



environmental service

by Papineau, R.E.A. 791

March 5, 2001

MAR 21 2001

Mr. Jack Sumski, Jr.
Davis Realty Co., Inc.
5010 Geary Boulevard Suite 1
San Francisco, CA 94118

**Subject: Specified Soil and Ground Water Sampling and Laboratory Analyses
for 1723 Fruitvale Avenue, Oakland, California (Project 2000-033.02)**

Dear Mr. Sumski:

Environmental Service has prepared this letter to convey the results of sampling and laboratory analyses of samples collected from 1723 Fruitvale Avenue, Oakland, California, the "Property." Table 1 presents the January 2001 analytical results for soil samples, and Table 2 presents the February 2001 analytical results for three ground water samples. Four bore holes were drilled and sampled on January 29 and 30, 2001, under Drilling Permits W01-75, W01-76, W01-77, and W01-78, issued by the Water Resources Section of the Alameda County Public Works Agency. Three of the bore holes were completed with 2-inch diameter casing, screened from approximately 18 to 26 feet below grade surface, for optional use as monitoring wells for sampling or as piezometers for measuring ground water elevation.

Figure 1 illustrates the location of the Property, and Figure 2 illustrates the locations of exploratory bore holes. Ground Water Monitoring Logs are attached as Attachment A. Exploratory Soil Boring Logs and Well Construction Diagrams are attached as Attachment B. Signed laboratory reports and Sample Chains-of-Custody are included as Attachment C.

BACKGROUND

In November 2000 a subsurface investigation was performed at the direction of the Alameda County Health Care Services Agency, Environmental Health Services. As stated in its letter dated October 6, 2000, the objective of the investigation in November 2000 was to assess whether PCE had been released to the subsurface, including the soil deeper than 11 feet in the vicinity of SB-4 and SS-2 and the ground water in the downgradient vicinity of SB-4 and SS-2. On November 14, 2000, two exploratory borings, SB-5 and SB-6, were drilled within 10 feet of previously reported perchloroethylene (PCE) contamination in soil (see Figure 2).

Concentrations of PCE in the soil samples collected from bore hole SB-5 were low part-per-billion concentrations, 9.8 to 43 $\mu\text{g}/\text{kg}$ (ppb), similar to those concentrations previously reported. Concentrations increased with increasing depth to a maximum concentration of 43 $\mu\text{g}/\text{kg}$ at 20.5 feet below grade surface (bgs), which is in the smear zone, that is, the zone seasonally saturated with ground water. In the one ground water sample, SB6-GW, collected in November 2000, the concentration of PCE was reported to be 290 $\mu\text{g}/\text{L}$ (ppb). Ground water was encountered at a depth of approximately 20 feet bgs in November 2000, in clayey sand with trace gravel, just beneath a very dense clayey gravel.



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

In June 2000, the following remedial actions required by the City of Oakland were performed by Basics Environmental on behalf of Davis Realty Co., Inc., the "Property Owner":

A) At location SS-1 (see Figure 2), a former hydraulic hoist was removed and soil was excavated to a depth of 11 feet bgs.

B) At location SB-4 (SS-2), adjacent to the former hydraulic lift, soil containing concentrations of 34 $\mu\text{g}/\text{kg}$ as perchloroethylene (PCE) and 68 mg/kg as Total Recoverable Petroleum Hydrocarbons was excavated to a depth of 11 feet bgs.

In December 1999, before remedial actions A and B (above), a Phase II subsurface investigation was performed at the discretion of the Property Owner prior to a contemplated sale of the Property. Gasoline and BTEX concentrations in the one ground water sample collected at location SB-1 were reported by the analytical laboratory to be 270 $\mu\text{g}/\text{L}$ as gasoline (with "no recognizable fuel pattern"); less than 0.5 $\mu\text{g}/\text{L}$ as benzene, toluene, and ethyl benzene (BTE); and 0.51 $\mu\text{g}/\text{L}$ as xylenes (X). PCE concentrations were reported by the analytical laboratory to be 24 $\mu\text{g}/\text{kg}$ in the composite of soil samples collected at 5 feet and 10 feet bgs at location SB-4 and 42 $\mu\text{g}/\text{L}$ in the one ground water sample collected at location SB-1. PCE was not detected in soil samples collected at locations SB-1, SB-2, SB-3 in December 1999 or in the soil sample collected at location SS-1 in June 2000.

OBJECTIVE OF WORK

The current Phase II Subsurface Investigation was required by the Alameda County Health Care Services Agency, Environmental Health Services. As stated in its letter dated January 3, 2001, the objective of the required investigation is to delineate the lateral and vertical extent of PCE in the soil and also in the ground water.

Work was performed as generally agreed and outlined in the Proposed Sampling Plan, dated January 9, 2001, as amended based upon Alameda County Health Care Services Agency letter dated January 24, 2001, and Proposal 2000-033.02, and consisted of the below-listed tasks. Additions based upon the Alameda County Health Care Services Agency letter dated January 24, 2001, are shown in bold [**bold**] typeface:

1. Use a portable or low-clearance auger rig to drill up to five (5) bore holes, SB-7 for construction of a monitoring well (MW-1), SB-8 and SB-9 for two (2) piezometers, and SB-10 and SB-11 for additional soil sampling (see Figure 2).
2. Drill additional bore holes SB-10 and SB-11 generally north of SB-4/SS-2, for the purpose of collecting soil samples only.
3. Stop at 5, 10, 15, and 20 feet to collect soil samples driven into the split spoon sampler loaded with brass sleeves.
4. Complete bore hole SB-7 as a 2-inch diameter monitoring well (MW-1), screened from approximately 20 to 26 feet. Complete bore holes SB-8 and SB-9 as 2-inch diameter wells, screened from approximately 20 to 26 feet, for primary use as piezometers (MWP-2 and MWP-3). Monitoring well and piezometer construction schematics are illustrated in Attachment B.



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

5. Test three (3) vadose-zone soil samples (SB-7, 8, and 9-15 feet bgs) and three (3) capillary fringe soil samples (SB-7, 8, and 9-20 feet bgs) for PCE concentration in accordance with U.S. EPA Method 8010. Additionally, test four (4) vadose-zone soil samples (SB-10-10, SB-11-10, SB-10-15, and SB-11-15) and two (2) capillary fringe soil samples (SB-10-20 and SB-11-20) for PCE concentration in accordance with U.S. EPA Method 8010. **Additionally, test 10-foot depth soil samples for gasoline, BTEX, and MtBE, and TRPH, as directed by the county.** Testing will be performed by a California DHS, ELAP-participating laboratory certified to perform U.S. EPA Methods 601/8010, **5030/8015M, 8020, and 3550/8015M.**
6. Perform a Well Location and Elevation Survey by a Licensed Surveyor.
7. Develop and later purge monitoring well MW-1 and piezometers MWP-2 and MWP-3. Place soil cuttings, well development water and purge water in 55-gallon drums, for proper disposal pending receipt of laboratory analytical results.
8. Test the three (3) ground water samples for PCE, **gasoline, BTEX, MtBE, and TRPH** in accordance with U.S. EPA Method 601/8010, **U.S. EPA Method 5030/8015M, U.S. EPA Method 8020, and U.S. EPA Method 418.1.** Piezometers MWP-2 and MWP-3 may subsequently be used for water elevation measurements and **may also subsequently be used for sampling if initial PCE concentrations are above the MCL (5 ppb).**
9. Prepare a concise letter report with laboratory analytical results, Sample Chain-of-Custody, sample location map, well location and elevation survey plat, ground water surface elevation map, well construction and exploratory soil boring logs signed by the Registered Geologist.

DRILLING AND SOIL SAMPLING

Drilling and soil sampling were conducted on January 29 and 30, 2001, after a Site Safety Meeting to discuss job hazards, protective clothing, and emergency procedures. Indoor bore hole locations SB-7, SB-8, SB-9, SB-10, and SB-11 were core-sawed on January 24, 2001, before drilling. Drilling was performed by HEW Drilling Company with a Diedrich D-25 limited-access rig.

Soil samples were collected at 5-foot intervals from each bore hole. The laboratory was directed to test soil samples collected from approximately 10 to 11 feet, 15 to 16 feet, and 20 to 20.5 feet bgs. All soil samples were retained for potential laboratory analysis.

Bore hole SB-8 refused at 12 feet bgs, near the top of a very hard, strong brown (7.5 YR 4/6), gravely clay. The other bore holes (SB-7, SB-10, and SB-11) were drilled to a total depth of 25.5 to 26 feet bgs. Soil cuttings from the drilling were placed in four 55-gallon drums, labeled with the Property address and accumulation date, and left inside the building.

Soil Sample Handling. Soil samples in the brass sleeves were covered with a Teflon™ sheet on both ends and capped with plastic end caps. Discrete soil samples were labeled in the field with a sequential alphanumeric, such as SB7-6, SB7-10.5, SB7-16, and SB7-20.5. Soil samples were kept cool in an ice chest with water ice or in a refrigerator, and on January 31, 2001, were transported by the sampler to MacCampbell Analytical Labs, Inc., a California EPA-certified test laboratory in Concord, California (Cal/EPA-ELAP #1644), accompanied with a Sample Chain-of-Custody.



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

Instructions for Laboratory Analysis of Soil Samples. MacCampbell Analytical Labs, Inc., was instructed to analyze nine soil samples from borings SB-7, SB-10, and SB-11, collected at 10 to 11 feet bgs, 15 to 16 feet bgs, and 20 to 20.5 feet bgs, as discrete samples, for concentrations of volatile halocarbons (HVOCs, which include PCE). The laboratory was instructed to test four soil samples from borings SB-7, SB-8, SB-10, and SB-11, collected at 10 to 11 feet bgs, as discrete samples, for concentrations of Extractable Hydrocarbons as Motor Oil in accordance with U.S. EPA Method 3550/8015M; gasoline in accordance with U.S. EPA Method 5030/8015M; benzene, toluene, ethyl benzene, and xylenes (BTEX) and methyl tertiary-butyl ether (MtBE) in accordance with U.S. EPA Method 8020. Other soil samples collected from the bore holes were retained but held by the laboratory without testing.

WELL CONSTRUCTION

Bore holes SB-7 (MW-1), SB-10 (MWP-2), and SB-11 (MWP-3) were completed as 2-inch diameter monitoring wells with bentonite plugs, cement sanitary seals, locking caps and traffic rated vaults. Well construction conformed to Alameda County Public Works Agency, Water Resources Section, standards and conditions for well construction.

The sand filter packs consisted of Lonestar #2/12 clean washed sand, and the well screens consisted of approximately 6 to 8 feet of 0.010-inch machine slot, Schedule 40, Polyvinyl chloride (PVC). This choice of sand filter pack and slot size was consistent with the sandy clay, sandy clayey gravel, and sandy gravel with trace clay observed in the water-bearing soil.

The total depth and screened interval were selected based upon observed field conditions. The total depth of each bore hole drilled for MW-1, MWP-2, and MWP-3 was 25.5 feet or 26 feet bgs. First ground water was encountered at approximately 19 to 20 feet bgs. Each bore hole was terminated in a yellowish-brown (10 YR 5/4) sandy highly plastic clay soil observed at 23.5 to 26 feet bgs. The screened interval was selected to span the saturated zone of sandy clay, sandy clayey gravel, and sandy gravel with trace clay, logged from between 18 feet and 23.5 feet bgs.

Well casing sections were joined by threaded couplings. A 1-foot bentonite plug, consisting of 3/8-inch diameter hydrated bentonite pellets, was placed on the top of the filter pack in each well and hydrated with clean water. Sanitary seals consisted of neat cement grout, placed in the annular space above the sand filter pack and bentonite plug in each well. Well construction is illustrated schematically on Well Construction Diagrams (see Appendix B).

Well Development. Well development was performed on February 18, 2001, several days after well installation, to remove sediment inside the casings. Well development was performed by alternate surging with a surge block and pumping. Pumping and surging were continued until the well water was relatively clear. Well development and purge water was placed in two 55-gallon drums, labeled with the Property address and accumulation date, and left inside the building.

Well Elevation and Location Survey. Locations and elevations of each casing head, including MW-1, MWP-2, and MWP-3, were surveyed by Mr. John Koch, a California licensed surveyor, on February 25, 2001. The survey of vertical location was relative to the city of Oakland's monument, on Fruitvale Avenue at the corner of 17th Street (north). The survey of well head elevation was relative to mean sea level datum (1929 National Geodetic Vertical Datum).



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

GROUND WATER MONITORING ON FEBRUARY 20, 2001

Ground water monitoring was performed on February 20, 2001. Depth to ground water was measured relative to the tops of the well casings (TOC), to the nearest hundredth of a foot, using an Environmental Instruments water level meter.

Depths to the ground water surface from tops of well casing were 16.69 feet in well MW-1, 16.89 feet in well MWP-2, and 16.75 feet in well MWP-3, compared to the initial measured depth to ground water of 19.2 to 19.8 feet. The potentiometric surface is illustrated in Figure 3. As shown the ground water surface sloped down toward the west on February 20, 2001.

Prior to sampling, monitoring wells were purged with a submersible pump, until temperature, pH, and electrical conductivity had stabilized. At the end of purging, before sampling, the temperature, pH, and electrical conductivity were observed to stabilize at 66 degrees Fahrenheit (°F), 6.4 to 6.5 pH, and 405 to 422 μ mhos/cm, on February 20, 2001. Dissolved oxygen was measured to be approximately 8.4 mg/L in the three wells. Turbidity was less than 10 NTU in wells MW-1 and MWP-2 and 94 NTU in MWP-3. Refer to Attachment A, Ground Water Monitoring Logs.

Water surface elevation recovered to 0.01 foot of the original measured depths within 30 minutes. All wells then were hand bailed using disposable polyethylene bailers and twisted polypropylene line to collect ground water samples. Each ground water sample was poured carefully into triplicate 40-ml VOAs with 1:1 hydrochloric acid (HCl) preservative. The triplicate VOAs were labeled immediately after collection and then placed in an ice chest with blue ice and water ice. Ground water samples MW-1 and MWP-2 were observed and noted to be clear, and sample MWP-2 was noted to be slightly cloudy with suspended fine sediment. Floating product, sheen, and malodors were not present in any of the ground water samples.

Ground Water Sample Handling. Ground water samples were delivered to a State of California certified laboratory, ELAP #1644, on February 20, 2001. Prior to delivery, the samples remained in the custody of Environmental Service, transported in an ice chest with blue ice and water ice. Sample Chain-of-Custody procedures were used throughout to document sample condition and transfer.

Instructions for Laboratory Analysis of Ground Water Samples. MacCampbell Analytical Labs, Inc., was instructed to test the three ground water samples, MW-1, MWP-2, and MWP-3, for HVOCs, gasoline, BTEX and MtBE, and Total Recoverable Petroleum Hydrocarbons as Oil & Grease (TRPH). Analytical methods were U.S. EPA Method 8010 for HVOCs, U.S. EPA Method 5030/8015M for gasoline, U.S. EPA Method 8020 for BTEX and MtBE, and U.S. EPA Method 418.1, Scanning Infrared Spectrometry with Silica Gel Clean Up.

RESULTS

Tables 1 and 2 present the results of laboratory analyses of soil samples and ground water samples. Concentrations of PCE and other HVOCs were reported as not detected in the nine soil samples so tested. Concentrations of gasoline, BTEX, and MtBE were reported as not detected in the four soil samples so tested. Concentrations of extractable hydrocarbons (C18⁺) were reported as not detected in the four soil samples so tested. Detection limits reported by the



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

laboratory for soil samples were 25 µg/kg as PCE, 1 mg/kg as gasoline, 0.005 mg/kg as BTEX, 0.05 mg/kg as MtBE, and 5 mg/kg as extractable hydrocarbons (C18⁺).

Ground water samples were reported to have detectable concentrations of PCE, 140 micrograms per liter (µg/L) in samples MWP-2 and MWP-3 and 160 µg/L in sample MW-1. One microgram per liter is approximately equivalent to one part per billion. Ground water samples were reported to have less than detectable concentrations of BTEX, MtBE, and Total Recoverable Petroleum Hydrocarbons (TRPH). Concentrations reported as gasoline are attributed to "one or more isolated peak(s)," as noted by the laboratory in a footnote. Detection limits reported by the laboratory for ground water samples were 50 µg/L as gasoline, 0.5 µg/L as BTEX, 5.0 µg/L as MtBE, and 1,000 µg/L (1 mg/L) as TRPH.

INTERPRETATION

Interpretation of available analytical test results for on-site soil samples collected from bore hole SB-5 supports the conclusion that a PCE source was on the Property near SB-5. PCE concentrations in soil, where detected, are in the low part-per-billion range, up to 43 µg/kg (ppb) in the soil sample collected from bore hole SB-5 at 20.5 feet bgs. PCE was not detected in soil samples at any depth in the adjacent bore holes including SB-3, SB-7, SB-8, SB-10, and SB-11. There are no detectable concentrations of decomposition products (*e.g.*, TCE, *cis*-1,2-DCE). The PCE source, therefore, appears to be aged and limited in lateral extent to the immediate locale around SS-2, SB-4 and SB-5. Vertically, PCE appears to have extended from near-surface to ground water at one location on the Property, namely location SB-5.

The current concentrations of PCE in soil are so low as not to warrant source removal. Concentrations of PCE in soil are less than the U.S. EPA, Region 9, Preliminary Remedial Goals (PRGs) for perchloroethylene, which are 5,700 µg/kg (ppb) for residential land and 19,000 µg/kg (ppb) for industrial land.

The direction of slope of the ground water surface may vary, in view of the southerly direction reported for 1450 Fruitvale Avenue in October 2000 and westerly direction measured at the Property (1723 Fruitvale Avenue) in February 2001. If so, PCE concentrations in ground water might be expected to be similar near the origin of the PCE contamination. In fact, concentrations of PCE in the ground water samples collected from the three on-site wells in February 2001 were nearly uniform at 140 to 160 µg/L.

The ground water-bearing zone on the Property has been characterized as confined, approximately 6 feet thick, consisting of sandy gravel, with or without clay, between approximately 18 and 24 feet bgs. The water-bearing zone is confined between highly plastic clay or sandy clay. The top of a confining clay aquitard has been logged in all borings completed to 25 feet bgs or deeper, namely, in SB-6, SB-7, SB-10, and SB-11. Figures 4 and 5 illustrate geologic cross-sections. In view of the presence of stiff clay beginning at approximately 24 or 25 feet bgs, it is not expected that PCE released near SB-5 would have affected deeper ground water below the aquitard.



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

The current concentrations of PCE in ground water are relatively low and vertically confined, such that remedial action is not warranted. The U.S. EPA's Maximum Contaminant Level for Drinking Water is 5 µg/L as PCE, but the shallow ground water that has been affected is not a potential drinking water source.

CONCLUSION AND RECOMMENDATION

No source of PCE in soil remains that could warrant a remedial action. The shallow ground water impact zone is vertically confined within the interval from 18 to 24 feet bgs. The radius of impact relative to PCE in ground water, at a concentration of 5 µg/L or above, is tentatively estimated to be 120 feet outward from SB-5. The latter is a tentative estimate which may be refined based upon subsequent monitoring of the existing wells.

The recommendation presented below is intended for consideration by and discussion with the Property Owner and the Alameda County Health Care Services Agency. Further sampling and testing will not be performed until required by Alameda County and authorized by the Property Owner.

Recommendation. PCE in ground water should be monitored in the directly downgradient well. It is proposed the shallow ground water surface elevation and direction of slope be measured bi-weekly until a pattern is established. Ground water will be sampled on one additional monitoring event when the ground water surface is sloping directly toward one of the wells. Ground water surface elevations, directions of slope, and laboratory analytical data for one (1) ground water sample collected from the directly downgradient well will be reported in a concise letter report due no later than May 1, 2001.

Deviations/Extras. Well/piezometer MWP-2 was shifted to the location of bore hole SB-10, and well/piezometer MWP-3 was shifted to the location of SB-11, in contrast with the locations shown in the Proposed Sampling Plan. This shift was necessitated owing to auger refusal at SB-8 at approximately 12 feet bgs. Owing to auger refusal and down time, SB-9 could not be drilled within the two day drilling period.

Soil samples collected at 10 to 11 feet bgs were additionally analyzed for gasoline, BTEX and MtBE, and extractable hydrocarbons (C18⁺). Ground water samples were additionally analyzed for gasoline, BTEX and MtBE, and TRPH. Additional laboratory analyses were required by the Alameda County Health Care Services Agency in its letter dated January 24, 2001.

Limitations. This work is the work of a California Registered Environmental Assessor and California Registered Geologist. The results expressed herein constitute laboratory and technical analyses. Interpretations expressed herein constitute opinions based upon the results. Results apply only to the soil and ground water samples collected and tested as reported herein. Samples that could be collected from other locations on the Property may have concentrations different from the concentrations reported herein.



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

A signed copy of this report should be forwarded by the Property Owner to Alameda County Health Care Services Agency, to the specialist named below:

Mr. Don Hwang
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway Suite 250
Alameda, CA 94502-6577

TEL (510) 567-6746 FAX (510) 337-9335

Thank you for this opportunity to serve Davis Realty Co., Inc. If you have any questions or require additional information, please contact me directly.

Sincerely,

Marc Papineau
California Registered Environmental Assessor 791
Project Manager

R. Mark Armstrong
California Registered Geologist #6134
Project Reviewer

enclosures: Table 1 (page 9), Analytical Results for Soil Samples
Table 2 (page 10), Analytical Results for Ground Water Samples
Figure 1 (page 11), Topographic Map
Figure 2 (page 12), Sample Location Map
Figure 3 (page 13), Potentiometric Surface Map
Figure 4 (page 14), Geologic Cross-Section
Figure 5 (page 15), Geologic Cross-Section

Attachment A, Ground Water Monitoring Logs
Attachment B, Exploratory Soil Boring Logs and Well Construction Diagrams
Attachment C, Signed Laboratory Reports and Sample Chains-of-Custody



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

TABLE 1
ANALYTICAL RESULTS FOR SOIL SAMPLES
Date of Last Revision: 3/5/2001 All Results in Parts per Million (mg/kg)^a

Soil Sample Identification	Sample Depth Interval (feet)	Volatile Halocarbons ^b PCE	Specified Petroleum Hydrocarbons ^c			
			Gasoline	BTEX ^d	MtBE ^d	Total Petroleum Hydrocarbons
January 2001						
SB7-10.5	10 to 10.5	ND	ND	ND	ND	ND ^{MO}
SB7-16	15.5 to 16	ND	nt	nt	nt	nt
SB7-20.5	10 to 20.5	ND	nt	nt	nt	nt
SB8-11	10.5 to 11	ND	ND	ND	ND	ND ^{MO}
SB10-10.5	10 to 10.5	ND	nt	ND	ND	ND ^{MO}
SB10-16	15.5 to 16	ND	nt	nt	nt	nt
SB10-20.5	20 to 20.5	ND	nt	nt	nt	nt
SB11-10.5	10 to 10.5	ND	ND	ND	ND	ND ^{MO}
SB11-15.5	15 to 15.5	ND	nt	nt	nt	nt
SB11-20.5	20 to 20.5	ND	nt	nt	nt	nt
November 2000						
SB5-11.5	11 to 11.5	0.0098				
SB5-16.5	16 to 16.5	0.019	ND	ND	nt	ND ^{DL, HO}
SB5-20.5	20 to 20.5	0.043	ND	ND	nt	ND ^{DL, HO}
December 1999						
[S]B-1@5&10	5 & 10	ND(<0.010)	ND	ND	ND	ND ^e (<10)
[S]B-2@5&10	5 & 10	ND(<0.010)	ND	ND	ND	ND ^e (<10)
[S]B-3@5&10	5 & 10	ND(<0.010)	nt	nt	nt	ND ^e (<10)
[S]B-4@5&10	5 & 10	0.024	nt	nt	nt	68 ^e
Detection Limits		0.025	1.0	0.005	0.05	1/5/13 ^e

NOTES:

- PCE Tetrachloroethene, also perchloroethylene or PCE
- nt Not tested for the stated parameter
- ND None detected at or above the Detection Limits reported by the laboratory either in the bottom row of Table 1 or in parentheses "()" if different.
 - a Laboratory results for Volatile Halocarbons (HVOCs), and also for gasoline, diesel and Total Petroleum Hydrocarbons are all stated in parts per million for consistency.
 - b HVOCs analyzed in accordance with U.S. EPA Method 8010.
 - c Gasoline was analyzed in accordance with U.S. EPA Method 5030/8015M. Other specified petroleum hydrocarbons - diesel (DL), and motor oil (MO), or hydraulic oil (HO) - were analyzed in accordance with U.S. EPA Method 3550/8015M, unless noted specifically otherwise. Detection limits are 1 ppm (DL), 5 ppm (MO), and 13 ppm (HO).
 - d Benzene, toluene, ethyl benzene, and xylenes (BTEX), and methyl tertiary butyl ether (MtBE) were analyzed in accordance with U.S. EPA Method 8020.
 - e Tested in accordance with Standard Method 5520C&F, not U.S. EPA Method 8015M.

SOURCE: McCampbell Analytical Inc., (Cal/EPA ELAP #1644), February 7, 2001;
Entech Analytical Labs, Inc. (Cal/EPA ELAP #2346), November 20, 2000;
McCampbell Analytical Inc., (Cal/EPA ELAP #1644), December 17, 1999



Papineau, R.E.A. 791

1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.02

TABLE 2
ANALYTICAL RESULTS FOR GROUND WATER SAMPLES
Date of Last Revision: 3/5/2001 All Results in Parts per Billion ($\mu\text{g/L}$)^a

Sample or Well Number	Date of Sample Collection	Ground Water		Volatile Halocarbons ^b PCE	Specified Petroleum Hydrocarbons			
		Depth (Feet)	Elevation (Feet msl)		Gasoline ^c	BTEX ^d	MtBE ^d	Total Petroleum Hydrocarbons ^e
MW-1	2/20/2001	16.69	43.25	160	68 ^g	ND	ND	ND
MWP-2	2/20/2001	16.89	43.15	140	62 ^g	ND	ND	ND
MWP-3	2/20/2001	16.75	43.24	140	64 ^g	ND	ND	ND
SB6-GW	11/14/2000	20	40	290	65 ^g	ND	nt	ND (<74) ^{f,DL} ND (<368) ^{f,HO}
SB1-GW-1	12/10/1999	23.5	35	42	270 ^h	0.51(X)	ND	2,100
Detection Limits				2.5	50	0.5	5.0	1,000 ^e

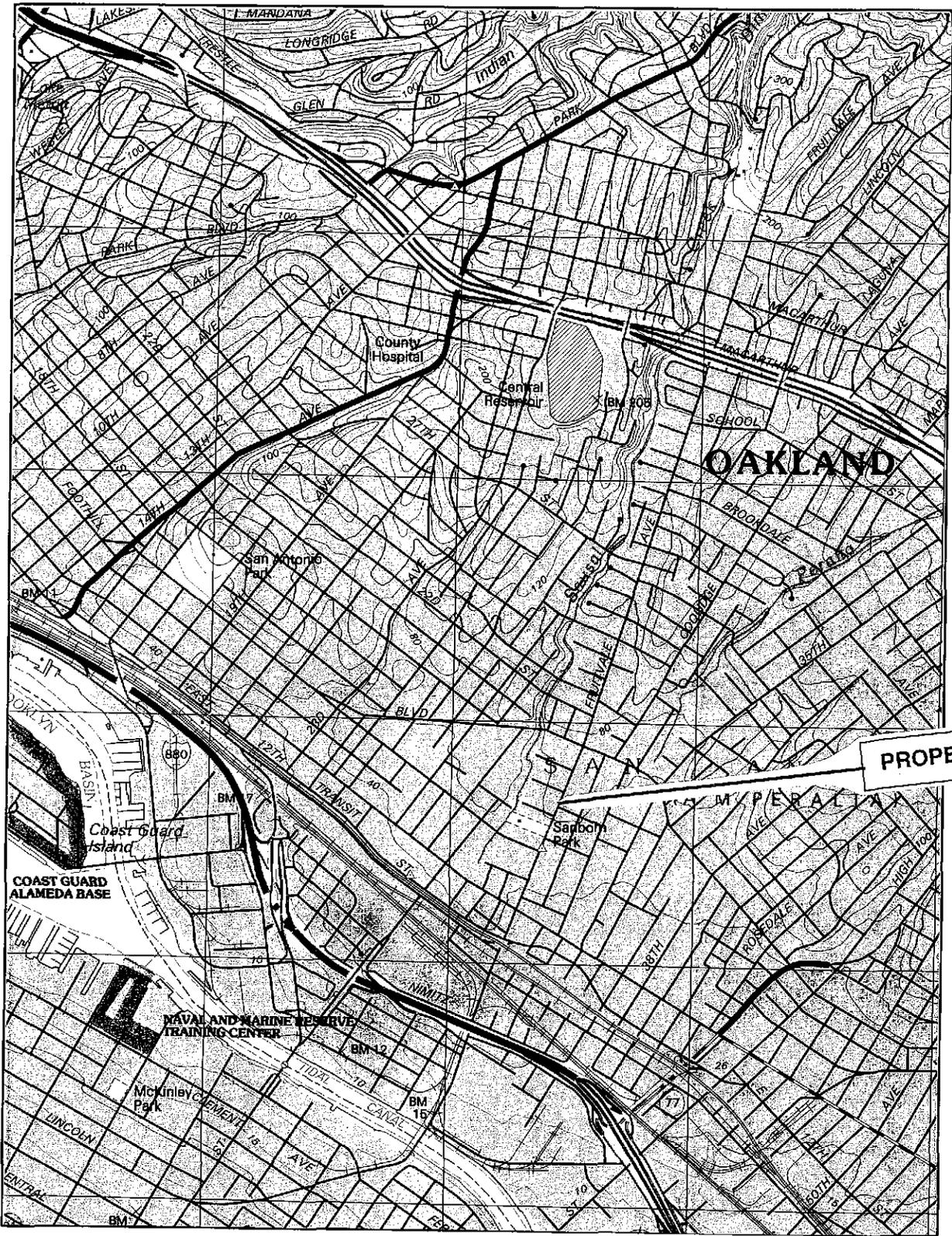
NOTES:

PCE Tetrachloroethene, also perchloroethylene or PCE
nt Not tested for the stated parameter or not available
ND None detected at or above the Detection Limits reported by the laboratory either in the bottom row of Table 1 or in parentheses "()" if different.

^a Laboratory results for Volatile Halocarbons (HVOCs), and also for gasoline; benzene, toluene, ethyl benzene, and xylenes (BTEX); methyl tertiary butyl ether (MtBE); and Total Petroleum Hydrocarbons are all stated in parts per billion ($\mu\text{g/L}$) for consistency.

^b HVOCs were analyzed in accordance with U.S. EPA Method 601/8010.
^c Gasoline was analyzed in accordance with U.S. EPA method 5030/8015M.
^d Benzene, toluene, ethyl benzene, and xylenes (BTEX), and methyl tertiary butyl ether (MtBE) were analyzed in accordance with U.S. EPA Method 8020.
^e Total petroleum hydrocarbons were analyzed as Total Recoverable Petroleum Hydrocarbons in accordance with U.S. EPA Method 418.1, unless noted specifically otherwise.
^f Tested in accordance with U.S. EPA Method 3550/8015M as diesel (DL) and also as hydraulic oil (HO).
^g Laboratory flagged the result and/or noted "one or more individual peaks."
^h Laboratory flagged result and noted "no recognizable pattern."

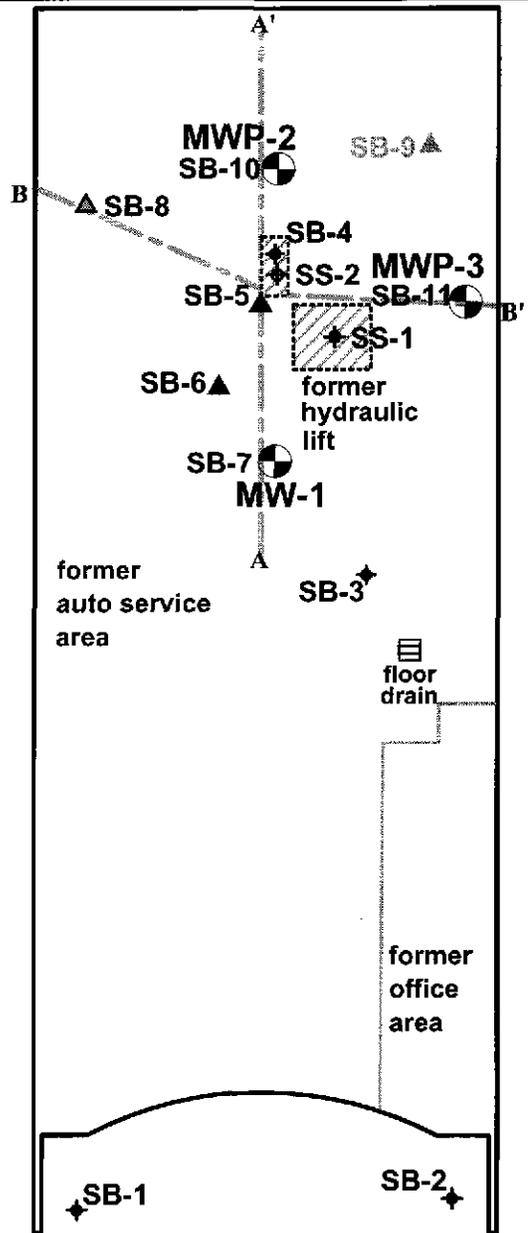
SOURCE: McCampbell Analytical Inc, (Cal/EPA ELAP # 1644), February 26, 2001;
Entech Analytical Labs, Inc. (Cal/EPA ELAP #2346), November 20, 2000;
McCampbell Analytical Inc., (Cal/EPA ELAP #1644), December 17, 1999



	<p>environmental service by Papineau, R.E.A. 791</p>	 <p>N</p> <p>1:24,000</p>	<p>Figure 1 Topographic Map 1723 Fruitvale Avenue Oakland, California</p> <p>U. S. Geological Survey, 7.5-Minute Series (Topographic), Oakland East, 1997</p>
---	--	---	--

KEY

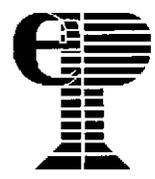
- ▲ Soil boring drilled 1-29-2001. SB-9 was not drilled.
- ⊗ Monitoring well (MW-1) or piezometer (MWP-2 and MWP-3)
- ▲ Soil or ground water sample, 11-14-2000
- ◆ Soil sample, 12-10-1999
- ◆ Soil sample, 6-30-2000
- ▨ Excavation area, 6-30-2000
- Cross-section line (see Figures 4,5)
- ↓ Ground water surface slope at 1450 Fruitvale Avenue



1450 Fruitvale Avenue
 ↓
 October 16, 2000
 AEI Consultants

face of curb

FRUITVALE AVENUE

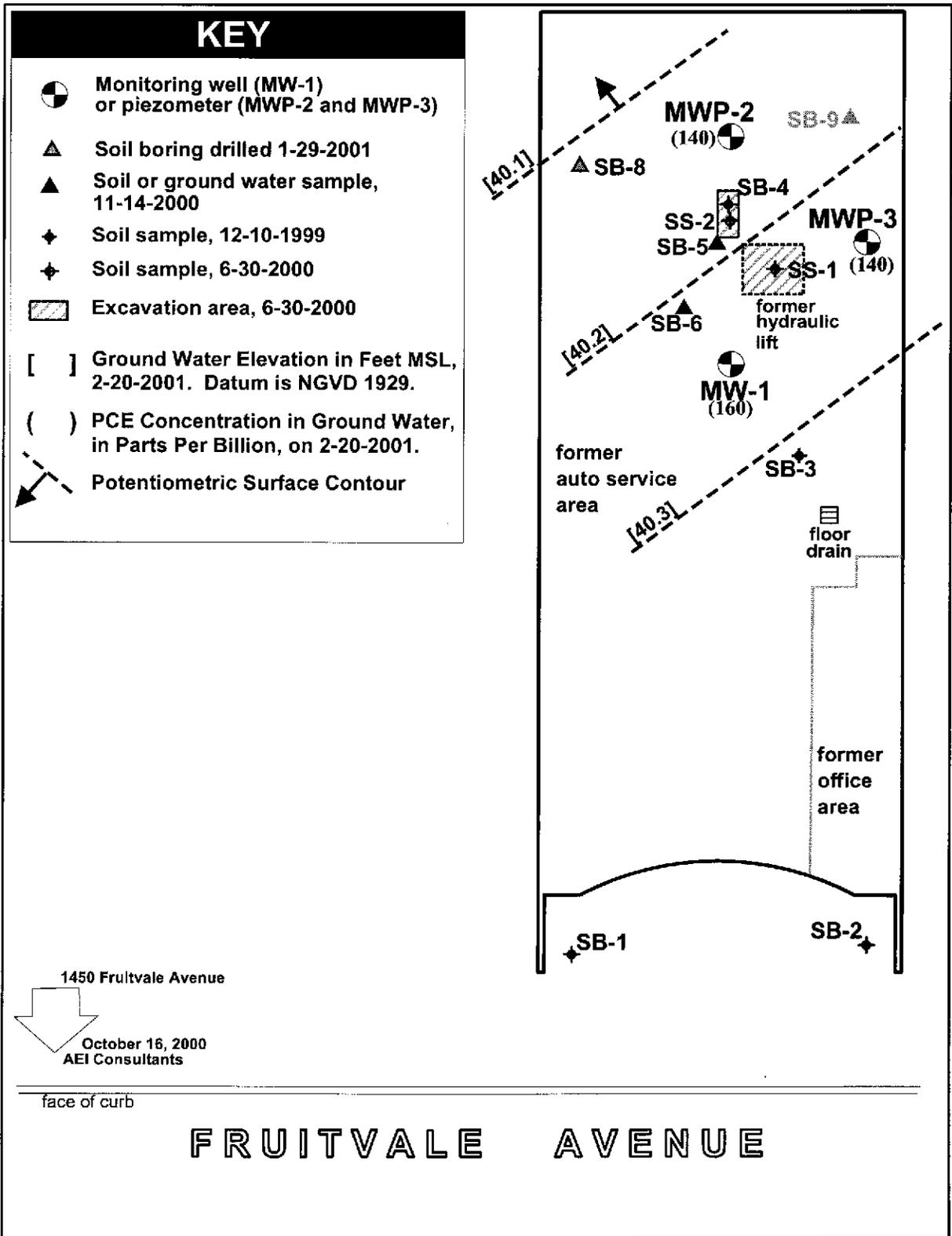


environmental service
 by Papineau, R.E.A. 791



5.0 ft
 10.0 ft

Figure 2
 Sample Location Map
 1723 Fruitvale Avenue
 Oakland, California





environmental service
by Papineau, R.E.A. 791



5.0 ft



<10.0 ft

Figure 3
Potentiometric Surface Map
for February 20, 2001
1723 Fruitvale Avenue
Oakland, California



Papineau, R.E.A. 791
1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.01

ATTACHMENT A

GROUND WATER MONITORING LOGS

Ground Water Monitoring Log
Well and Sampling Information



environmental service
 by Papineau, R.E.A. 791

Site Location 1723 Fruitvale Ave. Oakland, CA
Client Davis Realty Co.
Well Number MW-1
Project No. 2000-033.02

Date 2-20-2001 **Time** 1249 (PST)
Weather Clearing after rain
Sampler M. Papineau

WELL INFORMATION

Casing Type	PVC	Well Condition	
Casing Diameter	2-inch	Sediment	Suspended
Water Level (Pre-Purge)	16.69 ft	Casing	O.K.
Total Depth	25.5 ft	Cover	Present
Measuring Instrument	Env. Instr	Cap	Present
Datum	TOC	Lock	Present, locked

PURGING INFORMATION

Method	Submersible pump	Cleaning Procedure	
Bailer or Tubing	Discharge tubing	The pump, electrical wire, and discharge tubing were washed with TSP and water and rinsed in a 15-gallon bucket. MW-1 was purged last, after MWP-2 and MWP-3.	
Material		Pump Rate	1 gpm
Polyethylene		Elapsed Time	6 minutes
PVC		Volume Pumped	6 gallons
Nylon Braided PVC	X	Number of Casing	
Rubber		Volumes Purged	4
Stainless		Start Time	1330
Rope	N/A	End Time	1336
Nylon Mono			
Nylon Twist			

TIME SERIES DATA

Measurement	1	2	3	4	5
Number of Casing Volumes	1	2	3	4	
Water Temp. (°C)	17.8	18.7	18.9	19.0	
pH	6.49	6.46	6.49	6.46	
Electrical Conductivity (µmhos/cm)	405	405	405	405	
Dissolved Oxygen (mg/L)	8.44	8.39	8.39	8.37	
Turbidity (NTUs)	660	238	3	2	

SAMPLING INFORMATION

Method	Hand Bail	Rope	
Material (<u>X</u> Bailer ___ Tubing)		Nylon Mono	
Polyethylene	X	Polypropylene Braided	X
Tygon		Other	
Teflon		Sample Time	1412
Stainless		pH	6.46
Cleaning Procedure	Clean dedicated bailer	Temp. °F	66
		Turbidity	Clear

Ground Water Monitoring Log
Well and Sampling Information



environmental service

by Papineau, R.E.A. 791

Site Location 1723 Fruitvale Ave. Oakland, CA
Client Davis Realty Co.
Well Number MWP-2
Project No. 2000-33.02

Date 2-20-2001 **Time** 1245 (PST)
Weather Clearing after rain
Sampler M. Papineau

WELL INFORMATION

Casing Type	PVC	Well Condition	
Casing Diameter	2-inch	Sediment	Suspended
Water Level (Pre-Purge)	16.89 ft	Casing	O.K.
Total Depth	25.5 ft	Cover	Present
Measuring Instrument	Env. Instr	Cap	Present
Datum	TOC	Lock	Present, Locked

PURGING INFORMATION

Method	Submersible pump	Cleaning Procedure	
Bailer or Tubing	Discharge tubing	The pump, electrical wire, and discharge tubing were washed with TSP and water and rinsed in a 15-gallon bucket. MWP-2 was purged first.	
Material		Pump Rate	1 gpm
Polyethylene		Elapsed Time	6 minutes
PVC		Volume Pumped	6 gallons
Nylon Braided PVC	X	Number of Casing	
Rubber	X	Volumes Purged	4
Stainless		Start Time	1304
Rope	N/A	End Time	1310
Nylon Mono			
Nylon Twist			

TIME SERIES DATA

Measurement	1	2	3	4	5
Number of Casing Volumes	2	3	3.5	4	
Water Temp. (°C)	18.7	18.8	19.0	19.0	
pH	6.23	6.47	6.45	6.45	
Electrical Conductivity (µmhos/cm)	421	411	411	409	
Dissolved Oxygen (mg/L)	na	8.30	8.22	8.28	
Turbidity (NTUs)	200	161	7	2	

SAMPLING INFORMATION

Method	Hand Bail	Rope	
Material (<u>X</u> Bailer <u> </u> Tubing)		Nylon Mono	
Polyethylene	X	Polypropylene Braided	X
Tygon		Other	
Teflon		Sample Time	1348
Stainless		pH	6.45
Cleaning Procedure	Clean dedicated bailer	Temp. °F	66
		Turbidity	Clear

Ground Water Monitoring Log
Well and Sampling Information



environmental service

by Papineau, R.E.A. 791

Site Location 1723 Fruitvale Ave. Oakland, CA
Client Davis Realty Co.
Well Number MWP-3
Project No. 2000-033.02

Date 2-20-2001 **Time** 1247 (PST)
Weather Clearing after rain
Sampler M. Papineau

WELL INFORMATION

Casing Type	PVC	Well Condition	
Casing Diameter	2-inch	Sediment	Suspended
Water Level (Pre-Purge)	16.75 ft	Casing	O.K.
Total Depth	26 ft	Cover	Present
Measuring Instrument	Env. Instr	Cap	Present
Datum	TOC	Lock	Present, Locked

PURGING INFORMATION

Method Submersible pump
Bailer or Tubing Discharge tubing
Material
 Polyethylene
 PVC
 Nylon Braided PVC X
 Rubber
 Stainless
Rope N/A
 Nylon Mono
 Nylon Twist

Cleaning Procedure
 The pump, electrical wire, and discharge tubing were washed with TSP and water and rinsed in a 15-gallon bucket.
 MWP-3 was purged second, after MWP-2.
Pump Rate 1 gpm
Elapsed Time 6 minutes
Volume Pumped 6 gallons
Number of Casing Volumes Purged 4
Start Time 1316 **End Time** 1322

TIME SERIES DATA

Measurement	1	2	3	4	5
Number of Casing Volumes	0	2	3	4	
Water Temp. (°C)	18.7	18.9	19.0	19.0	
pH	6.53	6.50	6.53	6.49	
Electrical Conductivity (µmhos/cm)	435	424	419	422	
Dissolved Oxygen (mg/L)	8.47	8.41	8.38	8.40	
Turbidity (NTUs)	321	na	na	94	

SAMPLING INFORMATION

Method Hand Bail
Material (Bailer Tubing)
 Polyethylene X
 Tygon
 Teflon
 Stainless
Cleaning Procedure Clean dedicated bailer

Rope
 Nylon Mono
 Polypropylene Braided X
 Other
Sample Time 1403
pH 6.49
Temp. °F 66
Turbidity Nearly clear



Papineau, R.E.A. 791

**1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.01**

ATTACHMENT B

EXPLORATORY SOIL BORING LOGS

AND

WELL CONSTRUCTION DIAGRAMS

DRILL RIG: Diedrich D-25		SURFACE ELEVATION: 60 feet		SAMPLE BLOWS/FT	PID READING (PPM)	DATE DRILLED: 11-14-2000 LOGGED BY: MP REVIEWED BY: RMA		WELL CONSTRUCTION
BORE HOLE DIAMETER (INCHES): 7								
SOIL DESCRIPTION & CLASSIFICATION								
DEPTH (FEET)				SOIL TYPE	REMARKS			
0	6 inch thick concrete floor slab							
	Dark grayish brown (10 YR 4/2) SILT slightly moist			ML				
5	Very dark grayish brown (10 YR 3/2) clayey sandy SILT, stiff, slightly moist							
	? ↓ increasing clay							
10	Yellowish brown (10 YR 4/4) silty sandy CLAY with trace gravel (poorly-graded), stiff, slightly moist			SC	20		SB5-11.5 no odor	
					17			
15	Yellowish brown (10 YR 5/3) silty CLAY highly plastic, stiff, moist			CH	25		SB5-16.5 no odor	
	? ↓							
20	Dark yellowish brown (10 YR 4/3.5) clayey, sandy GRAVEL (well-graded, sub-angular), very dense, very moist Split spoon sampler refused at 21 feet.			GC	86		SB5-20.5 no odor	
25								

 <p>environmental service by Papineau, R.E.A. 791</p>	EXPLORATORY SOIL BORING LOG PROJECT LOCATION: 1723 Fruitvale Avenue Oakland, CA		BORING No. SB-5
	PROJECT No. 2000-033.01	DATE 11-27-2000	

DRILL RIG: Diedrich D-25		SURFACE ELEVATION: 60 feet		DATE DRILLED: 11-14-2000		TEMPORARY SCREEN
BORE HOLE DIAMETER (INCHES): 7				LOGGED BY: MP		
REVIEWED BY: RMA						
SOIL DESCRIPTION & CLASSIFICATION						
DEPTH (FEET)	SOIL TYPE	SAMPLE	BLOWS/FT	PID READING (PPM)	REMARKS	
0	6 inch thick concrete floor slab					
	Dark grayish brown (10 YR 4/2) SILT slightly moist					
5	Very dark grayish brown (10 YR 3/2) clayey sandy SILT, medium plasticity, very stiff, slightly moist	ML	33		SB6-6.5 no odor	
	?					
10	Dk. yellowish brn (10YR4/4) gravelly fine SAND well-graded, medium dense, slightly moist	SW	18			
	Yellowish brown (10 YR 4.5/4) silty CLAY, highly plastic, stiff, moist	CH	18		SB6-11.5 no odor	
15	Dark yellowish brown (10 YR 4/4) silty sandy CLAY, highly plastic, stiff, moist	CH	18		SB6-16.5 no odor	
	?					
20	Yellowish brown (10 YR 5/4) clayey, sandy GRAVEL (well-graded), very dense, very moist	GC				
	?		59		SB6-21.5 no odor	
	Yellowish brown (10 YR 5/4) clayey SAND with trace gravel (well-graded), dense, wet	SP				
25	Yellowish brown (10 YR 5/4) sandy CLAY, no gravel, hard, moist	SC	33		SB6-25.5 no odor	



environmental service
by Papineau, R.E.A. 791

EXPLORATORY SOIL BORING LOG
PROJECT LOCATION:

1723 Fruitvale Avenue Oakland, CA

BORING No.

SB-6

PROJECT No.
2000-033.01

DATE
11-27-2000

DRILL RIG: Diedrich D-25		SURFACE ELEVATION: 60 feet		SAMPLE BLOWS/FT	PID READING (PPM)	DATE DRILLED: 1-30-2001 LOGGED BY: MP REVIEWED BY: RMA		WELL CONSTRUCTION
BORE HOLE DIAMETER (INCHES): 7		SOIL DESCRIPTION & CLASSIFICATION				DEPTH (FEET)	SOIL TYPE	
0	6 inch thick concrete floor slab, pre-cored						Christy box flush	
5	Very dark grayish brown (10 YR 3/2) clayey sandy SILT, hard, slightly moist	ML		46		SB7-6 no odor, no staining	Blank casing Sch 40 PVC 2-inch diameter	
10	Brown (10 YR 4/3) sandy gravelly CLAY, slightly moist	SC		25		SB7-10.5 no odor, no staining		
15	Yellowish brown (10 YR 5/3.5) sandy CLAY, with trace gravel (1/4-inch minus, rounded), hard, slightly moist	CH		35		SB7-16 no odor, no staining	Neat cement Bentonite plug	
20	Brown (10 YR 4.5/3) sandy GRAVEL with trace clay, well-graded, very dense, wet	GC		57		SB7-20.5 no odor, no staining	Filter Pack: Lonestar 2/12 Well casing: Sch 40 PVC 0.010-inch slot	
25	Yellowish brown sandy CLAY, no gravel, highly plastic, stiff, moist	SC		23		SB7-25.5 no odor, no staining		
Bottom: 25.5 feet								

	environmental service	EXPLORATORY SOIL BORING LOG	
	by Papineau, R.E.A. 791	PROJECT LOCATION: 1723 Fruitvale Avenue Oakland, CA	
	PROJECT No. 2000-033.02	DATE 1-30-2001	BORING No. MW-1 SB-7

DRILL RIG: Diedrich D-25		SURFACE ELEVATION: 60 feet		DATE DRILLED: 1-29-2001		TEMPORARY SCREEN
BORE HOLE DIAMETER (INCHES): 7				LOGGED BY: MP REVIEWED BY: RMA		
SOIL DESCRIPTION & CLASSIFICATION			SAMPLE BLOWS/FT	PID READING (PPM)	REMARKS	
DEPTH (FEET)	SOIL TYPE					
0	6 inch thick concrete floor slab, pre-cored					
	Very dark grayish brown (10 YR 3/2) clayey SILT, slightly moist					
5	Dark grayish brown (10 YR 4/2) clayey SILT, trace sand, hard, slightly moist	ML	48		SB8-6 no odor, no staining	
	?					
10	Dk. yellowish brn (10 YR 4/5) clayey sand and sandy CLAY, with some gravel, dense, slightly moist	SC	38		SB8-11 no odor, no staining	
	Strong brown (7.5 YR 4/6) CLAY, with some gravel, very hard, dry	CH			refused auger at 12 feet	
15						
20						
25						

 <p>environmental service by Papineau, R.E.A. 791</p>	EXPLORATORY SOIL BORING LOG PROJECT LOCATION: 1723 Fruitvale Avenue Oakland, CA		BORING No. SB-8
	PROJECT No. 2000-033.02	DATE 2-2-2001	

DRILL RIG: Diedrich D-25		SURFACE ELEVATION: 60 feet		SAMPLE BLOWS/FT	PID READING (PPM)	DATE DRILLED: 1-29-2001 LOGGED BY: MP REVIEWED BY: RMA		WELL CONSTRUCTION
BORE HOLE DIAMETER (INCHES): 7		SOIL DESCRIPTION & CLASSIFICATION				DEPTH (FEET)	SOIL TYPE	
0	6 inch thick concrete floor slab, pre-cored						Christy box flush	
5	Very dark grayish brown (10 YR 3/2) clayey SILT, with trace gravel (1/8-inch minus), hard, slightly moist ?	ML		39			Blank casing Sch 40 PVC 2-inch diameter SB10-5.5 no odor, no staining	
10	Brown (10 YR 4/4) sandy CLAY with some gravel, hard, slightly moist	SC		35			SB10-10.5 no odor, no staining	
	Brown (10 YR 4/4) gravelly SAND (3/4-inch minus, poorly-graded, sub-angular) dense, slightly moist	SW		35			Neat cement	
15	Yellowish brown (10 YR 5/6) CLAY plastic, stiff, slightly moist	CH		18			SB10-16 no odor, no staining	
20	Yellowish brown (10 YR 5/6) rust-mottled CLAY, plastic, moist						Bentonite plug	
	Brown (10 YR 4/3) sandy GRAVEL (3/4-inch minus, well-graded, rounded) with trace clay, dense, wet	GC		80			SB10-20.5 no odor, no staining	
							Filter Pack: Lonestar 2/12 Well casing: Sch 40 PVC 0.010-inch slot	
25	Yellowish brown (10 YR 5/4) sandy CLAY, no gravel, plastic, hard, very moist	SC		40			SB10-25.5 no odor, no staining	
Bottom: 25.5 feet								



environmental service
by Papineau, R.E.A. 791

EXPLORATORY SOIL BORING LOG

PROJECT LOCATION:

1723 Fruitvale Avenue Oakland, CA

PROJECT No.
2000-033.02

DATE
2-2-2001

BORING No.

MWP-2
SB-10

DRILL RIG: Diedrich D-25		SURFACE ELEVATION: 60 feet		SAMPLE BLOWS/FT	PID READING (PPM)	DATE DRILLED: 1-29-2001		WELL CONSTRUCTION
BORE HOLE DIAMETER (INCHES): 7						LOGGED BY: MP		
SOIL DESCRIPTION & CLASSIFICATION								
DEPTH (FEET)	SOIL TYPE					REMARKS		
0	6 inch thick concrete floor slab, pre-cored						Christy box flush	
							Blank casing Sch 40 PVC 2-inch diameter	
5	Dark brown (7.5 YR 3/2) clayey SILT, hard, slightly moist	ML		59 63			SB11-5.5 no odor, no staining	
10	? Brown (10 YR 4/4) sandy CLAY with some gravel, hard, slightly moist	SC		42			SB11-10.5 no odor, no staining	
	increasing sand ? ↓							
	Brown (10 YR 4/4) gravelly SAND, with trace clay, slightly moist	SW					Neat cement	
15	Yellowish brown (10 YR 5/4) sandy CLAY, plastic, no gravel, stiff, slightly moist	CH		32			SB11-15.5 no odor, no staining	
	? Yellowish brown (10 YR 4.5/4) sandy clayey GRAVEL (1/2-inch minus, well-graded, sub-angular), very dense, wet	GC		75			SB11-20.5 no odor, no staining	
20	Brown (10 YR 4/3) sandy GRAVEL (3/4-inch minus, well-graded, rounded) with trace clay, very dense, wet						Filter Pack: Lonestar 2/12 Well casing: Sch 40 PVC 0.010-inch slot	
25	Yellowish brown (10 YR 5/4) sandy CLAY, no gravel, plastic, stiff, very moist	SC		21			SB11-25.5 no odor, no staining	
							Bottom: 26 feet	



environmental service
by Papineau, R.E.A. 791

EXPLORATORY SOIL BORING LOG

PROJECT LOCATION:

1723 Fruitvale Avenue Oakland, CA

PROJECT No.
2000-033.02

DATE
2-2-2001

BORING No.

**MWP-3
SB-11**



Papineau, R.E.A. 791

**1723 Fruitvale Avenue, Oakland, California
ES Project 2000-033.01**

ATTACHMENT C

SIGNED LABORATORY REPORTS

AND

SAMPLE CHAINS-OF-CUSTODY



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale	Date Sampled: 02/20/01
		Date Received: 02/20/01
	Client Contact: Marc Papinean	Date Extracted: 02/20/01
	Client P.O:	Date Analyzed: 02/20/01

02/26/2001

Dear Marc:

Enclosed are:

- 1). the results of 3 samples from your #2000-033.02; 1723 Fruitvale project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale	Date Sampled: 02/20/01
	Client Contact: Marc Papinean	Date Received: 02/20/01
	Client P.O:	Date Extracted: 02/20/01
		Date Analyzed: 02/20/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
60539	MWP-2	W	62,f	ND	ND	ND	ND	ND	99
60540	MWP-3	W	64,f	ND	ND	ND	ND	ND	102
60541	MW-1	W	68,f	ND	ND	ND	ND	ND	99
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	5.0	0.5	0.5	0.5	0.5	
	S		1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mcccampbell.com> E-mail: main@mcccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale	Date Sampled: 02/20/01
	Client Contact: Marc Papinean	Date Received: 02/20/01
	Client P.O:	Date Extracted: 02/20/01
		Date Analyzed: 02/20/01

Total Recoverable Petroleum Hydrocarbons as Oil & Grease (with Silica Gel Clean-up) by Scanning IR Spectrometry*

EPA method 418.1 or 9073; Standard Methods 5520 C&F

Lab ID	Client ID	Matrix	TRPH [†]	% Recovery Surrogate
60539	MWP-2	W	ND	96
60540	MWP-3	W	ND	100
60541	MW-1	W	ND	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		1.0 mg/L	
	S		10 mg/kg	

* water samples are reported in mg/L , wipe samples in mg/wipe and soils and sludges in mg/kg

* surrogate diluted out of range or not applicable to this sample

[†] At the client's request or the laboratory's discretion, one or more positive samples may be run by direct injection chromatography with FID detection. The following comments pertain to these GC results: a) gasoline-range compounds (C6-C12) are present; b) diesel range compounds (C10-C23) are present; c) oil-range compounds (>C18) are present; d) other patterned solvent (?); e) isolated peaks; f) GC compounds are absent or insignificant relative to TRPH inferring that complex biologically derived molecules are the source of IR absorption; h) a lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723	Date Sampled: 02/20/01
	Fruitvale	Date Received: 02/20/01
	Client Contact: Marc Papinean	Date Extracted: 02/20/01
	Client P.O:	Date Analyzed: 02/20/01

Volatile Halocarbons

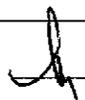
EPA method 601 or 8010

Lab ID	60539	60540	60541	
Client ID	MWP-2	MWP-3	MW-1	
Matrix	W	W	W	
Compound	Concentration			
Bromodichloromethane	ND<2.5	ND<2.5	ND<2.5	
Bromoform ^(b)	ND<2.5	ND<2.5	ND<2.5	
Bromomethane	ND<2.5	ND<2.5	ND<2.5	
Carbon Tetrachloride ^(c)	ND<2.5	ND<2.5	ND<2.5	
Chlorobenzene	ND<2.5	ND<2.5	ND<2.5	
Chloroethane	ND<2.5	ND<2.5	ND<2.5	
2-Chloroethyl Vinyl Ether ^(d)	ND<2.5	ND<2.5	ND<2.5	
Chloroform ^(e)	ND<2.5	ND<2.5	ND<2.5	
Chloromethane	ND<2.5	ND<2.5	ND<2.5	
Dibromochloromethane	ND<2.5	ND<2.5	ND<2.5	
1,2-Dichlorobenzene	ND<2.5	ND<2.5	ND<2.5	
1,3-Dichlorobenzene	ND<2.5	ND<2.5	ND<2.5	
1,4-Dichlorobenzene	ND<2.5	ND<2.5	ND<2.5	
Dichlorodifluoromethane	ND<2.5	ND<2.5	ND<2.5	
1,1-Dichloroethane	ND<2.5	ND<2.5	ND<2.5	
1,2-Dichloroethane	ND<2.5	ND<2.5	ND<2.5	
1,1-Dichloroethene	ND<2.5	ND<2.5	ND<2.5	
cis 1,2-Dichloroethene	ND<2.5	ND<2.5	ND<2.5	
trans 1,2-Dichloroethene	ND<2.5	ND<2.5	ND<2.5	
1,2-Dichloropropane	ND<2.5	ND<2.5	ND<2.5	
cis 1,3-Dichloropropene	ND<2.5	ND<2.5	ND<2.5	
trans 1,3-Dichloropropene	ND<2.5	ND<2.5	ND<2.5	
Methylene Chloride ^(f)	ND<2.5	ND<2.5	ND<2.5	
1,1,2,2-Tetrachloroethane	ND<2.5	ND<2.5	ND<2.5	
Tetrachloroethene	140	140	160	
1,1,1-Trichloroethane	ND<2.5	ND<2.5	ND<2.5	
1,1,2-Trichloroethane	ND<2.5	ND<2.5	ND<2.5	
Trichloroethene	ND<2.5	ND<2.5	ND<2.5	
Trichlorofluoromethane	ND<2.5	ND<2.5	ND<2.5	
Vinyl Chloride ^(g)	ND<2.5	ND<2.5	ND<2.5	
% Recovery Surrogate	94	94	98	
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

Date: 02/20/01

Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 21601

Instrument: GC-3

Surrogate1	0.000	98.0	98.0	100.00	98	98	0.0
Xylenes	0.000	29.5	26.4	30.00	98	88	11.1
Ethyl Benzene	0.000	9.9	8.9	10.00	99	89	10.6
Toluene	0.000	10.1	9.2	10.00	101	92	9.3
Benzene	0.000	10.4	9.4	10.00	104	94	10.1
MTBE	0.000	11.5	10.0	10.00	115	100	14.0
GAS	0.000	86.7	83.3	100.00	87	83	4.0

SampleID: 21401

Instrument: MB-1

Oil & Grease	0.000	19.8	19.6	23.70	84	83	1.0
--------------	-------	------	------	-------	----	----	-----

SampleID: 22001

Instrument: GC-2 A

Surrogate1	0.000	100.0	100.0	100.00	100	100	0.0
TPH (diesel)	0.000	7450.0	7550.0	7500.00	99	101	1.3

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$\text{RPD} = \frac{(MS - \text{MSD})}{(MS + \text{MSD})} \cdot 100$$



McCAMPBELL ANALYTICAL INC.

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8010/8020/EDB

Date: 01/19/01-01/20/01 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	

SampleID: 10201

Instrument: GC-1

Surrogate1	0.000	93.0	87.0	100.00	93	87	6.7
Chlorobenzene	0.000	83.0	92.0	100.00	83	92	10.3
Trichloroethane	0.000	82.0	88.0	100.00	82	88	7.1
1,1-DCE	0.000	92.0	102.0	100.00	92	102	10.3

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale Ave., Oakland	Date Sampled: 01/30/01
		Date Received: 01/31/01
	Client Contact: Marc Papinean	Date Extracted: 01/31/01
	Client P.O:	Date Analyzed: 01/31/01

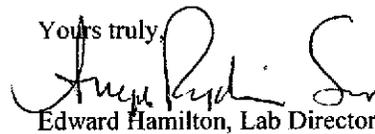
02/07/01

Dear Marc:

Enclosed are:

- 1). the results of 10 samples from your #2000-033.02 project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale Ave., Oakland	Date Sampled: 01/30/01
	Client Contact: Marc Papineau	Date Received: 01/31/01
	Client P.O:	Date Extracted: 01/31/01
		Date Analyzed: 02/01/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
59078	SB 7-10.5	S	ND	ND	ND	ND	ND	ND	104
59083	SB 8-11	S	ND	ND	ND	ND	ND	ND	109
59085	SB 10-10.5	S	ND	ND	ND	ND	ND	ND	101
59090	SB 11-10.5	S	ND	ND	ND	ND	ND	ND	106
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		50 ug/L	5.0	0.5	0.5	0.5	0.5	
	S		1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale Ave., Oakland	Date Sampled: 01/30/01
	Client Contact: Marc Papinean	Date Received: 01/31/01
	Client P.O:	Date Extracted: 01/31/01
		Date Analyzed: 01/31-02/01/01

Motor Oil-Range (C18+) Extractable Hydrocarbons as Motor Oil*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(mo) [†]	% Recovery Surrogate
59078	SB 7-10.5	S	ND	97
59083	SB 8-11	S	ND	95
59085	SB 10-10.5	S	ND	95
59090	SB 11-10.5	S	ND	106
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W		250 ug/L	
	S		5.0 mg/kg	

*water samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

* cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

†The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale Ave., Oakland	Date Sampled: 01/30/01
	Client Contact: Marc Papinean	Date Received: 01/31/01
	Client P.O:	Date Extracted: 01/31-02/02/01
		Date Analyzed: 01/31-02/02/01

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	59078	59079	59080	59085
Client ID	SB 7-10.5	SB 7-16	SB 7-20.5	SB 10-10.5
Matrix	S	S	S	S
Compound	Concentration			
Bromodichloromethane	ND	ND	ND	ND
Bromoform ^(b)	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride ^(c)	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether ^(d)	ND	ND	ND	ND
Chloroform ^(e)	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride ^(f)	ND<10	ND<10	ND<10	ND<10
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND<25	ND<25	ND<25	ND<25
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride ^(g)	ND	ND	ND	ND
% Recovery Surrogate	102	101	102	104
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale Ave., Oakland	Date Sampled: 01/30/01
	Client Contact: Marc Papinean	Date Received: 01/31/01
	Client P.O:	Date Extracted: 01/31-02/02/01
		Date Analyzed: 01/31-02/02/01

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	59086	59087	59090	59091
Client ID	SB 10-16	SB 10-20.5	SB 11-10.5	SB 11-15.5
Matrix	S	S	S	S
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform ^(b)	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride ^(c)	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether ^(d)	ND	ND	ND	ND
Chloroform ^(e)	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride ^(f)	ND<10	ND<10	ND<10	ND<10
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND<25	ND<25	ND<25	ND<25
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride ^(g)	ND	ND	ND	ND
% Recovery Surrogate	91	89	92	93
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Environmental Services 5789 Gold Creek Drive Castro Valley, CA 94552	Client Project ID:#2000-033.02; 1723 Fruitvale Ave., Oakland	Date Sampled: 01/30/01
	Client Contact: Marc Papineau	Date Received: 01/31/01
	Client P.O:	Date Extracted: 01/31-02/02/01
		Date Analyzed: 01/31-02/02/01

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	59092		
Client ID	SB11-20.5		
Matrix	S		
Compound	Concentration		
Bromodichloromethane	ND		
Bromoform ^(b)	ND		
Bromomethane	ND		
Carbon Tetrachloride ^(c)	ND		
Chlorobenzene	ND		
Chloroethane	ND		
2-Chloroethyl Vinyl Ether ^(d)	ND		
Chloroform ^(e)	ND		
Chloromethane	ND		
Dibromochloromethane	ND		
1,2-Dichlorobenzene	ND		
1,3-Dichlorobenzene	ND		
1,4-Dichlorobenzene	ND		
Dichlorodifluoromethane	ND		
1,1-Dichloroethane	ND		
1,2-Dichloroethane	ND		
1,1-Dichloroethene	ND		
cis 1,2-Dichloroethene	ND		
trans 1,2-Dichloroethene	ND		
1,2-Dichloropropane	ND		
cis 1,3-Dichloropropene	ND		
trans 1,3-Dichloropropene	ND		
Methylene Chloride ^(f)	ND<10		
1,1,2,2-Tetrachloroethane	ND		
Tetrachloroethene	ND<25		
1,1,1-Trichloroethane	ND		
1,1,2-Trichloroethane	ND		
Trichloroethene	ND		
Trichlorofluoromethane	ND		
Vinyl Chloride ^(g)	ND		
% Recovery Surrogate	97		
Comments			

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

Date: 02/01/01 Matrix: Soil

Extraction: TTLC

Compound	Concentration: mg/kg			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 12201		Instrument: GC-12					
Surrogate1	0.000	101.000	97.000	100.00	101	97	4.0
Xylenes	0.000	0.347	0.345	0.30	116	115	0.6
Ethyl Benzene	0.000	0.117	0.114	0.10	117	114	2.6
Toluene	0.000	0.115	0.113	0.10	115	113	1.8
Benzene	0.000	0.114	0.111	0.10	114	111	2.7
MTBE	0.000	0.103	0.100	0.10	103	100	3.0
GAS	0.000	0.986	0.986	1.00	99	99	0.0
SampleID: 12301		Instrument: GC-11 A					
Surrogate1	0.000	115.000	116.000	100.00	115	116	0.9
TPH (diesel)	0.000	344.000	340.000	300.00	115	113	1.2

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



McCAMPBELL ANALYTICAL INC.

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8010/8020/EDB

Date: 01/30/01-01/31/01 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 20201		Instrument: GC-10					
Surrogate1	0.000	97.0	97.0	100.00	97	97	0.0
Chlorobenzene	0.000	92.0	89.0	100.00	92	89	3.3
Trichloroethane	0.000	84.0	68.0	100.00	84	68	21.1
1,1-DCE	0.000	79.0	73.0	100.00	79	73	7.9

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

24289 ZES2

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

Report To: Marc PAPINEAU Bill To: same
 Company: environmental servize
5789 GOLD CREEK DRIVE
CASTRO VALLEY, CA 94552
 Tele: (510) 881-857A Fax: (510) 581-7204
 Project #: 2000-033-02 Project Name:
 Project Location: 1723 FRUITVALE AVE. OAKLAND, CA
 Sampler Signature: Marc Papineau (MP)

Analysis Request

Other Comments

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other					
SB7-6		1-30-01	1415	1	B	✓					✓								
SB7-10.5		1-30-01	1432	1	B	✓					✓								
SB7-16		1-30-01	1444	1	B	✓					✓								
SB7-20.5		1-30-01	1500	1	B	✓					✓								
SB7-25.5		1-30-01	1530	1	B	✓					✓								
SB8-6		1-29-01	0940	1	B	✓					✓								
SB8-11		1-29-01	1000	1	B	✓					✓								
SB10-5.5		1-29-01	1100	1	B	✓					✓								
SB10-10.5		1-29-01	1105	1	B	✓					✓								
SB10-16		1-29-01	1410	1	B	✓					✓								
SB10-20.5		1-29-01	1428	1	B	✓					✓								
SB10-25.5		1-29-01	1605	1	B	✓					✓								
SB11-5.5		1-30-01	1015	1	B	✓					✓								
SB11-10.5		1-30-01	1045	1	B	✓					✓								
SB11-15.5		1-30-01	1110	1	B	✓					✓								

BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015) Motor Oil	Total Petroleum Oil & Grease (5320 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 - 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8510	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239-2/6010)	RCI	pH	TSS	TOC	Specific Condu
--	--------------------------------	---	--------------------------------------	----------------	----------------------------	----------------	---------------------------	-----------------------	----------------	--	---------------	---------------	-----------------------------	-----	----	-----	-----	----------------

59077
 # 59078
 # 59079
 # 59080
 Page 1 of 2

59081
 # 59082
 # 59083
 # 59084
 # 59085
 # 59086
 # 59087
 # 59088
 # 59089

Relinquished By: Marc Papineau Date: 1-31-01 Time: 1215 Received By: Monica Vercaya
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

Remarks: Hold all samples for potential subsequent analysis.
 B = 2 inch dia. x 6 inch long brass sleeve
 PAGE 1 OF 2
 59090
 59091

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

November 20, 2000

Marc Papineau
Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546

Order: 23169
Project Name: 1723 Fruitvale
Project Number: 2000-033.01
Project Notes:

Date Collected: 11/15/00
Date Received: 11/15/00
P.O. Number: 2000-033.01

On November 15, 2000, samples were received under documented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>	<u>Test</u>	<u>Method</u>
Liquid	EPA 8010	EPA 8010
	Gas/BTEX	EPA 8015 MOD. (Purgeable) EPA 8020
Solid	TPH as Diesel	EPA 8015 MOD. (Extractable)
	TPH as Hydraulic Oil	EPA 8015 MOD. (Extractable)
	EPA 8010	EPA 8010
	Gas/BTEX	EPA 8015 MOD. (Purgeable) EPA 8020
	TPH as Diesel	EPA 8015 MOD. (Extractable)
	TPH as Hydraulic Oil	EPA 8015 MOD. (Extractable)

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson
Lab Director

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
 Date Received: 11/15/00
 Project Name: 1723 Fruitvale
 Project Number: 2000-033.01
 P.O. Number: 2000-033.01
 Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169 **Lab Sample ID:** 23169-002 **Client Sample ID:** SB5-16.5
Sample Time: 3:00 PM **Sample Date:** 11/15/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	1	1	mg/Kg	11/16/00	11/17/00	DS001106	EPA 8015 MOD. (Extractable)
						Surrogate o-Terphenyl		Surrogate Recovery 89		Control Limits (%) 50 - 120

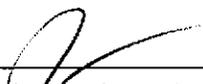
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil	ND		1	13	13	mg/Kg	11/16/00	11/17/00	DS001106	EPA 8015 MOD. (Extractable)
						Surrogate o-Terphenyl		Surrogate Recovery 89		Control Limits (%) 65 - 135

Order ID: 23169 **Lab Sample ID:** 23169-003 **Client Sample ID:** SB5-20.5
Sample Time: 3:20 PM **Sample Date:** 11/15/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	1	1	mg/Kg	11/16/00	11/17/00	DS001106	EPA 8015 MOD. (Extractable)
						Surrogate o-Terphenyl		Surrogate Recovery 77		Control Limits (%) 50 - 120

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil	ND		1	13	13	mg/Kg	11/16/00	11/17/00	DS001106	EPA 8015 MOD. (Extractable)
						Surrogate o-Terphenyl		Surrogate Recovery 77		Control Limits (%) 65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit
 Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)


 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
Date Received: 11/15/00
Project Name: 1723 Fruitvale
Project Number: 2000-033.01
P.O. Number: 2000-033.01
Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169	Lab Sample ID: 23169-004	Client Sample ID: SB6-GW								
Sample Time: 1:23 PM	Sample Date: 11/15/00	Matrix: Liquid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	74	74	µg/L	11/16/00	11/17/00	DW001105	EPA 8015 MOD. (Extractable)
					Surrogate o-Terphenyl			Surrogate Recovery 86		Control Limits (%) 45 - 105
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Hydraulic Oil	ND		1	368	368	µg/L	11/16/00	11/17/00	DW001105	EPA 8015 MOD. (Extractable)
					Surrogate o-Terphenyl			Surrogate Recovery 86		Control Limits (%) 65 - 135

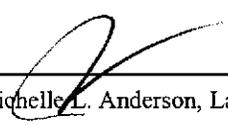
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)


Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
Date Received: 11/15/00
Project Name: 1723 Fruitvale
Project Number: 2000-033.01
P.O. Number: 2000-033.01
Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169

Lab Sample ID: 23169-002

Client Sample ID: SB5-16.5

Sample Time: 3:00 PM

Sample Date: 11/15/00

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
				Surrogate			Surrogate Recovery		Control Limits (%)	
				aaa-Trifluorotoluene			112		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8015 MOD. (Purgeable)
				Surrogate			Surrogate Recovery		Control Limits (%)	
				aaa-Trifluorotoluene			122		65 - 135	

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)


Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
 5789 Gold Creek Drive
 Castro Valley, CA 94546
 Attn: Marc Papineau

Date: 11/20/00
 Date Received: 11/15/00
 Project Name: 1723 Fruitvale
 Project Number: 2000-033.01
 P.O. Number: 2000-033.01
 Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169

Lab Sample ID: 23169-003

Client Sample ID: SB5-20.5

Sample Time: 3:20 PM

Sample Date: 11/15/00

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			108			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	11/16/00	SGC4001113	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			120			65 - 135	

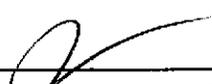
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)


 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
Date Received: 11/15/00
Project Name: 1723 Fruitvale
Project Number: 2000-033.01
P.O. Number: 2000-033.01
Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169 Lab Sample ID: 23169-004 Client Sample ID: SB6-GW
Sample Time: 1:23 PM Sample Date: 11/15/00 Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	11/16/00	WGC4001116	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	11/16/00	WGC4001116	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	11/16/00	WGC4001116	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	11/16/00	WGC4001116	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 97		Control Limits (%) 65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	65	x	1	50	50	µg/L	N/A	11/16/00	WGC4001116	EPA 8015 MOD. (Purgeable)
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 109		Control Limits (%) 65 - 135	

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)


Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
Date Received: 11/15/00
Project Name: 1723 Fruitvale
Project Number: 2000-033.01
P.O. Number: 2000-033.01
Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169

Lab Sample ID: 23169-001

Client Sample ID: SB5-11.5

Sample Time: 2:40 PM

Sample Date: 11/15/00

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,3-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,4-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Freon 113	ND		1	5	5	µg/kg	11/18/00	SVOC1001118	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Tetrachloroethene	9.8		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010

Surrogate

Surrogate Recovery

Control Limits (%)

Bromochloromethane

113

65 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Page 1 of 4

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
Date Received: 11/15/00
Project Name: 1723 Fruitvale
Project Number: 2000-033.01
P.O. Number: 2000-033.01
Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169

Lab Sample ID: 23169-002

Client Sample ID: SB5-16.5

Sample Time: 3:00 PM

Sample Date: 11/15/00

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,3-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,4-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Freon 113	ND		1	5	5	µg/kg	11/18/00	SVOC1001118	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Tetrachloroethene	I9		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Surrogate		Surrogate Recovery			Control Limits (%)				
Bromochloromethane		114			65 - 135				

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Page 2 of 4

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
 Date Received: 11/15/00
 Project Name: 1723 Fruitvale
 Project Number: 2000-033.01
 P.O. Number: 2000-033.01
 Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169

Lab Sample ID: 23169-003

Client Sample ID: SB5-20.5

Sample Time: 3:20 PM

Sample Date: 11/15/00

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,3-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
1,4-Dichlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Freon 113	ND		1	5	5	µg/kg	11/18/00	SVOC1001118	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Tetrachloroethene	43		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	11/18/00	SVOC1001118	EPA 8010
Surrogate		Surrogate Recovery			Control Limits (%)				
Bromochloromethane		118			65 - 135				

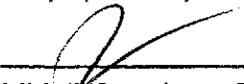
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)


 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Page 3 of 4

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Services
5789 Gold Creek Drive
Castro Valley, CA 94546
Attn: Marc Papineau

Date: 11/20/00
 Date Received: 11/15/00
 Project Name: 1723 Fruitvale
 Project Number: 2000-033.01
 P.O. Number: 2000-033.01
 Sampled By: M. Papineau

Certified Analytical Report

Order ID: 23169

Lab Sample ID: 23169-004

Client Sample ID: SB6-GW

Sample Time: 1:23 PM

Sample Date: 11/15/00

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,1,2,2-Tetrachloroethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,1,2-Trichloroethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,1-Dichloroethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,1-Dichloroethene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,2-Dichlorobenzene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,2-Dichloroethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,2-Dichloropropane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,3-Dichlorobenzene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
1,4-Dichlorobenzene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Bromodichloromethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Bromoform	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Bromomethane	ND		10	1	10	µg/L	11/19/00	WVOC1001112	EPA 8010
Carbon Tetrachloride	ND		10	1	10	µg/L	11/19/00	WVOC1001112	EPA 8010
Chlorobenzene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Chloroethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Chloroform	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Chloromethane	ND		10	1	10	µg/L	11/19/00	WVOC1001112	EPA 8010
cis-1,2-Dichloroethene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
cis-1,3-Dichloropropene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Dibromochloromethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Dichlorodifluoromethane	ND		10	1	10	µg/L	11/19/00	WVOC1001112	EPA 8010
Methylene Chloride	ND		10	3	30	µg/L	11/19/00	WVOC1001112	EPA 8010
Tetrachloroethene	290		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
trans-1,2-Dichloroethene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
trans-1,3-Dichloropropene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Trichloroethene	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Trichlorofluoromethane	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010
Vinyl Chloride	ND		10	0.5	5	µg/L	11/19/00	WVOC1001112	EPA 8010

Surrogate

Surrogate Recovery

Control Limits (%)

Bromochloromethane

115

65 - 135

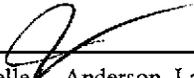
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)


 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Page 4 of 4

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Quality Control Results Summary

QC Batch #: DS001106
Matrix: Solid

Units: mg/Kg
Date Analyzed: 11/15/00

Parameter	Method	Method Blank	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	EPA 8015 M	ND		25		19.19	LCS	76.8			58.0 - 120.0
TPH as Diesel	EPA 8015 M	ND		25		20.67	LCSD	82.7	7.43	25.00	58.0 - 130.0

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Quality Control Results Summary

QC Batch #: DW001105
Matrix: Liquid

Units: µg/L
Date Analyzed: 11/17/00

Parameter	Method	Method Blank	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	EPA 8015 M	ND		1000		816.59	LCS	81.7			50.0 - 110.0
	Surrogate o-Terphenyl			Surrogate Recovery 99		Control Limits (%) 45 - 105					
TPH as Diesel	EPA 8015 M	ND		1000		830.26	LCSD	83.0	1.66		50.0 - 110.0
	Surrogate o-Terphenyl			Surrogate Recovery 95		Control Limits (%) 45 - 105					

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Quality Control Results Summary

QC Batch #: SGC4001113
 Matrix: Solid

Units: mg/Kg
 Date Analyzed: 11/13/00

Parameter	Method	Method Blank	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	EPA 8020	ND		0.0052		0.0052	LCS	100.0			75.0 - 125.0
Ethyl Benzene	EPA 8020	ND		0.0056		0.005	LCS	89.3			75.0 - 125.0
Toluene	EPA 8020	ND		0.029		0.029	LCS	100.0			75.0 - 125.0
Xylenes, total	EPA 8020	ND		0.032		0.032	LCS	100.0			75.0 - 125.0
TPH as Gasoline	EPA 8015 M	ND		0.469		0.458	LCS	97.7			75.0 - 125.0
			Surrogate		Surrogate Recovery		Control Limits (%)				
			aaa-Trifluorotoluene		103		65 - 135				
Benzene	EPA 8020	ND		0.0052		0.005	LCSD	96.2	3.92	25.00	75.0 - 125.0
Ethyl Benzene	EPA 8020	ND		0.0056		0.005	LCSD	89.3	0.00	25.00	75.0 - 125.0
Toluene	EPA 8020	ND		0.029		0.028	LCSD	96.6	3.51	25.00	75.0 - 125.0
Xylenes, total	EPA 8020	ND		0.032		0.030	LCSD	93.8	6.45	25.00	75.0 - 125.0
TPH as Gasoline	EPA 8015 M	ND		0.469		0.439	LCSD	93.6	4.24	25.00	75.0 - 125.0
			Surrogate		Surrogate Recovery		Control Limits (%)				
			aaa-Trifluorotoluene		95		65 - 135				

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Quality Control Results Summary

QC Batch #: WGC4001116
Matrix: Liquid

Units: µg/L
Date Analyzed: 11/16/00

Parameter	Method	Method Blank	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	EPA 8020	ND		5.2		5.44	LCS	104.6			75.0 - 125.0
Ethyl Benzene	EPA 8020	ND		5.6		5.98	LCS	106.8			75.0 - 125.0
Toluene	EPA 8020	ND		29		28.3	LCS	97.6			75.0 - 125.0
Xylenes, total	EPA 8020	ND		32		31.4	LCS	98.1			75.0 - 125.0
Methyl-t-butyl Ether	EPA 8020	ND		36		43.0	LCS	119.4			75.0 - 125.0
TPH as Gasoline	EPA 8015 M	ND		469		460.3	LCS	98.1			75.0 - 125.0
Surrogate				Surrogate Recovery		Control Limits (%)					
aaa-Trifluorotoluene				104		65 - 135					
Benzene	EPA 8020	ND		5.2		5.71	LCSD	109.8	4.84	25.00	75.0 - 125.0
Ethyl Benzene	EPA 8020	ND		5.6		6.23	LCSD	111.3	4.10	25.00	75.0 - 125.0
Toluene	EPA 8020	ND		29		28.9	LCSD	99.7	2.10	25.00	75.0 - 125.0
Xylenes, total	EPA 8020	ND		32		32.5	LCSD	101.6	3.44	25.00	75.0 - 125.0
Methyl-t-butyl Ether	EPA 8020	ND		36		35.0	LCSD	97.2	20.51	25.00	75.0 - 125.0
TPH as Gasoline	EPA 8015 M	ND		469		453.2	LCSD	96.6	1.55	25.00	75.0 - 125.0
Surrogate				Surrogate Recovery		Control Limits (%)					
aaa-Trifluorotoluene				107		65 - 135					

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Quality Control Results Summary

QC Batch #: WVOC1001112
 Matrix: Liquid

Units: µg/L
 Date Analyzed: 11/12/00

Parameter	Method	Method Blank	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethane	EPA 8010	ND		20		20.8	LCS	104.0			67.0 - 135.0
Chlorobenzene	EPA 8010	ND		20		21.3	LCS	106.5			70.0 - 128.0
Trichloroethene	EPA 8010	ND		20		20.2	LCS	101.0			61.0 - 131.0
Surrogate				Surrogate Recovery		Control Limits (%)					
	Bromochloromethane			83		65 - 135					
	Fluorobenzene			91		65 - 135					
1,1-Dichloroethane	EPA 8010	ND		20		21.6	LCSD	108.0	3.77	25.00	67.0 - 135.0
Chlorobenzene	EPA 8010	ND		20		22.5	LCSD	112.5	5.48	25.00	70.0 - 128.0
Trichloroethene	EPA 8010	ND		20		20.7	LCSD	103.5	2.44	25.00	61.0 - 131.0
Surrogate				Surrogate Recovery		Control Limits (%)					
	Bromochloromethane			88		65 - 135					
	Fluorobenzene			94		65 - 135					

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Quality Control Results Summary

QC Batch #: SVOC1001118
 Matrix: Solid

Units: µg/Kg
 Date Analyzed: 11/18/00

Parameter	Method	Method Blank	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethane	EPA 8010	ND		20		23.3	LCS	116.5			50.0 - 150.0
Chlorobenzene	EPA 8010	ND		20		24.6	LCS	123.0			50.0 - 150.0
Trichloroethene	EPA 8010	ND		20		22.3	LCS	111.5			50.0 - 150.0
Surrogate				Surrogate Recovery		Control Limits (%)					
Bromochloromethane				96		65 - 135					
1,1-Dichloroethane	EPA 8010	ND		20		26.9	LCSD	134.5	14.34	25.00	50.0 - 150.0
Chlorobenzene	EPA 8010	ND		20		25.5	LCSD	127.5	3.59	25.00	50.0 - 150.0
Trichloroethene	EPA 8010	ND		20		23.4	LCSD	117.0	4.81	25.00	50.0 - 150.0
Surrogate				Surrogate Recovery		Control Limits (%)					
Bromochloromethane				98		65 - 135					



environmental service

by Papineau, R.E.A. 791

5789 Gold Creek Drive Castro Valley, California 94552

(510) 88