.0	59%	45,927	32	824	4,800	72	57.8	0.00	0.67	0.00
05/18/05	2.5	47%	185,016	52	789			252.3	0.05	2.50	0.01
05/20/05	1.0	61%	47,628	32	884	5,600	61	70.0	0.01	0.59	0.00

TABLE 7 **DPE SYSTEM OPERATION AND PERFORMANCE DATA - VAPOR**
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Throughput Cu-ft	Average Flow rate (CFM)	Influent Field FID/PID Concentration (ppmv)	Influent Lab Concentration TPH-g (ppmv)	Influent Lab Concentration Benzene (ppmv)	Estimated Pounds TPH-g Removed	Estimated Pounds TPH-g Emitted	Estimated Pounds Benzene Removed	Estimated Pounds Benzene Emitted
05/26/05	3.4	57%	156,114	32	816			178.5	0.00	1.51	0.00
05/31/05	5.2	99%	237,195	32	920			271.3	0.00	2.30	0.01
06/03/05	1.8	65%	80,514	32	782			92.1	0.01	0.78	0.00
06/09/05	4.2	70%	360,018	59	1,059	3,121	34	294.7	0.03	2.52	0.01
06/10/05	1.1	100%	97,350	59	971			56.4	0.00	0.49	0.00
06/13/05	1.9	63%	160,716	59	NM			93.2	0.01	0.81	0.00
06/17/05	0.3	7%	13,230	32	1,126			7.7	0.00	0.07	0.00
06/20/05	1.8	62%	63,504	24	1,218			36.8	0.01	0.32	0.00
06/23/05	2.2	77%	211,860	66	598			122.8	0.09	1.06	0.01
06/27/05	1.2	30%	53,487	32	741			31.0	0.03	0.27	0.00
06/30/05	1.3	45%	99,247	52	621			57.5	0.02	0.50	0.00
07/05/05	3.2	64%	241,145	52	NM			139.8	0.02	1.21	0.01
07/08/05	0.1	2%	5,664	59	NM			3.3	0.00	0.03	0.00
07/11/05	1.5	52%	113,568	52	179	1,300	15	38.7	0.01	0.35	0.00
07/15/05	4.0	94%	296,400	52	127			86.3	0.00	0.87	0.01
07/18/05	2.2	79%	209,088	66	191			60.9	0.00	0.62	0.01
07/22/05	3.3	80%	114,336	24	2,656			33.3	0.00	0.34	0.00
07/25/05	1.0	36%	38,064	26	891			11.1	0.00	0.11	0.00
07/29/05	4.0	99%	428,850	75	1,850			124.8	0.00	1.26	0.01
08/01/05	3.0	100%	126,846	29	436	920	14	30.6	0.00	0.36	0.00
08/05/05	3.4	82%	241,500	50	718			56.7	0.00	0.59	0.01
08/08/05	2.8	97%	183,816	46	396			43.1	0.00	0.45	0.01
08/12/05	3.3	81%	215,556	46	1,160			50.6	0.00	0.52	0.01
08/15/05	3.0	100%	205,860	47	417	870	10	47.0	0.00	0.42	0.01
08/19/05	3.9	99%	209,124	37	1,445			54.0	0.00	0.42	0.01
08/22/05	3.1	100%	183,270	41	440			47.3	0.00	0.37	0.01
08/29/05	7.0	100%	322,752	32	491			83.4	0.00	0.66	0.01
09/06/05	8.1	99%	197,880	17	521	1,100	10	51.1	0.00	0.40	0.01
09/09/05	2.8	99%	149,577	37	482			58.8	0.00	0.42	0.00
09/15/05	6.2	99%	320,112	36	516			125.9	0.00	0.91	0.01
09/19/05	4.0	100%	273,600	48	289			107.6	0.00	0.78	0.01
09/23/05	4.0	98%	230,160	40	300			90.5	0.00	0.65	0.01
09/26/05	2.1	74%	164,010	55	590			64.5	0.00	0.47	0.00
10/03/05	2.1	30%	110,160	36	328			43.3	0.12	0.31	0.00
10/10/05	4.9	70%	254,880	36	4,903	1,900	18	100.3	0.27	0.72	0.01
10/14/05	3.9	100%	204,765	37	9			123.5	0.00	0.77	0.01
10/17/05	3.1	100%	160,746	37	9			97.0	0.05	0.60	0.00
10/21/05	2.3	56%	100,116	31	9			60.4	0.07	0.38	0.00
10/24/05	3.2	100%	143,957	31	9			86.8	0.11	0.54	0.00
10/28/05	3.7	94%	159,485	30	934			96.2	0.12	0.60	0.00
10/31/05	3.1	100%	135,719	30	912			81.9	0.11	0.51	0.00
11/04/05	3.9	100%	164,280	30	804			99.1	0.05	0.62	0.01
11/07/05	3.1	100%	133,726	30	915	2,700	19	80.7	0.00	0.50	0.00
11/11/05	4.0	100%	207,612	37	833			111.6	0.00	1.62	0.01
11/14/05	3.1	100%	193,776	44	832			104.2	0.00	1.51	0.01

TABLE 7 DPE SYSTEM OPERATION AND PERFORMANCE DATA - VAPOR
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORINA

Date	Days Operational	Percent Operational	Throughput Cu-ft	Average Flow rate (CFM)	Influent Field FID/PID Concentration (ppmv)	Influent Lab Concentration TPH-g (ppmv)	Influent Lab Concentration Benzene (ppmv)	Estimated Pounds TPH-g Removed	Estimated Pounds TPH-g Emitted	Estimated Pounds Benzene Removed	Estimated Pounds Benzene Emitted
11/21/05	7.0	100%	453,870	45	1,044			244.0	0.00	3.55	0.01
11/28/05	7.0	100%	421,344	42	1,135			226.5	0.09	3.29	0.01
12/08/05	9.3	92%	591,910	44	930	1,400	58	217.3	0.20	4.62	0.02
12/12/05	3.9	100%	242,953	43	866			53.2	0.10	1.62	0.01
12/16/05	3.9	98%	233,604	42	430			51.2	0.07	1.56	0.01
12/19/05	3.0	99%	185,760	43	430			40.7	0.00	1.24	0.00
12/23/05	4.0	100%	234,270	41	430			51.3	0.00	1.56	0.01
12/30/05	7.0	100%	394,992	39	430			86.5	0.06	2.63	0.01
01/06/06	6.1	88%	336,105	39	260			73.6	0.05	2.24	0.01
01/23/06	0.8	5%	47,730	43	51			10.5	0.03	0.32	0.00
01/27/06	3.9	98%	249,216	44	50	270	7.7	54.6	0.26	1.66	0.01
01/30/06	3.1	100%	180,564	41	50			7.8	0.14	0.19	0.00
The catalytic oxidizer was shut down on 1/30/06 and replaced with a vapor phase carbon unit. The system was restarted on 5/22/06.											
05/22/06	0.2	0%	1,062	3	160	60	2.4	0.0	0.00	0.00	0.00
05/23/06	0.8	85%	3,582	3	226	230	7.6	0.1	0.00	0.00	0.00
05/24/06	1.0	96%	5,544	4	178	180	5.8	0.3	0.00	0.01	0.00
06/08/06	0.1	0%	270	3	128	0	0.0	0.0	0.00	0.00	0.00
06/12/06	4.1	100%	20,685	4	91	100	2.2	1.1	0.00	0.02	0.00
06/20/06	7.9	99%	34,038	3	200	0	0.0	1.8	0.00	0.02	0.00
Cumulative Total/Average	265.3			38				9,021		98.9	

Note: When analyte is not detected, laboratory reporting limit is used for concentration and mass removed calculations.

[a] Est. pounds/day removed/emitted TPH-g = Average Combined well conc.(ppm_v) * 4.2($\mu g/L/ppm_v$) * Average combined well flowrate (CFM) * 1440 min/day * 1 g/1,000,000 µg * 0.002205 lbs/g * 28.32 L/ft3

[b] Est. pounds/day removed/emitted Benzene = Average Combined well conc.(ppm_v) * 3.25($\mu g/L/ppm_v$) * Average combined well flowrate (CFM) * 1440 min/day * 1 g/1,000,000 µg * 0.002205 lbs/g * 28.32 L/ft3

Cumulative Total - Total as measured since system start-up.

CFM - Cubic feet per minute.

TPH-g - Total Petroleum Hydrocarbons as gasoline.

ppmv - Parts Per Million by Volume.

* Extraction from well MW3 was discontinued on 15 July 2005.

Reviewer: RRao
Date: 11/19/06

TABLE 8 GROUNDWATER MONITORING SCHEDULE
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		BTEX and TPH-g	MTBE	TEPH
MW1	Q	S	S	S
MW2	Q	Q	Q	Q
MW3	Q	Q	Q	Q
MW4	Q	Q	Q	Q
MW5	Q	A	A	A
MW6	Q	S	S	S
MW7	Q	A	A	A

Q = Quarterly.
S = Semiannual.
A = Annual.

BTEX = Benzene, toluene, ethylbenzene, total xylenes.
MTBE = Methyl tertiary butyl ether.
TPH-g = Total Petroleum Hydrocarbons as gasoline.
TEPH = Total Extractable Petroleum Hydrocarbons, includes TPH-diesel and TPH-motor oil.

APPENDIX A

PROTOCOLS FOR GROUNDWATER MONITORING

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APPENDIX A

PROTOCOLS FOR GROUNDWATER MONITORING

GROUNDWATER GAUGING

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

WELL PURGING

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

GROUNDWATER SAMPLING

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

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APPENDIX B

FIELD DOCUMENTS

WELL GAUGING DATA

Project # 060929-WC-1 Date 9-29-06 Client LRM

Site 327 34St., Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0922	2	gauged w/ tubing in well				20.06	30.30		
MW-2	1040		pull slower		in order	to gauge	21.16	31.90		
MW-3	1042						21.15	32.00		
MW-4	0918		gauged w/ tubing in well				19.85	27.70		
MW-5	1036		"	"	"	"	22.80	26.37		90
MW-6	0826		"	"	"	"	17.60	26.87		
MW-7	0829	↓	"	"	"	"	16.67	34.38	↓	90

WELLHEAD INSPECTION CHECKLIST

Date 9/29/06 Client LRM @ Val Stroogh

Site Address 327 34th St, Oakland

Job Number 060929-WC-1 Technician WH

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
mw-1	master	lock/able to pull off						
mw-2	Stinger	in well						
mw-3	X	dolphin lock						
mw-4	master	lock/able to pull off						
mw-5	X	dolphin lock						
mw-6	Y	dolphin lock						
mw-7	Y	dolphin lock						

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME LRM				PROJECT NUMBER 060929-WC-1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
MultiRAE plus	095519076	9/29/06 @ 0730	100 ppm Isobutylene	99.8 ppm	ok ✓	20.5C	WC
YSI 556 FlowCell	06E2609AD	9/29/06 @0745	4.0/7.0/10.0 pH	4.01/6.99/10.02 pH	4.0/7.0/10.0 pH	↓	↓ WC
↓	↓	↓	mV 237.0	236.3 mV	237.0 mV		WC
			µS 3400	3913 µS	3400 µS		WC
↓	↓	↓	DO 100%	103.6%	100%	↓	WC

WELL MONITORING DATA SHEET

Project #: 060929-WC-1	Client: LRM @ Val Stough
Sampler: Will C.	Date: 9/29/06
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 30.30	Depth to Water (DTW): 20.06
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (556) YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.06	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, (Waterra) Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other:_____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

1.5 (Gals.) X 3 = 4.5 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	DO (mg/L) Turbidity (NTUs)	Gals. Removed	ORP (mV) Observations	
1000	18.7	6.5	931	.65	1.5	69.7	clear
1003	18.7	6.5	928	.53	3.0	78.2	↓
1006	18.7	6.4	1059	.43	4.5	85.8	↓
						DTW = 22.85	

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 9-29-06 Sampling Time: 1015 Depth to Water: 22.06

Sample I.D.: MW-1 Laboratory: (Kiff) CalScience Other_____

Analyzed for: (TPH-G) BTEX (MTBE) (TPH-D) Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 060929-WC-1	Client: LRM e/Val Slough
Sampler: WC	Date: 9/29/06
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 31.90	Depth to Water (DTW): 21.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (556) YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 23.31	

Purge Method: Bailer, (Disposable Bailer), Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, (Disposable Bailer), Extraction Port, Dedicated Tubing, Other: _____

1.7 (Gals.) X 3 = 5.1 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	DO (mg/L) Turbidity (NTUs)	Gals. Removed	ORP (mV)	Observations
1116	18.58	6.63	664	1.17	1.7	-59.0	odor/clear
1119	18.54	6.64	722	1.48	3.4	-68.5	↓
1122	18.50	6.66	777	1.71	5.1	-70.9	↓

Did well dewater? Yes (No) Gallons actually evacuated: 5.1

Sampling Date: 9/29/06 Sampling Time: 1127 Depth to Water: 21.70

Sample I.D.: MW-2 Laboratory: (Kiff) CalScience Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 060929-we-1	Client: LRM@Valleybrough
Sampler: we	Date: 9/29/06
Well I.D.: MW-3	Well Diameter: 2 3 4 6 8 ___
Total Well Depth (TD): 32.00	Depth to Water (DTW): 21.15
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (556) YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 23.32	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other:_____

1.7 (Gals.) X 3 = 5.1 Gals.
1 Case Volume; Specified Volumes; Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	DO (mg/L) Turbidity (NTUs)	Gals. Removed	ORP (mV)	Observations
1052	18.53	6.68	856	0.97	1.7	-49.0	odor/sheen/clear
1055	18.49	6.77	865	0.84	3.4	-60.3	↓
1058	18.41	6.78	879	1.05	5.1	-80.1	↓

Did well dewater? (Yes) No — Gallons actually evacuated: 5.1

Sampling Date: 9/29/06 — Sampling Time: 1105 — Depth to Water: 21.20

Sample I.D.: MW-3 — Laboratory: (Kiff) CalScience Other_____

Analyzed for: (TPH-G) BTEX (MTBE) (TPH-D) Oxygenates (5) Other:

EB I.D. (if applicable): @ Time — Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 060929-WC-1	Client: LRM @ Val Stroup
Sampler: WC	Date: 9-29-06
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 27.70	Depth to Water (DTW): 19.85
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): ~~YSI~~ HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	21.42

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, (Waterra), Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, (Dedicated Tubing), Other:_____

1.3 (Gals.) X	3	= 3.9 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	DO (mg/L) Turbidity (NTUs)	Gals. Removed	ORP (mV)	Observations / Comments
0934	18.79	6.61	772	0.36	1.3	-5.7	Brownish gray
0937	18.75	6.68	794	0.30	2.6	-10.0	↓
0940	18.74	6.66	800	0.25	3.9	-9.1	↓

Did well dewater? Yes (No) Gallons actually evacuated: 3.9

Sampling Date: 9-29-06 Sampling Time: 0945 Depth to Water: 20.90

Sample I.D.: MW-4 Laboratory: (Kiff) CalScience Other_____

Analyzed for: (TPH-G) ~~BTEX~~ (MTBE) ~~TPH-D~~ Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 060929-WC-1	Client: LRM @ Val Strough
Sampler: WC	Date: 9/29/06
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 26.87	Depth to Water (DTW): 17.60
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): 566 (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.45	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, (Waterra), Peristaltic, Extraction Pump, Other____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated (Tubing), Other:

1.5 (Gals.) X 3 = 4.5 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	DO (mg/L) Turbidity (NTUs)	Gals. Removed	Observations	ORP (mV)
0848	18.71	6.38	721	0.15	1.5	grey	-126.9
0851	18.73	6.49	767	0.16	3.0	↓	-138.6
0854						↓	

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 9/29/06 Sampling Time: 0900 Depth to Water: 18.57

Sample I.D.: MW-6 Laboratory: (Kiff) CalScience Other____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SPH or Purge Water Drum Log

Client: CRM @ Val Strough

Site Address: 327 34th St, Oakland

STATUS OF DRUM(S) UPON ARRIVAL						
Date	9/29/06					
Number of drum(s) empty:	0					
Number of drum(s) 1/4 full:						
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:						
Number of drum(s) full:						
Total drum(s) on site:	0					
Are the drum(s) properly labeled?						
Drum ID & Contents:	—					
If any drum(s) are partially or totally filled, what is the first use date:						

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE						
Date	9/29/06					
Number of drums empty:						
Number of drum(s) 1/4 full:						
Number of drum(s) 1/2 full:	1					
Number of drum(s) 3/4 full:						
Number of drum(s) full:						
Total drum(s) on site:	1					
Are the drum(s) properly labeled?	Y					
Drum ID & Contents:	Purge H2O					

LOCATION OF DRUM(S)
Describe location of drum(s): in compound (see map)

FINAL STATUS						
Number of new drum(s) left on site this event	1					
Date of inspection:	9/29/06					
Drum(s) labelled properly:	Yes					
Logged by BTS Field Tech:	[illegible]					
Office reviewed by:	[illegible]					

LRM
consulting inc.

APPENDIX C

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

KIFF Analytical LLC

Report Number : 52516
Date : 10/6/2006

Khaled Rahman
LRM Consulting, Inc.
1534 Plaza Lane, #145
Burlingame, CA 94010

Subject : 5 Water Samples
Project Name : Former Val Strough Chevrolet
Project Number : 060929-WC-1

Dear Mr. Rahman,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 52516
Date : 10/6/2006

Subject : 5 Water Samples
Project Name : Former Val Strough Chevrolet
Project Number : 060929-WC-1

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-2 and MW-3.

Approved By: Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 52516
Date : 10/6/2006

Project Name : **Former Val Strough Chevrolet**
Project Number : **060929-WC-1**

Sample : **MW-1** Matrix : Water Lab Number : 52516-01
Sample Date :9/29/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/4/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/4/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/4/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/4/2006
Methyl-t-butyl ether (MTBE)	**7.9**	0.50	ug/L	EPA 8260B	10/4/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/4/2006
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	10/4/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	10/4/2006
TPH as Diesel (w/ Silica Gel)	**< 50**	50	ug/L	M EPA 8015	10/5/2006
TPH as Motor Oil (w/ Silica Gel)	**< 100**	100	ug/L	M EPA 8015	10/5/2006
Octacosane (Diesel Silica Gel Surr)	79.6		% Recovery	M EPA 8015	10/5/2006

Sample : **MW-2** Matrix : Water Lab Number : 52516-02
Sample Date :9/29/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1200**	20	ug/L	EPA 8260B	10/6/2006
Toluene	**5100**	20	ug/L	EPA 8260B	10/6/2006
Ethylbenzene	**1200**	20	ug/L	EPA 8260B	10/6/2006
Total Xylenes	**9300**	20	ug/L	EPA 8260B	10/6/2006
Methyl-t-butyl ether (MTBE)	**230**	20	ug/L	EPA 8260B	10/6/2006
TPH as Gasoline	**59000**	2000	ug/L	EPA 8260B	10/6/2006
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	10/6/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	10/6/2006
TPH as Diesel (w/ Silica Gel)	**< 8000**	8000	ug/L	M EPA 8015	10/5/2006
TPH as Motor Oil (w/ Silica Gel)	**300**	100	ug/L	M EPA 8015	10/5/2006
Octacosane (Diesel Silica Gel Surr)	94.8		% Recovery	M EPA 8015	10/5/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 52516
Date : 10/6/2006

Project Name : **Former Val Strough Chevrolet**
Project Number : **060929-WC-1**

Sample : **MW-3** Matrix : Water Lab Number : 52516-03
Sample Date :9/29/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1300**	4.0	ug/L	EPA 8260B	10/4/2006
Toluene	**2300**	4.0	ug/L	EPA 8260B	10/4/2006
Ethylbenzene	**720**	4.0	ug/L	EPA 8260B	10/4/2006
Total Xylenes	**2900**	4.0	ug/L	EPA 8260B	10/4/2006
Methyl-t-butyl ether (MTBE)	**110**	4.0	ug/L	EPA 8260B	10/4/2006
TPH as Gasoline	**22000**	400	ug/L	EPA 8260B	10/4/2006
Toluene - d8 (Surr)	93.2		% Recovery	EPA 8260B	10/4/2006
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	10/4/2006
TPH as Diesel (w/ Silica Gel)	**< 1500**	1500	ug/L	M EPA 8015	10/5/2006
TPH as Motor Oil (w/ Silica Gel)	**< 100**	100	ug/L	M EPA 8015	10/5/2006
Octacosane (Diesel Silica Gel Surr)	78.2		% Recovery	M EPA 8015	10/5/2006

Sample : **MW-4** Matrix : Water Lab Number : 52516-04
Sample Date :9/29/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**18**	0.50	ug/L	EPA 8260B	10/3/2006
Toluene	**2.6**	0.50	ug/L	EPA 8260B	10/3/2006
Ethylbenzene	**1.5**	0.50	ug/L	EPA 8260B	10/3/2006
Total Xylenes	**3.5**	0.50	ug/L	EPA 8260B	10/3/2006
Methyl-t-butyl ether (MTBE)	**180**	0.50	ug/L	EPA 8260B	10/3/2006
TPH as Gasoline	**370**	50	ug/L	EPA 8260B	10/3/2006
Toluene - d8 (Surr)	92.2		% Recovery	EPA 8260B	10/3/2006
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	10/3/2006
TPH as Diesel (w/ Silica Gel)	**< 50**	50	ug/L	M EPA 8015	10/5/2006
TPH as Motor Oil (w/ Silica Gel)	**< 100**	100	ug/L	M EPA 8015	10/5/2006
Octacosane (Diesel Silica Gel Surr)	81.0		% Recovery	M EPA 8015	10/5/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 52516
Date : 10/6/2006

Project Name : **Former Val Strough Chevrolet**
Project Number : **060929-WC-1**

Sample : **MW-6** Matrix : Water Lab Number : 52516-05
Sample Date :9/29/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.87**	0.50	ug/L	EPA 8260B	10/2/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/2/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/2/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/2/2006
Methyl-t-butyl ether (MTBE)	**140**	0.50	ug/L	EPA 8260B	10/2/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/2/2006
Toluene - d8 (Surr)	96.3		% Recovery	EPA 8260B	10/2/2006
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	10/2/2006
TPH as Diesel (w/ Silica Gel)	**< 50**	50	ug/L	M EPA 8015	10/5/2006
TPH as Motor Oil (w/ Silica Gel)	**< 100**	100	ug/L	M EPA 8015	10/5/2006
Octacosane (Diesel Silica Gel Surr)	76.4		% Recovery	M EPA 8015	10/5/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 52516

Date : 10/6/2006

QC Report : Method Blank Data

Project Name : **Former Val Strough Chevrolet**

Project Number : **060929-WC-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	10/2/2006
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	10/2/2006
Octacosane (Diesel Silica Gel Surr)	75.4		%	M EPA 8015	10/2/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/4/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/4/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/4/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/4/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/4/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/4/2006
Toluene - d8 (Surr)	99.4		%	EPA 8260B	10/4/2006
4-Bromofluorobenzene (Surr)	94.9		%	EPA 8260B	10/4/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/2/2006
Toluene - d8 (Surr)	98.6		%	EPA 8260B	10/2/2006
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	10/2/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/3/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/3/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/3/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/3/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/3/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/3/2006
Toluene - d8 (Surr)	102		%	EPA 8260B	10/3/2006
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	10/3/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/2/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/2/2006
Toluene - d8 (Surr)	93.8		%	EPA 8260B	10/2/2006
4-Bromofluorobenzene (Surr)	99.2		%	EPA 8260B	10/2/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/6/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/6/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/6/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/6/2006
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/6/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/6/2006
Toluene - d8 (Surr)	99.7		%	EPA 8260B	10/6/2006
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	10/6/2006

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 52516

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/6/2006

Project Name : **Former Val Strough**

Project Number : **060929-WC-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	784	942	ug/L	M EPA 8015	10/2/06	78.4	94.2	18.3	70-130	25
Benzene	52560-05	1.6	39.5	39.8	43.1	44.7	ug/L	EPA 8260B	10/4/06	105	108	3.15	70-130	25
Toluene	52560-05	<0.50	39.5	39.8	41.8	43.4	ug/L	EPA 8260B	10/4/06	106	109	3.12	70-130	25
Tert-Butanol	52560-05	<5.0	198	199	185	196	ug/L	EPA 8260B	10/4/06	93.4	98.3	5.12	70-130	25
Methyl-t-Butyl Ether	52560-05	<0.50	39.5	39.8	38.3	39.7	ug/L	EPA 8260B	10/4/06	97.0	99.8	2.86	70-130	25
Benzene	52520-05	<0.50	40.0	40.0	41.5	39.6	ug/L	EPA 8260B	10/2/06	104	99.0	4.59	70-130	25
Toluene	52520-05	<0.50	40.0	40.0	39.3	37.9	ug/L	EPA 8260B	10/2/06	98.2	94.8	3.51	70-130	25
Tert-Butanol	52520-05	<5.0	200	200	196	191	ug/L	EPA 8260B	10/2/06	98.1	95.4	2.77	70-130	25
Methyl-t-Butyl Ether	52520-05	0.58	40.0	40.0	50.6	50.1	ug/L	EPA 8260B	10/2/06	125	124	0.905	70-130	25
Benzene	52520-02	<0.50	40.0	40.0	41.3	40.0	ug/L	EPA 8260B	10/3/06	103	100	3.09	70-130	25
Toluene	52520-02	<0.50	40.0	40.0	41.9	40.9	ug/L	EPA 8260B	10/3/06	105	102	2.29	70-130	25
Tert-Butanol	52520-02	<5.0	200	200	202	207	ug/L	EPA 8260B	10/3/06	101	104	2.64	70-130	25
Methyl-t-Butyl Ether	52520-02	<0.50	40.0	40.0	46.3	46.0	ug/L	EPA 8260B	10/3/06	116	115	0.614	70-130	25
Benzene	52518-02	<0.50	40.0	40.0	38.0	39.5	ug/L	EPA 8260B	10/2/06	95.0	98.7	3.87	70-130	25
Toluene	52518-02	<0.50	40.0	40.0	33.5	35.2	ug/L	EPA 8260B	10/2/06	83.7	88.0	5.03	70-130	25
Tert-Butanol	52518-02	<5.0	200	200	173	189	ug/L	EPA 8260B	10/2/06	86.3	94.4	8.96	70-130	25
Methyl-t-Butyl Ether	52518-02	<0.50	40.0	40.0	33.1	35.8	ug/L	EPA 8260B	10/2/06	82.7	89.5	7.83	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 52516

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/6/2006

Project Name : **Former Val Strough**

Project Number : **060929-WC-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	52602-02	<0.50	40.0	40.0	36.3	35.8	ug/L	EPA 8260B	10/6/06	90.7	89.6	1.18	70-130	25
Toluene	52602-02	<0.50	40.0	40.0	36.6	35.8	ug/L	EPA 8260B	10/6/06	91.4	89.5	2.14	70-130	25
Tert-Butanol	52602-02	18	200	200	194	197	ug/L	EPA 8260B	10/6/06	87.9	89.6	1.98	70-130	25
Methyl-t-Butyl Ether	52602-02	57	40.0	40.0	93.6	93.6	ug/L	EPA 8260B	10/6/06	90.6	90.6	0.0869	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 52516

QC Report : Laboratory Control Sample (LCS)

Date : 10/6/2006

Project Name : **Former Val Strough**

Project Number : **060929-WC-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	10/4/06	104	70-130
Toluene	40.0	ug/L	EPA 8260B	10/4/06	105	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/4/06	95.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/4/06	92.0	70-130
Benzene	40.0	ug/L	EPA 8260B	10/2/06	106	70-130
Toluene	40.0	ug/L	EPA 8260B	10/2/06	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/2/06	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/2/06	113	70-130
Benzene	40.0	ug/L	EPA 8260B	10/3/06	100	70-130
Toluene	40.0	ug/L	EPA 8260B	10/3/06	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/3/06	100	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/3/06	112	70-130
Benzene	40.0	ug/L	EPA 8260B	10/2/06	107	70-130
Toluene	40.0	ug/L	EPA 8260B	10/2/06	98.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/2/06	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/2/06	98.0	70-130
Benzene	40.0	ug/L	EPA 8260B	10/6/06	85.3	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 52516

QC Report : Laboratory Control Sample (LCS)

Date : 10/6/2006

Project Name : **Former Val Strough**

Project Number : **060929-WC-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	10/6/06	86.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/6/06	83.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/6/06	87.8	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

52516

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF BTS # 060929-WC-1

CLIENT LRM Consulting

SITE former Val Strough Chevrolet

327 34th St.

Oakland, CA

LAB KIFF | DHS #

ALL ANALYSES MUST MEET
- [x] EPA
- [ ] LIA
- [ ] OTHER
- [ ] RWQCB REGION

SPECIAL INSTRUCTIONS
std. TAT (14 day hold time)

Invoice and Report to:
Ramkishore Rao
510-414-9315
Khaled Rahman
510-387-9552

SAMPLE I.D.	DATE	TIME	MATRIX (S = Soil, W = H2O)	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: BTEX and TPH-g (8260)	MTBE (8260)	TEPH (8015) diesel	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	9/29/06	1015	W	5	HCl Vials		X	X	X				01
MW-2	"	1127	"	"	"		X	X	X				02
MW-3	"	1105	"	"	"		X	X	X				03
MW-4	"	0945	"	"	"		X	X	X				04
MW-6	"	0900	"	"	"		X	X	X				05

SAMPLING COMPLETED DATE 9/29/06 TIME 1200

SAMPLING PERFORMED BY Will Crow

RESULTS NEEDED NO LATER THAN

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Will Crow	9/29/06				
			Thomas Nguyen Kiff Analytical LLC	092906	1150

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

SAMPLE RECEIPT
Temp °C 2.4 Therm. ID# FR-5
Initial TTA Date 092906
Time 1700 Coolant present: (Yes) No