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Ms. Donna Drogos
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, CA 9502-6577

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

Dear Ms. Drogos:

This letter is to accompany the *Supplemental Source Area Investigation Report* for the above-referenced site prepared by LRM Consulting, Inc. of Burlingame, CA.

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

If you have any questions, please contact Mr. Mehrdad Javaherian of LRM Consulting, Inc. at 650-343-4633.

Sincerely,



Linda L. Strough, Trustee

cc: Mehrdad Javaherian, LRM Consulting, Inc., 1534 Plaza Lane, #145, Burlingame, CA 94010
Greggory Brandt, Wendel Rosen Black & Dean, 1111 Broadway, 24th Floor, Oakland, CA 94607



**SUPPLEMENTAL
SOURCE AREA INVESTIGATION
REPORT**

327 34th Street, Oakland, California

Prepared for

Strough Family Trust

Prepared by

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

February 29, 2008

February 29, 2008

Ms. Donna Drogos
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Subject: **Supplemental Source Area Investigation Report**
Former Val Strough Chevrolet
327 34th Street, Oakland, California
Site ID #3035, RO #0000134

Dear Ms. Drogos:

LRM Consulting, Inc. (LRM) is pleased to present this *Supplemental Source Area Investigation Report* for the above-referenced site to the Alameda County Health Care Services Agency (ACHCSA). As described in the workplan prepared in support of this investigation (LRM, 2006)¹, the primary sources of petroleum hydrocarbons (i.e., gasoline underground storage tank [UST], former fuel dispenser, and former waste-oil UST) have been removed, and 1.5 years of dual-phase extraction (DPE) operations removed an estimated 9,000 pounds of petroleum hydrocarbons, reaching asymptotic levels for both the magnitude and rate of mass removal. While the hydrocarbon plume onsite remains largely stable, monitoring of groundwater quality during and since cessation of DPE operations in 2006 indicates that elevated levels of hydrocarbons occur locally in the immediate vicinity of well MW2 (near the former UST and fuel dispenser); these levels were exacerbated as a result of localized groundwater pumpage at MW2 during intermittent DPE activities, suggesting the continued presence of a residual source area. To this end, a residual source area investigation was deemed warranted and is the focus of this report. As part of the workplan review process for this investigation, the ACHCSA indicated the additional need for a corrective action plan (CAP) for the site, which is underway and will incorporate the results of the investigation documented herein.

In response to ACHCSA's request, the supplemental investigation focused on defining the magnitude and extent of the residual hydrocarbon source in order to evaluate the need, if any, and/or approach to additional remedial activities at the site, including preparation of the CAP. In addition, shallow soil-vapor samples were collected to evaluate potential risks to indoor air quality, which is considered the primary complete exposure pathway to residual hydrocarbons in groundwater at the site. Lastly, grab groundwater samples were collected along the downgradient site boundary per the request of the ACHCSA to evaluate the downgradient extent of hydrocarbons beneath the site. The following sections present the site background, the objectives of the investigation, the details of field activities, the results of the investigation, and conclusions.

¹ LRM Consulting, Inc. (2006). Supplemental Source Area Investigation Work Plan, 327 34th Street, Oakland, California, November.

SITE BACKGROUND

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) (Environmental Data Resources [EDR], 2003)². 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 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 (EDR, 2003).

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. Depth to groundwater beneath the site has ranged from approximately 12.5 to 23

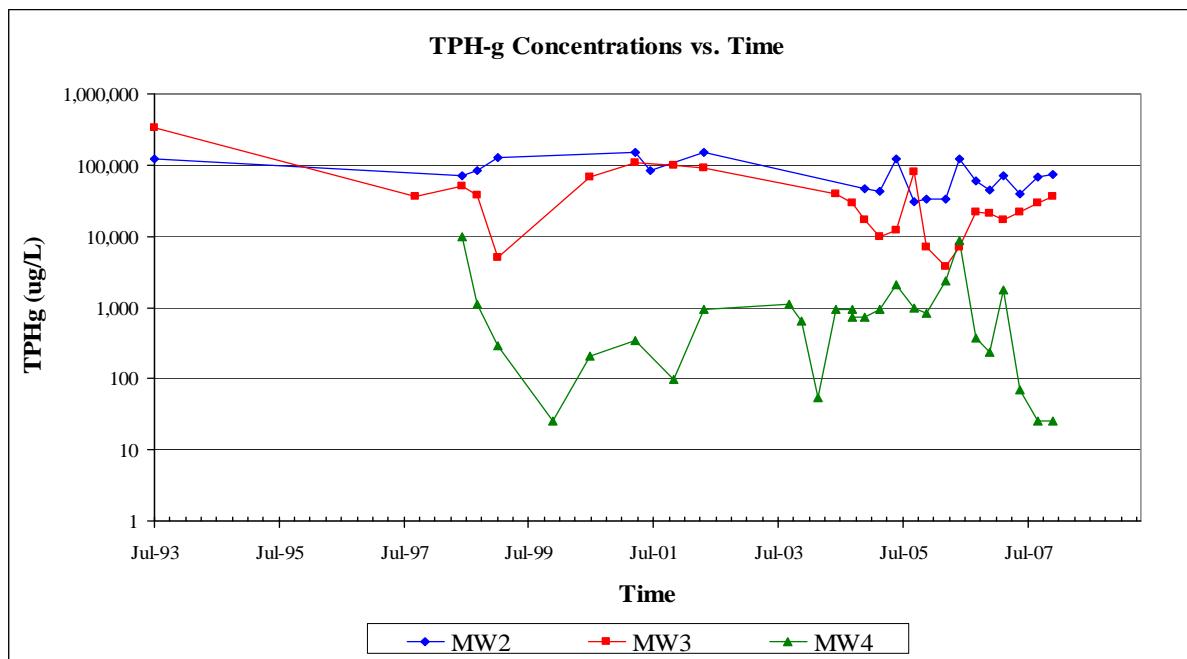
² Environmental Data Resources, (2003). Radius Map with GeoCheck, 327 34th Street, Oakland, California, September 10.

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 0.01 to 0.03 foot/foot (LRM, 2008)³.

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 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 have been considered secondary COPCs for the site.

Petroleum Hydrocarbon Distribution in Groundwater: Groundwater quality has been monitored at the site since 1993 and continues with quarterly/semi-annual monitoring of seven onsite wells (LRM, 2008). To date, the highest concentrations of petroleum hydrocarbons in monitoring wells have occurred in samples from wells MW2 and MW3. As indicated on the graph below, TPH-g concentrations in MW2 continue to fluctuate within the 50,000 to 75,000 ug/L range over the past year, while levels in MW3 show a slight increase within the 20,000 to 36,000 ug/L range. TPH-g levels in MW4 continue to decline over the past two years.



³ LRM Consulting, Inc. (2008). Fourth Quarter Groundwater Monitoring Report, 327 34th Street, Oakland, California, January.

Generally, significantly lower levels of petroleum hydrocarbons have been detected in samples collected from well MW4 (and other site wells) in comparison to wells MW2 and MW3. To date, 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 (See Figure 3 and Table 2).

DPE System Operation: Between February 2005 and June 2006, ETIC operated a DPE system onsite. Vacuum was applied to remove groundwater and soil vapor from up to two wells (MW3 and/or MW2). Because the mass removal rates achieved by the DPE system had reached asymptotic levels and the system was likely to have been limited by the use of monitoring wells for extraction points, the operation of the DPE system was ceased on 30 June 2006. ETIC subsequently dismantled much of the remediation system and removed the skid-mounted DPE unit from the site.

ETIC estimated mass removal throughout the 1.5 years of DPE operation to approximate 9,000 pounds; however, as previously discussed, subsequent monitoring of groundwater quality indicates the continued presence of elevated hydrocarbons in the immediate vicinity of MW2.

Residual Source Area: Elevated concentrations of TPH-g, BTEX, and MTBE were historically observed in soil in the vadose zone and upper portion of the water-bearing zone near the former USTs and fuel dispenser. In addition, separate phase petroleum hydrocarbons (SPH) have been intermittently detected in wells MW2 and MW3, but none since March 2004 in MW3 and June 2006 in MW2; the occurrence of SPHs has corresponded to the maximum detected hydrocarbon concentrations in groundwater at MW2. While remediation efforts (DPE operations) have targeted this area and have removed an estimated 9,000 pounds of hydrocarbons, groundwater data suggest that residual hydrocarbons remain in the immediate vicinity of MW2 and the former USTs and fuel dispenser; herein, this is referred to as the residual source area.

SUPPLEMENTAL SOURCE AREA INVESTIGATION

As previously discussed, the objectives of the supplemental source area investigation included:

1. Determining the extent and magnitude of the suspected residual source area through collection and analysis of soil and groundwater samples near the former gasoline UST and fuel dispenser;
2. Determining the potential presence of hydrocarbons along the downgradient boundary of the site through grab groundwater sampling;
3. Evaluating the potential for indoor intrusion of vapor emissions from the subsurface through collection and laboratory analysis of shallow soil vapor samples near the former gasoline UST and fuel dispenser, and a screening of these results with respect to shallow soil vapor environmental screening levels (ESLs) for protection of indoor air quality (San Francisco Regional Water Quality Control Board [RWQCB], 2007)⁴; and
4. Generating data necessary for preparation of a CAP as requested by the ACHCSA.

Supplemental Source Area Investigation Activities

The scope of work for the investigation was finalized based on review of the original workplan (LRM, 2006) by the ACHCSA, resulting in preparation of two addenda (LRM, 2007a⁵ and 2007b⁶). Boring locations (see Figure 4) were selected based on a review of available data for soil borings in the vicinity of the former gasoline UST and fuel dispenser, and the previously discussed response to DPE at well MW2. The rationale and approach to drilling and sample collection were previously outlined in the workplan and related addenda.

Pre-field Activities: The boring locations were marked and Underground Service Alert was contacted. A private utility locator was also contracted to ensure that the proposed boring locations are clear of subsurface obstructions. In addition, drilling permits were acquired from the Alameda County Department of Public Works (see Appendix A). Lastly, prior to conducting the planned field activities, a comprehensive site health and safety plan was prepared.

Advancement of Soil Borings: Beginning on December 11, 2007, a Geoprobe direct push rig was used to advance six soil borings (SB3 through SB 8) within the residual source area (see Figure 3). The borings were advanced to an approximate depth of 40 feet bgs. Per the request of the ACHCSA, another boring, SB9, was advanced adjacent to MW4 to confirm the absence of a localized source at this location. The borings were continuously cored and logged by a field geologist (see Appendix B). As outlined in the approved workplan addenda, soil samples in each

⁴ San Francisco Bay Regional Water Quality Control Board (2007). Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Interim Final. November.

⁵ LRM Consulting, Inc. (2007a). Addendum to Supplemental Source Area Investigation Work Plan, 327 34th Street, Oakland, California, September.

⁶ LRM Consulting, Inc. (2007b). Revised Addendum to Supplemental Source Area Investigation Work Plan, 327 34th Street, Oakland, California, November.

boring were collected at depths corresponding to observed change in lithology and included both unsaturated and saturated soil samples.

Using a Hydropunch sampler, attempts were made to collect two depth-discrete grab groundwater samples at borings SB3 through SB8: one at the water table (ranging from 23 to 24 feet bgs in the residual source area and approximately 17 to 25 feet bgs in the downgradient portion of the site- see Appendix B) and one at the bottom of each boring (i.e, approximately 40 feet bgs). The goal of this sampling was to vertically define the extent of hydrocarbons in soils and groundwater within the residual source area (i.e, in the immediate vicinity of MW2 and MW3). This sampling scheme was achieved in the field for borings SB3, SB4, SB5, and SB6; however, due to the low permeability of soils, shallow groundwater did not enter the borehole at the first encountered groundwater and shallow groundwater samples were accordingly unavailable at SB7 and SB8. At these locations, saturated soil samples were instead collected at the water table and deeper groundwater samples (40 feet bgs) were collected as originally intended. Per the approved workplan, one grab groundwater sample was collected at SB9, corresponding to first encountered groundwater, at an approximate depth of 34 feet bgs. As outlined in the revised addendum to the workplan (LRM, 2007b), the DT22 Geoprobe® system consisting of a 2.25 in. (57 mm) OD probe rods as an outer casing and Geoprobe® Light-Weight Center Rods for the inner rod string were used to ensure the integrity of the 40-foot bgs samples and to minimize the potential for cross contamination from shallower depths.

Allowing for equilibration of subsurface conditions approximately thirty minutes after advancement of the soil borings, shallow soil vapor samples were collected at a depth of 5 feet bgs. Per the workplan (LRM, 2006), attempts were made to collect shallow soil vapor data at each of the borings within the residual source area (i.e, SB3 through SB8) using summa canisters equipped with vacuum gauge and flow regulators; however, due to the tightness of shallow soils, sufficient vapor did not enter the canisters at SB5 and SB8. Hence, four shallow soil vapor samples (SB3, SB4, SB6, and SB7) were collected.

Per the request of the ACHCSA, four additional borings (SB10 through SB13) were advanced along the downgradient site boundary. The borings were oriented perpendicular to the prevailing groundwater flow direction and were continuously cored and logged. Grab groundwater samples were collected at first encountered groundwater from each of these borings.

Chemical Analyses: In accordance to the original work plan, all soil and groundwater samples were analyzed for TPH-g, BTEX and MTBE using US Environmental Protection Agency (USEPA) Method 8260, and TPH-d and TPH-mo using modified USEPA Method 8015 with silica gel cleanup at a California-certified laboratory. Soil vapor samples were analyzed for volatile organic compounds (VOCs) using USEPA Method Toxic Organics (TO)-15.

Soil and Water Handling: Soil and water produced during field activities was temporarily stored onsite. Following review of analytical results, the soil and water were transported to an appropriate facility for disposal/recycling.

These data suggest that the residual source area is most concentrated between MW2 and SB5 (see Figure 5), with a relatively limited east-west extent evidenced by lower concentrations in SB6 and farther east at MW1. SB4 concentrations suggest limited extent of the source area toward the west. Vertically, the available data do not define the extent of the residual source area, other than the higher concentrated portions appear to be deeper than 24 feet bgs, and possibly deeper than 40 feet bgs.

Consistent with the depth-discrete soil analytical results, grab groundwater sampling at SB9 does not suggest the presence of an independent source of hydrocarbons at this location.

Soil Vapor Beneath Residual Source Area: As shown on Table 5, benzene was not detected in any of the shallow soil vapor samples within the residual source area at a detection limit of 16 ug/m³. Sporadic detections in soil vapor included propylene (maximum concentration of 160 ug/m³), acetone (maximum concentration of 550 ug/m³), toluene (maximum concentration of 38 ug/m³), hexane (maximum concentration of 5,400 ug/m³), 2-butanone (maximum concentration of 42 ug/m³), cyclohexane (maximum concentration of 2,300 ug/m³), 2,2,4-trimethylpentane (maximum concentration of 13,000 ug/m³), heptane (maximum concentration of 4,500 ug/m³), 1,2,4-trimethylbenzene (maximum concentration of 460 ug/m³), 1,3,5-trimethylbenzene (maximum concentration of 790 ug/m³), and total xylenes (maximum concentration of 550 ug/m³). None of the site-related soil vapor concentrations exceed the highly conservative ESLs (see Table 5).

It should be noted that the detected chemicals for which ESLs have not been generated are considered low in toxicity. For example, chemicals such as hexane, heptane, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene are not known to have potential carcinogenic effects (USEPA, 2004)⁷. Moreover, the current onsite building at the location of the residual source area is characterized by elevated ceilings, dimensions, and air exchange rates (due to roll-up doors open during business hours) far greater than those of typical buildings used in quantitative risk assessments and/or development of ESLs (RWQCB, 2007); these site-specific building features together with the presence of low-permeability soils encountered across the site (evidence by limited ability to collect soil vapor samples) suggest that the potential for indoor intrusion of subsurface vapors is limited. The cumulative potential risk may be quantitatively evaluated in a formal human health risk assessment to be prepared in support of site closure following implementation of the forthcoming CAP for the site.

Groundwater at Downgradient Site Boundary: Grab groundwater results from SB10 through SB13 (see Figure 3) indicate the absence of BTEX compounds at the downgradient site boundary. TPH-g was detected once at 67 ug/L (SB12) and MTBE was detected three times at 30 ug/L (SB10), 43 ug/L (SB12), and 160 ug/L (SB13). TPH-d and TPH-mo were detected in all samples at maximum levels of 3,800 ug/L and 6,600 ug/L, respectively (both at SB13); these

⁷ US Environmental Protection Agency (2004). Region IX Preliminary Remediation Goals, online at:
<http://www.epa.gov/region09/waste/sfund/prg/#prgtable>

concentrations are significantly higher than those encountered in the residual source area and in current levels encountered in onsite monitoring wells (see Table 2 and Figure 3).

These results confirm the absence of gasoline-range hydrocarbons and BTEX at the downgradient site boundary; however, these data indicate that MTBE has reached this area. Moreover, comparison of TPH-d and TPH-mo concentrations between the source area and the downgradient location suggests that the presence of these chemicals along the downgradient site boundary may be associated with a different source. Impacts from this source appear to be greatest in the southeastern corner of the site, near SB13.

Supplemental Source Area Investigation Results

Logs for the borings advanced are included as Appendix B, while Tables 3, 4, and 5 summarize the results of the soil, groundwater, and soil vapor samples, respectively. Figure 5 depicts the distribution of hydrocarbons and MTBE in groundwater. Analytical reports for the soil, grab groundwater, and soil vapor samples are included as Appendices C through E, respectively. The following summarizes the field observations and analytical results:

Geologic Conditions: As shown on boring logs in Appendix B, soils encountered within the residual source area included silty gravelly sands from the ground surface to an approximate depth of 15 feet bgs, transitioning into silty sands from 15 feet to the total explored depth of 40 feet bgs. Depth to first encountered groundwater in the residual source area ranged from 23 to 24 feet bgs. At the downgradient site boundary, silty sands were encountered from the ground surface to a depth of approximately 15 feet bgs, transitioning to silty clays to a depth of approximately 22 feet bgs. From there, silty sands were once again encountered to a total explored depth of 28 feet bgs. First encountered groundwater ranged in depth from 17 to 25 feet bgs along the downgradient site boundary.

Soils Beneath Residual Source Area: As reflected in Table 3, the highest detected TPH-g and BTEX compounds in the residual source area investigated by borings SB3 through SB8 occurred at boring SB4 at a depth of 24 feet bgs, corresponding to occurrence of the water table. These saturated soil concentrations included TPH-g at 240 mg/kg, and BTEX at 1.2, 12, 5, and 26 mg/kg, respectively. TPH-d and MTBE concentrations in this boring approximated 47 mg/kg and <0.025 mg/kg, respectively. Worth noting is that the hydrocarbon levels at a shallower depth within SB4 were non-detect, with the exception of 1.4 mg/kg of TPH-d. Based on these results, it appears that these soil concentrations are not the likely cause of TPH-g and BTEX observations in groundwater discussed below.

With the exception of TPH-d at SB7 (720 mg/kg), at SB6 (250 mg/kg), at SB9 (47 mg/kg) and at SB3 (85 mg/kg), all other levels of hydrocarbons encountered in saturated and unsaturated soils were below those at SB4. This included the absence of BTEX, MTBE and TPH-g in unsaturated and saturated soil samples at SB9, suggesting the absence of an independent source of hydrocarbons at that location. The above results suggest the absence of significant hydrocarbon mass remaining in the vadose zone and capillary fringe within the investigated portions of the residual source area.

Groundwater Beneath Residual Source Area: As shown in Table 4, the maximum hydrocarbon concentrations in grab groundwater samples occurred at SB5, with the higher detections at the water table (24 feet bgs) ranging from 110,000 ug/L of TPH-g and 660 ug/L of benzene, declining with depth (40 feet bgs) to 13,000 ug/L of TPH-g and 74 ug/L of benzene. Importantly, TPH-g levels at depth (40 feet bgs) were higher than shallower depths in borings SB4 (9,900 ug/L) and SB6 (35,000 ug/L). Elevated levels at depth (40 feet bgs) also occurred at SB7 (20,000 ug/L) and SB8 (17,000 ug/L).

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this investigation, the following conclusions have been generated:

- The residual source area contains elevated levels of TPH-g and BTEX in groundwater, including 110,000 ug/L of TPH-g, 660 ug/L of benzene, 11,000 ug/L of toluene, 4,200 of ethylbenzene, and 20,000 ug/L of xylenes in SB5;
- The residual source area appears to be laterally bounded in the east-west direction by SB4 and SB6, and in the north-south direction by SB3 and SB8.
- The vertical extent of the residual source area has not been defined by available data, with the highest groundwater concentrations detected at a depth of 40 feet bgs;
- Unsaturated and saturated soil samples collected within the residual source area contain residual levels of petroleum hydrocarbons, suggesting that the majority of the hydrocarbon mass exists in dissolved phase with negligible mass contribution from the vadose zone and capillary fringe;
- The dissolved TPH-g and BTEX plumes do not appear to have reached the downgradient site boundary; however, MTBE at concentrations ranging form 30 to 160 ug/L was encountered along the downgradient site boundary;
- The concentrations of secondary COPCs, TPH-d and TPH-mo, in groundwater along the downgradient site boundary are higher than those detected within the residual source area and in recent rounds of sampling in all onsite wells, suggesting the presence of an independent source;
- Based on available ESLs, shallow soil vapor at the site contained negligible levels of site-related hydrocarbons, including the absence of benzene at above detection limits; hence, the potential for indoor air intrusion of hydrocarbons from the subsurface appears to be limited, which is consistent with the nature of the low-permeability soils encountered in the vadose zone; and
- Based on data obtained from SB9, there is no evidence of a localized release of hydrocarbons or MTBE in the immediate vicinity of SB9/MW4.

Based on the above conclusions, the following recommendations have been set forth:

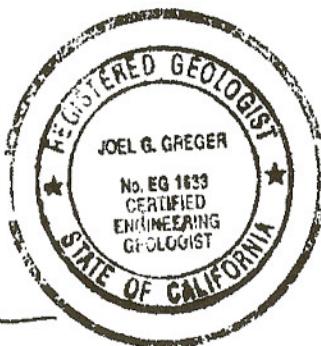
- The vertical extent of the hydrocarbons in groundwater and saturated soils warrant characterization in the immediate vicinity of SB5 and SB7; and
- Installation of one monitoring well to be located between SB10 and SB13 is recommended to monitor groundwater quality over time along the downgradient site boundary and to help evaluate the need, if any for additional investigation for identifying the source of TPH-mo and TPH-d in groundwater at this location; this well may be added to the routine quarterly groundwater monitoring program for the site.

Per the request of the ACHCSA, preparation of a CAP is underway, outlining three engineered alternatives for remediation of the residual source area. The CAP will incorporate an approach for data necessary to incorporate the recommended remedial alternative.

CLOSING

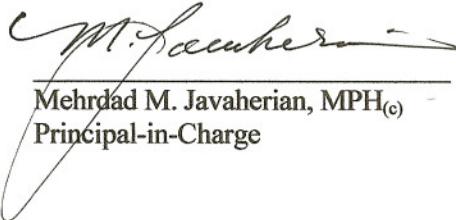
We appreciate your assistance with this project. If you have any questions or require further information, please contact Mehrdad Javaherian at (650)-343-4633.

Sincerely,
LRM Consulting, Inc.



Joel M. Greger

Joel G. Greger, C.E.G. No EG 1633
Certified Engineering Geologist



Mehrdad M. Javaherian, MPH_(c)
Principal-in-Charge

ATTACHMENTS

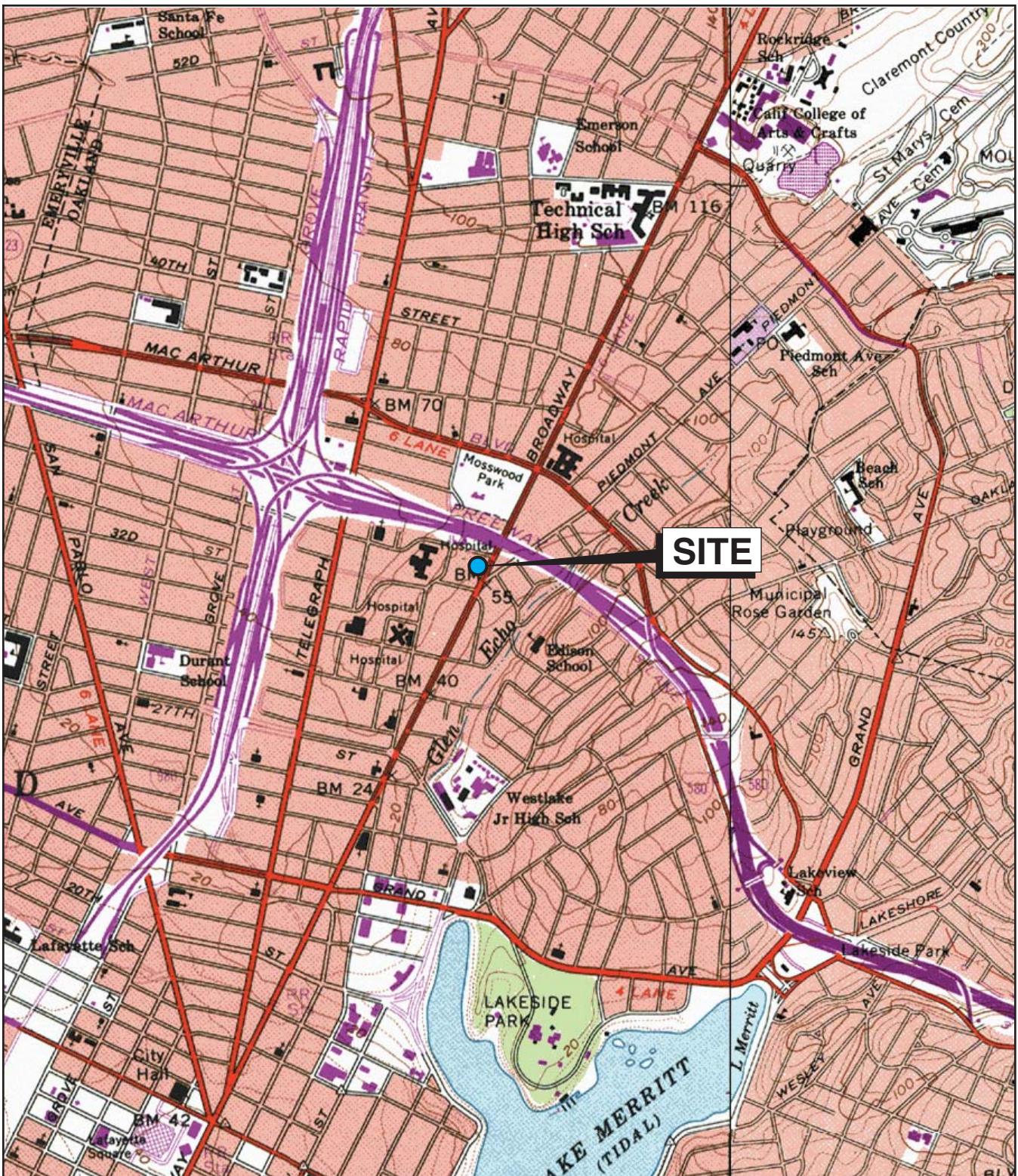
Figure 1 – Site Location Map
Figure 2 – Groundwater Contour Map and Rose Diagram
Figure 3 – Groundwater Analytical Data
Figure 4 – Boring Locations
Figure 5 – Grab Groundwater Analytical Results

Table 1 – Well Construction Details
Table 2 – Cumulative Groundwater Elevation and Analytical Data
Table 3 – Soil Analytical Data
Table 4 – Grab Groundwater Analytical Data
Table 5 – Soil Vapor Analytical Data

Appendix A – Drilling Permit
Appendix B – Boring Logs
Appendix C – Laboratory Analytical Report- Soil Samples
Appendix D – Laboratory Analytical Report- Grab Groundwater Samples
Appendix E – Laboratory Analytical Report- Soil Vapor Samples

cc: Gregory Brandt, Esq., Wendel, Rosen, Black & Dean, 1111 Broadway, 24th Floor, Oakland, California 94607
Strough Family Trust of 1983, 2 Sea View Avenue, Piedmont, California 94611

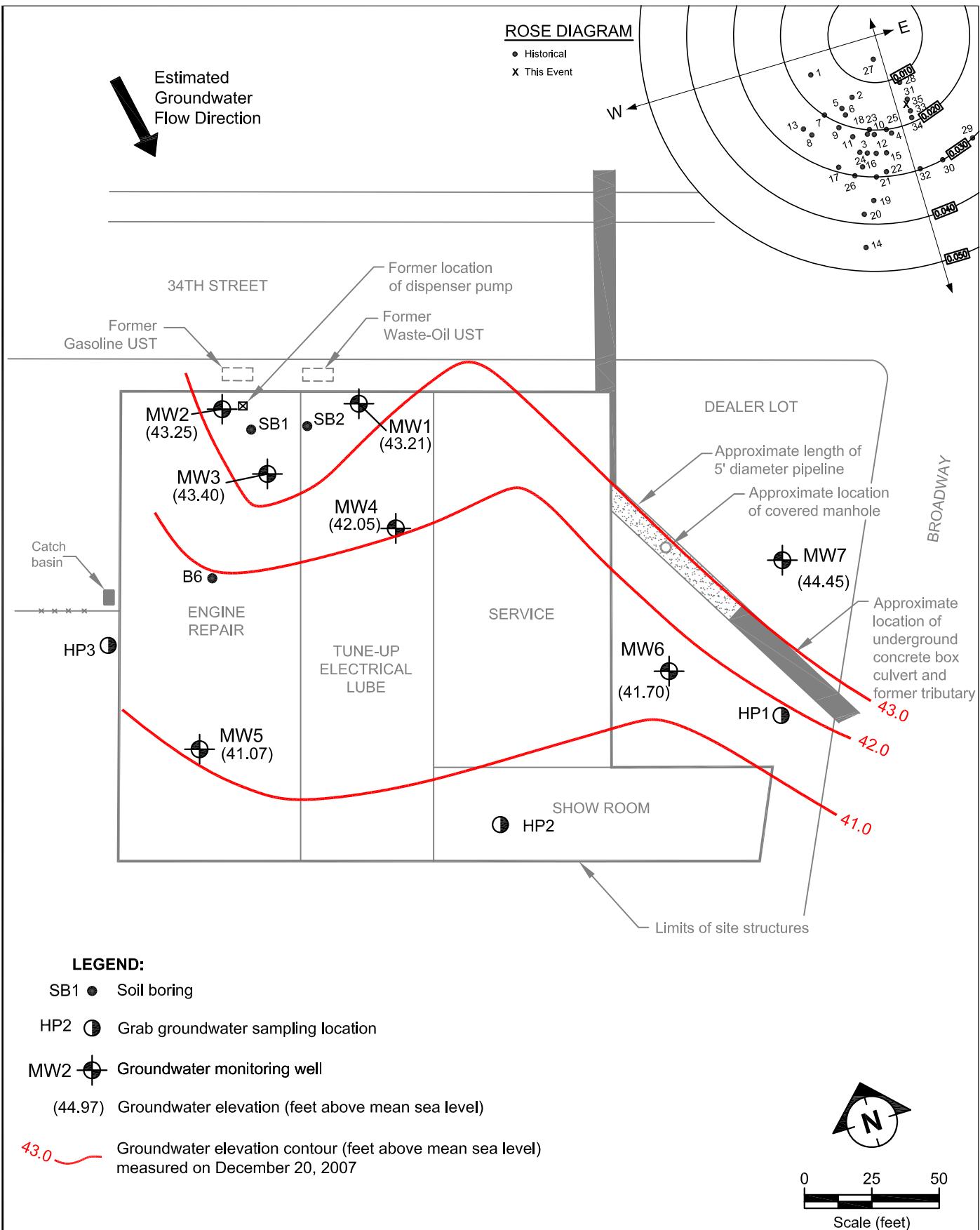
FIGURES

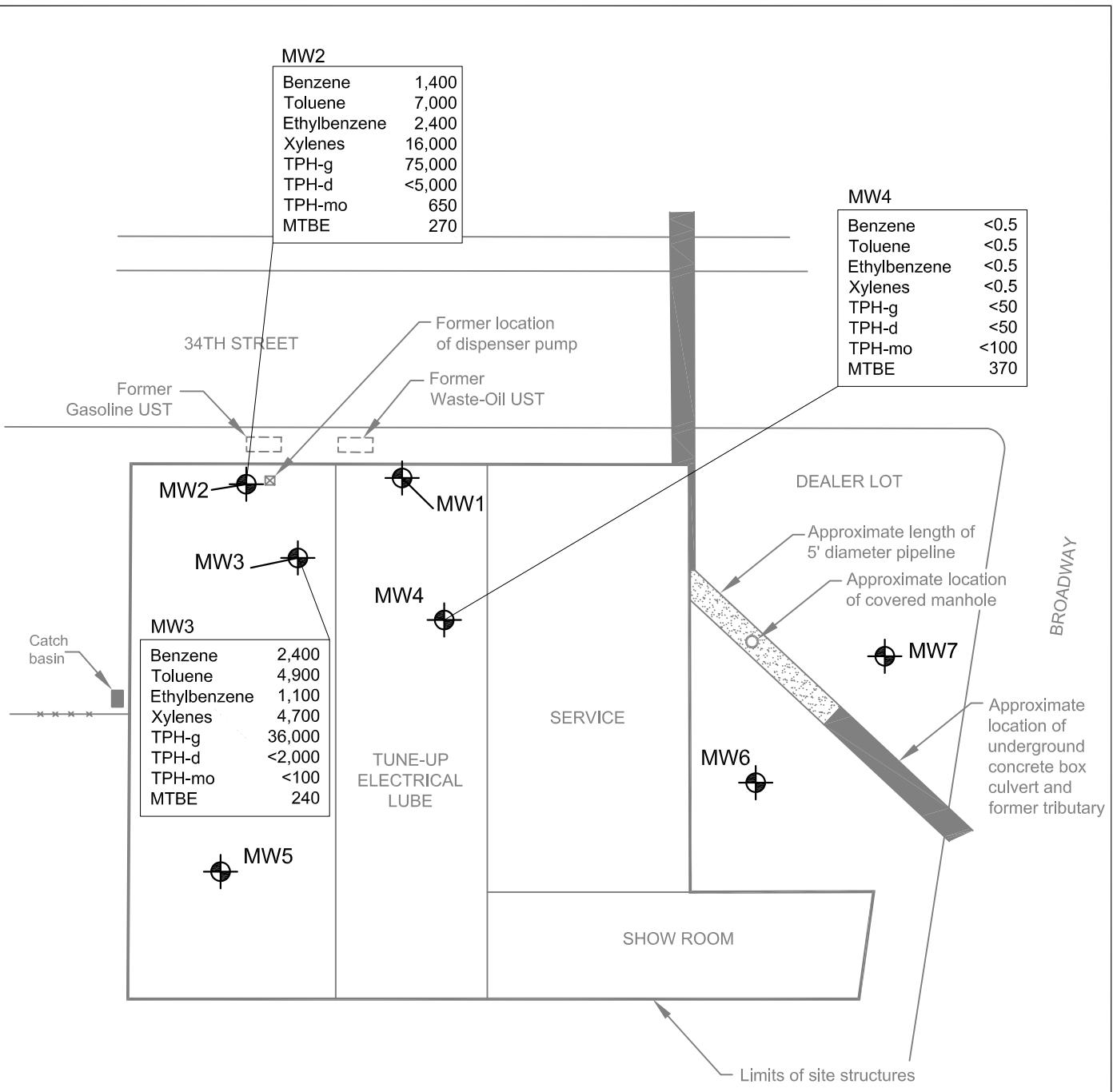


Base map: Maptech Inc., 2001



0 2,000
Scale (feet)





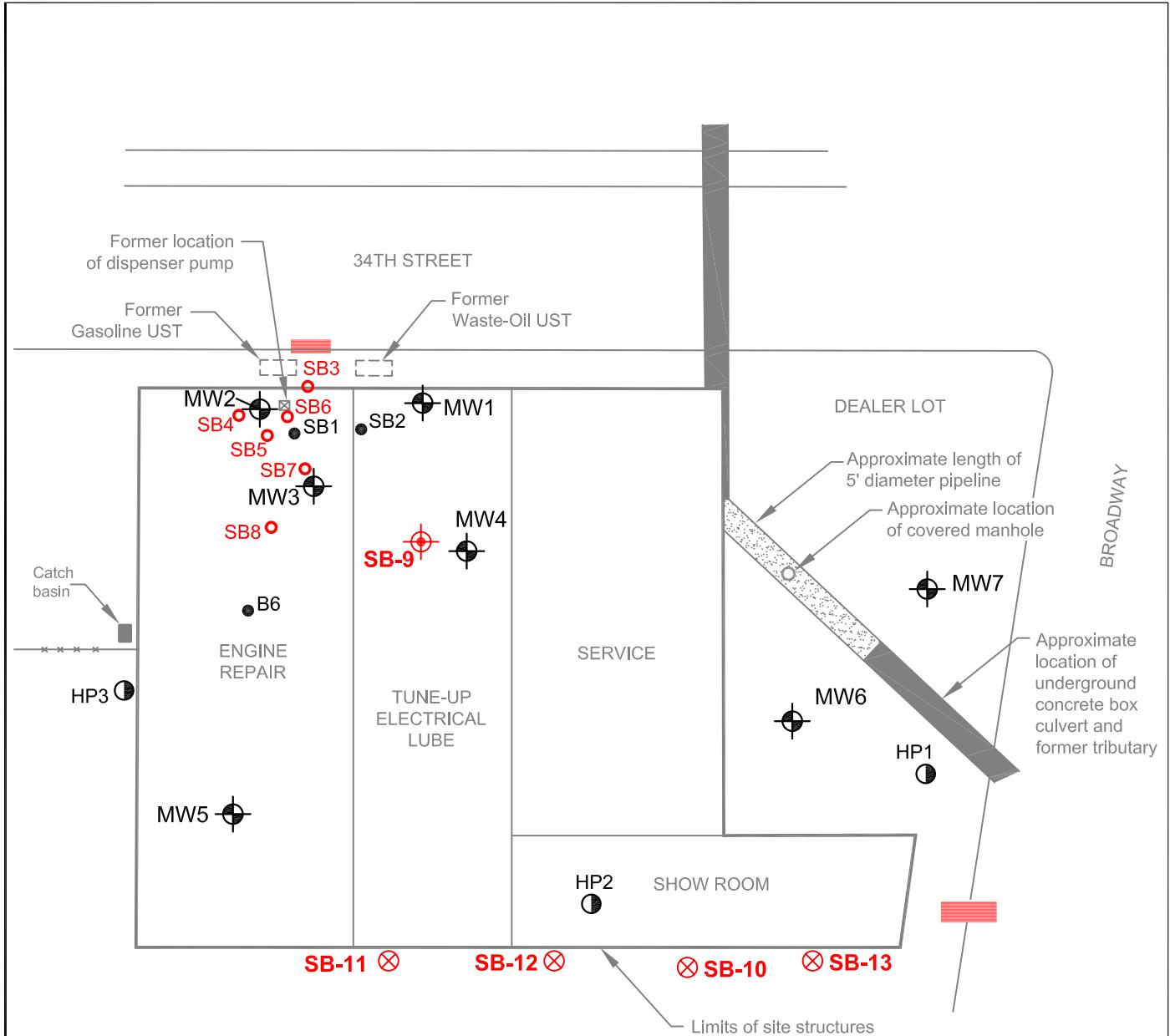
LEGEND:

- MW5 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)
and measured on December 20, 2007



0 25 50
Scale (feet)

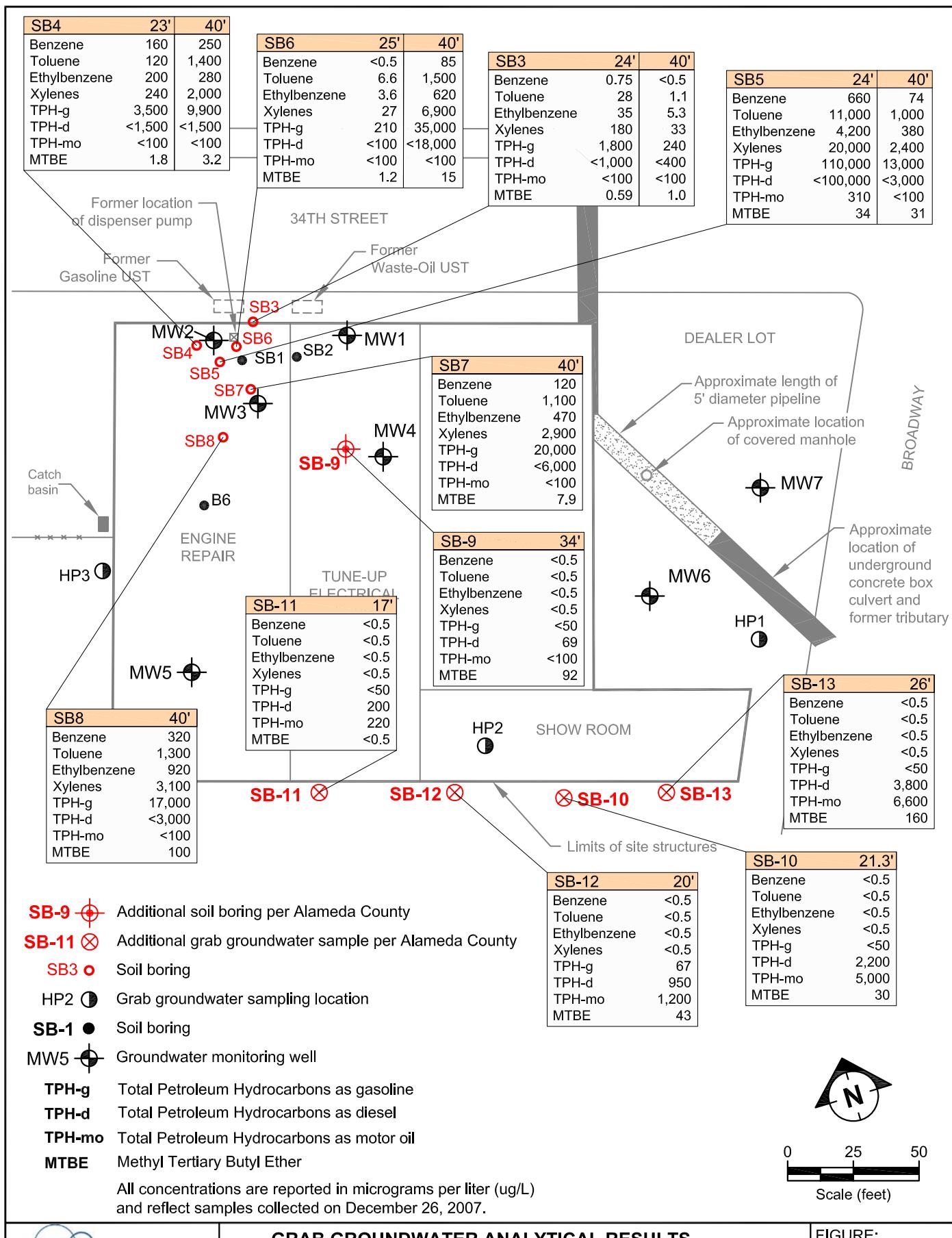


LEGEND:

- SB-9** Additional soil boring per Alameda County
- SB-11** Additional grab groundwater sample per Alameda County
- SB3** Soil boring
- HP2** Grab groundwater sampling location
- SB-1** Soil boring
- MW5** Groundwater monitoring well



0 25 50
Scale (feet)



TABLES

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

Well ID	Well Installation Date	Top-of-Casing Elevation*	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

* E 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

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

Well Number	Date	Casing Elevation	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration ($\mu\text{g/L}$)							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-NH ₃	N-NO ₃	o-PO ₄	
MW-5	03/01/07	65.59	b	21.02	44.57	0.00	<0.50	<0.50	<0.50	54	<50	<100	<0.50	--	4.35	--	6.08	--	--	--	--	--	--	
MW-5	06/12/07	65.59	b	22.78	42.81	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	09/25/07	65.59	b	24.45	41.14	0.00	<0.50	1.5	<0.50	<0.50	<50	<50	<100	0.64	--	18.71	--	6.26	--	--	--	--	--	--
MW-5	12/20/07	65.59	b	24.52	41.07	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW6	07/20/00	96.60	a	18.30	78.30	0.00	<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	<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	<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	<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	<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	--	--	--	--	--	--	--	
MW6	09/29/04	59.60	b	18.55	41.05	0.00	<0.50	0.61	<0.50	1.2	210	<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	<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	--	--	--	--	--	
MW6	12/12/06	59.60	b	16.93	42.67	0.00	0.67	<0.50	<0.50	<0.50	<50	<50	<50	230	89	--	0.5	--	6.68	--	--	--	--	
MW6	03/01/07	59.60	b	16.30	43.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	78	--	0.83	--	6.66	--	--	--	--	--	
MW6	06/12/07	59.60	b	17.38	42.22	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW6	09/25/07	59.60	b	18.36	41.24	0.00	<0.50	<0.50	<0.50	<50	<50	<100	89	--	8.5	--	6.78	--	--	--	--	--	--	
MW6	12/20/07	59.60	b	17.90	41.70	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW7	07/20/00	96.75	a	15.93	80.82	0.00	<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	<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	<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	<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	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	<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	--	0.72	--	5.81	--	--	--	--	--	

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

Well Number	Date	Casing	Depth to Water	GW Elevation	SPH Thickness	Concentration (µg/L)							Concentration (mg/L)											
		Elevation (feet)	(feet)	(feet)	Thickness (feet)	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-NH ₃	N-NO ₃	o-PO ₄	
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW7	12/12/06	59.47	b	15.21	44.26	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW7	03/01/07	59.47	b	14.68	44.79	0.00	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	--	0.92	--	6.84	--	--	--	--	--	--	--
MW7	06/12/07	59.47	b	16.2	43.27	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW7	09/25/07	59.47	b	16.72	42.75	0.00	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	--	6.11	--	6.78	--	--	--	--	--	--	--
MW7	12/20/07	59.47	b	15.02	44.45	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SPH Separate-phase hydrocarbons.

CO₂ Carbon dioxide.

DO Dissolved oxygen.

Fe(II) Ferrous iron.

Mn Manganese.

SO₄ Sulfate.

N-NH₃ Ammonia.

N-NO₃ Nitrate.

o-PO₄ 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.

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 SOIL ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Boring		Depth (feet)	Concentrations (mg/kg)							
ID	Date		Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo
SB3	12/26/2007	6	<0.005	<0.005	<0.005	0.0088	<0.005	2.1	7.6	<10
SB3	12/26/2007	10	<0.005	<0.005	<0.005	0.052	0.012	4.5	9.3	<10
SB3	12/26/2007	15	<0.005	<0.005	<0.005	<0.005	0.21	<1	2.4	<10
SB3	12/26/2007	23	0.0062	0.03	0.22	3	0.028	140	85	<10
SB4	12/26/2007	7	<0.005	<0.005	<0.005	<0.005	<0.005	<1	1.4	<10
SB4	12/26/2007	24	1.2	12	5	26	<0.025	240	47	<10
SB5	12/26/2007	11	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<1	<10
SB5	12/26/2007	26	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<1	<10
SB6	12/26/2007	10	<0.005	<0.005	<0.005	0.17	<0.005	19	250	<10
SB6	12/26/2007	18	<0.005	<0.005	<0.005	0.12	<0.005	7.2	64	<10
SB6	12/26/2007	26	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<1	<10
SB7	12/26/2007	6	<0.005	<0.005	<0.005	<0.005	<0.005	<1	1.7	<10
SB7	12/26/2007	20	<0.005	<0.005	<0.005	0.048	<0.005	3.5	720	<10
SB7	12/26/2007	26	<0.005	<0.005	<0.005	0.0073	<0.005	<1	<1	<10
SB7	12/26/2007	35	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<1	<10
SB8	12/26/2007	14	<0.005	<0.005	<0.005	<0.005	<0.005	<1	5	<10
SB8	12/26/2007	24	0.044	0.03	0.098	0.36	<0.005	1.9	2.7	<10
SB9	12/26/2007	8	<0.005	<0.005	<0.005	<0.005	<0.005	<1	47	<10
SB9	12/26/2007	22	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<1	<10

TPH-g Total Petroleum Hydrocarbons as gasoline.

TPH-d Total Petroleum Hydrocarbons as diesel.

TPH-mo Total Petroleum Hydrocarbons as motor oil.

720 Bold values reflect maximum detected concentrations

< Less than the laboratory reporting limits.

TABLE 4 GRAB GROUNDWATER ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Boring		Depth (feet)	Concentrations ($\mu\text{g/L}$)							
ID	Date		Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo
SB3	12/26/2007	24	0.75	28	35	180	0.59	1800	<1000	<100
SB3	12/26/2007	40	<0.50	1.1	5.3	33	1	240	<400	<100
SB4	12/26/2007	23	160	120	200	240	1.8	3500	<1500	<100
SB4	12/26/2007	40	250	1400	280	2000	3.2	9900	<1500	<100
SB5	12/26/2007	24	660	11000	4200	20000	34	110000	<100000	310
SB5	12/26/2007	40	74	1000	380	2400	31	13000	<3000	<100
SB6	12/26/2007	25	<0.5	6.6	3.6	27	1.2	210	<100	<100
SB6	12/26/2007	40	85	1500	620	6900	15	35000	<18000	<100
SB7	12/26/2007	40	120	1100	470	2900	7.9	20000	<6000	<100
SB8	12/26/2007	40	320	1300	920	3100	100	17000	<3000	<100
SB9	12/26/2007	34	<0.5	<0.5	<0.5	<0.5	92	<50	69	<100
SB10	12/26/2007	21.3	<0.5	<0.5	<0.5	<0.5	30	<50	2200	5000
SB11	12/26/2007	17	<0.5	<0.5	<0.5	<0.5	<50	<50	200	220
SB12	12/26/2007	20	<0.5	<0.5	<0.5	<0.5	43	67	950	1200
SB13	12/26/2007	26	<0.5	<0.5	<0.5	<0.5	160	<50	3800	6600

TPH-g Total Petroleum Hydrocarbons as gasoline.

TPH-d Total Petroleum Hydrocarbons as diesel.

TPH-mo Total Petroleum Hydrocarbons as motor oil.

< less than the laboratory reporting limits.

660 Bold values reflect maximum detected concentrations

TABLE 5 SOIL VAPOR ANALYTICAL DATA
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Boring ID	Date	Depth (feet)	Concentrations (ug/m3)														
			Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Propylene	Acetone	4-Ethyltoluene	Cyclohexane	Hexane	Heptane	2-Butanone**	2,2,4-Trimethylpentane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
SB3	12/26/2007	5	<16	38	<22	<22	<18	38	550	<25	<17	<18	<20	<15	<23	43	<25
SB4	12/26/2007	5	<16	27	<22	<22	<18	33	65	<25	<17	<18	<20	<15	<23	<25	<25
SB6	12/26/2007	5	<130	<150	<170	550	<140	160	<240	220	2300	5400	4500	<120	13,000	460	790
SB7	12/26/2007	5	<16	27	<22	<22	<18	160	260	<25	<17	<18	<20	42	<23	36	<25
ESL-Shallow Soil Gas Screening Level*			280	1.80E+05	5.80E+05	5.80E+04	3.10E+04	NA	1.80E+06	NA	NA	NA	NA	2.90E+06	NA	NA	NA

< less than the laboratory reporting limits.

* Commercial/Industrial Land use (Table E-2 of RWQCB, 2007)

** Also known as methyl ethyl ketone

38 Bold values reflect maximum detected concentrations

APPENDIX A
DRILLING PERMIT

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/28/2007 By jamesy

Permit Numbers: W2007-1192
Permits Valid from 12/12/2007 to 12/15/2007

Application Id: 1196194707926
Site Location: 327 34th Street, Oakland, CA
Project Start Date: 12/12/2007

City of Project Site:Oakland

Applicant: Environmental Resource Group - Ben Wells
1038 Redwood Highway,Suite 1, Mill Valley, CA 94941
Property Owner: Val Strough Family Trust
2 Sea View Avenue, Piedmont, CA 94611
Client: Ben Wells
1038 Redwood Highway,Suite 1, Mill Valley, CA 94941

Completion Date:12/15/2007

Phone: 415-381-6574

Phone: --

Phone: 415-381-6574

Receipt Number: WR2007-0529	Total Due:	\$200.00
Payer Name : ben Wells	Total Amount Paid:	\$200.00
Paid By: MC		

PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 10 Boreholes

Driller: RSI Drilling - Lic #: 802334 - Method: DP

Work Total: \$200.00

Specifications

Permit Number	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
W2007-1192	11/28/2007	03/11/2008	10	4.00 in.	40.00 ft

Boreholes

- ## Specific Work Permit Conditions
1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
 4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
 5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
 6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and

Alameda County Public Works Agency - Water Resources Well Permit

coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
-

APPENDIX B
BORING LOGS

LITHOLOGY

SAMPLE DATA

Well/Boring No.: SB-3

Depth (feet)	Graphic Log	6" Concret	Description	Sample No. and interval	Penetration Rate (blows/ft.)
1			Air sample push to 3' pull up 6" set seal wait 20 min		
4	12/11/07		Purge line 1 min, ✓ manifold 10 min Started SB-3-Air at 1340 - 36 sec end at 1400 ft - 1 psi (12/11/07)		PID
5	12/12/07		Silt Sand brownish brown (104R 6/8) moist, low Plast. Soft med cut of Silt No odor	SB-3-6' (1750)	0.0 rpm
10					
15			Silt Gravelly 2' color clay greenish gray (106y 6/1)	SB-3-10' (1800)	0.0
20					
25	▽	* SB-3-W-24 @ 1830		SB-3-15' (1810)	0.0
30			Soft, wet, med Plast.		30.0
35				SB-3-23' (1815)	1815
40	▽	* SB-3-W-40' @ 1915			60 rpm
				SB-3-30' (1850)	0.0
					0.0
				SB-3-40' 190	
Air con # 7009 Manifold # 4 H2O stop at 25' @ 1815		Drilling Method: <u>Geo Probe</u> Sampling Method: <u>Liner</u> Drilling company: <u>R.S.I.</u> Drillers: <u>Joe</u>			
		Permit No.: <u>Bear Well 15</u> Geologist: <u>Joe</u>			

LRM

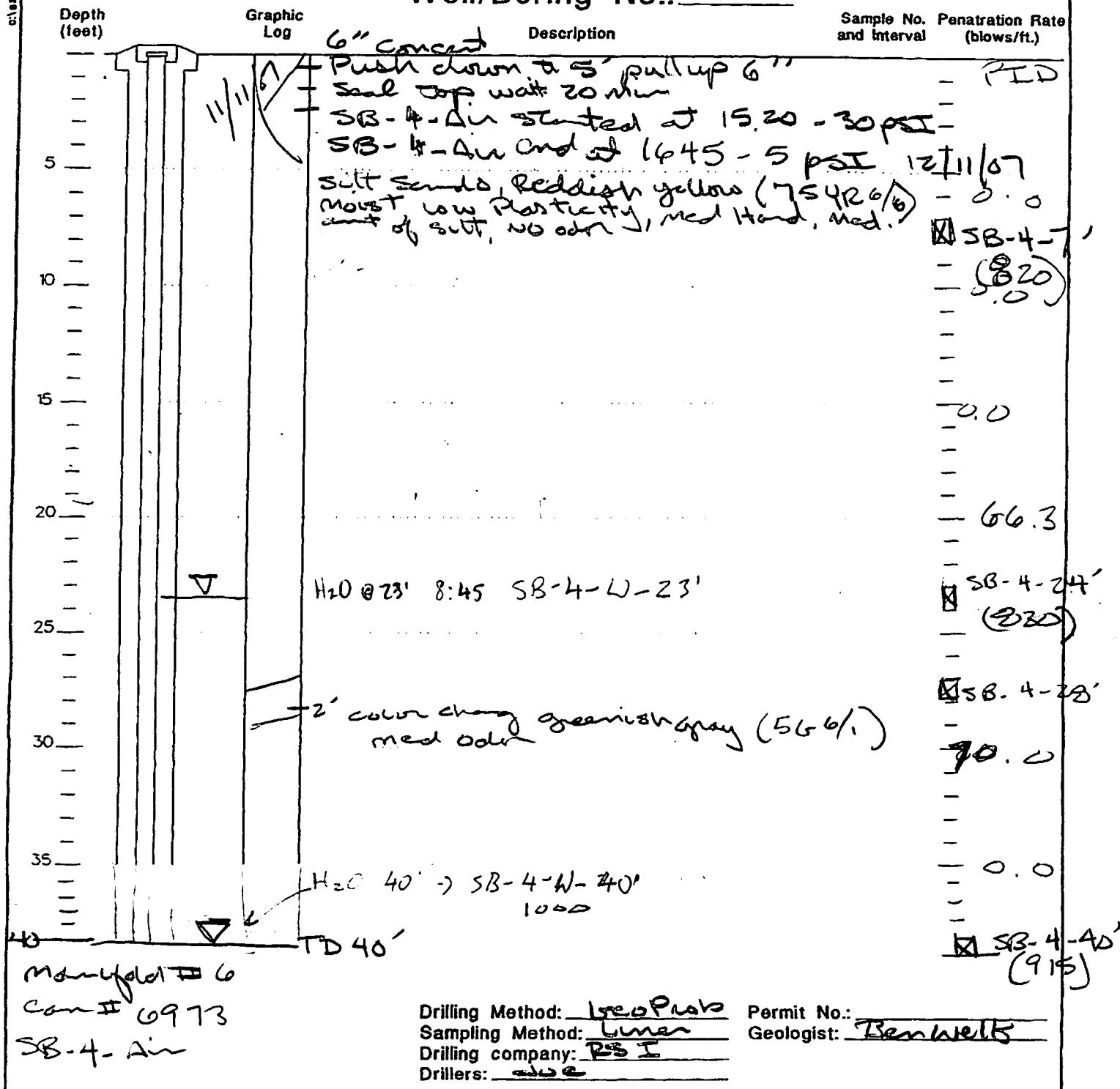
Figure: Soil Boring Lithology
and Sample Data

Project No. _____	Date: 12/11/07	Project Name: 327 34th St, Oakland	Page 1 of 1
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LITHOLOGY

SAMPLE DATA

Well/Boring No.: SB-4



LRM

Figure: Soil Boring Lithology and Sample Data

Project No. _____	Date: 12/11/07	Project Name: 327 34th St Oakland	Page 1 of 1
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		LITHOLOGY	SAMPLE DATA
Depth (feet)	Graphic Log	Description	Sample No. and Interval (blows/ft.)
0		8" Concert	
5	11/11 Div	Air sampler pushed down with Geo probe to 5' pull up 6'	- PID
10		SB-5-Air started at 1140 - 30 psi 1200 still - 30 will pull up 6" Total 1' 1205 started - 30 1305 end still - 29 NO Sample Silt sand reddish yellow moist, low Plast., med stiff (75YR 6/6)	0.0
15		Silt Gravelly sand, moist, med plast med stiff	-
20		Silt sand - same as 5'	SB-5-11' 1100
25	▽	* SB-5-W-24' (12/12/07) 1200 color clayey greenish gray (5G 6/1) moist, low Plast. Med loose, med odor 7" small gravel,	60 ppm SB-5-26' 1130
30		wet color clay brownish brown (10YR 6/8) greenish gray wet, loose, med odor brownish brown, wet, low plast.	100 ppm
35		med stiff	-
40	▽	* SB-5-W-40' c 1330 (12/12/07) TD40	50 ppm SB-5-35' 1140
40		SB-5-Air (no sample)	
Can # 6994 manifold #2		Drilling Method: Geo Probe Sampling Method: tube Drilling company: PGS II Drillers: Joe	Permit No.: Benwell's

LR M

Figure: Soil Boring Lithology
and Sample Data

Project No. _____

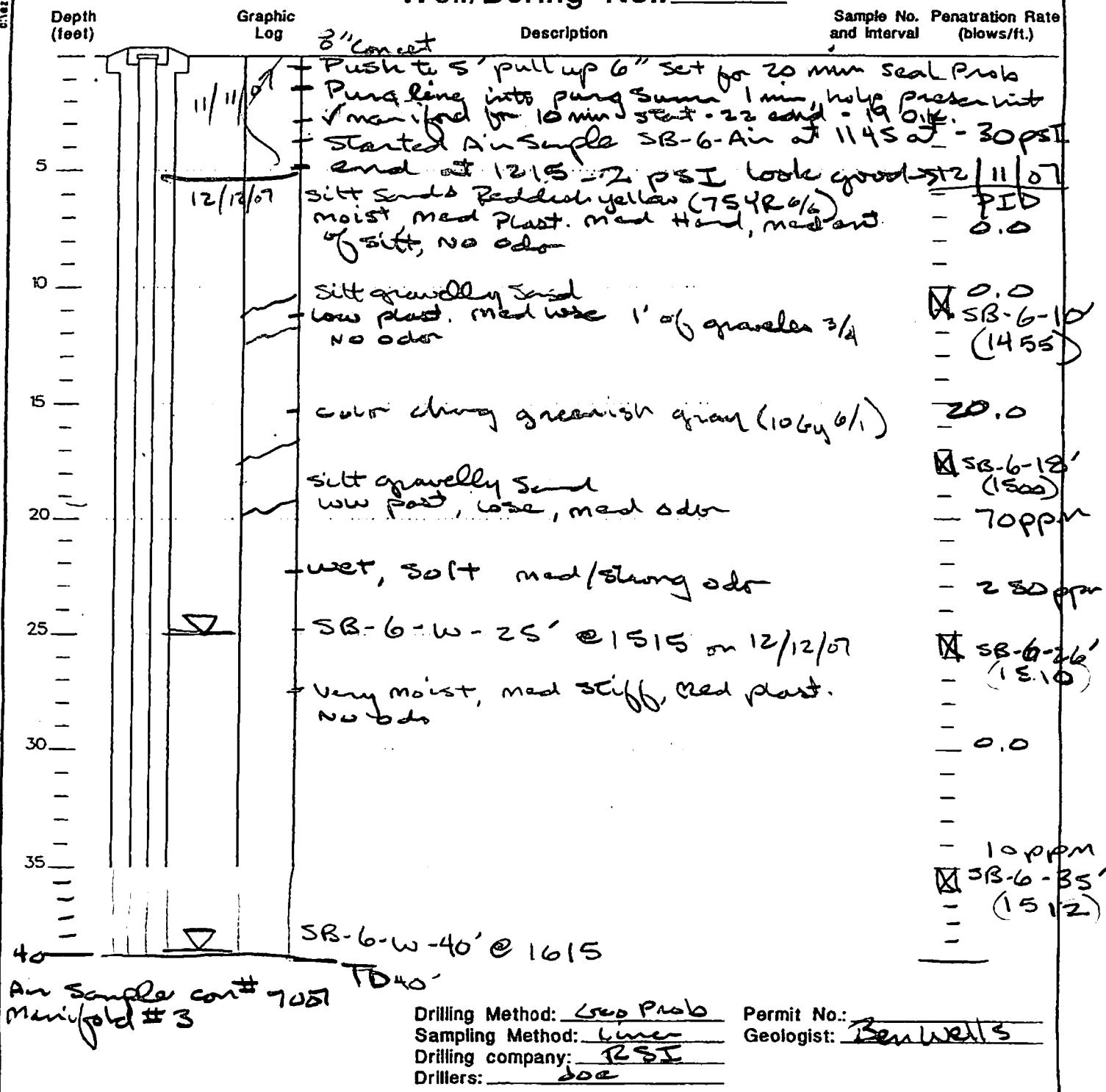
12/11/07 file
Date: 12/12/07

Project Name: 327 34th St Oakland Page 1 of 1

LITHOLOGY

SAMPLE DATA

Well/Boring No.: SB-6



LR M

Figure: Soil Boring Lithology and Sample Data

Project No. _____

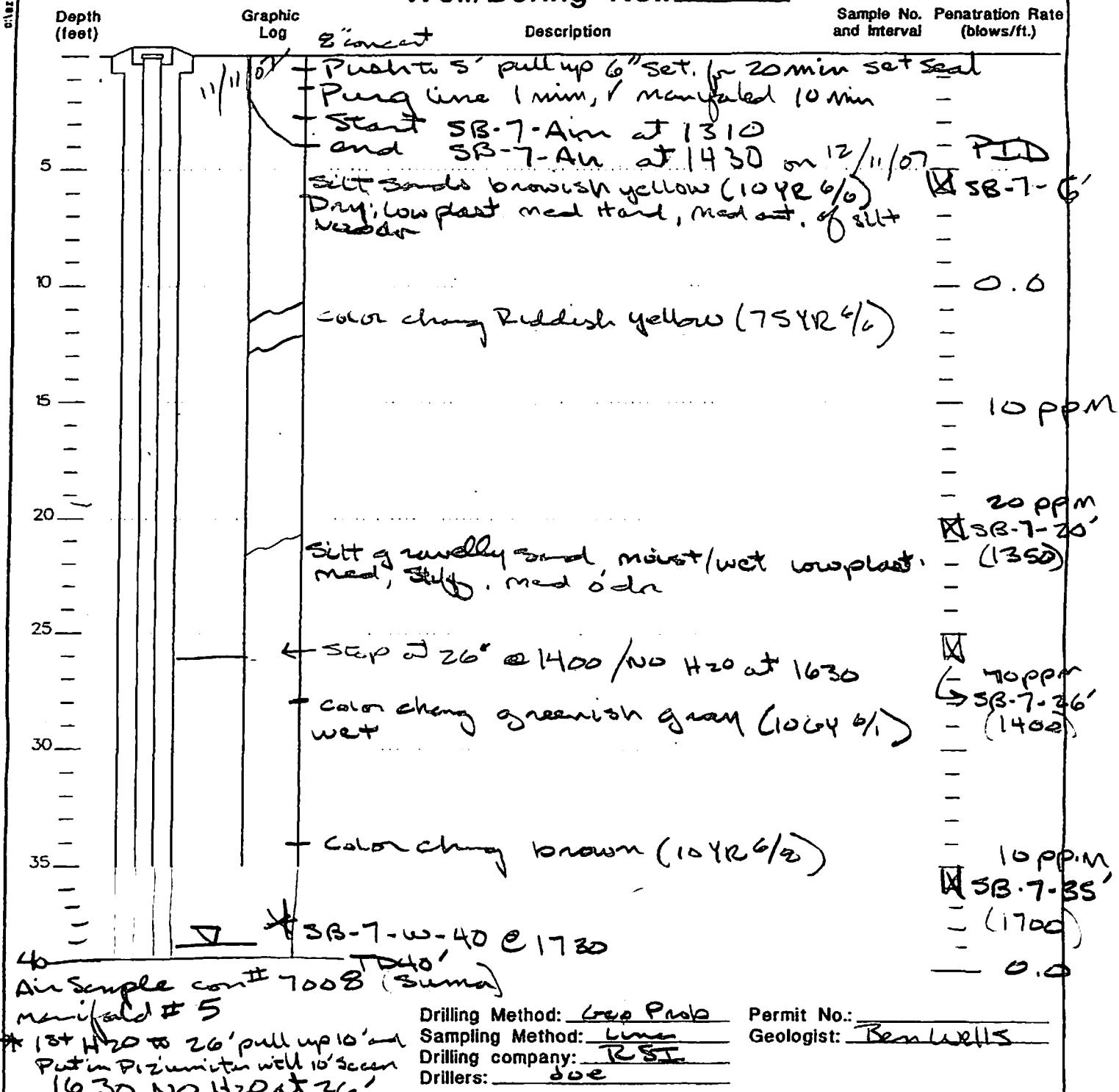
Date: 12/11/07 Air
12/12/07 Soil

Project Name: 327 34th St. Oakland Page 1 of 1

LITHOLOGY

SAMPLE DATA

Well/Boring No.: SB-7



LR M

Figure: Soil Boring Lithology and Sample Data

Project No. _____	Date: 12/11/07 Air	Project Name: 327 34 th St, Oklahoma	Page 1 of 1
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LITHOLOGY

SAMPLE DATA

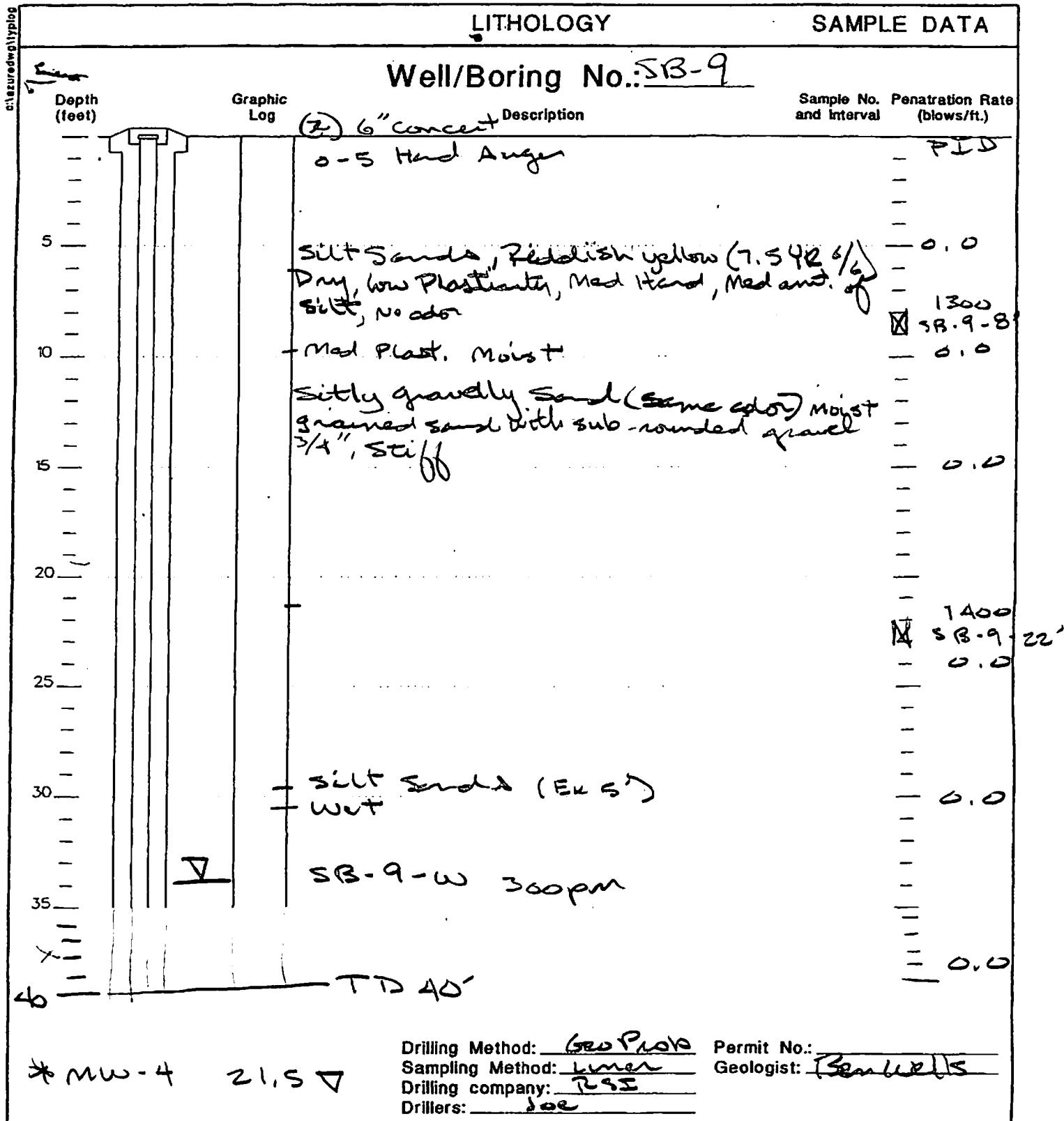
Well/Boring No.: SB-8

Depth (feet)	Graphic Log	Description	Sample No. and Interval	Penetration Rate (blows/ft.)
0	8" concert	Air Samples Push down to 5' pull 6" up - PID Seal Probe for 20 min, Purge line for 1 min, O.K. SB-8-Air start at 400 - 30 PSI - 30 for 30 min, well pull up 6" Total 1' - 30 at 1010 Stop 1110 Soil to Site!		0.0
5		# 10 Air Sample		
10		Silt Sands Reddish yellow (75% 6%) Moist low plast. med hard, med amt of salt, slight odor med amt. of clay		0.0
15		Silt gravelly sand, Dry, stiff low plast. no odor color changing (50% 50%) greenish gray Moist	1430 SB-8-14 0.0	
20				
25		wet med odor	1450 20 ppm	
30	▽	SB-8-W 1510		40 ppm
35				
40		TD 40'		
		Air Samples: con# 7004 Manifold #1 SB-8-Air (no sample) Seal with Gravel on Top	Drilling Method: <u>Seal Probe</u> Sampling Method: <u>Liner</u> Drilling company: <u>PSI</u> Drillers: <u>Joe</u>	Permit No.: Geologist: <u>Scarsella</u>

MW-2 ▽ 23'

Figure: Soil Boring Lithology
and Sample Data

Project No.	Date:	Project Name:	Page
	12/11/07	327 34th St	1 of 1



LRM

Figure: Soil Boring Lithology
and Sample Data

Project No. _____

Date: 12/11/07

Project Name: 327 34th St, Oakland Page 1 of 1

		LITHOLOGY	SAMPLE DATA
Depth (feet)	Graphic Log	Description	Sample No. and Interval (blows/ft.)
		boring done in softart	PID
5		0-5' Hard Auger Silt Sands - Reddish yellow (7.5 YR 4/6) Dry, low Plast. Hard, med. and. Silt	0.0
10		med Plast., med Hard med (slight clay)	0.0
12		Color changing brownish tan (10 YR 6/8) moist, med plast. med Hard med, and. of clay No odor	-
15			0.0
20	V	H2O Sample (SB-10-W) 1430	0.0
25	TD 24		0.0
30			-
35			-

Drilling Method: Crew Profo Permit No.: _____
 Sampling Method: Liner Geologist: Bonelli
 Drilling company: PSI Drillers: Joe

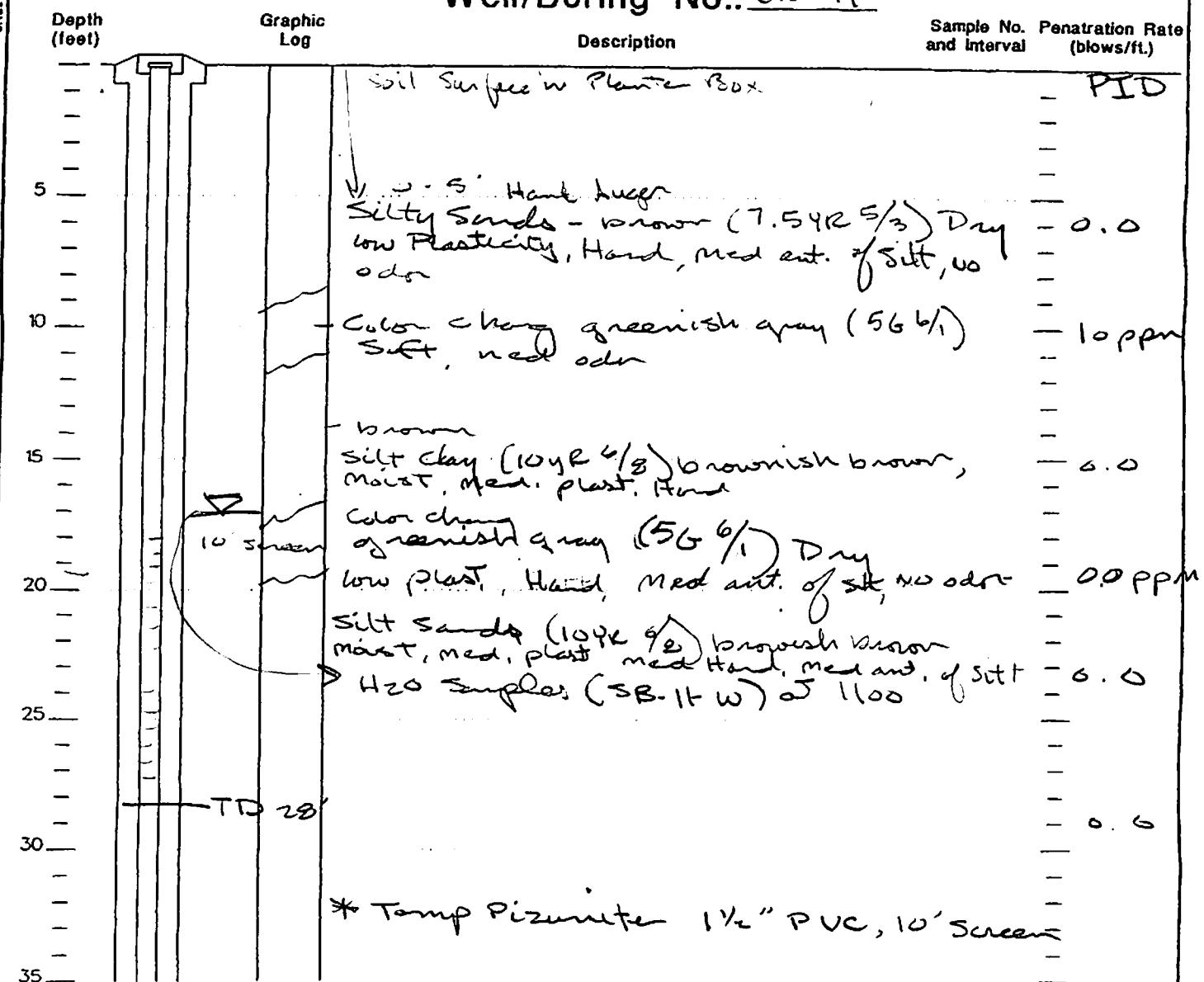
Figure: Soil Boring Lithology
and Sample Data

Project No. _____	Date: 12/10/07	Project Name: 327 34th St. Oakland	Page 1 of 1
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LITHOLOGY

SAMPLE DATA

Well/Boring No.: SB-11



Drilling Method: Geo Probs
 Sampling Method: Linear
 Drilling company: PSI
 Drillers: Joe

Permit No.: _____
 Geologist: Bentlells

LRM

Figure: Soil Boring Lithology and Sample Data

Project No. _____

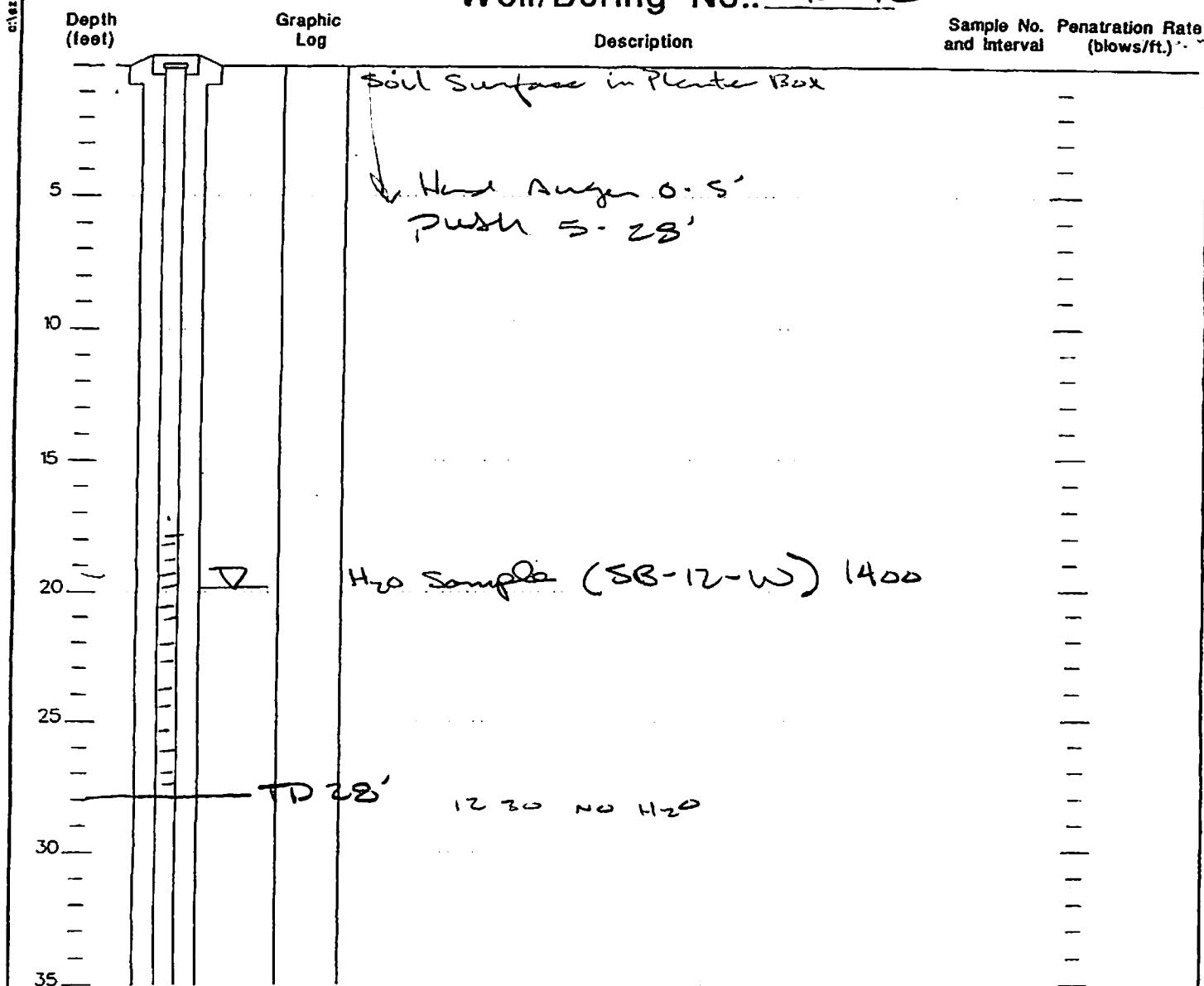
Date: 12/10/07

Project Name: 327 34th St. Oakland Page 1 of 1

LITHOLOGY

SAMPLE DATA

Well/Boring No.: SB-12



Drilling Method: Geo Probs
 Sampling Method: Liner
 Drilling company: R-SI
 Drillers: Joe

Permit No.: _____
 Geologist: Bonelli

LR m

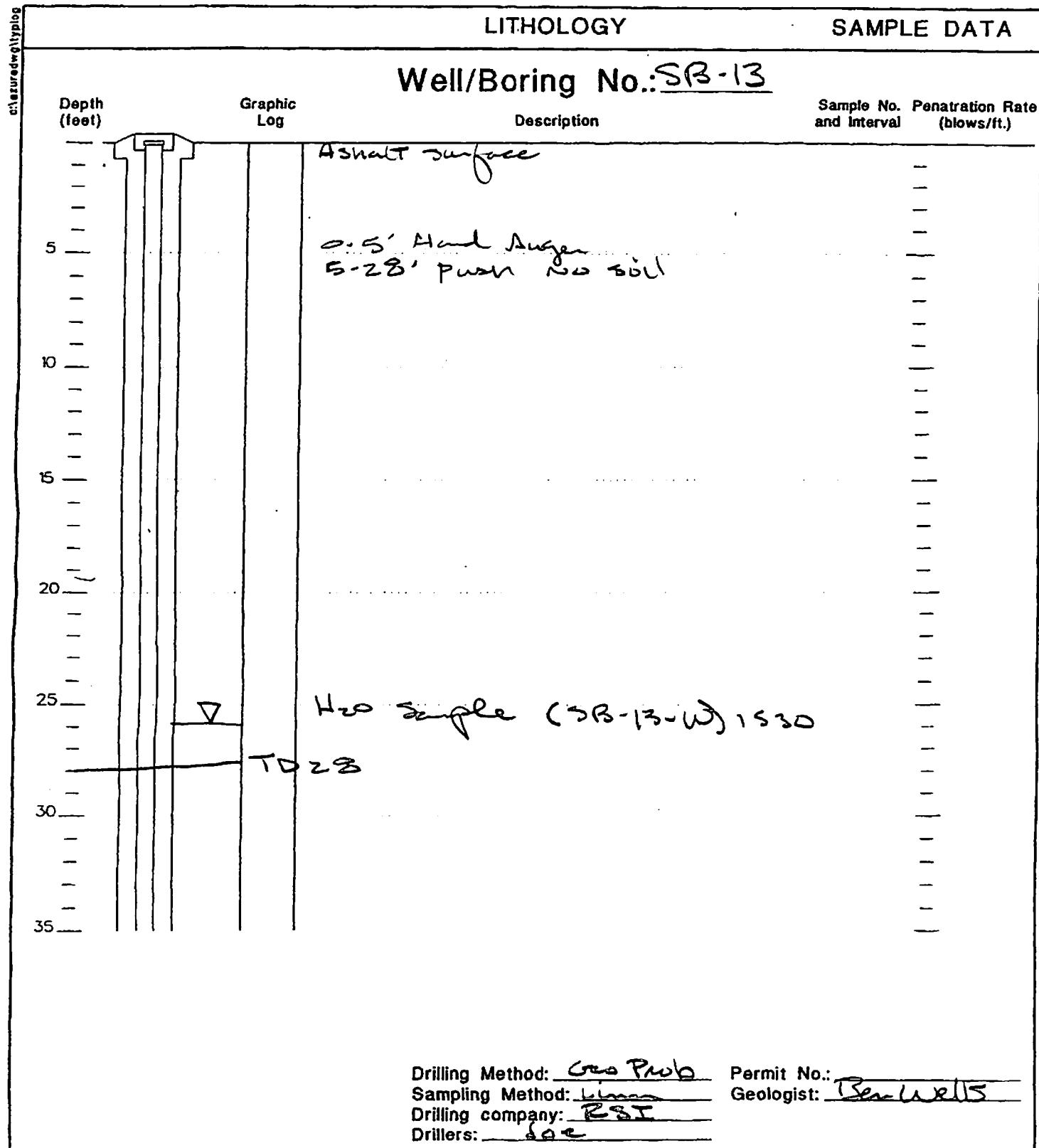
Figure: Soil Boring Lithology and Sample Data

Project No. _____	Date: 12/10/07	Project Name: 327 34th St. Oakland Page 1 of 1
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LITHOLOGY

SAMPLE DATA

Well/Boring No.: SB-13



LRM

Figure: Soil Boring Lithology and Sample Data

Project No. _____

Date: 12/10/07

Project Name: 327 34th St. Oakland Page 1 of 1

APPENDIX C

LABORATORY ANALYTICAL REPORT SOIL SAMPLES



Report Number : 60136

Date : 12/20/2007

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

Subject : 19 Soil Samples
Project Name : Former Val Strough Chevrolet, Oakland
Project Number : Former Val Strough C

Dear Mr. Javaherian,

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,

A handwritten signature in black ink that reads "Joel Kiff". Below the signature, the name "Joel Kiff" is printed in a small, black, sans-serif font.



Report Number : 60136

Date : 12/20/2007

Subject : 19 Soil Samples
Project Name : Former Val Strough Chevrolet, Oakland
Project Number : Former Val Strough C

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with samples SB-9-8', SB-5-26', SB-3-23', SB-5-11', SB-4-24', SB-6-18', SB-6-26', SB-8-24', SB-7-6', SB-9-22', SB-7-20', SB-7-35', SB-7-26', SB-6-10', SB-3-10', SB-8-14', SB-3-15', and SB-3-6' for the analyte TPH as Diesel were affected by the analyte concentrations already present in the un-spiked sample.

Approved By:


Joe Kiff



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-3-6'**

Matrix : Soil

Lab Number : 60136-01

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	0.0088	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	2.1	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	7.6	1.0	mg/Kg	M EPA 8015	12/18/2007
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/18/2007
1-Chlorooctadecane (Diesel Surrogate)	91.4		% Recovery	M EPA 8015	12/18/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-3-10'**

Matrix : Soil

Lab Number : 60136-02

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	0.052	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	0.012	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	4.5	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	97.0		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	9.3	1.0	mg/Kg	M EPA 8015	12/18/2007
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/18/2007
1-Chlorooctadecane (Diesel Surrogate)	93.6		% Recovery	M EPA 8015	12/18/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-3-15'**

Matrix : Soil

Lab Number : 60136-03

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	0.21	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	96.2		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	2.4	1.0	mg/Kg	M EPA 8015	12/18/2007
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/18/2007
1-Chlorooctadecane (Diesel Surrogate)	77.2		% Recovery	M EPA 8015	12/18/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-3-23'**

Matrix : Soil

Lab Number : 60136-04

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.0062	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	0.030	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	0.22	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	3.0	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	0.028	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	140	2.5	mg/Kg	EPA 8260B	12/15/2007
Toluene - d8 (Surr)	98.1		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	95.5		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	85	1.0	mg/Kg	M EPA 8015	12/17/2007
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	88.8		% Recovery	M EPA 8015	12/17/2007

Approved By:  Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-4-7'**

Matrix : Soil

Lab Number : 60136-07

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	94.3		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	1.4	1.0	mg/Kg	M EPA 8015	12/20/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/20/2007
1-Chlorooctadecane (Diesel Surrogate)	92.6		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-4-24'**

Matrix : Soil

Lab Number : 60136-08

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.2	0.025	mg/Kg	EPA 8260B	12/15/2007
Toluene	12	0.025	mg/Kg	EPA 8260B	12/15/2007
Ethylbenzene	5.0	0.025	mg/Kg	EPA 8260B	12/15/2007
Total Xylenes	26	0.050	mg/Kg	EPA 8260B	12/15/2007
Methyl-t-butyl ether (MTBE)	< 0.025	0.025	mg/Kg	EPA 8260B	12/15/2007
TPH as Gasoline	240	2.5	mg/Kg	EPA 8260B	12/15/2007
Toluene - d8 (Surr)	95.8		% Recovery	EPA 8260B	12/15/2007
4-Bromofluorobenzene (Surr)	94.7		% Recovery	EPA 8260B	12/15/2007
TPH as Diesel	47	1.0	mg/Kg	M EPA 8015	12/17/2007
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	84.6		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

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Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-5-11'**

Matrix : Soil

Lab Number : 60136-11

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	94.2		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	78.2		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

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Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-5-26'**

Matrix : Soil

Lab Number : 60136-12

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	97.0		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	75.7		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-6-10'**

Matrix : Soil

Lab Number : 60136-14

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
Total Xylenes	0.17	0.0050	mg/Kg	EPA 8260B	12/15/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
TPH as Gasoline	19	5.0	mg/Kg	EPA 8260B	12/15/2007
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	12/15/2007
4-Bromofluorobenzene (Surr)	93.8		% Recovery	EPA 8260B	12/15/2007
TPH as Diesel	250	1.0	mg/Kg	M EPA 8015	12/17/2007
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	89.2		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-6-18'**

Matrix : Soil

Lab Number : 60136-15

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
Total Xylenes	0.12	0.0050	mg/Kg	EPA 8260B	12/15/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/15/2007
TPH as Gasoline	7.2	1.0	mg/Kg	EPA 8260B	12/15/2007
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	12/15/2007
4-Bromofluorobenzene (Surr)	94.8		% Recovery	EPA 8260B	12/15/2007
TPH as Diesel	64	1.0	mg/Kg	M EPA 8015	12/17/2007
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	82.0		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-6-26'**

Matrix : Soil

Lab Number : 60136-16

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	95.7		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	73.0		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-7-6'**

Matrix : Soil

Lab Number : 60136-18

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	94.6		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	1.7	1.0	mg/Kg	M EPA 8015	12/17/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	78.0		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-7-20'**

Matrix : Soil

Lab Number : 60136-19

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	0.048	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	3.5	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	95.3		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	720	1.0	mg/Kg	M EPA 8015	12/17/2007
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	85.4		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-7-26'**

Matrix : Soil

Lab Number : 60136-20

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	0.0073	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	93.8		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	74.7		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-8-14'**

Matrix : Soil

Lab Number : 60136-21

Sample Date : 12/11/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	94.1		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	5.0	1.0	mg/Kg	M EPA 8015	12/18/2007
(Note: Discrete peaks in Diesel range, atypical for Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/18/2007
1-Chlorooctadecane (Diesel Surrogate)	92.8		% Recovery	M EPA 8015	12/18/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-8-24'**

Matrix : Soil

Lab Number : 60136-22

Sample Date : 12/11/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.044	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	0.030	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	0.098	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	0.36	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	1.9	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	96.0		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	2.7	1.0	mg/Kg	M EPA 8015	12/17/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	91.1		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

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Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-9-8'**

Matrix : Soil

Lab Number : 60136-23

Sample Date : 12/11/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	97.8		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	47	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	93.8		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-9-22'**

Matrix : Soil

Lab Number : 60136-24

Sample Date : 12/11/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	93.2		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	92.8		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

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Report Number : 60136

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**

Project Number : **Former Val Strough C**

Sample : **SB-7-35'**

Matrix : Soil

Lab Number : 60136-25

Sample Date : 12/11/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	95.4		% Recovery	EPA 8260B	12/14/2007
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	87.7		% Recovery	M EPA 8015	12/17/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 60136

Date : 12/20/2007

QC Report : Method Blank DataProject Name : **Former Val Strough Chevrolet, Oakland**Project Number : **Former Val Strough C**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/17/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/17/2007
1-Chlorooctadecane (Diesel Surrogate)	71.9		%	M EPA 8015	12/17/2007
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	12/20/2007
TPH as Motor Oil	< 10	10	mg/Kg	M EPA 8015	12/20/2007
1-Chlorooctadecane (Diesel Surrogate)	82.7		%	M EPA 8015	12/20/2007
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/14/2007
Toluene - d8 (Surr)	99.0		%	EPA 8260B	12/14/2007
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	12/14/2007
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	12/15/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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Approved By:

Joel Kiff



KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Project Name : **Former Val Strough Chevrolet, Oakland**Project Number : **Former Val Strough C**

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	60136-01	<0.0050	0.0390	0.0392	0.0367	0.0380	mg/Kg	EPA 8260B	12/14/07	94.1	96.8	2.86	70-130	25
Toluene	60136-01	<0.0050	0.0390	0.0392	0.0359	0.0365	mg/Kg	EPA 8260B	12/14/07	92.0	93.1	1.21	70-130	25
Tert-Butanol	60136-01	<0.0050	0.195	0.196	0.177	0.191	mg/Kg	EPA 8260B	12/14/07	91.0	97.2	6.61	70-130	25
Methyl-t-Butyl Ether	60136-01	<0.0050	0.0390	0.0392	0.0383	0.0390	mg/Kg	EPA 8260B	12/14/07	98.2	99.4	1.20	70-130	25
Benzene	59982-05	0.0079	0.0394	0.0398	0.0385	0.0405	mg/Kg	EPA 8260B	12/15/07	77.8	82.0	5.22	70-130	25
Toluene	59982-05	<0.0050	0.0394	0.0398	0.0307	0.0310	mg/Kg	EPA 8260B	12/15/07	78.0	77.7	0.437	70-130	25
Tert-Butanol	59982-05	0.0065	0.197	0.199	0.171	0.176	mg/Kg	EPA 8260B	12/15/07	83.7	85.2	1.73	70-130	25
Methyl-t-Butyl Ether	59982-05	<0.0050	0.0394	0.0398	0.0311	0.0314	mg/Kg	EPA 8260B	12/15/07	79.0	78.9	0.115	70-130	25
TPH as Diesel	60136-23	47	20.0	20.0	48.4	97.6	mg/Kg	M EPA 8015	12/17/07	72.2	146	67.5	60-140	25
TPH as Diesel	60215-02	550	20.0	20.0	722	700	mg/Kg	M EPA 8015	12/19/07	127	123	3.08	60-140	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By: Joe Kiff



Report Number : 60136

QC Report : Laboratory Control Sample (LCS)

Date : 12/20/2007

Project Name : **Former Val Strough Chevrolet, Oakland**Project Number : **Former Val Strough C**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0372	mg/Kg	EPA 8260B	12/14/07	100	70-130
Toluene	0.0372	mg/Kg	EPA 8260B	12/14/07	97.6	70-130
Tert-Butanol	0.186	mg/Kg	EPA 8260B	12/14/07	100	70-130
Methyl-t-Butyl Ether	0.0372	mg/Kg	EPA 8260B	12/14/07	92.4	70-130
Benzene	0.0400	mg/Kg	EPA 8260B	12/15/07	78.0	70-130
Toluene	0.0400	mg/Kg	EPA 8260B	12/15/07	78.1	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	12/15/07	89.9	70-130
Methyl-t-Butyl Ether	0.0400	mg/Kg	EPA 8260B	12/15/07	79.7	70-130
TPH as Diesel	20.0	mg/Kg	M EPA 8015	12/17/07	94.4	70-130
TPH as Diesel	20.0	mg/Kg	M EPA 8015	12/20/07	89.8	70-130

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2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By:

Joel Kiff





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Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No.

60136

Page 1 of 3

Project Contact (Hardcopy or PDF To):

Mehrdad Javaherian

Company / Address:

LRM Consulting

Phone #:

650 343-4633

Fax #: 650 343 8762

Project #: Former Val

Street Chevrolet, Oakland

P.O. #:

EDF Deliverable To (Email Address):

mjavaherian@lrm-consulting.com

Sampler Signature:

Ben Wells

Project Name:

Former Val Street Chevrolet, Oakland

Project Address:

327 34th St.
Oakland, CA

Sample Designation	Sampling		Container		Preservative		Matrix			MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	Analysis Request	TAT			
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Teflon	HCl	HNO ₃	None	Water	Soil	Air		
SB-3-6'	12/12/07	1750	X						X		X			X	12 hr
SB-3-10'		1800	X						X		X			X	24 hr
SB-3-15'		1810	X						X		X			X	48 hr
SB-3-23'		1815	X						X		X			X	72 hr
SB-3-30'		1850	X						X		X			X	1 wk
SB-3-40'		1910	X						X		X			X	
SB-4-7'		0820	X						X		X			X	01
SB-4-24'		0830	X						X		X			X	02
SB-4-28'		0845	X						X		X			X	03
SB-4-40'	▼	0915	X						X		X			X	04

Relinquished by:

2/1/07

Date

12/13/07

Time

315

Received by:

Remarks:

Hold until Client confirms

Relinquished by:

Date

1/1/08

Time

—

Received by:

Bill to:

Relinquished by:

Date

12/13/07

Time

1CK

Received by Laboratory:

Mehrdad Javaherian

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
2.2	TJTB	12/13/07	1751	IR-5	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



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Davis, CA 95616
Lab: 530.297.4800
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SRG # / Lab No.

60136

Page 2 of 3

Project Contact (Hardcopy or PDF To):
Mehrdad Javaherian

California EDF Report? Yes No

Company / Address:
LRM Consulting

Sampling Company Log Code:

Phone #: 650 343-4633

Fax #: 650 343 8763

Global ID:

Project #: P.O. #:

EDF Deliverable To (Email Address):

mjavaherian@lrm-consulting.com

Project Name:

Former Val Strong Chevrolet, Oakland

Project Address:
327 34th St.
Oakland, CA

Sampling

Container

Preservative

Matrix

Sample Designation

Date

Time

40 ml VOA

Sieve

Poly

Glass

Teflon

HCl

HNO₃

None

Water

Soil

Air

	Analysis Request										TAT
MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MTBE (EPA 8260B) @ 0.5 ppb	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
BTEX (EPA 8260B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TPH Gas (EPA 8260B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Oxygenates (EPA 8260B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Oxygenates (EPA 8260B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile Halocarbons (EPA 8260B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile Organics Full List (EPA 8260B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile Organics (EPA 524.2 Drinking Water)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TPH as Diesel (EPA 8015M)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Lead (EPA 60-10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
W.E.T. Lead (STLC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12 hr

24 hr

48 hr

72 hr

1 wk

For Lab Use Only

SB-5-11'	12/12/07	1100	X			X					
SB-5-26'		1130	X			X		X			
SB-5-35'		1140	X			X		X			
SB-6-10'		1455	X			X		X			
SB-6-18'		1500	X			X		X			
SB-6-26'		1510	X			X		X			
SB-6-35'		1520	X			X		X			
SB-7-6'		1530	X			X		X			
SB-7-20'		1350	X			X		X			
SB-7-26'	▼	1400	X			X		X			

Relinquished by:

Al M

Date

12/13/07

Time

315

Received by:

Remarks:

Hold until Client confirms

Relinquished by:

/

Date

/

Time

/

Received by:

Bill to:

Relinquished by:

/

Date

12/30/07

Time

1415

Received by Laboratory:

Mohseny Kiff Analytical

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
2.2	TJB	12/30/07	1751	FR-5	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No.

60136

Page 3 of 3

Project Contact (Hardcopy or PDF To):

Mehrdad Javaherian

Company / Address:

Lrm Consulting

Phone #: 650 343-4633

Fax #: 650 343-8763

Project #: P.O. #:

EDF Deliverable To (Email Address): mijavaherian@lrm-consulting.com

Project Name:

Former Val Strong Chevrolet Oakland

Project Address:

327 34th St.
Oakland, CA

Sample Designation

Sampling

Container

Preservative

Matrix

SB-8-14'

12/11/07 1330

40 ml VOA

Sleeve

Poly

Glass

Tedlar

HCl

HNO₃

None

Water

Soil

Air

SB-8-24'

12/11/07 1350

X

X

X

X

X

X

X

X

X

X

X

SB-9-8'

12/11/07 1300

X

X

X

X

X

X

X

X

X

X

X

SB-9-22'

12/11/07 1400

X

X

X

X

X

X

X

X

X

X

X

SB-7-35'

12/11/07 1500

X

X

X

X

X

X

X

X

X

X

X

Relinquished by:

21 M

Date

12/13/07

Time

315

Received by:

/

Remarks:

Hold until Client confirms

Relinquished by:

/

Date

/

Time

/

Received by:

/

Bill to:

Relinquished by:

/

Date

12/13/07

Time

1115

Received by Laboratory:

Kiff Analytical

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
2.2	TJB	12/13/07	1751	FR-5	<input checked="" type="checkbox"/> Yes / No

APPENDIX D

LABORATORY ANALYTICAL REPORT GRAB GROUNDWATER SAMPLES



Report Number : 60133

Date : 12/26/2007

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

Subject : 15 Water Samples
Project Name : Former Val Strough Chevrolet Oakland
Project Number :

Dear Mr. Javaherian,

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,

A handwritten signature in black ink that reads "Joel Kiff".

Joel Kiff



Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-3-W-24'**

Matrix : Water

Lab Number : 60133-01

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.75	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	28	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	35	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	180	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	0.59	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	1800	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	94.9		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 1000	1000	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	100		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-3-W-40'**

Matrix : Water

Lab Number : 60133-02

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	1.1	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	5.3	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	33	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	1.0	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	240	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	97.3		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	98.6		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 400	400	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	89.6		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-4-W-23'**

Matrix : Water

Lab Number : 60133-03

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	160	0.50	ug/L	EPA 8260B	12/20/2007
Toluene	120	0.50	ug/L	EPA 8260B	12/20/2007
Ethylbenzene	200	0.50	ug/L	EPA 8260B	12/20/2007
Total Xylenes	240	0.50	ug/L	EPA 8260B	12/20/2007
Methyl-t-butyl ether (MTBE)	1.8	0.50	ug/L	EPA 8260B	12/20/2007
TPH as Gasoline	3500	50	ug/L	EPA 8260B	12/20/2007
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	12/20/2007
4-Bromofluorobenzene (Surr)	115		% Recovery	EPA 8260B	12/20/2007
TPH as Diesel	< 1500	1500	ug/L	M EPA 8015	12/19/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/19/2007
Octacosane (Diesel Surrogate)	109		% Recovery	M EPA 8015	12/19/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-4-W-40'**

Matrix : Water

Lab Number : 60133-04

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	250	2.0	ug/L	EPA 8260B	12/19/2007
Toluene	1400	3.0	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	280	2.0	ug/L	EPA 8260B	12/19/2007
Total Xylenes	2000	3.0	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	3.2	2.0	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	9900	200	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	94.5		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 1500	1500	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	93.9		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-5-W-24'**

Matrix : Water

Lab Number : 60133-05

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	660	25	ug/L	EPA 8260B	12/19/2007
Toluene	11000	25	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	4200	25	ug/L	EPA 8260B	12/19/2007
Total Xylenes	20000	25	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	34	25	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	110000	2500	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 100000	100000	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	310	100	ug/L	M EPA 8015	12/20/2007
(Note: Hydrocarbons are lower-boiling than typical Motor Oil)					
Octacosane (Diesel Surrogate)	116		% Recovery	M EPA 8015	12/20/2007

Approved By: 
Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-5-W-40'**

Matrix : Water

Lab Number : 60133-06

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	74	5.0	ug/L	EPA 8260B	12/19/2007
Toluene	1000	5.0	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	380	5.0	ug/L	EPA 8260B	12/19/2007
Total Xylenes	2400	5.0	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	31	5.0	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	13000	500	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	95.6		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 3000	3000	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	97.1		% Recovery	M EPA 8015	12/20/2007

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-6-W-25'**

Matrix : Water

Lab Number : 60133-07

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	6.6	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	3.6	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	27	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	1.2	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	210	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	94.4		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 100	100	ug/L	M EPA 8015	12/21/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/21/2007
Octacosane (Diesel Surrogate)	102		% Recovery	M EPA 8015	12/21/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-6-W-40'**

Matrix : Water

Lab Number : 60133-08

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	85	10	ug/L	EPA 8260B	12/19/2007
Toluene	1500	10	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	620	10	ug/L	EPA 8260B	12/19/2007
Total Xylenes	6900	10	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	15	10	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	35000	1000	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	95.9		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 18000	18000	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	104		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-7-W-40'**

Matrix : Water

Lab Number : 60133-09

Sample Date : 12/12/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	120	4.0	ug/L	EPA 8260B	12/19/2007
Toluene	1100	4.0	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	470	4.0	ug/L	EPA 8260B	12/19/2007
Total Xylenes	2900	4.0	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	7.9	4.0	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	20000	400	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 6000	6000	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	104		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-8-W-40'**

Matrix : Water

Lab Number : 60133-10

Sample Date : 12/11/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	320	7.0	ug/L	EPA 8260B	12/19/2007
Toluene	1300	7.0	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	920	7.0	ug/L	EPA 8260B	12/19/2007
Total Xylenes	3100	7.0	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	100	7.0	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	17000	700	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	< 3000	3000	ug/L	M EPA 8015	12/20/2007
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	107		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-9-W**

Matrix : Water

Lab Number : 60133-11

Sample Date : 12/11/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	92	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	97.8		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	69	50	ug/L	M EPA 8015	12/19/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/19/2007
Octacosane (Diesel Surrogate)	107		% Recovery	M EPA 8015	12/19/2007

Approved By: Joel Kiff

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Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-10-W**

Matrix : Water

Lab Number : 60133-12

Sample Date : 12/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	30	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	2200	300	ug/L	M EPA 8015	12/22/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	5000	300	ug/L	M EPA 8015	12/22/2007
Octacosane (Diesel Surrogate)	94.2		% Recovery	M EPA 8015	12/22/2007

Approved By:  Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-11-W**

Matrix : Water

Lab Number : 60133-13

Sample Date : 12/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	95.3		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	96.4		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	200	50	ug/L	M EPA 8015	12/20/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	220	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	105		% Recovery	M EPA 8015	12/20/2007

Approved By:  Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-12-W**

Matrix : Water

Lab Number : 60133-14

Sample Date : 12/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	43	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	67	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	95.4		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	96.6		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	950	50	ug/L	M EPA 8015	12/20/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	1200	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	107		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800



Report Number : 60133

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

Sample : **SB-13-W**

Matrix : Water

Lab Number : 60133-15

Sample Date : 12/10/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	160	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	94.5		% Recovery	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	12/19/2007
TPH as Diesel	3800	50	ug/L	M EPA 8015	12/20/2007
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	6600	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	97.8		% Recovery	M EPA 8015	12/20/2007

Approved By: Joel Kiff

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 60133

Date : 12/26/2007

QC Report : Method Blank Data**Project Name : Former Val Strong Chevrolet Oakland**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	12/18/2007
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/18/2007
Octacosane (Diesel Surrogate)	98.7		%	M EPA 8015	12/18/2007
TPH as Diesel	< 50	50	ug/L	M EPA 8015	12/20/2007
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/20/2007
Octacosane (Diesel Surrogate)	100		%	M EPA 8015	12/20/2007
TPH as Diesel	< 50	50	ug/L	M EPA 8015	12/21/2007
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/21/2007
Octacosane (Diesel Surrogate)	103		%	M EPA 8015	12/21/2007
TPH as Diesel	< 50	50	ug/L	M EPA 8015	12/21/2007
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	12/21/2007
Octacosane (Diesel Surrogate)	108		%	M EPA 8015	12/21/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	99.5		%	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	92.7		%	EPA 8260B	12/19/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/18/2007
Toluene - d8 (Surr)	97.6		%	EPA 8260B	12/18/2007
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	12/18/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/19/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/19/2007
Toluene - d8 (Surr)	107		%	EPA 8260B	12/19/2007
4-Bromofluorobenzene (Surr)	109		%	EPA 8260B	12/19/2007

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By: Joel Kiff



QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 12/26/2007

Project Name : **Former Val Strough Chevrolet Oakland**

Project Number :

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	1010	1000	ug/L	M EPA 8015	12/18/07	101	100	0.912	70-130	25
Benzene	60133-01	0.75	39.6	39.9	42.2	40.7	ug/L	EPA 8260B	12/19/07	105	100	4.51	70-130	25
Toluene	60133-01	28	39.6	39.9	68.1	66.3	ug/L	EPA 8260B	12/19/07	100	95.3	5.32	70-130	25
Tert-Butanol	60133-01	<5.0	198	200	200	193	ug/L	EPA 8260B	12/19/07	101	96.7	4.59	70-130	25
Methyl-t-Butyl Ether	60133-01	0.59	39.6	39.9	33.6	34.0	ug/L	EPA 8260B	12/19/07	83.4	83.8	0.535	70-130	25
Benzene	60153-01	0.91	39.8	40.0	42.3	41.7	ug/L	EPA 8260B	12/18/07	104	102	1.97	70-130	25
Toluene	60153-01	<0.50	39.8	40.0	40.7	40.5	ug/L	EPA 8260B	12/18/07	102	101	1.00	70-130	25
Tert-Butanol	60153-01	130	199	200	338	337	ug/L	EPA 8260B	12/18/07	107	106	1.02	70-130	25
Methyl-t-Butyl Ether	60153-01	15	39.8	40.0	48.1	45.8	ug/L	EPA 8260B	12/18/07	83.2	77.2	7.49	70-130	25
Benzene	60174-03	<0.50	40.0	40.0	35.6	34.8	ug/L	EPA 8260B	12/19/07	89.0	87.0	2.32	70-130	25
Toluene	60174-03	<0.50	40.0	40.0	39.4	38.5	ug/L	EPA 8260B	12/19/07	98.6	96.3	2.33	70-130	25
Tert-Butanol	60174-03	<5.0	200	200	190	190	ug/L	EPA 8260B	12/19/07	95.0	94.8	0.201	70-130	25
Methyl-t-Butyl Ether	60174-03	<0.50	40.0	40.0	32.5	33.0	ug/L	EPA 8260B	12/19/07	81.2	82.4	1.49	70-130	25
TPH as Diesel	Blank	<50	1000	1000	752	792	ug/L	M EPA 8015	12/20/07	75.2	79.2	5.24	70-130	25
TPH as Diesel	Blank	<50	1000	1000	956	962	ug/L	M EPA 8015	12/22/07	95.6	96.2	0.641	70-130	25
TPH as Diesel	Blank	<50	1000	1000	952	1010	ug/L	M EPA 8015	12/21/07	95.2	101	5.88	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By: Joel Kiff



Report Number : 60133

QC Report : Laboratory Control Sample (LCS)

Date : 12/26/2007

Project Name : **Former Val Strong Chevrolet Oakland**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	12/19/07	106	70-130
Toluene	40.0	ug/L	EPA 8260B	12/19/07	108	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/19/07	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/19/07	84.5	70-130
Benzene	40.0	ug/L	EPA 8260B	12/18/07	105	70-130
Toluene	40.0	ug/L	EPA 8260B	12/18/07	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/18/07	104	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/18/07	80.8	70-130
Benzene	40.0	ug/L	EPA 8260B	12/19/07	92.0	70-130
Toluene	40.0	ug/L	EPA 8260B	12/19/07	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/19/07	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/19/07	86.5	70-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Approved By:

Joel Kiff





2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No.

60133

Page 1 of 2

Project Contact (Hardcopy or PDF To):

Mehrdad Javaherian

Company / Address:

LRM Consulting

Phone #: 650 343-4693

Fax #: 650 343-8763

Project #:

P.O. #:

Project Name:

Former Val Strong Chevrolet Dealer

Project Address:

Sampling	Container			Preservative		Matrix			MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav./1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 8010)	W.E.T. Lead (STLC)	TAT
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO ₃	None	Water	Soil	Air										
SB-3-W-24'	12/12/07	1830	6				X				X			X								01	
SB-3-W-40'	12/12/07	1915	6				X				X			X	X	X						02	
SB-4-W-23'	12/12/07	0845	6				X				X			X	X	X						03	
SB-4-W-40'	12/12/07	1000	6				X				X			X	X	X						04	
SB-5-W-24'	12/12/07	1200	6				X				X			X	X	X						05	
SB-5-W-40'	12/12/07	1330	6				X				X			X	X	X						06	
SB-6-W-25'	12/12/07	1515	6				X				X			X	X	X						07	
SB-6-W-40'	12/12/07	1615	6				X				X			X	X	X						08	
SB-7-L-40'	12/12/07	1730	6				X				X			X	X	X						09	
SB-8-W-40'	12/11/07	1540	6				X				X			X	X	X						10	

Relinquished by:

Date

12/13/07

Time

1500

Received by:

Remarks:

Relinquished by:

Date

Time

Received by:

Bill to:

Relinquished by:

Date

12/13/07

Time

KW

Received by Laboratory:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
21.4	ETTEN	12/13/07	1800	IX-4	Yes / No



2795 2nd Street, Suite 300

Davis, CA 95616

Lah: 530 297 4800

Fax: 530 297 4802

SRG # / Lab No.

60133

Page 1 of 1

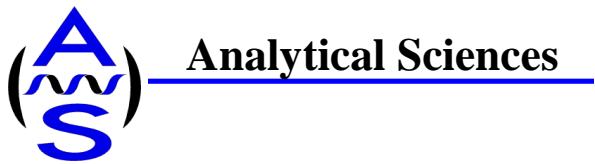
Project Contact (Hardcopy or PDF To): <i>Mehrdad Javaheri</i>			California EDF Report? <input type="checkbox"/> Yes <input type="checkbox"/> No			Chain-of-Custody Record and Analysis Request														
Company / Address: <i>L2M Consulting</i>			Sampling Company Log Code:						Analysis Request											
Phone #: <i>650 343 4693</i>	Fax #:	Global ID:											TAT							
Project #: <i>600-005</i>	P.O. #:	EDF Deliverable To (Email Address):											<input type="checkbox"/> 12 hr							
Project Name: <i>Former Valstrop Landfill</i>			Sampler Signature: <i>Ben Wells</i>											<input type="checkbox"/> 24 hr						
Project Address:		Sampling		Container		Preservative		Matrix							<input type="checkbox"/> 48 hr					
		Date	Time	40 ml VOA Sleeve	Poly	Glass	Tedlar	HCl	HNO ₃	None	Water	Soil	Air						<input type="checkbox"/> 72 hr	
Sample Designation														MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb						<input checked="" type="checkbox"/> 1 wk
SB - 9-W		12/11/07	1500	6			X			X			MTBE (EPA 8260B) @ 0.5 ppb							
SB - 10-W		12/10/07	1430	6			X			X			BTEX (EPA 8260B)						11	
SB - 11-W		12/10/07	1100	6			X			X			TPH Gas (EPA 8260B)						12	
SB - 12-W		12/10/07	1400	6			X			X			5 Oxygenates (EPA 8260B)						13	
SB - 13-W		12/10/07	1530	6			X			X			7 Oxygenates (EPA 8260B)						14	
													Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)						15	
													Volatile Halocarbons (EPA 8260B)							
													Volatile Organics Full List (EPA 8260B)							
													Volatile Organics (EPA 524.2 Drinking Water)							
													TPH as Diesel (EPA 8015M)							
													TPH as Motor Oil (EPA 8015M)							
													Total Lead (EPA 6010)							
													W.E.T. Lead (STLC)							
Relinquished by:		Date	Time	Received by:		Remarks:														
<i>JP 11-1</i>		12/15/07	1500	<i>[Signature]</i>																
Relinquished by:		Date	Time	Received by:		Bill to:														
Relinquished by:		Date	Time	Received by Laboratory:		For Lab Use Only: Sample Receipt														
		12/13/07	1500	<i>No Party Kiff Analytical</i>		Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present									
											Yes / No									

Distribution: White - Lab; Pink - Originator

Rev: 051805

APPENDIX E

LABORATORY ANALYTICAL REPORT SOIL VAPOR SAMPLES



December 27, 2007

Ben Wells
Environmental Resource Group
1038 Old Redwood Highway, Suite 1
Mill Valley, CA 94941

Dear Ben,

Enclosed you will find Analytical Sciences' final report 7121305 for your Former Val Strough Chevrolet project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

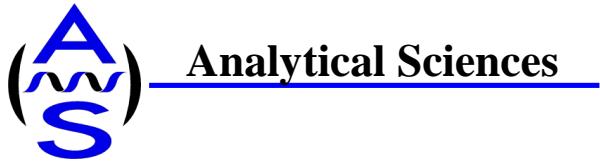
Sincerely,

Analytical Sciences

A handwritten signature in blue ink that reads "Mark A. Valentini".

Mark A. Valentini, Ph.D.

Laboratory Director



Analytical Sciences

Report Date: December 27, 2007

Laboratory Report

Ben Wells
Environmental Resource Group
1038 Old Redwood Highway, Suite 1
Mill Valley, CA 94941

Project Name: **Former Val Strough Chevrolet**
Lab Project: **7121305**

This 22 page report of analytical data has been reviewed and approved for release.

A handwritten signature in blue ink that reads "Mark A. Valentini".

Mark A. Valentini, Ph.D.
Laboratory Director



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-01	SB-3-Air	Propylene	33	8.6
		Dichlorodifluoromethane (F-12)	ND	25
		Dichlorotetrafluoroethane (F-114)	ND	35
		Vinyl chloride	ND	6.4
		1,3-Butadiene	ND	11
		Bromomethane	ND	19
		Chloroethane (CE)	ND	13
		Vinyl bromide	ND	11
		Trichlorofluoromethane (F-11)	ND	28
		Acetone	550	240
		1,1-Dichloroethene (1,1-DCE)	ND	20
		Trichlotrifluoroethane (F-113)	ND	38
		Allyl chloride	ND	16
		Methylene Chloride	ND	17
		Carbon disulfide	ND	16
		Methyl tert-Butyl Ether (MTBE)	ND	18
		trans-1,2-Dichloroethene	ND	20
		1,1-Dichloroethane (1,1-DCA)	ND	20
		Vinyl acetate	ND	18
		Hexane	ND	18
		2-Butanone	ND	15
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	20
		Ethyl Acetate	ND	18
		Chloroform (THM1)	ND	24
		Tetrahydrofuran	ND	15
		1,1,1-Trichloroethane (TCA)	ND	27
		1,2-Dichloroethane (EDC)	ND	20
		Cyclohexane	ND	17
		Benzene	ND	16
		2,2,4-Trimethylpentane	ND	23
		Heptane	ND	20
		Trichloroethene (TCE)	ND	27
		1,2-Dichloropropane (DCP)	ND	23
		1,4-Dioxane	ND	18
		Bromodichloromethane (THM2)	ND	15
		Methyl Isobutyl Ketone (MIBK)	ND	20
		cis-1,3-Dichloropropene	ND	17
		trans-1,3-Dichloropropene	ND	17
		Toluene	38	19
		1,1,2-Trichloroethane	ND	27
		2-Hexanone	ND	20
		Dibromochloromethane (THM3)	ND	43
		Tetrachloroethene (PCE)	ND	34
		1,2-Dibromoethane (EDB)	ND	7.7
		Chlorobenzene	ND	23
		Ethylbenzene	ND	22
		m,p-Xylene	ND	22
		Styrene	ND	21
		o-Xylene	ND	22



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-01	SB-3-Air	Bromoform (THM4)	ND	52
		1,1,2,2-Tetrachloroethane	ND	10
		4-Ethyltoluene	ND	25
		1,3,5-Trimethylbenzene	ND	25
		1,2,4-Trimethylbenzene	43	25
		1,3-Dichlorobenzene	ND	30
		Benzyl chloride	ND	26
		1,4-Dichlorobenzene	ND	30
		1,2-Dichlorobenzene	ND	30
		1,2,4-Trichlorobenzene	ND	37
		Hexachloro-1,3-butadiene	ND	53
Surrogates		Result ($\mu\text{g}/\text{m}^3$)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		19.9	102	70-130
4-Bromofluorobenzene		14.7	76	70-130

Date Sampled: 12/11/07 Date Analyzed: 12/20/07 QC Batch: B003497
Date Received: 12/13/07 Method: EPA TO-15



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-02	SB-4-Air	Propylene	38	8.6
		Dichlorodifluoromethane (F-12)	ND	25
		Dichlorotetrafluoroethane (F-114)	ND	35
		Vinyl chloride	ND	6.4
		1,3-Butadiene	ND	11
		Bromomethane	ND	19
		Chloroethane (CE)	ND	13
		Vinyl bromide	ND	11
		Trichlorofluoromethane (F-11)	ND	28
		Acetone	65	30
		1,1-Dichloroethene (1,1-DCE)	ND	20
		Trichlotrifluoroethane (F-113)	ND	38
		Allyl chloride	ND	16
		Methylene Chloride	ND	17
		Carbon disulfide	ND	16
		Methyl tert-Butyl Ether (MTBE)	ND	18
		trans-1,2-Dichloroethene	ND	20
		1,1-Dichloroethane (1,1-DCA)	ND	20
		Vinyl acetate	ND	18
		Hexane	ND	18
		2-Butanone	ND	15
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	20
		Ethyl Acetate	ND	18
		Chloroform (THM1)	ND	24
		Tetrahydrofuran	ND	15
		1,1,1-Trichloroethane (TCA)	ND	27
		1,2-Dichloroethane (EDC)	ND	20
		Cyclohexane	ND	17
		Benzene	ND	16
		2,2,4-Trimethylpentane	ND	23
		Heptane	ND	20
		Trichloroethene (TCE)	ND	27
		1,2-Dichloropropane (DCP)	ND	23
		1,4-Dioxane	ND	18
		Bromodichloromethane (THM2)	ND	15
		Methyl Isobutyl Ketone (MIBK)	ND	20
		cis-1,3-Dichloropropene	ND	17
		trans-1,3-Dichloropropene	ND	17
		Toluene	27	19
		1,1,2-Trichloroethane	ND	27
		2-Hexanone	ND	20
		Dibromochloromethane (THM3)	ND	43
		Tetrachloroethene (PCE)	ND	34
		1,2-Dibromoethane (EDB)	ND	7.7
		Chlorobenzene	ND	23
		Ethylbenzene	ND	22
		m,p-Xylene	ND	22
		Styrene	ND	21
		o-Xylene	ND	22



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-02	SB-4-Air	Bromoform (THM4)	ND	52
		1,1,2,2-Tetrachloroethane	ND	10
		4-Ethyltoluene	ND	25
		1,3,5-Trimethylbenzene	ND	25
		1,2,4-Trimethylbenzene	ND	25
		1,3-Dichlorobenzene	ND	30
		Benzyl chloride	ND	26
		1,4-Dichlorobenzene	ND	30
		1,2-Dichlorobenzene	ND	30
		1,2,4-Trichlorobenzene	ND	37
		Hexachloro-1,3-butadiene	ND	53
Surrogates		Result ($\mu\text{g}/\text{m}^3$)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		16.6	85	70-130
4-Bromofluorobenzene		17.3	89	70-130

Date Sampled: 12/11/07 Date Analyzed: 12/20/07 QC Batch: B003497
Date Received: 12/13/07 Method: EPA TO-15



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-04	SB-6-Air	Propylene	160	69
		Dichlorodifluoromethane (F-12)	ND	200
		Dichlorotetrafluoroethane (F-114)	ND	280
		Vinyl chloride	ND	51
		1,3-Butadiene	ND	88
		Bromomethane	ND	160
		Chloroethane (CE)	ND	110
		Vinyl bromide	ND	87
		Trichlorofluoromethane (F-11)	ND	220
		Acetone	ND	240
		1,1-Dichloroethene (1,1-DCE)	ND	160
		Trichlotrifluoroethane (F-113)	ND	310
		Allyl chloride	ND	130
		Methylene Chloride	ND	140
		Carbon disulfide	ND	120
		Methyl tert-Butyl Ether (MTBE)	ND	140
		trans-1,2-Dichloroethene	ND	160
		1,1-Dichloroethane (1,1-DCA)	ND	160
		Vinyl acetate	ND	140
		Hexane	5400	420
		2-Butanone	ND	120
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	160
		Ethyl Acetate	ND	140
		Chloroform (THM1)	ND	200
		Tetrahydrofuran	ND	120
		1,1,1-Trichloroethane (TCA)	ND	220
		1,2-Dichloroethane (EDC)	ND	160
		Cyclohexane	2300	410
		Benzene	ND	130
		2,2,4-Trimethylpentane	13000	560
		Heptane	4500	490
		Trichloroethene (TCE)	ND	210
		1,2-Dichloropropane (DCP)	ND	180
		1,4-Dioxane	ND	140
		Bromodichloromethane (THM2)	ND	120
		Methyl Isobutyl Ketone (MIBK)	ND	160
		cis-1,3-Dichloropropene	ND	140
		trans-1,3-Dichloropropene	ND	140
		Toluene	ND	150
		1,1,2-Trichloroethane	ND	220
		2-Hexanone	ND	160
		Dibromochloromethane (THM3)	ND	340
		Tetrachloroethene (PCE)	ND	270
		1,2-Dibromoethane (EDB)	ND	61
		Chlorobenzene	ND	180
		Ethylbenzene	ND	170
		m,p-Xylene	350	170
		Styrene	ND	170
		o-Xylene	200	170



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-04	SB-6-Air	Bromoform (THM4)	ND	410
		1,1,2,2-Tetrachloroethane	ND	82
		4-Ethyltoluene	220	200
		1,3,5-Trimethylbenzene	460	200
		1,2,4-Trimethylbenzene	790	200
		1,3-Dichlorobenzene	ND	240
		Benzyl chloride	ND	210
		1,4-Dichlorobenzene	ND	240
		1,2-Dichlorobenzene	ND	240
		1,2,4-Trichlorobenzene	ND	300
		Hexachloro-1,3-butadiene	ND	430
Surrogates		Result ($\mu\text{g}/\text{m}^3$)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		129	83	70-130
4-Bromofluorobenzene		129	83	70-130

Date Sampled:	12/11/07	Date Analyzed:	12/18/07	QC Batch: B003497
Date Received:	12/13/07	Method:	EPA TO-15	



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-05	SB-7-Air	Propylene	160	69
		Dichlorodifluoromethane (F-12)	ND	25
		Dichlorotetrafluoroethane (F-114)	ND	35
		Vinyl chloride	ND	6.4
		1,3-Butadiene	ND	11
		Bromomethane	ND	19
		Chloroethane (CE)	ND	13
		Vinyl bromide	ND	11
		Trichlorofluoromethane (F-11)	ND	28
		Acetone	260	240
		1,1-Dichloroethene (1,1-DCE)	ND	20
		Trichlotrifluoroethane (F-113)	ND	38
		Allyl chloride	ND	16
		Methylene Chloride	ND	17
		Carbon disulfide	ND	16
		Methyl tert-Butyl Ether (MTBE)	ND	18
		trans-1,2-Dichloroethene	ND	20
		1,1-Dichloroethane (1,1-DCA)	ND	20
		Vinyl acetate	ND	18
		Hexane	ND	18
		2-Butanone	42	15
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	20
		Ethyl Acetate	ND	18
		Chloroform (THM1)	ND	24
		Tetrahydrofuran	ND	15
		1,1,1-Trichloroethane (TCA)	ND	27
		1,2-Dichloroethane (EDC)	ND	20
		Cyclohexane	ND	17
		Benzene	ND	16
		2,2,4-Trimethylpentane	ND	23
		Heptane	ND	20
		Trichloroethene (TCE)	ND	27
		1,2-Dichloropropane (DCP)	ND	23
		1,4-Dioxane	ND	18
		Bromodichloromethane (THM2)	ND	15
		Methyl Isobutyl Ketone (MIBK)	ND	20
		cis-1,3-Dichloropropene	ND	17
		trans-1,3-Dichloropropene	ND	17
		Toluene	27	19
		1,1,2-Trichloroethane	ND	27
		2-Hexanone	ND	20
		Dibromochloromethane (THM3)	ND	43
		Tetrachloroethene (PCE)	ND	34
		1,2-Dibromoethane (EDB)	ND	7.7
		Chlorobenzene	ND	23
		Ethylbenzene	ND	22
		m,p-Xylene	ND	22
		Styrene	ND	21
		o-Xylene	ND	22



Volatile Hydrocarbons by GC/MS in Air

Lab#	Sample ID	Compound Name	Result ($\mu\text{g}/\text{m}^3$)	RDL ($\mu\text{g}/\text{m}^3$)
7121305-05	SB-7-Air	Bromoform (THM4)	ND	52
		1,1,2,2-Tetrachloroethane	ND	10
		4-Ethyltoluene	ND	25
		1,3,5-Trimethylbenzene	ND	25
		1,2,4-Trimethylbenzene	36	25
		1,3-Dichlorobenzene	ND	30
		Benzyl chloride	ND	26
		1,4-Dichlorobenzene	ND	30
		1,2-Dichlorobenzene	ND	30
		1,2,4-Trichlorobenzene	ND	37
		Hexachloro-1,3-butadiene	ND	53
Surrogates		Result ($\mu\text{g}/\text{m}^3$)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		17.0	87	70-130
4-Bromofluorobenzene		14.5	75	70-130

Date Sampled: 12/11/07 Date Analyzed: 12/20/07 QC Batch: B003497
Date Received: 12/13/07 Method: EPA TO-15



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-01	SB-3-Air	Propylene	19	5.0
		Dichlorodifluoromethane (F-12)	ND	5.0
		Dichlorotetrafluoroethane (F-114)	ND	5.0
		Vinyl chloride	ND	2.5
		1,3-Butadiene	ND	5.0
		Bromomethane	ND	5.0
		Chloroethane (CE)	ND	5.0
		Vinyl bromide	ND	2.5
		Trichlorofluoromethane (F-11)	ND	5.0
		Acetone	230	100
		1,1-Dichloroethene (1,1-DCE)	ND	5.0
		Trichlotrifluoroethane (F-113)	ND	5.0
		Allyl chloride	ND	5.0
		Methylene Chloride	ND	5.0
		Carbon disulfide	ND	5.0
		Methyl tert-Butyl Ether (MTBE)	ND	5.0
		trans-1,2-Dichloroethene	ND	5.0
		1,1-Dichloroethane (1,1-DCA)	ND	5.0
		Vinyl acetate	ND	5.0
		Hexane	ND	5.0
		2-Butanone	ND	5.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	5.0
		Ethyl Acetate	ND	5.0
		Chloroform (THM1)	ND	5.0
		Tetrahydrofuran	ND	5.0
		1,1,1-Trichloroethane (TCA)	ND	5.0
		1,2-Dichloroethane (EDC)	ND	5.0
		Cyclohexane	ND	5.0
		Benzene	ND	5.0
		2,2,4-Trimethylpentane	ND	5.0
		Heptane	ND	5.0
		Trichloroethene (TCE)	ND	5.0
		1,2-Dichloropropane (DCP)	ND	5.0
		1,4-Dioxane	ND	5.0
		Bromodichloromethane (THM2)	ND	2.2
		Methyl Isobutyl Ketone (MIBK)	ND	5.0
		cis-1,3-Dichloropropene	ND	3.8
		trans-1,3-Dichloropropene	ND	3.8
		Toluene	10	5.0
		1,1,2-Trichloroethane	ND	5.0
		2-Hexanone	ND	5.0
		Dibromochloromethane (THM3)	ND	5.0
		Tetrachloroethene (PCE)	ND	5.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	ND	5.0
		Ethylbenzene	ND	5.0
		m,p-Xylene	ND	5.0
		Styrene	ND	5.0
		o-Xylene	ND	5.0

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Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-01	SB-3-Air	Bromoform (THM4)	ND	5.0
		1,1,2,2-Tetrachloroethane	ND	1.5
		4-Ethyltoluene	ND	5.0
		1,3,5-Trimethylbenzene	ND	5.0
		1,2,4-Trimethylbenzene	8.8	5.0
		1,3-Dichlorobenzene	ND	5.0
		Benzyl chloride	ND	5.0
		1,4-Dichlorobenzene	ND	5.0
		1,2-Dichlorobenzene	ND	5.0
		1,2,4-Trichlorobenzene	ND	5.0
		Hexachloro-1,3-butadiene	ND	5.0
Surrogates		Result (ppbv)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		2.54	102	70-130
4-Bromofluorobenzene		2.05	76	70-130

Date Sampled:	12/11/07	Date Analyzed:	12/20/07	QC Batch: B003497
Date Received:	12/13/07	Method:	EPA TO-15	



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-02	SB-4-Air	Propylene	22	5.0
		Dichlorodifluoromethane (F-12)	ND	5.0
		Dichlorotetrafluoroethane (F-114)	ND	5.0
		Vinyl chloride	ND	2.5
		1,3-Butadiene	ND	5.0
		Bromomethane	ND	5.0
		Chloroethane (CE)	ND	5.0
		Vinyl bromide	ND	2.5
		Trichlorofluoromethane (F-11)	ND	5.0
		Acetone	27	12
		1,1-Dichloroethene (1,1-DCE)	ND	5.0
		Trichlotrifluoroethane (F-113)	ND	5.0
		Allyl chloride	ND	5.0
		Methylene Chloride	ND	5.0
		Carbon disulfide	ND	5.0
		Methyl tert-Butyl Ether (MTBE)	ND	5.0
		trans-1,2-Dichloroethene	ND	5.0
		1,1-Dichloroethane (1,1-DCA)	ND	5.0
		Vinyl acetate	ND	5.0
		Hexane	ND	5.0
		2-Butanone	ND	5.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	5.0
		Ethyl Acetate	ND	5.0
		Chloroform (THM1)	ND	5.0
		Tetrahydrofuran	ND	5.0
		1,1,1-Trichloroethane (TCA)	ND	5.0
		1,2-Dichloroethane (EDC)	ND	5.0
		Cyclohexane	ND	5.0
		Benzene	ND	5.0
		2,2,4-Trimethylpentane	ND	5.0
		Heptane	ND	5.0
		Trichloroethene (TCE)	ND	5.0
		1,2-Dichloropropane (DCP)	ND	5.0
		1,4-Dioxane	ND	5.0
		Bromodichloromethane (THM2)	ND	2.2
		Methyl Isobutyl Ketone (MIBK)	ND	5.0
		cis-1,3-Dichloropropene	ND	3.8
		trans-1,3-Dichloropropene	ND	3.8
		Toluene	7.2	5.0
		1,1,2-Trichloroethane	ND	5.0
		2-Hexanone	ND	5.0
		Dibromochloromethane (THM3)	ND	5.0
		Tetrachloroethene (PCE)	ND	5.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	ND	5.0
		Ethylbenzene	ND	5.0
		m,p-Xylene	ND	5.0
		Styrene	ND	5.0
		o-Xylene	ND	5.0

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Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-02	SB-4-Air	Bromoform (THM4)	ND	5.0
		1,1,2,2-Tetrachloroethane	ND	1.5
		4-Ethyltoluene	ND	5.0
		1,3,5-Trimethylbenzene	ND	5.0
		1,2,4-Trimethylbenzene	ND	5.0
		1,3-Dichlorobenzene	ND	5.0
		Benzyl chloride	ND	5.0
		1,4-Dichlorobenzene	ND	5.0
		1,2-Dichlorobenzene	ND	5.0
		1,2,4-Trichlorobenzene	ND	5.0
		Hexachloro-1,3-butadiene	ND	5.0
Surrogates		Result (ppbv)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		2.11	85	70-130
4-Bromofluorobenzene		2.42	89	70-130

Date Sampled:	12/11/07	Date Analyzed:	12/20/07	QC Batch: B003497
Date Received:	12/13/07	Method:	EPA TO-15	



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-04	SB-6-Air	Propylene	95	40
		Dichlorodifluoromethane (F-12)	ND	40
		Dichlorotetrafluoroethane (F-114)	ND	40
		Vinyl chloride	ND	20
		1,3-Butadiene	ND	40
		Bromomethane	ND	40
		Chloroethane (CE)	ND	40
		Vinyl bromide	ND	20
		Trichlorofluoromethane (F-11)	ND	40
		Acetone	ND	100
		1,1-Dichloroethene (1,1-DCE)	ND	40
		Trichlotrifluoroethane (F-113)	ND	40
		Allyl chloride	ND	40
		Methylene Chloride	ND	40
		Carbon disulfide	ND	40
		Methyl tert-Butyl Ether (MTBE)	ND	40
		trans-1,2-Dichloroethene	ND	40
		1,1-Dichloroethane (1,1-DCA)	ND	40
		Vinyl acetate	ND	40
		Hexane	1500	120
		2-Butanone	ND	40
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	40
		Ethyl Acetate	ND	40
		Chloroform (THM1)	ND	40
		Tetrahydrofuran	ND	40
		1,1,1-Trichloroethane (TCA)	ND	40
		1,2-Dichloroethane (EDC)	ND	40
		Cyclohexane	670	120
		Benzene	ND	40
		2,2,4-Trimethylpentane	2800	120
		Heptane	1100	120
		Trichloroethene (TCE)	ND	40
		1,2-Dichloropropane (DCP)	ND	40
		1,4-Dioxane	ND	40
		Bromodichloromethane (THM2)	ND	18
		Methyl Isobutyl Ketone (MIBK)	ND	40
		cis-1,3-Dichloropropene	ND	30
		trans-1,3-Dichloropropene	ND	30
		Toluene	ND	40
		1,1,2-Trichloroethane	ND	40
		2-Hexanone	ND	40
		Dibromochloromethane (THM3)	ND	40
		Tetrachloroethene (PCE)	ND	40
		1,2-Dibromoethane (EDB)	ND	8.0
		Chlorobenzene	ND	40
		Ethylbenzene	ND	40
		m,p-Xylene	81	40
		Styrene	ND	40
		o-Xylene	46	40



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-04	SB-6-Air	Bromoform (THM4)	ND	40
		1,1,2,2-Tetrachloroethane	ND	12
		4-Ethyltoluene	44	40
		1,3,5-Trimethylbenzene	93	40
		1,2,4-Trimethylbenzene	160	40
		1,3-Dichlorobenzene	ND	40
		Benzyl chloride	ND	40
		1,4-Dichlorobenzene	ND	40
		1,2-Dichlorobenzene	ND	40
		1,2,4-Trichlorobenzene	ND	40
		Hexachloro-1,3-butadiene	ND	40
Surrogates		Result (ppbv)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		16.4	83	70-130
4-Bromofluorobenzene		18.1	83	70-130

Date Sampled:	12/11/07	Date Analyzed:	12/18/07	QC Batch: B003497
Date Received:	12/13/07	Method:	EPA TO-15	



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-05	SB-7-Air	Propylene	91	40
		Dichlorodifluoromethane (F-12)	ND	5.0
		Dichlorotetrafluoroethane (F-114)	ND	5.0
		Vinyl chloride	ND	2.5
		1,3-Butadiene	ND	5.0
		Bromomethane	ND	5.0
		Chloroethane (CE)	ND	5.0
		Vinyl bromide	ND	2.5
		Trichlorofluoromethane (F-11)	ND	5.0
		Acetone	110	100
		1,1-Dichloroethene (1,1-DCE)	ND	5.0
		Trichlotrifluoroethane (F-113)	ND	5.0
		Allyl chloride	ND	5.0
		Methylene Chloride	ND	5.0
		Carbon disulfide	ND	5.0
		Methyl tert-Butyl Ether (MTBE)	ND	5.0
		trans-1,2-Dichloroethene	ND	5.0
		1,1-Dichloroethane (1,1-DCA)	ND	5.0
		Vinyl acetate	ND	5.0
		Hexane	ND	5.0
		2-Butanone	14	5.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	5.0
		Ethyl Acetate	ND	5.0
		Chloroform (THM1)	ND	5.0
		Tetrahydrofuran	ND	5.0
		1,1,1-Trichloroethane (TCA)	ND	5.0
		1,2-Dichloroethane (EDC)	ND	5.0
		Cyclohexane	ND	5.0
		Benzene	ND	5.0
		2,2,4-Trimethylpentane	ND	5.0
		Heptane	ND	5.0
		Trichloroethene (TCE)	ND	5.0
		1,2-Dichloropropane (DCP)	ND	5.0
		1,4-Dioxane	ND	5.0
		Bromodichloromethane (THM2)	ND	2.2
		Methyl Isobutyl Ketone (MIBK)	ND	5.0
		cis-1,3-Dichloropropene	ND	3.8
		trans-1,3-Dichloropropene	ND	3.8
		Toluene	7.1	5.0
		1,1,2-Trichloroethane	ND	5.0
		2-Hexanone	ND	5.0
		Dibromochloromethane (THM3)	ND	5.0
		Tetrachloroethene (PCE)	ND	5.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	ND	5.0
		Ethylbenzene	ND	5.0
		m,p-Xylene	ND	5.0
		Styrene	ND	5.0
		o-Xylene	ND	5.0



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Lab#	Sample ID	Compound Name	Result (ppbv)	RDL (ppbv)
7121305-05	SB-7-Air	Bromoform (THM4)	ND	5.0
		1,1,2,2-Tetrachloroethane	ND	1.5
		4-Ethyltoluene	ND	5.0
		1,3,5-Trimethylbenzene	ND	5.0
		1,2,4-Trimethylbenzene	7.4	5.0
		1,3-Dichlorobenzene	ND	5.0
		Benzyl chloride	ND	5.0
		1,4-Dichlorobenzene	ND	5.0
		1,2-Dichlorobenzene	ND	5.0
		1,2,4-Trichlorobenzene	ND	5.0
		Hexachloro-1,3-butadiene	ND	5.0
Surrogates		Result (ppbv)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		2.17	87	70-130
4-Bromofluorobenzene		2.02	75	70-130

Date Sampled:	12/11/07	Date Analyzed:	12/20/07	QC Batch: B003497
Date Received:	12/13/07	Method:	EPA TO-15	



Quality Assurance Report

Volatile Hydrocarbons by GC/MS in Air

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	Notes
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Batch B003497 - Air prep GC/MS

Blank (B003497-BLK1) Prepared & Analyzed: 12/18/07

Propylene	ND	8.6	µg/m³
Dichlorodifluoromethane (F-12)	ND	25	µg/m³
Dichlorotetrafluoroethane (F-114)	ND	35	µg/m³
Vinyl chloride	ND	6.4	µg/m³
1,3-Butadiene	ND	11	µg/m³
Bromomethane	ND	19	µg/m³
Chloroethane (CE)	ND	13	µg/m³
Vinyl bromide	ND	11	µg/m³
Trichlorofluoromethane (F-11)	ND	28	µg/m³
Acetone	ND	30	µg/m³
1,1-Dichloroethene (1,1-DCE)	ND	20	µg/m³
Trichlotrifluoroethane (F-113)	ND	38	µg/m³
Allyl chloride	ND	16	µg/m³
Methylene Chloride	ND	17	µg/m³
Carbon disulfide	ND	16	µg/m³
Methyl tert-Butyl Ether (MTBE)	ND	18	µg/m³
trans-1,2-Dichloroethene	ND	20	µg/m³
1,1-Dichloroethane (1,1-DCA)	ND	20	µg/m³
Vinyl acetate	ND	18	µg/m³
Hexane	ND	18	µg/m³
2-Butanone	ND	15	µg/m³
cis-1,2-Dichloroethene (c1,2-DCE)	ND	20	µg/m³
Ethyl Acetate	ND	18	µg/m³
Chloroform (THM1)	ND	24	µg/m³
Tetrahydrofuran	ND	15	µg/m³
1,1,1-Trichloroethane (TCA)	ND	27	µg/m³
1,2-Dichloroethane (EDC)	ND	20	µg/m³
Cyclohexane	ND	17	µg/m³
Benzene	ND	16	µg/m³
2,2,4-Trimethylpentane	ND	23	µg/m³
Heptane	ND	20	µg/m³
Trichloroethene (TCE)	ND	27	µg/m³
1,2-Dichloropropane (DCP)	ND	23	µg/m³
1,4-Dioxane	ND	18	µg/m³
Bromodichloromethane (THM2)	ND	15	µg/m³
Methyl Isobutyl Ketone (MIBK)	ND	20	µg/m³
cis-1,3-Dichloropropene	ND	17	µg/m³
trans-1,3-Dichloropropene	ND	17	µg/m³
Toluene	ND	19	µg/m³
1,1,2-Trichloroethane	ND	27	µg/m³
2-Hexanone	ND	20	µg/m³



Volatile Hydrocarbons by GC/MS in Air

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
Batch B003497 - Air prep GC/MS										
Blank (B003497-BLK1)										
Prepared & Analyzed: 12/18/07										
Dibromochloromethane (THM3)	ND	43	µg/m³							
Tetrachloroethene (PCE)	ND	34	µg/m³							
1,2-Dibromoethane (EDB)	ND	7.7	µg/m³							
Chlorobenzene	ND	23	µg/m³							
Ethylbenzene	ND	22	µg/m³							
m,p-Xylene	ND	22	µg/m³							
Styrene	ND	21	µg/m³							
o-Xylene	ND	22	µg/m³							
Bromoform (THM4)	ND	52	µg/m³							
1,1,2,2-Tetrachloroethane	ND	10	µg/m³							
4-Ethyltoluene	ND	25	µg/m³							
1,3,5-Trimethylbenzene	ND	25	µg/m³							
1,2,4-Trimethylbenzene	ND	25	µg/m³							
1,3-Dichlorobenzene	ND	30	µg/m³							
Benzyl chloride	ND	26	µg/m³							
1,4-Dichlorobenzene	ND	30	µg/m³							
1,2-Dichlorobenzene	ND	30	µg/m³							
1,2,4-Trichlorobenzene	ND	37	µg/m³							
Hexachloro-1,3-butadiene	ND	53	µg/m³							
<i>Surrogate: Dibromofluoromethane</i>	16.6		µg/m³	19.5		85	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	16.6		µg/m³	19.4		86	70-130			



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Notes
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Batch B003497 - Air prep GC/MS

Blank (B003497-BLK1)

Prepared & Analyzed: 12/18/07

Propylene	ND	5.0	ppbv
Dichlorodifluoromethane (F-12)	ND	5.0	ppbv
Dichlorotetrafluoroethane (F-114)	ND	5.0	ppbv
Vinyl chloride	ND	2.5	ppbv
1,3-Butadiene	ND	5.0	ppbv
Bromomethane	ND	5.0	ppbv
Chloroethane (CE)	ND	5.0	ppbv
Vinyl bromide	ND	2.5	ppbv
Trichlorofluoromethane (F-11)	ND	5.0	ppbv
Acetone	ND	12	ppbv
1,1-Dichloroethene (1,1-DCE)	ND	5.0	ppbv
Trichlotrifluoroethane (F-113)	ND	5.0	ppbv
Allyl chloride	ND	5.0	ppbv
Methylene Chloride	ND	5.0	ppbv
Carbon disulfide	ND	5.0	ppbv
Methyl tert-Butyl Ether (MTBE)	ND	5.0	ppbv
trans-1,2-Dichloroethene	ND	5.0	ppbv
1,1-Dichloroethane (1,1-DCA)	ND	5.0	ppbv
Vinyl acetate	ND	5.0	ppbv
Hexane	ND	5.0	ppbv
2-Butanone	ND	5.0	ppbv
cis-1,2-Dichloroethene (c1,2-DCE)	ND	5.0	ppbv
Ethyl Acetate	ND	5.0	ppbv
Chloroform (THM1)	ND	5.0	ppbv
Tetrahydrofuran	ND	5.0	ppbv
1,1,1-Trichloroethane (TCA)	ND	5.0	ppbv
1,2-Dichloroethane (EDC)	ND	5.0	ppbv
Cyclohexane	ND	5.0	ppbv
Benzene	ND	5.0	ppbv
2,2,4-Trimethylpentane	ND	5.0	ppbv
Heptane	ND	5.0	ppbv
Trichloroethene (TCE)	ND	5.0	ppbv
1,2-Dichloropropane (DCP)	ND	5.0	ppbv
1,4-Dioxane	ND	5.0	ppbv
Bromodichloromethane (THM2)	ND	2.2	ppbv
Methyl Isobutyl Ketone (MIBK)	ND	5.0	ppbv
cis-1,3-Dichloropropene	ND	3.8	ppbv
trans-1,3-Dichloropropene	ND	3.8	ppbv
Toluene	ND	5.0	ppbv
1,1,2-Trichloroethane	ND	5.0	ppbv
2-Hexanone	ND	5.0	ppbv
Dibromochloromethane (THM3)	ND	5.0	ppbv
Tetrachloroethene (PCE)	ND	5.0	ppbv



Volatile Hydrocarbons by GC/MS in Air (ppbv)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Notes
Batch B003497 - Air prep GC/MS								
Blank (B003497-BLK1)								
Prepared & Analyzed: 12/18/07								
1,2-Dibromoethane (EDB)	ND	1.0	ppbv					
Chlorobenzene	ND	5.0	ppbv					
Ethylbenzene	ND	5.0	ppbv					
m,p-Xylene	ND	5.0	ppbv					
Styrene	ND	5.0	ppbv					
o-Xylene	ND	5.0	ppbv					
Bromoform (THM4)	ND	5.0	ppbv					
1,1,2,2-Tetrachloroethane	ND	1.5	ppbv					
4-Ethyltoluene	ND	5.0	ppbv					
1,3,5-Trimethylbenzene	ND	5.0	ppbv					
1,2,4-Trimethylbenzene	ND	5.0	ppbv					
1,3-Dichlorobenzene	ND	5.0	ppbv					
Benzyl chloride	ND	5.0	ppbv					
1,4-Dichlorobenzene	ND	5.0	ppbv					
1,2-Dichlorobenzene	ND	5.0	ppbv					
1,2,4-Trichlorobenzene	ND	5.0	ppbv					
Hexachloro-1,3-butadiene	ND	5.0	ppbv					
<i>Surrogate: Dibromofluoromethane</i>	2.11		ppbv	2.48		85	70-130	
<i>Surrogate: 4-Bromofluorobenzene</i>	2.32		ppbv	2.71		86	70-130	



Notes and Definitions

RDL	Reporting Detection Limit
ND	Analyte NOT DETECTED at or above the reporting detection limit (RDL)
RPD	Relative Percent Difference
NR	Not Reported



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CHAIN OF CUSTODY

7121305

CLIENT INFORMATION		BILLING INFORMATION		CLIENT'S PROJECT NAME: <u>Former Val Strong Chevrolet</u>	
COMPANY NAME: <u>LRM Env. Res. Group</u>	CONTACT: _____	COMPANY NAME: <u>LRM</u>	TURNAROUND TIME (check one)	GEOTRACKER EDF: <u>Y</u>	
ADDRESS: <u>1534 Plaza Lane Suite 145 Burlingame, CA 94010</u>	ADDRESS: <u>1534 Plaza Lane Suite 145 Burlingame, CA 94010</u>	SAME DAY	<input type="checkbox"/> 24 HOURS	GLOBAL ID: _____	
CONTACT: <u>Mehrdad Jougharian</u>	PHONE#: <u>650 343-4633</u>	48 HOURS	<input type="checkbox"/> 72 HOURS	COOLER TEMPERATURE	
PHONE#: <u>650 343-4633</u>	FAX #: <u>650 343-8762</u>	5 DAYS	<input checked="" type="checkbox"/> NORMAL	<u> </u> °C	
				COC	

SIGNATURES

SAMPLED BY:

Ben Welly

RELINQUISHED BY

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SIGNATURE

DATE

TIME

RECEIVED BY LABORATORY

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DATA

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