

# MEYER PLUMBING SUPPLY

WHOLESALE DISTRIBUTORS

May 10, 1996

Ms. Jennifer Eberle  
Alameda County Department of Environmental Health on  
1131 Harbor Bay Parkway, Room 250  
Alameda, CA 94502

SUBJECT: Soil and Groundwater Investigation Report  
Meyer Plumbing Supply Facility  
311 Second Street  
Oakland, California

Dear Ms. Eberle:

You will find enclosed one copy of the Soil and Groundwater Investigation Report 0109.R1 dated April 5, 1996 for the subject site. I declare under penalty of perjury that the contents of this report are true and correct to the best of my knowledge.

In accordance with the recommendations set forth in the report, we formally request case closure.

Should you have any questions, please do not hesitate to contact me at (510) 832-3324.

Sincerely,

MEYER PLUMBING SUPPLY

*Bud Weymouth*

Bud Weymouth

Enclosure

311 SECOND STREET • OAKLAND, CALIFORNIA 94607  
FAX NUMBER (510) 832-3305 • TELEPHONE (510) 832-3324

ENVIRONMENTAL  
PROTECTION  
96 MAY 13 PM 1:05

April 5, 1996  
Report 0109.R1

Ms. Jennifer Eberle  
Alameda County Environmental Protection Division  
1131 Harbor Bay Parkway, Room 250  
Oakland, CA 94502

SUBJECT: SOIL AND GROUNDWATER INVESTIGATION REPORT  
Meyer Plumbing Supply Facility  
311 Second Street  
Oakland, California

Dear Ms. Eberle:

AllPro Environmental Corporation (AllPro) is pleased to present this report for soil and groundwater investigation at the subject site. The investigation consisted of drilling a total of four boreholes in the vicinity of the former underground storage tank, and the collection of one soil sample and one groundwater sample from each borehole for laboratory analysis. This work was performed in response to a request for investigation set forth in a letter dated January 6, 1995 (the letter was received in 1996) from Ms. Jennifer Eberle at the Alameda County Department of Environmental Health (ACDEH) addressed to Meyer Plumbing Supply. A Site Location Map is attached as Figure 1, and a Site Plan Detail is attached as Figure 2.

All work was performed under the direct supervision of an appropriately registered professional. This report is prepared in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

#### BACKGROUND

It is AllPro's understanding that Blymyer Engineers, Inc. (BEI) was retained by Meyer Plumbing Supply (MPS) to perform a closure site assessment for one 1,000-gallon underground storage tank (UST) at the subject site. Review of a BEI report titled "Underground Storage Tank Closer Assessment" dated November 1, 1993 indicates that the UST was filled with concrete by an unidentified previous owner of the site some time before 1976. In addition, the BEI report indicates that the UST was known to store motor vehicle fuel, but it was not known to MPS whether the fuel was gasoline or diesel. The UST location is shown in Figure 2.

#### Remediation and Construction Services

S.F. Division: 1125B Arnold Drive, Ste. 284 ■ Martinez, Ca 94553 ■ Office: (510) 706-9308 ■ Fax: 510) 706-9525

Review of the BEI report indicates that on September 15, 1993 two slanted soil borings designated as SB-1 and SB-2 were drilled at a 30 degree angle from vertical to obtain soil samples from beneath the ends of the UST. One soil sample was reported to have been collected from each of soil borings SB-1 and SB-2 at a depth of approximately 5.5 and 7.0 feet in each borehole, respectively. In addition, the SB-2 soil boring was reported to have been advanced to a total depth of 10.5 feet, and a groundwater grab sample collected from the borehole. The depth at which groundwater was encountered in borehole SB-2 was reported to be 7.0 feet below grade. Review of the boring logs in the BEI report indicates that the reported sample collection depths, depth to groundwater and borehole depths were reported as the linear distance in the borehole, and were not corrected to show actual vertical depth. The vertical depth to groundwater corresponds to approximately 6 feet below grade, assuming a uniform boring angle of 30 degrees from vertical.

The boring logs indicate that clayey, silty fine sand with gravel were encountered in borehole SB-1, and fine sand with gravel was encountered in borehole SB-2 to the total depths explored. The materials encountered in both boreholes were interpreted by BEI to consist of fill materials. Evaluation of materials from the boreholes with a photoionization detector (PID) revealed that no detectable concentrations of organic vapors were detected in borehole SB-1, and that organic vapors with concentrations ranging from 2 to 24 were encountered in borehole SB-2. Similarly, no odors were reported to be present in borehole SB-1, and a "petroleum" odor was reported to be present in the materials from borehole SB-2.

The soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G), benzene, toluene, ethylbenzene and xylenes (BTEX), for Total Petroleum Hydrocarbons as Diesel (TPH-D) and for total lead. The analytical results of the soil samples showed that in boreholes SB-1 and SB-2 TPH-D was detected at concentrations of 4.2 and 15,000 ppm, respectively, and that lead was detected in concentrations of 71 and 84 ppm, respectively. In borehole SB-1, TPH-G and BTEX were not detected with the exception of 0.0090 ppm xylenes. In borehole SB-2, TPH-G was detected at a concentration of 34 ppm, and ethylbenzene and xylenes were detected at concentrations of 0.65 and 0.82 ppm, respectively. The results of the soil samples are summarized in Table 1.

The analytical results of the groundwater grab sample from borehole SB-2 showed 5.5 ppm TPH-D, 0.085 ppm TPH-G, and benzene, toluene and xylenes at concentrations of 0.0027, 0.00066 and 0.00051 ppm, respectively. Lead was not detected. The results of the groundwater grab sample are summarized in Table 2.

It is AllPro's understanding that ownership of the sidewalk and portion of Harrison Street immediately adjacent to the area of investigation has been transferred to Meyer Plumbing Supply by the Port and City of Oakland.

In a letter dated January 6, 1995 (the letter was received in 1996) Ms. Jennifer Eberle of the ACDEH requested that a soil and groundwater investigation be performed in the vicinity of the UST. A work plan dated February 29, 1996 was submitted for the soil and groundwater investigation. The work plan was subsequently approved in a letter from Ms. Eberle in a letter dated March 11, 1996.

#### FIELD ACTIVITIES

On March 15 and 16, 1996 AllPro personnel hand augered boreholes B3 through B6 for the collection of soil and groundwater grab samples in the vicinity of the former UST. The borehole locations are shown on Figure 2.

The boreholes were hand augered with a 3.5-inch outside diameter hand auger. All of the boreholes were hand augered to total depths of between approximately 5.5 and 7.5 feet below grade. Boreholes B3, B4, B5, and B6 were hand augered to depths of 6.0, 6.0, 5.5, and 7.5 feet below grade, respectively. Groundwater was first encountered in boreholes B3, B4, B5 and B6 at depths of 5.5, 5.0, 5.0, and 7.0 feet below grade, respectively.

Soil from all of the boreholes was evaluated using a photoionization detector (PID). The PID was calibrated using a 100 ppm isobutylene standard prior to the beginning of field work on March 15, 1996. No Petroleum hydrocarbon odors or PID readings were encountered in the soil or groundwater in boreholes B3 through B6.

All of the soil samples were collected at a depth of 4.5 feet using a percussion sampler lined with a 2-inch diameter, 6-inch long brass tube. Following sample collection, the ends of the brass tubes for these samples were sealed with aluminum foil and plastic endcaps. The brass tubes were then labeled, placed into ziplock baggies, and stored in a cooler with ice pending delivery to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-accredited hazardous waste testing laboratory. Chain of custody procedures will be observed for all sample handling.

The groundwater grab samples were collected from the boreholes using a Teflon bailer. The groundwater grab samples were transferred from the Teflon bailer to 40-milliliter Volatile Organic Analysis (VOA) vials and one-liter amber glass bottles which were capped with Teflon-lined screw caps, and a 250 milliliter plastic bottle which was capped with a plastic screw

cap. The VOAs were overturned and tapped to assure that no air bubbles are present. The bottles were then labeled and stored in a cooler with ice pending delivery to McCampbell Analytical, Inc. Chain of custody procedures were observed for all sample handling. The hand auger and Teflon bailer were thoroughly washed with an Alconox solution followed by a clean water rinse prior to each use.

Following groundwater grab sample collection, the boreholes were filled with neat cement, in accordance with permit requirements. Soil generated during hand augering and water generated during decontamination procedures were stored in 55-gallon DOT-approved drums at the subject site pending appropriate disposal.

#### GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U.S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E.J. Helley and K.R. Lajoie, 1979 the subject site is underlain by Bay Mud (Qhbm). The Bay Mud is described as typically consisting of unconsolidated water-saturated dark plastic carbonaceous clay and silty clay. The site borders on materials identified on the geologic maps as Pleistocene beach and dune sand deposits (Merrit Sand) (Qps). These deposits are described as typically consisting of loose, well-sorted fine to medium sand.

Based on observations of the subsurface materials encountered in the boreholes, the subsurface materials in the area of investigation consist predominantly of brown fine sand with minor gravel approximately 1 inch in diameter to the total depth explored of approximately 7.5 feet below grade. In borehole B3, gravel ranging in size from 2 to 3 inches in diameter was encountered to a depth of approximately 3 feet below grade, and in borehole B6 gray sandy clay was encountered beginning at a depth of approximately 4.0 feet below grade to a depth of approximately 7.0 feet below grade. Between the depths of approximately 7.0 feet below grade and the total depth explored of approximately 7.5 feet below grade, the subsurface materials consisted of black sandy clay.

In borehole B5, the materials encountered in the borehole were discolored gray beginning at the depth at which groundwater was encountered (approximately 5.0 feet below grade) to the total depth explored of approximately 5.5 feet. Similarly, in borehole B6, the materials encountered in the borehole were discolored to black beginning at the depth at which groundwater was encountered (approximately 7.0 feet below grade) to the total depth explored of approximately 7.5 feet.

The gravel encountered in borehole B3 is interpreted to be associated with the adjacent railroad tracks which are located immediately to the west of the study area. Based upon brick fragments encountered in the boreholes and a piece of wire encountered in borehole B6 at a depth of approximately 7.0 feet below grade, the subsurface materials encountered in the boreholes are interpreted to be fill material.

Based upon conversations with Regional Water Quality Control Board personnel, it is AllPro's understanding that the vicinity surrounding the study area was filled and developed at the end of the previous century or at the beginning of the present century. The nature of the fill has been described as varied and uncontrolled.

Following the completion of borehole hand augering, the groundwater levels remained relatively constant in the boreholes at the levels at which they were initially encountered during hand augering. The site groundwater flow direction is unknown. However, based upon site vicinity topography, the groundwater flow direction is inferred to be westerly, towards the channel separating Oakland from Alameda. The channel is connected to San Francisco Bay, and is tidally influenced. The area of investigation is located approximately 350 feet from the channel. It is possible that the groundwater flow direction at the site may be tidally influenced.

#### LABORATORY RESULTS

All of the soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D) using EPA Method 3550 (soil) or EPA Method 3510 (water) in conjunction with Modified EPA Method 8015; for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX) and MTBE using EPA Method 8020; and for total Lead using EPA Method 6010.

The Laboratory analytical results of the soil samples collected from the boreholes show that TPH-G, BTEX, MTBE and TPH-D were not detected in any of the soil samples except for B6 at a depth of 4.5 feet, where TPH-D was detected at a concentration of 16 ppm. Review of the laboratory analytical report indicates that Oil-range compounds are significant. Lead was detected in soil samples B3-4.5, B4-4.5, B5-4.5, and B6-4.5 at concentrations of 58, 310, 9.3, and 23 ppm, respectively.

The Laboratory analytical results of the groundwater grab samples collected from the boreholes show that TPH-G, BTEX, MTBE and TPH-D were not detected in any of the water samples. Lead was detected in groundwater grab samples B3, B4, B5, and B6 at concentrations of 0.049, 1.7, 0.68, and 0.49 ppm, respectively.

The laboratory analytical results for the soil samples are summarized in Table 3, and the laboratory analytical results for the water samples are summarized in Table 4. Copies of the laboratory analytical results and chain of custody documentation are attached with this report.

#### DISCUSSION AND RECOMMENDATIONS

A total of four soil borings, designated as B3 through B6 were hand augered in the vicinity of the former UST at the subject site. One soil and one groundwater sample was collected from each borehole. The subsurface materials encountered at the site consisted predominantly of fine grained sand with minor gravel approximately 1-inch in diameter to the total depth explored of approximately 7.5 feet below grade. Groundwater was encountered between the depths of approximately 5.0 and 7.0 feet below grade. Groundwater flow direction at the site is unknown, but is inferred to be to the west towards the channel separating Oakland from Alameda. Because of the proximity of the site to the channel, groundwater flow direction at the site may be tidally influenced.

All of the samples were analyzed for TPH-G, BTEX, MTBE, TPH-D and total lead. The laboratory analytical results of the samples showed that TPH-G, BTEX, MTBE and TPH-D were not detected in any of the samples with the exception of the soil sample from borehole B6 at a depth of 4.5 feet, where TPH-D was detected at a concentration of 16 ppm. Review of the laboratory analytical report indicates that the TPH-D results are oil-range compounds. Total lead was detected in all of the soil samples at concentrations ranging from 9.3 to 310 ppm, and in all of the water samples at concentrations ranging from 0.049 to 1.7 ppm.

Based upon the laboratory analytical results, the extent of petroleum hydrocarbons in the vicinity of the UST appears to be limited and appears to have been defined in the areas not under the building. bec HCs mostly N.D. The lead concentrations detected in both soil and groundwater do not appear to be related to the presence of petroleum hydrocarbons. Based upon the uncontrolled nature of the fill in the vicinity of the area of investigation, it appears that lead is present in the fill.

Based upon a telephone conversation with Ms. Jennifer Eberle on March 29, 1996 additional analysis of the soil samples for Waste Extraction Tests and subsequent lead analysis will not be required. Based upon the existing sample results, AllPro recommends that no further investigation be performed and that case closure be requested from the ACDEH.

DISTRIBUTION

Copies of this report should be distributed to Ms. Jennifer Eberle at the Alameda County Department of Environmental Health, and to Mr. Richard Hiatt at the San Francisco Bay Regional Water Quality Control Board. Copies of the report should be accompanied by a transmittal letter signed by the principal executive officer of Meyer Plumbing Supply.

LIMITATIONS

This report was prepared solely for the use of Meyer Plumbing Supply. The content and conclusions provided by AllPro in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. AllPro is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.



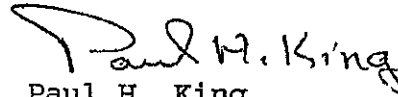
April 5, 1996  
Report 0109.R1

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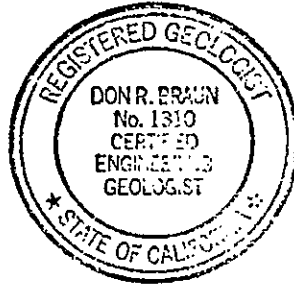
Should you have any questions, please do not hesitate to contact us at (510) 706-9308.

Sincerely,

AllPro Environmental Corporation



Paul H. King  
Hydrogeologist



Don R. Braun  
Certified Engineering Geologist  
Registration No. : 1310  
Expires: 6/30/96

PHK/aog  
0109.R1

Attachments: Tables 1, 2, 3 & 4  
Site Location Map (Figure 1)  
Site Plan Detail (Figure 2)  
Laboratory Analytical Results  
Chain of Custody Documentation

TABLE 1  
BOREHOLE SOIL SAMPLES  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
(Samples Collected on September 15, 1993)

Sample No.	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total Lead
SB-1	4.2	ND	ND	ND	ND	0.0090	71
SB-2	15,000	34	ND	ND	0.65	0.82	84

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

Results are in parts per million (ppm), unless otherwise indicated.

TABLE 2  
GROUNDWATER GRAB SAMPLE  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
(Sample Collected on September 15, 1993)

Sample No.	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total Lead
SB-2	5.5	0.085	0.0027	0.00066	ND	0.00051	ND

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

Results are in parts per million (ppm), unless otherwise indicated.

TABLE 3  
SOIL SAMPLES  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
(Samples Collected on March 20, 1996)

Location No.	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total Lead
B3-4.5	ND	ND	ND	ND	ND	ND	58
B4-4.5	ND	ND	ND	ND	ND	ND	310
B5-4.5	ND	ND	ND	ND	ND	ND	9.3
B6-4.5* 16	ND	ND	ND	ND	ND	ND	23

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

TPH-D = Total Petroleum Hydrocarbons as Diesel.

ND = Not Detected.

\* = Review of the laboratory analytical report indicates that the TPH-D sample results are oil-range compounds.  
Results in parts per million (ppm), unless otherwise indicated.

TABLE 4  
GROUNDWATER GRAB SAMPLES  
SUMMARY OF LABORATORY ANALYTICAL RESULTS  
(Samples Collected on March 20 and 21, 1996)

Location No.	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total Lead
B3	ND	ND	ND	ND	ND	ND	0.049
B4	ND	ND	ND	ND	ND	ND	1.7
B5	ND	ND	ND	ND	ND	ND	0.68
B6	ND	ND	ND	ND	ND	ND	0.49

1<sup>0</sup>MCL = 0.05 ppm  
EPA/DHS

TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
TPH-D = Total Petroleum Hydrocarbons as Diesel.  
ND = Not Detected.

Results in parts per million (ppm), unless otherwise indicated.

> MCL



Base Map From:  
 U.S. Geological Survey  
 Oakland West, Calif.  
 7.5 Minute Quadrangle  
 Photorevised, 1980

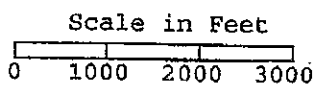
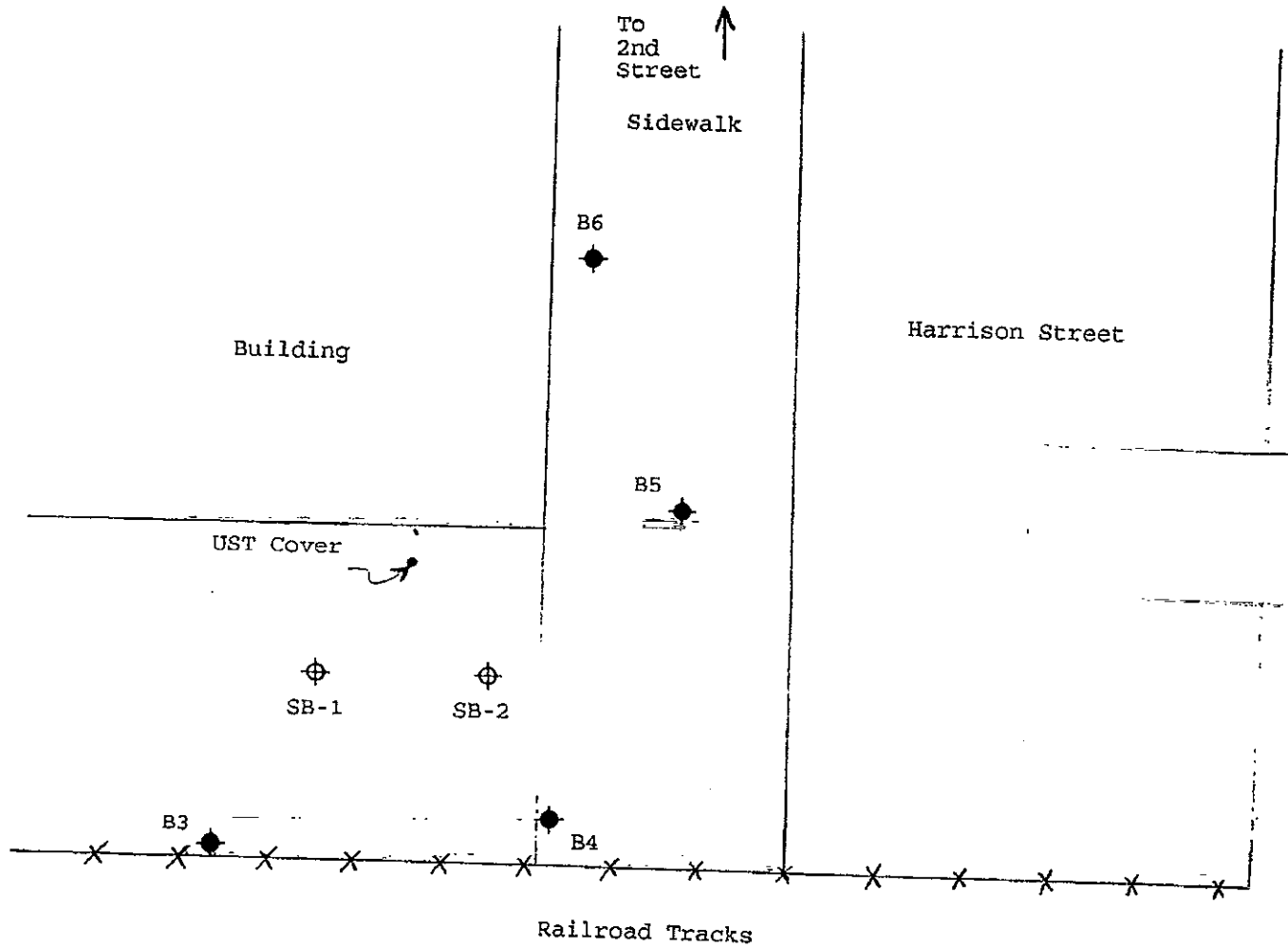


Figure 1  
 SITE LOCATION MAP  
 Meyer Plumbing Supply  
 311-2nd Street  
 Oakland, California



**LEGEND**

- ⊕ Angled Soil Boring Location  
(Blymyer Engineers, Inc.)
- ◆ Soil Boring Location  
(AllPro Environmental)

Base Map From  
AllPro Environmental  
Dated: 3/21/96

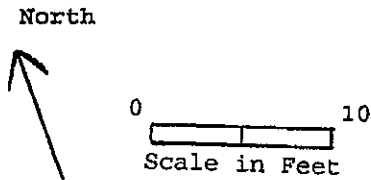


Figure 2  
SITE PLAN DETAIL  
Meyer Plumbing Supply  
311 Second Street  
Oakland, California

AllPro Environmental Corp. 1125B Arnold Drive, # 284 Martinez, CA 94553	Client Project ID: # 0109; Meyer Plumbing Supply-Oakland	Date Sampled: 03/20/96
	Client Contact: Paul King	Date Received: 03/21/96
	Client P.O:	Date Extracted: 03/21/96
		Date Analyzed: 03/21/96

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with MTBE & 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) <sup>+</sup>	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
62608	B3-4.5	S	ND	ND	ND	ND	ND	ND	104
62609	B4-4.5	S	ND	ND	ND	ND	ND	ND	103
62610	B5-4.5	S	ND	ND	ND	ND	ND	ND	105
62611	B6-4.5	S	ND	ND	ND	ND	ND	ND	104
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	0.5	
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	0.005	

\* water and vapor samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/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.



AllPro Environmental Corp. 1125B Arnold Drive, # 284 Martinez, CA 94553	Client Project ID: # 0109; Meyer Plumbing Supply-Oakland	Date Sampled: 03/20/96
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	Client P.O:	Date Extracted: 03/21/96
		Date Analyzed: 03/21/96

**Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel \***  
 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(d) <sup>+</sup>	% Recovery Surrogate
62608	B3-4.5	S	ND	94
62609	B4-4.5	S	ND	95
62610	B5-4.5	S	ND	93
62611	B6-4.5	S	16,g	94
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L		
	S	1.0 mg/kg		

\* water samples are reported in ug/L, soil samples in mg/kg, and all TCLP and STLC extracts in mg/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.



## QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/21/96

Matrix: Soil

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		
	Sample (#62376)	MS	MSD		MS	MSD	RPD
TPH (gas)	0.000	1.910	1.885	2.03	94	93	1.3
Benzene	0.000	0.194	0.194	0.2	97	97	0.0
Toluene	0.000	0.202	0.204	0.2	101	102	1.0
Ethylbenzene	0.000	0.208	0.206	0.2	104	103	1.0
Xylenes	0.000	0.618	0.618	0.6	103	103	0.0
TPH (diesel)	0	305	299	300	102	100	1.9
TRPH (oil and grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

## QC REPORT FOR METALS

Date: 03/22/96

Matrix: Soil

Extraction: TLC

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
Arsenic	0.00	5.45	5.32	5.0	109	106	2.5
Selenium	0.00	5.06	4.93	5.0	101	99	2.5
Molybdenum	0.00	5.05	4.92	5.0	101	98	2.7
Silver	0.00	0.44	0.43	0.5	88	86	2.1
Thallium	0.0	4.81	4.68	5.0	96	94	2.8
Barium	0.00	4.66	4.42	5.0	93	88	5.3
Nickel	0.00	5.28	5.19	5.0	106	104	1.6
Chromium	0.00	5.14	4.99	5.0	103	100	2.9
Vanadium	0.00	5.09	4.96	5.0	102	99	2.6
Beryllium	0.00	5.26	5.07	5.0	105	101	3.8
Zinc	0.00	5.35	5.24	5.0	107	105	1.9
Copper	0.00	4.92	4.64	5.0	98	93	5.7
Antimony	0.00	5.21	4.97	5.0	104	99	4.6
Lead	0.00	5.21	5.14	5.0	104	103	1.3
Cadmium	0.00	5.57	5.48	5.0	111	110	1.6
Cobalt	0.00	5.15	5.00	5.0	103	100	3.0
Mercury	0.000	0.248	0.240	0.25	99	96	3.3

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$





AllPro Environmental Corp. 1125B Arnold Drive, # 284 Martinez, CA 94553	Client Project ID: # 0109; Meyer Plumbing Supply-Oakland	Date Sampled: 03/20-03/21/96
	Client Contact: Paul King	Date Received: 03/21/96
	Client P.O.:	Date Extracted: 03/22/96
		Date Analyzed: 03/23-03/24/96

**Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel \***  
 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(d) <sup>+</sup>	% Recovery Surrogate
62604	B3	W	ND	101
62605	B4	W	ND	101
62606	B5	W	ND,i	100
62607	B6	W	ND	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L		
	S	1.0 mg/kg		

\* water samples are reported in ug/L, soil samples in mg/kg, and all TCLP and STLC extracts in mg/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  
 Tele: 510-798-1620 Fax: 510-798-1622

AllPro Environmental Corp. 1125B Arnold Drive, # 284 Martinez, CA 94553	Client Project ID: # 0109; Meyer Plumbing Supply-Oakland	Date Sampled: 03/20-03/21/96
	Client Contact: Paul King	Date Received: 03/21/96
	Client P.O:	Date Extracted: 03/25-03/26/96
		Date Analyzed: 03/25-03/26/96

**Dissolved Lead\***

EPA analytical methods 6010/200.7, 239.2\*

Lab ID	Client ID	Matrix	Extraction <sup>o</sup>	Lead*	% Recovery Surrogate
62604	B3	W	TTLIC	0.049	NA
62605	B4	W	TTLIC	1.7	NA
62606	B5	W	TTLIC	0.68,i	NA
62607	B6	W	TTLIC	0.49,i	NA
Reporting Limit unless otherwise stated; ND means not detected above the re- porting limit	S	TTLIC	3.0 mg/kg		
	W	TTLIC	0.005 mg/L		
	--	STLC,TCLP	0.2 mg/L		

\* soil samples are reported in mg/kg, and water samples and all STLC & TCLP extracts in mg/L  
 + Lead is analysed using EPA method 6010 (ICP) for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples  
 o EPA extraction methods 1311(TCLP), 3010/3020(water,TTLIC), 3040(organic matrices,TTLIC), 3050(solids,TTLIC); STLC from CA Title 22  
 # surrogate diluted out of range; N/A means surrogate not applicable to this analysis  
 l) liquid sample that contains greater than ~ 2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

*EH* Edward Hamilton, Lab Director



## QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/21/96

Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		
	Sample (#62567)	MS	MSD		MS	MSD	RPD
TPH (gas)	0.0	112.5	114.0	100.0	112.5	114.0	1.3
Benzene	0.0	10.2	9.9	10.0	102.0	99.0	3.0
Toluene	0.0	10.4	10.0	10.0	104.0	100.0	3.9
Ethyl Benzene	0.0	10.4	10.0	10.0	104.0	100.0	3.9
Xylenes	0.0	30.6	29.3	30.0	102.0	97.7	4.3
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

## QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/23/96-03/24/96

Matrix: Water

Analyte	Concentration (ug/L) Sample (#62553)			Amount Spiked	% Recovery		
	MS	MSD			MS	MSD	RPD
TPH (gas)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethyl Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TPH (diesel)	0	158	155	150	105	104	1.6
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

## QC REPORT FOR METALS

Date: 03/25/96

Matrix: Water

Extraction: TLC

Analyte	Concentration (mg/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
Arsenic	0.00	4.95	5.07	5.0	99	101	2.5
Selenium	0.00	4.86	4.99	5.0	97	100	2.6
Molybdenum	0.00	4.86	5.07	5.0	97	101	4.3
Silver	0.00	0.4	0.5	0.5	89	91	2.6
Thallium	0.00	4.66	4.84	5.0	93	97	3.8
Barium	0.00	4.64	4.70	5.0	93	94	1.3
Nickel	0.00	5.01	5.26	5.0	100	105	5.0
Chromium	0.00	5.04	5.18	5.0	101	104	2.8
Vanadium	0.00	4.90	5.04	5.0	98	101	2.8
Beryllium	0.00	5.05	5.29	5.0	101	106	4.6
Zinc	0.00	5.01	5.20	5.0	100	104	3.6
Copper	0.00	4.93	4.94	5.0	99	99	0.2
Antimony	0.00	4.95	5.07	5.0	99	101	2.4
Lead	0.00	4.93	5.17	5.0	99	103	4.9
Cadmium	0.00	5.35	5.45	5.0	107	109	1.9
Cobalt	0.00	5.00	5.12	5.0	100	102	2.4
Mercury	0.000	0.248	0.240	0.25	99	96	3.3

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

## QC REPORT FOR AA METALS

Date: 03/26/96

Matrix: Water

Analyte	Concentration (mg/L)			Amount	% Recovery		
	Sample	MS	MSD		MS	MSD	RPD
Total Lead	0.00	5.39	5.27	5.00	108	105	2.3
Total Cadmium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Chromium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nickel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Zinc	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Copper	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organic Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

