



ENVIRONMENTAL  
INVESTIGATION

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AllWest Environmental, Inc.

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SUBSURFACE INVESTIGATION REPORT

*Mariner Square*  
2415 Mariner Square Drive  
Alameda, California

PREPARED FOR:

Ms. Diana Weigle  
Assistant Vice President  
Bank of America  
50 California Street, 11th Floor  
San Francisco, CA 94111

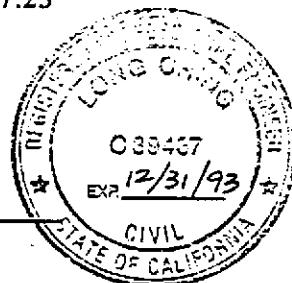
ALLWEST PROJECT No. 91287.23

May 1, 1992

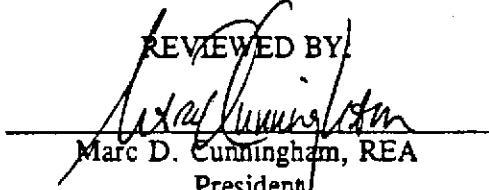
PREPARED BY:



Long Ching, P.E.  
Senior Project Manager



REVIEWED BY:



Marc D. Cunningham, REA  
President



May 1, 1992

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Ms. Diana Weigle  
Assistant Vice President  
Bank of America  
50 California Street, 11th Floor  
San Francisco, CA 94111

**Subject:** Subsurface Investigation Report  
Mariner Square  
2415 Mariner Square Drive, Alameda, California  
AllWest Project 91287.23

Dear Ms. Weigle:

AllWest is pleased to present the attached report which describes the subsurface investigation performed at the subject site, presents the results of the investigation, and provides our conclusions and recommendations.

In summary, this subsurface investigation uncovered evidence of soil and groundwater contamination by petroleum hydrocarbons at the subject site. The extent of soil and groundwater contamination is preliminarily identified in the area containing historical oil storage and transfer facilities. AllWest believes the contamination is related to these former oil facilities. During the course of investigation, AllWest also discovered two abandoned underground storage tanks at the subject site that still contain petroleum products.

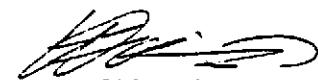
AllWest recommends that further investigation be conducted to clearly define the areal and vertical extent of soil and groundwater contamination and to better characterize the subsurface environment of the subject site. Future investigations should include the collection of additional soil samples, the installation of permanent groundwater monitoring wells, the monitoring of groundwater levels, and the collection of additional groundwater samples. Only through the acquisition of adequate data can a meaningful evaluation of the site's remedial alternatives be conducted. We also recommend the two abandoned underground storage tanks discovered during this investigation be properly removed and disposed of to reduce the potential of further contaminating the property. Closure of out of service underground tanks is required by federal and state regulations.

Since elevated concentrations of petroleum hydrocarbons were detected in the soil and groundwater of the subject property, AllWest recommends a copy of this report be forwarded to appropriate regulatory agencies to comply with applicable laws and regulations. The regulatory agencies having jurisdiction over the subject property are the Alameda County Public Health Department and the San Francisco Bay Region Water Quality Control Board.

We appreciate the opportunity of providing this service to you. If you have any questions regarding the attached report or need assistance in disposing of the drums, please call us at (415) 391-2510.

Sincerely,

**AllWest Environmental, Inc.**



Long Ching, P.E.  
Senior Project Manager

LC/jb

Attachment: Subsurface Investigation Report



## TABLE OF CONTENTS

Transmittal Letter	
I. EXECUTIVE SUMMARY	Page 1
II. INTRODUCTION	Page 1
A. Site Background	Page 1
B. Scope of Work	Page 2
III. FIELD ACTIVITIES	Page 2
A. Underground Utility Locating	Page 2
B. Soil and Groundwater Sampling	Page 3
C. Field Quality Assurance / Quality Control	Page 4
IV. INVESTIGATION FINDINGS	Page 4
A. Site Soil and Groundwater Conditions	Page 4
B. Analytical Results	Page 5
C. Abandoned Underground Storage Tanks	Page 5
V. DISCUSSIONS AND CONCLUSIONS	Page 6
VI. RECOMMENDATIONS	Page 7
VII. REPORT LIMITATIONS	Page 8
VIII. FIGURES	
Figure 1 - Site Location Map	
Figure 2 - Site Vicinity Map	
Figure 3 - Site Map (Showing Sampling Locations)	
Figure 4 - Soil Contamination Contour Map	
Figure 5 - Groundwater Contamination Contour Map	
IX. APPENDICES	
Appendix A - Summary of Field Sampling	
Appendix B - Summary of Test Results	
Appendix C - Laboratory Report and Chain-of-Custody	

SUBSURFACE INVESTIGATION  
MARINER SQUARE  
2415 MARINER SQUARE DRIVE  
ALAMEDA, CALIFORNIA

## I. EXECUTIVE SUMMARY

AllWest conducted a subsurface investigation at the Mariner Square located at 2415 Mariner Square Drive, in Alameda during the period of April 7 through April 9, 1992. A total of twenty-four "hydro-punch" probes were advanced and twenty-four soil samples and four groundwater samples were collected. Field observation and screening revealed a substantial number of samples containing petroleum hydrocarbons. The collected soil and groundwater samples were forwarded to a state certified laboratory for chemical analyses. Test results indicate elevated concentrations of petroleum hydrocarbons and some aromatic organics in most of the soil and groundwater samples.

Based on data gathered during this investigation program, AllWest concludes that the soils and groundwater at the subject site have been impacted by petroleum hydrocarbons. The source of petroleum hydrocarbon contamination appeared to originate from the former oil storage and transfer facility operated by the Tidewater Associated Oil Company between the 1940s and the 1970s. Further environmental investigation should be conducted to delineate the extent of soil and groundwater contamination.

Two undocumented underground storage tanks were discovered during the course of this investigation. Even though the two tanks are abandoned, they still contain petroleum products. AllWest recommends that these tanks be removed and disposed of in accordance with applicable regulations.

## II. INTRODUCTION

This report presents the results of a subsurface investigation conducted at the *Mariner Square* property located at 2415 Mariner Square Drive in Alameda, California. The purpose of this investigation was to evaluate the presence or absence of petroleum hydrocarbon contamination in the site's near surface soils and shallow groundwater.

### A. SITE BACKGROUND

The subject site is located at the northwest corner of the intersection between Mariner Square Drive and the Webster Street Tunnel in Alameda, California. The location of the subject site is graphically depicted in Figures 1 and 2 of this report. During a 1991 Phase I Environmental

Site Assessment conducted by AllWest Environmental, historical documents indicated that the site was utilized as a bulk oil storage and transfer facility beginning in the 1940s. The site is currently being utilized as boat preparation and painting facility. Consequently, concerns regarding potential soil and groundwater contamination by petroleum hydrocarbons from past and current site usage were raised.

## B. SCOPE OF WORK

The scope of this subsurface investigation, as outlined in AllWest's proposal, dated January 15, 1992 and authorized by Ms. Diana Weigle of Bank of America, included the following tasks:

1. Obtain the service of a private underground utility locator to identify all underground utility lines in the vicinity of sampling locations and to "outline" clear zones for the soil sampling activities.
2. Obtain the service of a drilling contractor to advance up to twenty-six soil probes to a depth immediately above the groundwater table and collect one soil sample from each location.
3. At four selected locations, advance the probes below the groundwater table and collect one groundwater sample from each location.
4. Direct the drilling and sampling operation. Maintain a log of field activities for each sampling location and a chain-of-custody form for all collected soil and groundwater samples.
5. Submit collected soil and groundwater samples to a state certified laboratory for chemical analyses. Perform laboratory analyses on the samples to include Total Recoverable Petroleum Hydrocarbon (TRPH, EPA method 418.1) and Volatile Organics (VO, EPA method 8240/624).
6. Prepare a written report to describe the investigation conducted, summarize the laboratory test results, and present professional opinions regarding the presence or absence of subsurface contamination.

## III. FIELD ACTIVITIES

### A. Underground Utility Locating

To avoid damaging underground utilities, a underground utility locating program was planned as the first part of the field work for this investigation. Underground utility locating was performed by California Underground Location Service of San Leandro, California, under the direction of AllWest personnel on March 30, 1992. Two passes, a passive sweep and a ground

induction spread, were conducted over the proposed sampling locations. Several underground utility lines and abandoned aboveground storage tank bases were found within the study area. An undocumented underground storage tank (UST) were also discovered northwest of the study area. The locations of identified pipe lines and limits of the abandoned tank bases and undocumented UST were marked by spray paint on the ground surface.

Besides obtaining the service of a private underground utility locator, AllWest informed Underground Utility Alert (USA), a network of public utility companies and government agencies that maintain underground utilities, about the planned subsurface investigation. Spray paint on the ground surface marking the locations of underground water lines, gas lines, and telephone cable lines of the site were accomplished by utility companies' personnel before the time of field sampling.

## B. Soil and Groundwater Sampling

The second part of the field work was soil and groundwater sampling. The sampling program was conducted on April 7, 8, and 9, 1992. A total of twenty three soil samples and four groundwater samples were collected. Only one soil sample was obtained inside the North Sale Building because of the difficulty in sampling through the concrete floor and the overhead obstructions of the building structure on the sampling equipment.

The technique employed to collect the soil and groundwater samples is known as "hydro-punch sampling". Sampling is conducted by using a decontaminated 5-foot long and 3/4-inch inside diameter (I.D.) galvanized steel probe pipe. A one-foot long steel sampling tube with the same I.D. is attached to the bottom end of the probe pipe. A steel rod is inserted into the pipe/tube assembly and then the entire sampling assembly is driven to the sampling depth with a pneumatic hammer.

A soil sample is collected by removing the steel insert rod and driving the sampling assembly for another foot of depth. Once the sampling assembly is withdrawn from the subsurface with a wench, the sampling tube is removed from the probe pipe and the ends of the tube are sealed with teflon tape and plastic cap. The sample tube, which contains the collected soil sample, is then labeled with the project name, sampling date and time, depth, and sampling point location. The sample is then stored in an ice chest cooled to 4°C with crushed ice for subsequent laboratory analysis.

A groundwater sample is collected by connecting a pre-cleaned and slotted 5-foot section of steel pipe to a regular probe pipe. The slotted pipe acts as a temporary well screen to allow groundwater flow into the pipe assembly. The pipe assembly and the insert rod is then driven to a depth at least 5 feet below the groundwater table in the same manner as soil sampling. After the rod is removed and sufficient groundwater is accumulated inside the pipe, a decontaminated steel bailer is lowered to collect the groundwater sample through the inside of the probe pipe. Once the bailer is retrieved, the groundwater contained in the bailer is immediately transferred to proper sample container. The groundwater sample container is then sealed, labeled, and placed on ice.

Hydro-punch sampling was performed by Environment Control Associates of Watsonville, California, under the direction of an AllWest engineer or geologist. The approximate locations of the sampling points are indicated on Figure 3 of this report. A field log of sampling activities that contains information such as the date and time of sample collection, the type and characteristics of the sample, and the reading of organic vapor analyzer on the sample were maintained by AllWest personnel. The field log is summarized in Table A-1 of Appendix A. At the end of the work day, all collected soil and groundwater samples were hand delivered to the analytical laboratory by special courier under chain-of-custody protocol.

#### C. Field Quality Assurance / Quality Control

During the field investigations, all sampling equipment, including probe pipes, sample tubes, well pipes, and insert rods, were thoroughly cleaned in a phosphate-free detergent solution and rinsed with clean water prior to each use. Rinseate (decontamination water) and water from wells not intended for laboratory analysis (well development water) were retained on-site in a 55-gallon drum. This drum meets Department of Transportation (DOT) specifications.

### IV. INVESTIGATION FINDINGS

#### A. Site Soil and Groundwater Conditions

Since the hydro-punch sampling technique does not generate soil cuttings, the site's soil conditions are deduced from the observation of discrete soil samples collected and the extrapolation between sampling points. In general, the near surface site soils are predominately sandy in texture and dark brown in color. There are minor areas of silts and clays. Fines (silts and clays) generally increase with depth. This is consistent with the development history of the subject property and the descriptions in the geologic literature.

Groundwater at the subject property occurs at shallow depth. Depth to first groundwater table varied from 3.5 feet to 6 feet based on field observation during groundwater sampling. Due to the proximity of the site to the Oakland Estuary and the San Francisco Bay, groundwater elevation and flow direction are expected to reflect the tidal influence.

Field observations made of the site's soil and groundwater samples revealed that most of the soil samples in the boat repair area gave off petroleum odor after being exposed to normal atmosphere. Some soil samples contained dark green stains which implied petroleum hydrocarbon contamination. Two of the four groundwater samples contained oily sheen indicating the presence of free product.

## B. Analytical Results

A total of 23 soil samples and 4 groundwater samples were forwarded to a state certified analytical laboratory, American Environmental Laboratory of Rancho Cordova, California, for chemical analysis. Analyses performed on submitted samples included Total Recoverable Petroleum Hydrocarbons (TRPH, EPA Method 418.1) and Volatile Organics (VO, EPA Method 8240/624).

According to the test results, elevated concentrations of petroleum hydrocarbons were detected in 20 out of 22 soil samples and 2 out of the 4 groundwater samples tested. One alternate soil sample collected was not tested. The highest concentration level in soil and groundwater sample is 13,000 parts per million (ppm) at sampling location #4 and 1,200 ppm at sampling location #18, respectively. All sampling locations are shown on Figure 3 of this report.

The results of volatile organics analysis indicate concentration levels in most of the soil samples and in all of the groundwater samples were below the laboratory detection limits. Only 4 soil samples tested had detectable concentrations of volatile organics in the form of ethylbenzene and xylene. The highest concentration for volatile organics in a soil sample is 1,600 parts per billion (ppb) for ethylbenzene and 8,400 ppb for xylene at sample location #17. Results of laboratory analyses are summarized in Tables B-1 and B-2 in Appendix B of this report. A copy of the full laboratory reports and chain-of-custody forms is presented in Appendix C.

## C. Abandoned Underground Storage Tanks

As indicated in the "Underground Utility Locating" section of this report, two abandoned underground storage tanks (USTs) were uncovered during the course of investigation. One of the tanks is located east of the Norcal Boat Sales office and the other is east of the maintenance shop, south of the Norcal Boat Sales. The approximate locations of these two tanks are depicted on Figure 3.

The northern most UST is the smaller of the two. According to the magnetometer response, the tank is approximately 4 feet in diameter by 9 feet in length. The tank's bottom, found by dipping, is at approximately 6.5 feet below the ground surface. It contains about 2 feet of petroleum product. The product in the tank is an oily type of fluid, similar to diesel oil. Based on the approximate dimension, AllWest estimates the capacity of the tank is between 500 and 1,000 gallons.

The southern most UST is the larger of the two tanks. Its bottom is at about 15 feet below the ground surface. The approximate dimensions of this tank were not surveyed by magnetometer; however, AllWest estimated the capacity most likely between 10,000 and 15,000 gallons based on depth to tank bottom at 15 feet. This tank is filled completely with petroleum products, of similar characteristics to bunker "C" oil or type 6 diesel oil, a very viscous oil type. Both tanks appeared abandoned and were not in compliance with current UST regulations.

## V. DISCUSSIONS AND CONCLUSIONS

Based on laboratory test results and associated sampling locations, a contour map depicting the concentration of petroleum hydrocarbons detected in site's soil and groundwater is presented on Figure 4 and 5, respectively. As shown on Figure 4, a soil contamination plume has been detected beneath the entire former oil storage and transfer facility. The preliminary results indicate that two "hot spots", with petroleum hydrocarbon concentrations over 10,000 ppm, exist at the northwest and southeast corners of the former facility, near sampling location #18 and #4, respectively. Most of the higher concentration samples, with petroleum hydrocarbon levels over 1,000 ppm, are centered around the former aboveground tank cluster, in front of the current North Sail building in the boat repair area. The extent of preliminary groundwater plume mimics the shape of soil contamination plume; however, it is centered northeast of the converted tank building.

These findings indicate that the soil and groundwater contamination is most likely related to the operation of the former oil storage and transfer facility. It is probable that tank leaks and surface spills caused the observed contamination. Based on data collected to date, contamination appears to be diffusing throughout the former facility area. However, off-site migration of the contaminants was not verified during this investigation.

Since the sampling strategy of this investigation was to verify the presence or absence of petroleum hydrocarbon contamination in site subsurface, the majority of the sampling points were located within the confines of the former oil facility. Even though a preliminary contamination plume map is generated from this investigation, very few data points were available to clearly define the boundary, or "zero line", of contamination. Additionally, a vertical distribution analysis of the contamination plume was not undertaken because almost all of the current soil data were from the same depth. Further investigation is needed to fill in the data gap so that the full extent of contamination can be better defined.

Even though high concentrations of petroleum hydrocarbons in the soil and groundwater were detected at the subject site, the exposure potential of the general population to these contaminants is considered low because the entire site is effectively covered by asphalt pavement of the parking lots and concrete slab of the buildings. Also, the site's groundwater is not a source of drinking water for the area. At this time, the contamination poses no immediate threat to public health.

In conclusion, elevated concentrations of petroleum hydrocarbons have been detected in the soils and groundwater of the subject property. Field observations and laboratory results indicate a significant amount of free product exists in the subsurface environment. The extent of contamination is preliminarily defined in the area where the former oil storage and transfer facility was once located. Further investigation and evaluation will be required to define the full extent of contamination and the potential for off-site migration.

## VI. RECOMMENDATIONS

AllWest recommends that an extensive soil and groundwater investigation be conducted to better define the extent of soil and groundwater contamination at the subject property and to supplement the data gathered from this investigation. The next phase of investigation should focus on evaluating the groundwater characteristics and defining the extent of the soil contamination plume. Subsequent investigation to the next phase may be necessary depending on the sampling results.

AllWest recommends that a minimum of five permanent groundwater monitoring wells be installed at the site. These wells should be utilized to monitor the concentration of contaminants, the thickness of free product, and the fluctuation of groundwater level. At least one monitoring well should be located up-gradient and away from the known groundwater contamination plume to provide background baseline data. The main objective of groundwater monitoring is to establish predominant groundwater gradient, flow direction, and surface elevation and to evaluate changes of gradient, elevation, floating product thickness, and contaminant concentration with time.

The soil sampling program should be focused on establishing the boundary, i.e. the zero line, of the soil contamination by conducting borings further away of the former oil facility. Since the western property line of the site abuts the Navy Supply Center, further investigation west of the former oil facility may have to be delayed pending on obtaining permission to conduct sampling and testing on Navy property. To evaluate the vertical distribution of soil contamination plume, some borings should be advanced in the known contamination area with soil sampling and testing at various depths. AllWest recommends a minimum of eight additional soil borings be planned for the next phase of investigation.

The goal of the next phase of investigation is to generate substantial soil and groundwater data so that the extent of contamination and the characteristics of subsurface environment can be fully evaluated. Remedial alternative formulation can then be commenced. To facilitate the characterization of contamination at the site, AllWest recommends that all past owners of the property be contacted for records of past petroleum storage practices and spill events.

AllWest recommends the two abandoned underground storage tanks be removed from the site to reduce the potential of further contaminating the property. Tank removal should be conducted by an experienced contractor specialized in such operations, under the surveillance of a qualified environmental consultant, and according to all applicable state and local regulations. To assure that there are no other abandoned tanks or piping, further underground utility survey should be conducted to determine these two tanks are indeed the only abandoned underground tanks in the property.

There is a 55-gallon drum near the south side of the converted tank building that contained decontamination and well development water generated from groundwater sampling activities of this investigation. AllWest recommends to leave the drum at its present location and to use it to contain future decontamination and well development water because the drum is not yet full. The drum and its content are considered "hazardous wastes" since both visual observation and

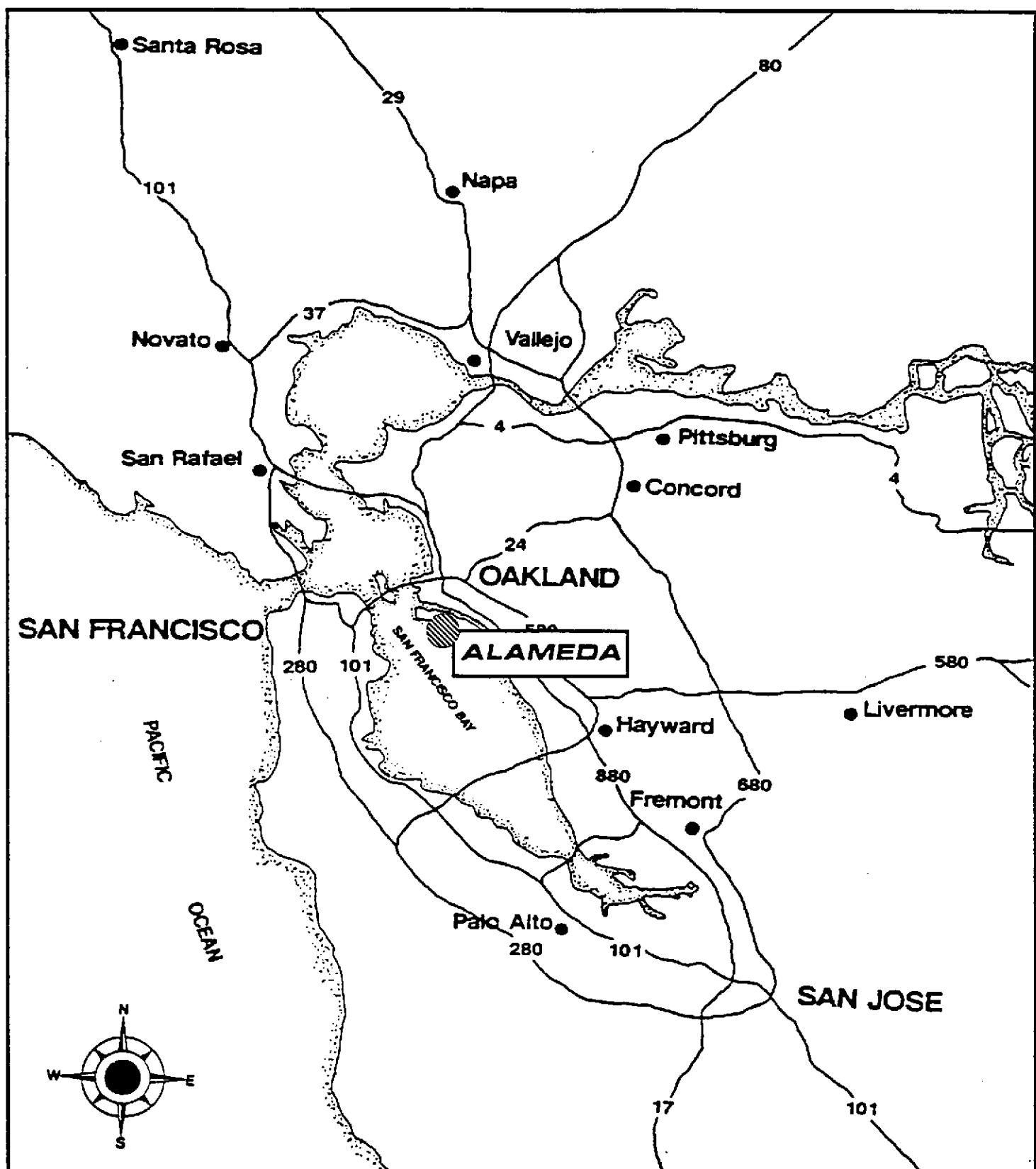
laboratory results indicate the contained water has been contaminated by petroleum hydrocarbons. The disposal of the drum and its content, once the drum is full, should be performed in accordance with applicable federal and state regulations.

Since elevated concentrations of petroleum hydrocarbons were detected in the soil and groundwater of the subject property, AllWest recommends a copy of this report be forwarded to appropriate regulatory agencies to comply with applicable laws and regulations. The regulatory agencies having jurisdiction over the subject property are the Alameda County Public Health Department and the San Francisco Bay Region Water Quality Control Board.

## VII. REPORT LIMITATIONS

The work described in this report is performed in accordance with generally accepted engineering principles and practices. The conclusions and recommendations contained in this report are made based on observed conditions existing at the site and laboratory test results of the submitted soil samples. It must be recognized that changes can occur in soil conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the soil can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest cannot be held accountable for the accuracy of the test data from an independent laboratory nor for any analyte quantities falling below the recognized standard detection limits for the method utilized by the independent laboratory.

## **FIGURES**



April 1992

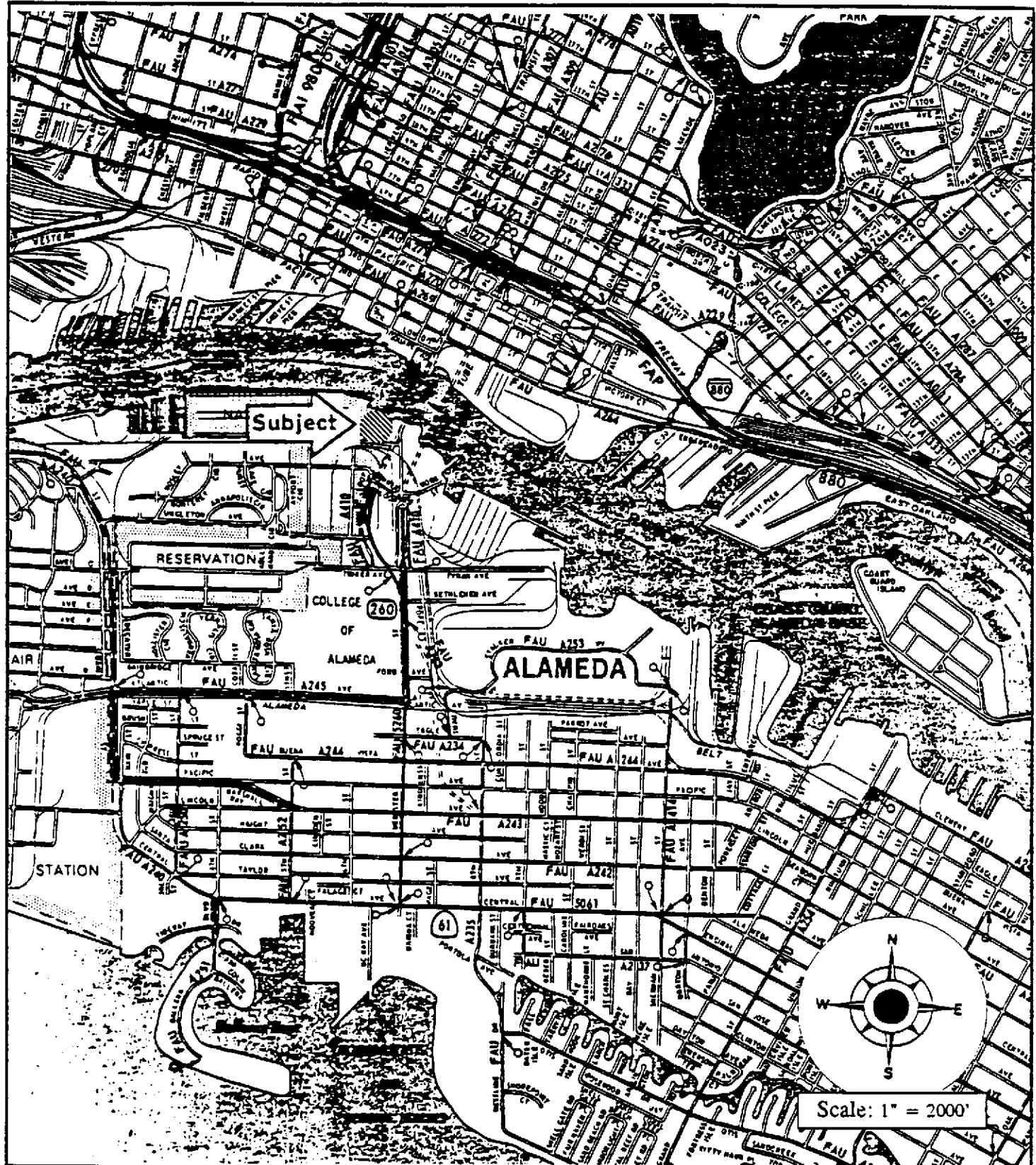
Site Location  
Map

Project 91287.23

Figure 1

Mariner Square  
Alameda, California

Source  
AllWest



**AllWest**  
AllWest Environmental, Inc.

April 1992

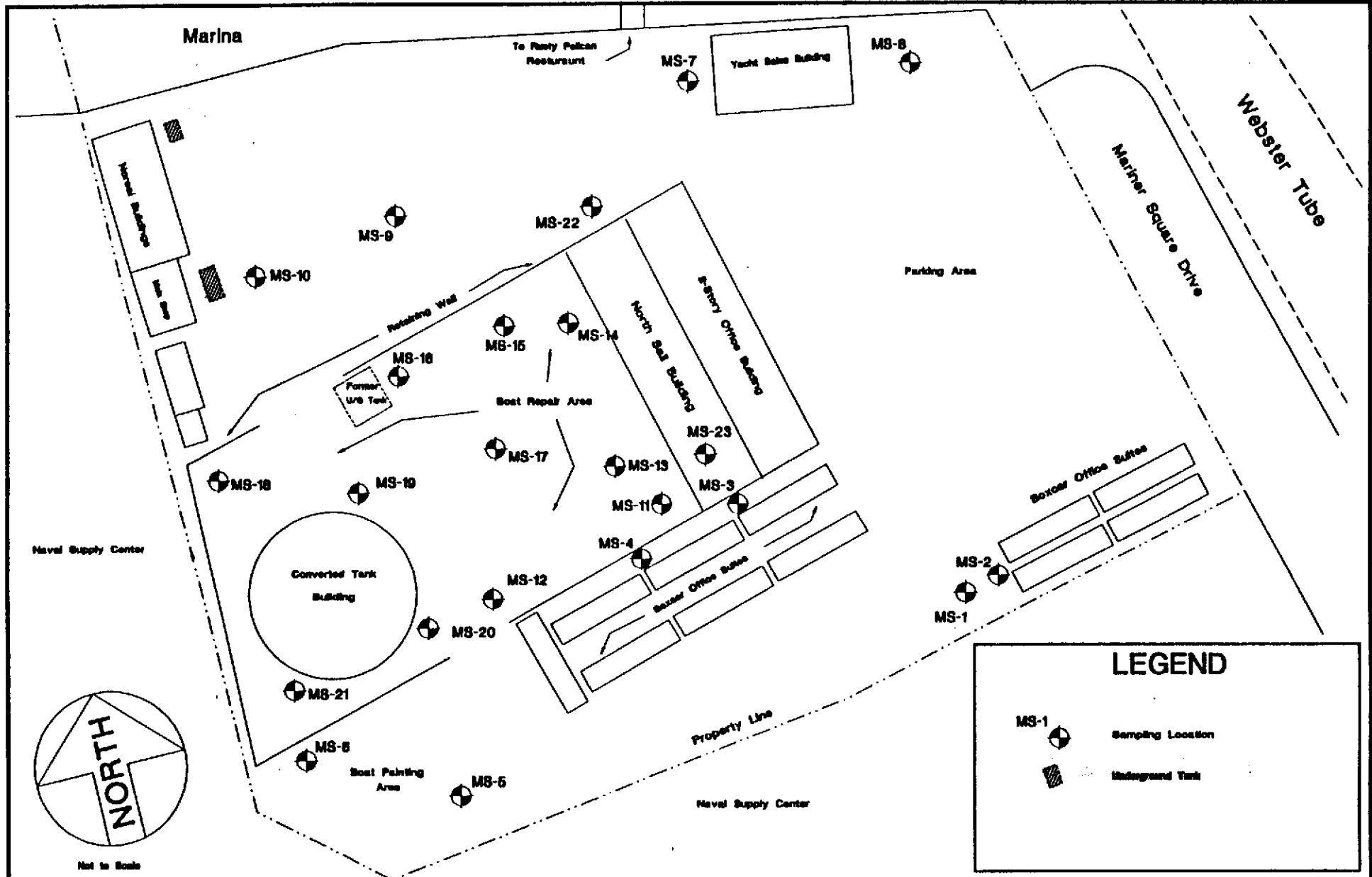
**Site Vicinity  
Map**

Project 91287.23

Figure 2

Mariner Square  
Alameda, California

Source  
CA DOT



**ALLWEST**  
Environmental, Inc.

April 1992

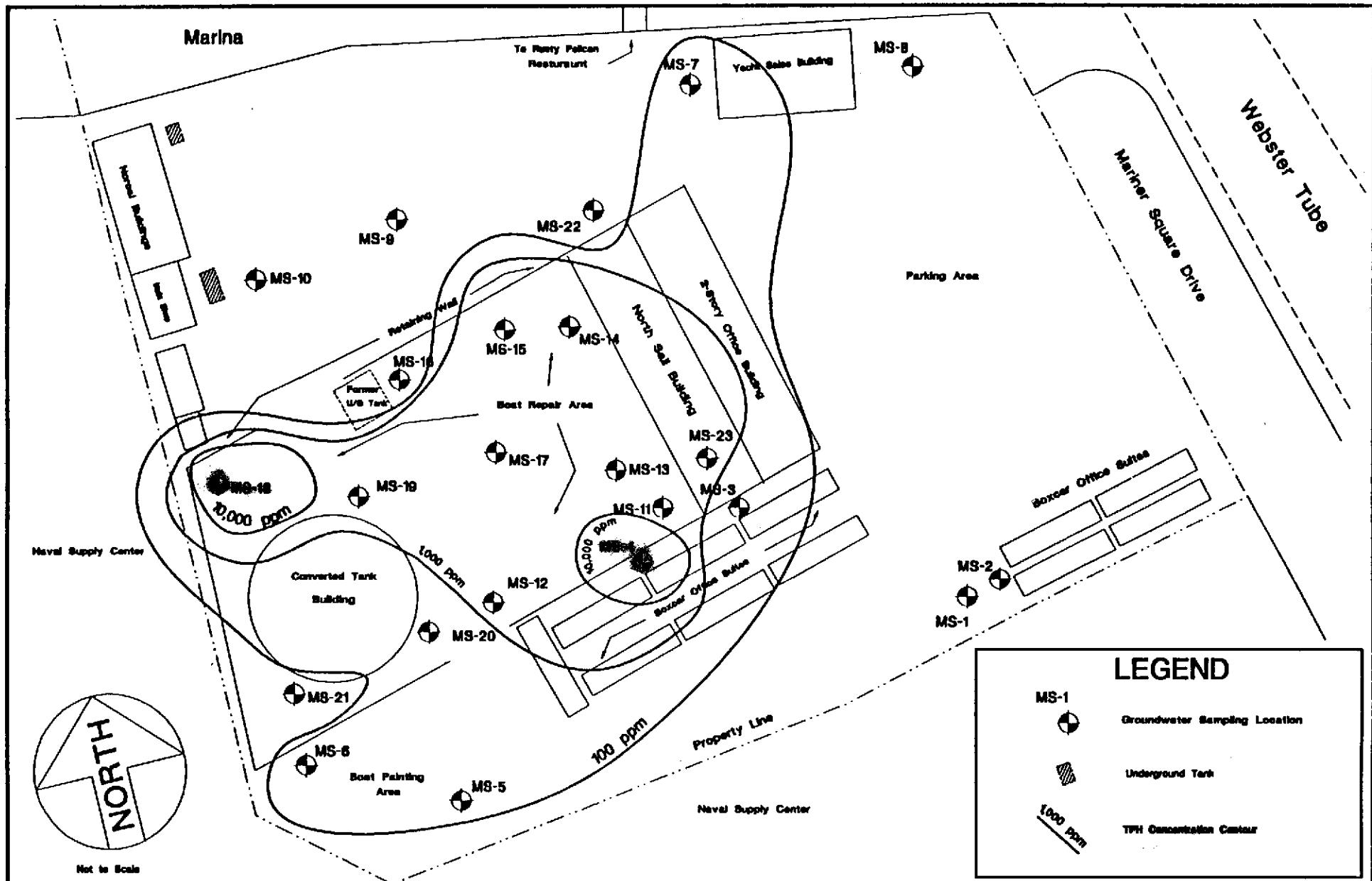
Site Plan

Project 91278.23

Figure 3

Mariner Square, City Of Alameda, California

AllWest



**ALLWEST**  
Environmental, Inc.

April 1992

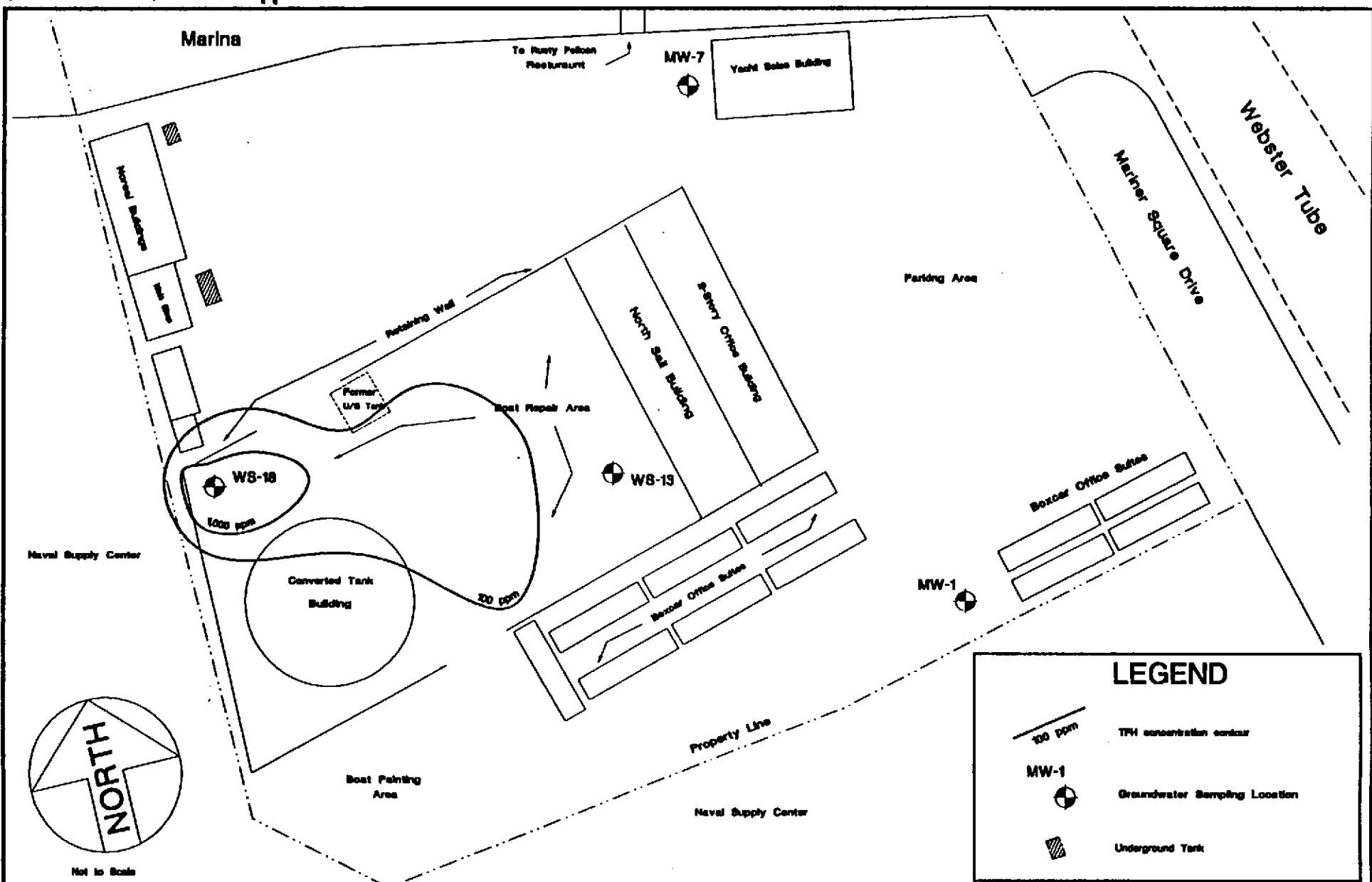
Soil Contamination

Project 91278.23

Figure 4

Mariner Square, City Of Alameda, California

AllWest



### LEGEND

- 300 ppm TPH concentration contour
- MW-1 Groundwater Sampling Location
- Underground Tank

**ALLWEST**  
Environmental, Inc.

April 1992

Water Contamination

Project 91278.23

Figure 5

Mariner Square, City Of Alameda, California

AllWest

## **APPENDIX A**

**TABLE A-1**  
**SUMMARY OF FIELD SAMPLING LOG**

Mariner Square  
 Alameda, California  
 AllWest Project No. 91287.23

SAMPLE I.D.	SAMPLE TYPE	SAMPLE DESCRIPTION	OVM READING	REMARK
MS-1	soil	dark brown, silty sand	0 ppm	
MW-1	water	no oily sheen	n/a	
MS-2	soil	dark brown, silty sand	0 ppm	
MS-3	soil	dark brown, silty sand	147 ppm	strong petroleum odor
MS-4	soil	dark brown, silty sand, damp	30 ppm	
MS-5	soil	dark brown, sandy silt	0 ppm	
MS-6	soil	dark brown, silty sand	0 ppm	
MS-7	soil	dark brown, sandy silt	0 ppm	
MW-7	water	no oily sheen	n/a	
MS-8	soil	dark brown, sandy silt	0 ppm	
MS-9	soil	dark brown, silty sand	15 ppm	
MS-10	soil	dark brown, sandy silt	12 ppm	
MS-11	soil	dark brown, silty fine sand	0 ppm	
MS-12	soil	gray, sandy silt	199 ppm	strong petroleum odor
MS-13	soil	gray to tan, fine sand, damp	102 ppm	some petroleum odor
WS-13	water	heavy oily sheen	n/a	strong petroleum odor
MS-14	soil	dark gray, silty fine sand, damp	33 ppm	some petroleum odor

MS-15	soil	dark gray to brown, fine silty sand, damp	0 ppm	
MS-16	soil	gray to tan, sandy clay, moist	0 ppm	
MS-17	soil	dark brown, silty fine sand, moist	560 ppm	strong petroleum odor, hit underground obstruction at 2'
MS-18	soil	dark brown, silty fine sand, moist	79 ppm	some petroleum odor
WS-18	water	heavy oily sheen	n/a	strong petroleum odor
MS-19	soil	dark gray, silty fine sand, damp	62 ppm	some petroleum odor
MS-20	soil	light brown, fine sand, damp	0 ppm	
MS-21	soil	tan to brown, fine sand, damp	2 ppm	
MS-22	soil	tan to brown, fine sand, damp	0 ppm	
MS-23	soil	dark olive brown, fine sand, dry	50 ppm	some petroleum odor, hit underground obstruction at 3'

## **APPENDIX B**

TABLE B-1

**PHASE I**  
**Results Of Analyses Of Soil Samples<sup>a</sup>**  
**Mariner Square**  
**City of Alameda, California**  
**AllWest Project No. 91287.23**

Samples Obtained April 7,8, & 9, 1992

SAMPLE	DEPTH (feet)	TRPH (PPM)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
MS-1	3-4	ND	ND	ND	ND	ND
MS-2	3-4	NA	NA	NA	NA	NA
MS-3	3-4	870	ND	ND	27	54
MS-4	3-4	13,000	ND	ND	1,000	1,200
MS-5	3-4	170	ND	ND	ND	ND
MS-6	3-4	520	ND	ND	ND	ND
MS-7	3-4	290	ND	ND	ND	ND
MS-8	3-4	46	ND	ND	ND	ND
MS-9	3-4	12	ND	ND	ND	ND
MS-10	3-4	37	ND	ND	ND	ND
MS-11	3-4	3,000	ND	ND	ND	ND
MS-12	3-4	3,200	ND	ND	140	270
MS-13	3-4	4,900	ND	ND	ND	ND
MS-14	3-4	6,300	ND	ND	ND	ND
MS-15	3-4	6,400	ND	ND	ND	ND
MS-16	3-4	27	ND	ND	ND	ND

TABLE B-1

SAMPLE	DEPTH (feet)	TRPH (PPM)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
MS-17	1-2	3,300	ND	ND	1,600	8,400
MS-18	3-4	11,000	ND	ND	ND	ND
MS-19	3-4	3,900	ND	ND	ND	ND
MS-20	3-4	970	ND	ND	ND	ND
MS-21	3-4	39	ND	ND	ND	ND
MS-22	3-4	ND	ND	ND	ND	ND
MS-23	2-3	6,200	ND	ND	ND	ND
Reporting Limit	-	10	5	5	5	10

TRPH - Total Recoverable Petroleum Hydrocarbons (EPA Method 418.1).

B - Benzene

T - Toluene

E - Ethylbenzene

X - Total Xylenes

ND - Not detected above laboratory reporting limits.

NA - Not analyzed.

a - Locations for these samples are shown in Figure 4.

TABLE B-2

PHASE I  
Results Of Analyses Of Groundwater Samples<sup>a</sup>  
Mariner Square  
City of Alameda, California  
AllWest Project No. 91287.23

Samples Obtained April 7,8, & 9, 1992

SAMPLE	TRPH (ppm)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
MW-1	ND	ND	ND	ND	ND
MW-7	ND	ND	ND	ND	ND
WS-13	23	ND	ND	ND	ND
WS-18	1,200	ND	ND	ND	ND
Reporting Limit	10	5	5	5	10

- TRPH - Total Recoverable Petroleum Hydrocarbons (EPA Method 418.1).  
B - Benzene  
T - Toluene  
E - Ethylbenzene  
X - Total Xylenes  
ND - Not detected above laboratory reporting limits.  
a - Locations for these samples are shown in Figure 5.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

AllWest Environmental  
One Sutter Street  
Suite 600  
San Francisco, CA 94104

04/22/92

Attention: Long Ching

Reference: Analytical Results

Project Name: Mariner Square  
Project No.: 91287.23  
Date Received: 04/07/92  
Chain Of Custody: NO NUMBER

AELC ID No.: L8642  
AELC Job No.: 798642

The following analyses were performed on the above referenced project:

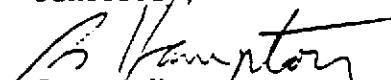
No. of Samples	Turnaround Time	Analysis Description
11	7 Days	Total Recoverable Petroleum Hydrocarbons
2	7 Days	Volatile Organics by EPA Method 624
9	7 Days	Volatile Organic Compounds by GC/MS

Elevated Method 8240 reporting limits for samples "MS-4" and "MS-6" are due to the presence of significant concentrations of hydrocarbons in these samples. Furthermore, complete surrogate standard recovery data could not be generated for samples "MS-3" and "MS-4" due to matrix interference.

These samples were received by American Environmental Laboratories in a chilled, intact state and accompanied by a valid chain of custody document.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

  
George Hampton  
Laboratory Director

- AllWest

## Chain of Custody Form

AllWest Environmental, Inc.  
Consultants in Real Estate Finance

303 Second Street Suite 680  
San Francisco, CA 94107-1317

Job Description Marmer Squealer

Job Number 91281.23

Client Contact Long Chung

Samplers Cavy feathers

Recorder ~~any working~~

## Laboratory Notes :

aboratory Notes :  
Extract from book end of sample.

Chain of Custody Record	
Relinquished by: (signature) Date/Hr <i>Saywelle, 4/7/92 164</i>	Received by (signature) <i>John Miller</i>
Relinquished by: (signature) Date/Hr <i>John Salazar 4-7-92 193</i>	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Dispatched by: (signature) Date/Hr	Received for Lab by (signature) <i>John Miller</i>

AllWest

AllWest Environmental, Inc.  
Consultants in Real Estate Finance

303 Second Street Suite 680  
San Francisco, CA 94102-1317

## Job Description - Mariner, Seafarers

Job Number 91281.23

Client Contact: Long Ching

## **Chain of Custody Form**

Samplers A Gary Farthing  
Marvin Snapp

Recorder M. Snapp

Water Soil	Waste	O1O	Containment	Method Preserved	Sample Number	Sampling Date				SAMPLE NOTES
						H2SO4	HNO3	Ice	Noice	
X			1		MS - 1	920407	1015			4' Depth OVM - 0
X			2	X	MW - 1	920407	1045			4' 10" Depth OVM - 0
X			1	X	MS - 2	920407	1030			4' Depth OVM - 0
X			1	X	MS - 3	920407	1140			4' Depth OVM - 0
X			1	X	MS - 4	920407	115			4' Depth OVM - 0
X			1	X	MS - 5	920407	1340			4' Depth OVM - 0
X			1	X	MS - 6	920407	1400			4' Depth OVM - 0
X			1	X	MS - 7	920407	150	07		4' Depth OVM - 0
X				X	MW - 7	920407	1535			6' 6" Depth OVM - 0
X				X	MS - 8	920407	1553			4' Depth OVM - 0
X				X	MS - 9	920407	1620			4' Depth OVM - 0

### Laboratory Notes :

Extract from base end of each sample.

~~Do not~~ Test MS-2 until ALL WEST OKs.

\* DISTURBED -

Chain of Custody Record	
Relinquished by: (signature) Date/Hr <i>Sony Farley, off 07/21</i>	Received by (signature) <i>J. Miller</i>
Relinquished by: (signature) Date/Hr <i>CVH/CB 2011-04-19 11:13</i>	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Dispatched by: (signature) Date/Hr <i>JKL 7/21</i>	Received for Lab by (signature) <i>J. Miller</i>

## **APPENDIX C**

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1**  
**Shaker, DOHS LUFT Method****Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510**Project:** Mariner Square**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642  
**Batch No.:** 9075  
**Matrix:** SOIL**Date Sampled:** 04/07/92**Date Received:** 04/07/92**Date Extracted:** 04/09/92**Date Analyzed:** 04/15/92**Date Reported:** 04/21/92

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**ANALYTE**

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Client	Sample I.D.	AELC	Total Recoverable Hydrocarbons (mg/kg)
MS-1		1A	ND
MS-3		4A	870
MS-4		5A	13000
MS-5		6A	170
MS-6		7A	520
MS-7		8A	290
MS-8		10A	46
MS-9		11A	12
MS-10		12A	37
Rep. Limit			10

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642  
**Batch No.:** 9075  
**Matrix:** SOIL

**Date Extracted:** 04/09/92  
**Date Analyzed:** 04/15/92  
**Date Reported:** 04/16/92

**METHOD BLANK**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)
Total Recoverable Hydrocarbons	N/A	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642  
Batch No.: 9075  
Matrix: SOIL

Date Extracted: 04/09/92  
Date Analyzed: 04/15/92  
Date Reported: 04/16/92

**MB SPIKE**

Analyte	CAS No.	MBS Conc. (mg/kg)	MBS Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	102

**MB SPIKE DUPLICATE**

Analyte	CAS No.	MBSD Conc. (mg/kg)	MBSD Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	103

**MB SPIKE RPD**

Analyte	CAS No.	MBS Relative Percent Difference (percent)
Total Recoverable Hydrocarbons	N/A	1

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Separatory Funnel, EPA Method 3510

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642  
Batch No.: 9079  
Matrix: WATER

Date Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/11/92  
Date Analyzed: 04/14/92  
Date Reported: 04/15/92

**ANALYTE**

Client	Sample I.D.	AELC	Total Recoverable Hydrocarbons (mg/L)
MW-1	2A	ND	
MW-7	9A	ND	
Rep. Limit		1	

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Separatory Funnel, EPA Method 3510

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642  
Batch No.: 9079  
Matrix: WATER

Date Extracted: 04/11/92  
Date Analyzed: 04/14/92  
Date Reported: 04/15/92

METHOD BLANK

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)
Total Recoverable Hydrocarbons	N/A	ND	1

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Separatory Funnel, EPA Method 3510

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square	AELC Contact: Mark Smith Job No.: 798642
Date Extracted: 04/11/92	COC Log No.: NO NUMBER
Date Analyzed: 04/14/92	AELC ID No.: L8642
Date Reported: 04/15/92	Batch No.: 9079 Matrix: WATER

---

MB SPIKE

---

Analyte	CAS No.	MBS Conc. (mg/L)	MBS Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	88

MB SPIKE DUPLICATE

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Analyte	CAS No.	MBSD Conc. (mg/L)	MBSD Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	92

MB SPIKE RPD

---

Analyte	CAS No.	MBS Relative Percent Difference (percent)
Total Recoverable Hydrocarbons	N/A	4

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-1A  
Batch No.: 9060  
Matrix: SOIL

Date Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MS-1

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	98
Toluene-d8	N/A	100	100
p-Bromofluorobenzene	460-00-4	100	96

Sample: MS-1

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104      **Project No.:** 91287.23  
**Project:** Mariner Square      **Contact:** Long Ching  
**Date Sampled:** 04/07/92      **Phone:** (415) 391-2510  
**Date Received:** 04/07/92  
**Date Extracted:** 04/08/92      **AELC Contact:** Mark Smith  
**Date Analyzed:** 04/08/92      **Job No.:** 798642  
**Date Reported:** 04/13/92      **COC Log No.:** NO NUMBER  
**Client ID No.:** MS-1      **AELC ID No.:** L8642-1A  
                                **Batch No.:** 9060  
                                **Matrix:** SOIL

**Sample: MS-1(cont.)**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square	AELC Contact: Mark Smith Job No.: 798642
Date Sampled: 04/07/92	COC Log No.: NO NUMBER
Date Received: 04/07/92	AELC ID No.: L8642-4A
Date Extracted: 04/08/92	Batch No.: 9060
Date Analyzed: 04/08/92	Matrix: SOIL
Date Reported: 04/13/92	
Client ID No.: MS-3	

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	108
Toluene-d8	N/A	100	93
p-Bromofluorobenzene	460-00-4	100	NR

Sample: MS-3

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	27	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104                   **Project No.:** 91287.23  
**Project:** Mariner Square                   **Contact:** Long Ching  
**Date Sampled:** 04/07/92                   **Phone:** (415) 391-2510  
**Date Received:** 04/07/92                   **AELC Contact:** Mark Smith  
**Date Extracted:** 04/08/92                   **Job No.:** 798642  
**Date Analyzed:** 04/08/92                   **COC Log No.:** NO NUMBER  
**Date Reported:** 04/13/92                   **AELC ID No.:** L8642-4A  
**Client ID No.:** MS-3                       **Batch No.:** 9060  
  **Matrix:** SOIL

Sample: MS-3(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	54	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642-5A  
**Batch No.:** 9060  
**Matrix:** SOIL

**Date Sampled:** 04/07/92  
**Date Received:** 04/07/92  
**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92  
**Client ID No.:** MS-4

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	10000	76
Toluene-d8	N/A	10000	NR
p-Bromofluorobenzene	460-00-4	10000	NR

Sample: MS-4

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	10000
Benzene	71-43-2	ND	500
Bromodichloromethane	75-27-4	ND	500
Bromoform	75-25-2	ND	500
Bromomethane	74-83-9	ND	1000
2-Butanone	78-93-3	ND	10000
Carbon disulfide	75-15-0	ND	500
Carbon tetrachloride	56-23-5	ND	500
Chlorobenzene	108-90-7	ND	500
Chloroethane	75-00-3	ND	1000
2-Chloroethyl vinyl ether	110-75-8	ND	5000
Chloroform	67-66-3	ND	500
Chloromethane	74-87-3	ND	1000
Dibromochloromethane	124-48-1	ND	500
Dibromomethane	74-95-3	ND	500
1,2-Dichlorobenzene	95-50-1	ND	500
1,3-Dichlorobenzene	541-73-1	ND	500
1,4-Dichlorobenzene	106-46-7	ND	500
Dichlorodifluoromethane	75-71-8	ND	1000
1,1-Dichloroethane	75-34-3	ND	500
1,2-Dichloroethane	107-06-2	ND	500
1,1-Dichloroethene	75-35-4	ND	500
1,2-Dichloroethene, total	540-59-0	ND	500
1,2-Dichloropropane	78-87-5	ND	500
cis-1,3-Dichloropropene	10061-01-5	ND	500
trans-1,3-Dichloropropene	10061-02-6	ND	500
Ethylbenzene	100-41-4	1000	500
2-Hexanone	591-78-6	ND	5000
Methylene chloride	75-09-2	ND	500
4-Methyl-2-pentanone	108-10-1	ND	5000
Styrene	100-42-5	ND	500
1,1,2,2-Tetrachloroethane	79-34-5	ND	500
Tetrachloroethene	127-18-4	ND	500

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square	AELC Contact: Mark Smith Job No.: 798642
Date Sampled: 04/07/92	COC Log No.: NO NUMBER
Date Received: 04/07/92	AELC ID No.: L8642-5A
Date Extracted: 04/08/92	Batch No.: 9060
Date Analyzed: 04/08/92	Matrix: SOIL
Date Reported: 04/13/92	
Client ID No.: MS-4	

Sample: MS-4(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	500
1,1,1-Trichloroethane	71-55-6	ND	500
1,1,2-Trichloroethane	79-00-5	ND	500
Trichloroethene	79-01-6	ND	500
Trichlorofluoromethane	75-69-4	ND	500
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	500
Vinyl acetate	108-05-4	ND	5000
Vinyl chloride	75-01-4	ND	1000
Xylenes, total	1330-20-7	1200	1000

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

<b>Client:</b> AllWest Environmental One Sutter Street San Francisco, CA 94104	<b>Project No.:</b> 91287.23 <b>Contact:</b> Long Ching <b>Phone:</b> (415) 391-2510
<b>Project:</b> Mariner Square	
<b>Date Sampled:</b> 04/07/92	
<b>Date Received:</b> 04/07/92	
<b>Date Extracted:</b> 04/08/92	
<b>Date Analyzed:</b> 04/08/92	
<b>Date Reported:</b> 04/13/92	
<b>Client ID No.:</b> MS-5	
<b>AELC Contact:</b> Mark Smith <b>Job No.:</b> 798642 <b>COC Log No.:</b> NO NUMBER <b>AELC ID No.:</b> L8642-6A <b>Batch No.:</b> 9060 <b>Matrix:</b> SOIL	

### SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	104
Toluene-d8	N/A	100	99
p-Bromofluorobenzene	460-00-4	100	114

Sample: MS-5

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	50
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit  
 Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-6A  
Batch No.: 9060  
Matrix: SOIL

Date Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MS-5

Sample: MS-5(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642-7A  
**Batch No.:** 9060  
**Matrix:** SOIL

**Date Sampled:** 04/07/92  
**Date Received:** 04/07/92  
**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92  
**Client ID No.:** MS-6

### SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	2000	92
Toluene-d8	N/A	2000	101
p-Bromofluorobenzene	460-00-4	2000	95

**Sample: MS-6**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	2000
Benzene	71-43-2	ND	100
Bromodichloromethane	75-27-4	ND	100
Bromoform	75-25-2	ND	100
Bromomethane	74-83-9	ND	200
2-Butanone	78-93-3	ND	2000
Carbon disulfide	75-15-0	ND	100
Carbon tetrachloride	56-23-5	ND	100
Chlorobenzene	108-90-7	ND	100
Chloroethane	75-00-3	ND	200
2-Chloroethyl vinyl ether	110-75-8	ND	1000
Chloroform	67-66-3	ND	100
Chloromethane	74-87-3	ND	200
Dibromochloromethane	124-48-1	ND	100
Dibromomethane	74-95-3	ND	100
1,2-Dichlorobenzene	95-50-1	ND	100
1,3-Dichlorobenzene	541-73-1	ND	100
1,4-Dichlorobenzene	106-46-7	ND	100
Dichlorodifluoromethane	75-71-8	ND	200
1,1-Dichloroethane	75-34-3	ND	100
1,2-Dichloroethane	107-06-2	ND	100
1,1-Dichloroethene	75-35-4	ND	100
1,2-Dichloroethene, total	540-59-0	ND	100
1,2-Dichloropropane	78-87-5	ND	100
cis-1,3-Dichloropropene	10061-01-5	ND	100
trans-1,3-Dichloropropene	10061-02-6	ND	100
Ethylbenzene	100-41-4	ND	100
2-Hexanone	591-78-6	ND	1000
Methylene chloride	75-09-2	ND	100
4-Methyl-2-pentanone	108-10-1	ND	1000
Styrene	100-42-5	ND	100
1,1,2,2-Tetrachloroethane	79-34-5	ND	100
Tetrachloroethene	127-18-4	ND	100

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**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-7A  
Batch No.: 9060  
Matrix: SOILDate Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MS-6

Sample: MS-6(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	100
1,1,1-Trichloroethane	71-55-6	ND	100
1,1,2-Trichloroethane	79-00-5	ND	100
Trichloroethene	79-01-6	ND	100
Trichlorofluoromethane	75-69-4	ND	100
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	100
Vinyl acetate	108-05-4	ND	1000
Vinyl chloride	75-01-4	ND	200
Xylenes, total	1330-20-7	ND	200

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**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642-8A  
**Batch No.:** 9060  
**Matrix:** SOIL

**Date Sampled:** 04/07/92  
**Date Received:** 04/07/92  
**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92  
**Client ID No.:** MS-7

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	114
Toluene-d8	N/A	100	99
p-Bromofluorobenzene	460-00-4	100	111

Sample: MS-7

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

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Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-8A  
Batch No.: 9060  
Matrix: SOILDate Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MS-7

Sample: MS-7(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

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# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642-10A  
**Batch No.:** 9060  
**Matrix:** SOIL

**Date Sampled:** 04/07/92  
**Date Received:** 04/07/92  
**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92  
**Client ID No.:** MS-8

### SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	110
Toluene-d8	N/A	100	103
p-Bromofluorobenzene	460-00-4	100	101

**Sample:** MS-8

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-10A  
Batch No.: 9060  
Matrix: SOIL

Date Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MS-8

Sample: MS-8(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

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Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642-11A  
**Batch No.:** 9060  
**Matrix:** SOIL

**Date Sampled:** 04/07/92  
**Date Received:** 04/07/92  
**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92  
**Client ID No.:** MS-9

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	106
Toluene-d8	N/A	100	103
p-Bromofluorobenzene	460-00-4	100	95

**Sample:** MS-9

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-11A  
Batch No.: 9060  
Matrix: SOIL

Date Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MS-9

Sample: MS-9(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

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Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOES ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COG Log No.:** NO NUMBER  
**AELC ID No.:** L8642-12A  
**Batch No.:** 9060  
**Matrix:** SOIL

**Date Sampled:** 04/07/92  
**Date Received:** 04/07/92  
**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92  
**Client ID No.:** MS-10

**SURROGATE**

Analyte	CAS No.	Surrogate Surr Conc. (ug/kg)	Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	105
Toluene-d8	N/A	100	103
p-Bromofluorobenzene	460-00-4	100	95

Sample: MS-10

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-12A  
Batch No.: 9060  
Matrix: SOILDate Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MS-10

Sample: MS-10(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square	AELC Contact: Mark Smith Job No.: 798642
Date Extracted: 04/08/92	COC Log No.: NO NUMBER
Date Analyzed: 04/08/92	AELC ID No.: L8642
Date Reported: 04/13/92	Batch No.: 9060 Matrix: SOIL

**MB SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	MB Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	95
Toluene-d8	N/A	100	101
p-Bromofluorobenzene	460-00-4	100	96

**METHOD BLANK**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642  
**Batch No.:** 9060  
**Matrix:** SOIL

**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92

**METHOD BLANK(cont.)**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOES ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square  Date Extracted: 04/08/92 Date Analyzed: 04/08/92 Date Reported: 04/13/92	AELC Contact: Mark Smith Job No.: 798642 COC Log No.: NO NUMBER AELC ID No.: L8642 Batch No.: 9060 Matrix: SOIL

### MS SURROGATE

Analyte	CAS No.	MS Surr. Conc. (ug/kg)	MS Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	102
Toluene-d8	N/A	100	102
p-Bromofluorobenzene	460-00-4	100	98

### MATRIX SPIKE

Analyte	CAS No.	MS Conc. (ug/kg)	MS Recovery (percent)
Benzene	71-43-2	50	118
Chlorobenzene	108-90-7	50	102
1,1-Dichloroethene	75-35-4	50	111
Toluene	108-88-3	50	119
Trichloroethene	79-01-6	50	107

### MSD SURROGATE

Analyte	CAS No.	MSD Surr. Conc. (ug/kg)	MSD Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	101
Toluene-d8	N/A	100	102
p-Bromofluorobenzene	460-00-4	100	96

### MATRIX SPIKE DUPLICATE

Analyte	CAS No.	MSD Conc. (ug/kg)	MSD Recovery (percent)
Benzene	71-43-2	50	113
Chlorobenzene	108-90-7	50	99
1,1-Dichloroethene	75-35-4	50	106
Toluene	108-88-3	50	114
Trichloroethene	79-01-6	50	101

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642  
Batch No.: 9060  
Matrix: SOIL

Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92

### RELATIVE % DIFFERENCE

Analyte	CAS No.	Relative Percent Difference (percent)
Benzene	71-43-2	4
Chlorobenzene	108-90-7	3
1,1-Dichloroethene	75-35-4	5
Toluene	108-88-3	4
Trichloroethene	79-01-6	6

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642  
Batch No.: 9060  
Matrix: SOIL

Date Reported: 04/13/92

## LAB CONTROL STANDARD

Analyte	CAS No.	LCS Conc. (ug/L)	LCS Recovery (percent)
Benzene	71-43-2	50	111
Chlorobenzene	108-90-7	50	94
1,1-Dichloroethene	75-35-4	50	102
Toluene	108-88-3	50	106
Trichloroethene	79-01-6	50	98

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square	
Date Sampled: 04/07/92 Date Received: 04/07/92 Date Extracted: 04/08/92 Date Analyzed: 04/08/92 Date Reported: 04/13/92 Client ID No.: MW-1	
AECL Contact: Mark Smith Job No.: 798642 COC Log No.: NO NUMBER AECL ID No.: L8642-2B Batch No.: 9067 Matrix: WATER	

### SURROGATE

Analyte	CAS No.	Surr Conc. (ug/L)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	104
Toluene-d8	N/A	100	105
p-Bromofluorobenzene	460-00-4	100	95

Sample: MW-1

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-2B  
Batch No.: 9067  
Matrix: WATER

Date Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MW-1

## Sample: MW-1(cont.)

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642-9B  
Batch No.: 9067  
Matrix: WATER

Date Sampled: 04/07/92  
Date Received: 04/07/92  
Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92  
Client ID No.: MW-7

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/L)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	99
Toluene-d8	N/A	100	101
p-Bromofluorobenzene	460-00-4	100	110

Sample: MW-7

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104      Project No.: 91287.23  
                                    Contact: Long Ching  
                                    Phone: (415) 391-2510

Project: Mariner Square      AELC Contact: Mark Smith  
Date Sampled: 04/07/92      Job No.: 798642  
Date Received: 04/07/92      COC Log No.: NO NUMBER  
Date Extracted: 04/08/92      AELC ID No.: L8642-9B  
Date Analyzed: 04/08/92      Batch No.: 9067  
Date Reported: 04/13/92      Matrix: WATER  
Client ID No.: MW-7

## Sample: MW-7(cont.)

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642  
Batch No.: 9067  
Matrix: WATER

Date Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92

MB SURROGATE

Analyte	CAS No.	Surr. Conc. (ug/L)	MB Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	95
Toluene-d8	N/A	100	101
p-Bromofluorobenzene	460-00-4	100	96

METHOD BLANK

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5

ND = Not detected at or above indicated Reporting Limit  
Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798642  
COC Log No.: NO NUMBER  
AELC ID No.: L8642  
Batch No.: 9067  
Matrix: WATERDate Extracted: 04/08/92  
Date Analyzed: 04/08/92  
Date Reported: 04/13/92

## METHOD BLANK(cont.)

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642  
**Batch No.:** 9067  
**Matrix:** WATER

**Date Extracted:** 04/08/92  
**Date Analyzed:** 04/08/92  
**Date Reported:** 04/13/92

**MS SURROGATE**

Analyte	CAS No.	MS Surr. Conc. (ug/L)	MS Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	98
Toluene-d8	N/A	100	102
p-Bromofluorobenzene	460-00-4	100	93

**MATRIX SPIKE**

Analyte	CAS No.	MS Conc. (ug/L)	MS Recovery (percent)
Benzene	71-43-2	50	111
Chlorobenzene	108-90-7	50	95
1,1-Dichloroethene	75-35-4	50	102
Toluene	108-88-3	50	113
Trichloroethene	79-01-6	50	100

**MSD SURROGATE**

Analyte	CAS No.	MSD Surr. Conc. (ug/L)	MSD Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	98
Toluene-d8	N/A	100	101
p-Bromofluorobenzene	460-00-4	100	95

**MATRIX SPIKE DUPLICATE**

Analyte	CAS No.	MSD Conc. (ug/L)	MSD Recovery (percent)
Benzene	71-43-2	50	115
Chlorobenzene	108-90-7	50	99
1,1-Dichloroethene	75-35-4	50	109
Toluene	108-88-3	50	116
Trichloroethene	79-01-6	50	103

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624**

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square	AELC Contact: Mark Smith Job No.: 798642
Date Extracted: 04/08/92	COC Log No.: NO NUMBER
Date Analyzed: 04/08/92	AELC ID No.: L8642
Date Reported: 04/13/92	Batch No.: 9067 Matrix: WATER

**RELATIVE % DIFFERENCE**

Analyte	CAS No.	Relative Percent Difference (percent)
Benzene	71-43-2	4
Chlorobenzene	108-90-7	4
1,1-Dichloroethene	75-35-4	7
Toluene	108-88-3	3
Trichloroethene	79-01-6	3

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798642  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8642  
**Batch No.:** 9067  
**Matrix:** WATER

**Date Reported:** 04/13/92

**LAB CONTROL STANDARD**

Analyte	CAS No.	LCS Conc. (ug/L)	LCS Recovery (percent)
Benzene	71-43-2	50	111
Chlorobenzene	108-90-7	50	94
1,1-Dichloroethene	75-35-4	50	102
Toluene	108-88-3	50	106
Trichloroethene	79-01-6	50	98

AllWest

AllWest Environmental, Inc.  
Consultants in Real Estate Finance

## **Chain of Custody Form**

L-86416

303 Second Street Suite 680  
San Francisco, CA 94107-1317

Job Description Mariner Square

Job Number 91287.23

Client Contact Long Chung

Samplers ANIMAL MATHSOL  
long ching

Recorder Lung Ching

Matrix			Method Preserved		Sample Number	Sampling Date				SAMPLE NOTES
Water	Soil	Waste	O <sub>2</sub>	Hg		Yr	Mo	Dy	Time	
			Containment	HgSO <sub>4</sub>	HNO <sub>3</sub>	Ice	None	HgO		
X			I	X	M S - 1 1	9 2 0 4 0 8 0 9 1 5				Depth 3-4 OVM 199
X			I	X	M S - 1 2	9 2 0 4 0 8 0 9 1 6				Depth 3-4 OVM 199
X			I	X	M S - 1 3	9 2 0 4 0 8 1 0 3 5				3'-4', OVM 102,
X			I	X	M S - 1 4	9 2 0 4 0 8 1 1 0 5				3'-4' OVM 33,
X			I	X	M S - 1 5	9 2 0 4 0 8 1 1 1 9				3'-4' OVM 0,
X			I	X	M S - 1 6	9 2 0 4 0 8 1 1 4 0				3'-4' OVM 0
X			I	X	M S - 1 7	9 2 0 4 0 8 1 1 4 0				1'-2', OVM 560 ppm 551
X			I	X	M S - 1 8	9 2 0 4 0 8 1 1 4 0				3'-4' OVM 79 ppm
X			I	X	M S - 1 9	9 2 0 4 0 8 1 1 5 1				3'-4' OVM 62 ppm
X			I	X	M S - 2 0	9 2 0 4 0 8 1 1 5 2				3'-4' OVM 0 ppm

### Laboratory Notes :

ENTRANCE FROM BASE (TOP)  
Please fax the chain of custody record to  
AllWest.

5-day turnaround

## **Chain of Custody Record**

Renounced by: (signature) Date/Hr

Long Clif 4/8/92

Re-<sup>1</sup>published by: (signature) Date/HR

(C.R.L. - Taken 4/8/92 193)

Published by: (signature) Date/11

RECORDED BY: SIGNATURE & DATE

---

2014-15 School Year - A Data File

**Relinquished by:** (signature) Date/MM

10. The following table summarizes the results of the study. The first column lists the variables, the second column lists the descriptive statistics, and the third column lists the results of the regression analysis.

Received by /signature 1

W.M. Miller

Received by JSTOR on 1/1/2019

RECEIVED BY SIGNATURE

---

#### **Supporting References**

Received by (signature)

Decoded by *Istiqomah*

RECEIVED by Designator

**4** ——————

Dispatched by: (Signature) Date: / /

Received for Lab by (sig)

*Allen Belan*

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

AllWest Environmental  
One Sutter Street  
Suite 600  
San Francisco, CA 94104

04/20/92

Attention: Long Ching

Reference: Analytical Results

Project Name: Mariner Square  
Project No.: 91287.23  
Date Received: 04/08/92  
Chain Of Custody: NO NUMBER

AELC ID No.: L8646  
AELC Job No.: 798646

The following analyses were performed on the above referenced project:

No. of Samples	Turnaround Time	Analysis Description
10	7 Days	Total Recoverable Petroleum Hydrocarbons
10	7 Days	Volatile Organic Compounds by GC/MS

The initial Method 8240 analysis of a number of samples associated with this project produced surrogate standard recovery data that did not satisfy laboratory QA/QC criteria. Re-analysis of the samples produced similar results, thereby substantiating a "matrix effect" per EPA Contract Lab protocol. It was also necessary to elevate Method 8240 reporting limits for some of these samples due to matrix interference.

These samples were received by American Environmental Laboratories in a chilled, intact state and accompanied by a valid chain of custody document.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



George Hampton  
Laboratory Director

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646  
**Batch No.:** 9076  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/09/92  
**Date Analyzed:** 04/16/92  
**Date Reported:** 04/16/92

**ANALYTE**

Client	Sample I.D.	AELC	Total Recoverable Hydrocarbons (mg/kg)
MS-11	1A	3000	
MS-12	2A	3200	
MS-13	3A	4900	
MS-14	4A	6300	
MS-15	5A	6400	
MS-16	6A	27	
MS-17	7A	3300	
MS-18	8A	11000	
MS-19	9A	3900	
MS-20	10A	970	
Rep. Limit		10	

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104                      Project No.: 91287.23  
    Contact: Long Ching  
    Phone: (415) 391-2510

Project: Mariner Square                      AELC Contact: Mark Smith  
Date Extracted: 04/09/92                      Job No.: 798646  
Date Analyzed: 04/16/92                      COC Log No.: NO NUMBER  
Date Reported: 04/16/92                      AELC ID No.: L8646  
    Batch No.: 9076  
    Matrix: SOIL

METHOD BLANK

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)
Total Recoverable Hydrocarbons	N/A	ND	10

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method****Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510**Project:** Mariner Square**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646  
**Batch No.:** 9076  
**Matrix:** SOIL**Date Extracted:** 04/09/92  
**Date Analyzed:** 04/16/92  
**Date Reported:** 04/16/92**MB SPIKE**

Analyte	CAS No.	MBS Conc. (mg/kg)	MBS Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	110

**MB SPIKE DUPLICATE**

Analyte	CAS No.	MBSD Conc. (mg/kg)	MBSD Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	111

**MB SPIKE RPD**

Analyte	CAS No.	MBS Relative Percent Difference (percent)
Total Recoverable Hydrocarbons	N/A	1

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOES ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COG Log No.:** NO NUMBER  
**AELC ID No.:** L8646-1A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-11

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	108
Toluene-d8	N/A	100	84
p-Bromofluorobenzene	460-00-4	100	NR

Sample: MS-11

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-1A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-11

**Sample:** MS-11(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethylene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798646  
COC Log No.: NO NUMBER  
AELC ID No.: L8646-2A  
Batch No.: 9080  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/08/92  
Date Extracted: 04/10/92  
Date Analyzed: 04/10/92  
Date Reported: 04/16/92  
Client ID No.: MS-12

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Recovery (percent)
1,2-Dichloroethane-d4	N/A	2000	91
Toluene-d8	N/A	2000	96
p-Bromofluorobenzene	460-00-4	2000	103

Sample: MS-12

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	2000
Benzene	71-43-2	ND	100
Bromodichloromethane	75-27-4	ND	100
Bromoform	75-25-2	ND	100
Bromomethane	74-83-9	ND	200
2-Butanone	78-93-3	ND	2000
Carbon disulfide	75-15-0	ND	100
Carbon tetrachloride	56-23-5	ND	100
Chlorobenzene	108-90-7	ND	100
Chloroethane	75-00-3	ND	200
2-Chloroethyl vinyl ether	110-75-8	ND	1000
Chloroform	67-66-3	ND	100
Chloromethane	74-87-3	ND	200
Dibromochloromethane	124-48-1	ND	100
Dibromomethane	74-95-3	ND	100
1,2-Dichlorobenzene	95-50-1	ND	100
1,3-Dichlorobenzene	541-73-1	ND	100
1,4-Dichlorobenzene	106-46-7	ND	100
Dichlorodifluoromethane	75-71-8	ND	200
1,1-Dichloroethane	75-34-3	ND	100
1,2-Dichloroethane	107-06-2	ND	100
1,1-Dichloroethene	75-35-4	ND	100
1,2-Dichloroethene, total	540-59-0	ND	100
1,2-Dichloropropane	78-87-5	ND	100
cis-1,3-Dichloropropene	10061-01-5	ND	100
trans-1,3-Dichloropropene	10061-02-6	ND	100
Ethylbenzene	100-41-4	140	100
2-Hexanone	591-78-6	ND	1000
Methylene chloride	75-09-2	ND	100
4-Methyl-2-pentanone	108-10-1	ND	1000
Styrene	100-42-5	ND	100
1,1,2,2-Tetrachloroethane	79-34-5	ND	100
Tetrachloroethene	127-18-4	ND	100

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOES ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240****Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510**Project:** Mariner Square**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-2A  
**Batch No.:** 9080  
**Matrix:** SOIL**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-12**Sample:** MS-12(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	100
1,1,1-Trichloroethane	71-55-6	ND	100
1,1,2-Trichloroethane	79-00-5	ND	100
Trichloroethene	79-01-6	ND	100
Trichlorofluoromethane	75-69-4	ND	100
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	100
Vinyl acetate	108-05-4	ND	1000
Vinyl chloride	75-01-4	ND	200
Xylenes, total	1330-20-7	270	200

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-3A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-13

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	2000	95
Toluene-d8	N/A	2000	101
p-Bromofluorobenzene	460-00-4	2000	NR

Sample: MS-13

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	2000
Benzene	71-43-2	ND	100
Bromodichloromethane	75-27-4	ND	100
Bromoform	75-25-2	ND	100
Bromomethane	74-83-9	ND	200
2-Butanone	78-93-3	ND	2000
Carbon disulfide	75-15-0	ND	100
Carbon tetrachloride	56-23-5	ND	100
Chlorobenzene	108-90-7	ND	100
Chloroethane	75-00-3	ND	200
2-Chloroethyl vinyl ether	110-75-8	ND	1000
Chloroform	67-66-3	ND	100
Chloromethane	74-87-3	ND	200
Dibromochloromethane	124-48-1	ND	100
Dibromomethane	74-95-3	ND	100
1,2-Dichlorobenzene	95-50-1	ND	100
1,3-Dichlorobenzene	541-73-1	ND	100
1,4-Dichlorobenzene	106-46-7	ND	100
Dichlorodifluoromethane	75-71-8	ND	200
1,1-Dichloroethane	75-34-3	ND	100
1,2-Dichloroethane	107-06-2	ND	100
1,1-Dichloroethene	75-35-4	ND	100
1,2-Dichloroethene, total	540-59-0	ND	100
1,2-Dichloropropane	78-87-5	ND	100
cis-1,3-Dichloropropene	10061-01-5	ND	100
trans-1,3-Dichloropropene	10061-02-6	ND	100
Ethylbenzene	100-41-4	ND	100
2-Hexanone	591-78-6	ND	1000
Methylene chloride	75-09-2	ND	100
4-Methyl-2-pentanone	108-10-1	ND	1000
Styrene	100-42-5	ND	100
1,1,2,2-Tetrachloroethane	79-34-5	ND	100
Tetrachloroethene	127-18-4	ND	100

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798646  
COC Log No.: NO NUMBER  
AELC ID No.: L8646-3A  
Batch No.: 9080  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/08/92  
Date Extracted: 04/10/92  
Date Analyzed: 04/10/92  
Date Reported: 04/16/92  
Client ID No.: MS-13

## Sample: MS-13(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	100
1,1,1-Trichloroethane	71-55-6	ND	100
1,1,2-Trichloroethane	79-00-5	ND	100
Trichloroethene	79-01-6	ND	100
Trichlorofluoromethane	75-69-4	ND	100
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	100
Vinyl acetate	108-05-4	ND	1000
Vinyl chloride	75-01-4	ND	200
Xylenes, total	1330-20-7	ND	200

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOES ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-4A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-14

### SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	99
Toluene-d8	N/A	100	88
p-Bromofluorobenzene	460-00-4	100	NR

**Sample: MS-14**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOBS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104                   **Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square                   **AELC Contact:** Mark Smith  
**Date Sampled:** 04/08/92                   **Job No.:** 798646  
**Date Received:** 04/08/92                   **COC Log No.:** NO NUMBER  
**Date Extracted:** 04/10/92                   **AELC ID No.:** L8646-4A  
**Date Analyzed:** 04/10/92                   **Batch No.:** 9080  
**Date Reported:** 04/16/92                   **Matrix:** SOIL  
**Client ID No.:** MS-14

**Sample: MS-14(cont.)**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental One Sutter Street San Francisco, CA 94104	Project No.: 91287.23 Contact: Long Ching Phone: (415) 391-2510
Project: Mariner Square	AELC Contact: Mark Smith Job No.: 798646
Date Sampled: 04/08/92	COC Log No.: NO NUMBER
Date Received: 04/08/92	AELC ID No.: L8646-5A
Date Extracted: 04/10/92	Batch No.: 9080
Date Analyzed: 04/10/92	Matrix: SOIL
Date Reported: 04/16/92	
Client ID No.: MS-15	

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	NR
Toluene-d8	N/A	100	88
p-Bromofluorobenzene	460-00-4	100	NR

Sample: MS-15

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-5A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-15

**Sample:** MS-15(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798646  
COC Log No.: NO NUMBER  
AELC ID No.: L8646-6A  
Batch No.: 9080  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/08/92  
Date Extracted: 04/10/92  
Date Analyzed: 04/10/92  
Date Reported: 04/16/92  
Client ID No.: MS-16

## Sample: MS-16(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOBS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental  
 One Sutter Street  
 San Francisco, CA 94104

Project: Mariner Square

Date Sampled: 04/08/92  
 Date Received: 04/08/92  
 Date Extracted: 04/10/92  
 Date Analyzed: 04/10/92  
 Date Reported: 04/16/92  
 Client ID No.: MS-17

Project No.: 91287.23  
 Contact: Long Ching  
 Phone: (415) 391-2510

AELC Contact: Mark Smith  
 Job No.: 798646  
 COC Log No.: NO NUMBER  
 AELC ID No.: L8646-7A  
 Batch No.: 9080  
 Matrix: SOIL

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	10000	92
Toluene-d8	N/A	10000	94
p-Bromofluorobenzene	460-00-4	10000	104

Sample: MS-17

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	10000
Benzene	71-43-2	ND	500
Bromodichloromethane	75-27-4	ND	500
Bromoform	75-25-2	ND	500
Bromomethane	74-83-9	ND	1000
2-Butanone	78-93-3	ND	10000
Carbon disulfide	75-15-0	ND	500
Carbon tetrachloride	56-23-5	ND	500
Chlorobenzene	108-90-7	ND	500
Chloroethane	75-00-3	ND	1000
2-Chloroethyl vinyl ether	110-75-8	ND	5000
Chloroform	67-66-3	ND	500
Chloromethane	74-87-3	ND	1000
Dibromochloromethane	124-48-1	ND	500
Dibromomethane	74-95-3	ND	500
1,2-Dichlorobenzene	95-50-1	ND	500
1,3-Dichlorobenzene	541-73-1	ND	500
1,4-Dichlorobenzene	106-46-7	ND	500
Dichlorodifluoromethane	75-71-8	ND	1000
1,1-Dichloroethane	75-34-3	ND	500
1,2-Dichloroethane	107-06-2	ND	500
1,1-Dichloroethene	75-35-4	ND	500
1,2-Dichloroethene, total	540-59-0	ND	500
1,2-Dichloropropane	78-87-5	ND	500
cis-1,3-Dichloropropene	10061-01-5	ND	500
trans-1,3-Dichloropropene	10061-02-6	ND	500
Ethylbenzene	100-41-4	1600	500
2-Hexanone	591-78-6	ND	5000
Methylene chloride	75-09-2	ND	500
4-Methyl-2-pentanone	108-10-1	ND	5000
Styrene	100-42-5	ND	500
1,1,2,2-Tetrachloroethane	79-34-5	ND	500
Tetrachloroethene	127-18-4	ND	500

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**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104                      Project No.: 91287.23  
    Contact: Long Ching  
    Phone: (415) 391-2510

Project: Mariner Square                      AELC Contact: Mark Smith  
    Job No.: 798646  
Date Sampled: 04/08/92                      COC Log No.: NO NUMBER  
Date Received: 04/08/92                      AELC ID No.: L8646-7A  
Date Extracted: 04/10/92                      Batch No.: 9080  
Date Analyzed: 04/10/92                      Matrix: SOIL  
Date Reported: 04/16/92  
Client ID No.: MS-17

**Sample: MS-17(cont.)**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	500
1,1,1-Trichloroethane	71-55-6	ND	500
1,1,2-Trichloroethane	79-00-5	ND	500
Trichloroethene	79-01-6	ND	500
Trichlorofluoromethane	75-69-4	ND	500
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	500
Vinyl acetate	108-05-4	ND	5000
Vinyl chloride	75-01-4	ND	1000
Xylenes, total	1330-20-7	8400	1000

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**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-8A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-18

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	4000	94
Toluene-d8	N/A	4000	98
p-Bromofluorobenzene	460-00-4	4000	98

Sample: MS-18

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	4000
Benzene	71-43-2	ND	200
Bromodichloromethane	75-27-4	ND	200
Bromoform	75-25-2	ND	200
Bromomethane	74-83-9	ND	400
2-Butanone	78-93-3	ND	4000
Carbon disulfide	75-15-0	ND	200
Carbon tetrachloride	56-23-5	ND	200
Chlorobenzene	108-90-7	ND	200
Chloroethane	75-00-3	ND	400
2-Chloroethyl vinyl ether	110-75-8	ND	2000
Chloroform	67-66-3	ND	200
Chloromethane	74-87-3	ND	400
Dibromochloromethane	124-48-1	ND	200
Dibromomethane	74-95-3	ND	200
1,2-Dichlorobenzene	95-50-1	ND	200
1,3-Dichlorobenzene	541-73-1	ND	200
1,4-Dichlorobenzene	106-46-7	ND	200
Dichlorodifluoromethane	75-71-8	ND	400
1,1-Dichloroethane	75-34-3	ND	200
1,2-Dichloroethane	107-06-2	ND	200
1,1-Dichloroethene	75-35-4	ND	200
1,2-Dichloroethene, total	540-59-0	ND	200
1,2-Dichloropropane	78-87-5	ND	200
cis-1,3-Dichloropropene	10061-01-5	ND	200
trans-1,3-Dichloropropene	10061-02-6	ND	200
Ethylbenzene	100-41-4	ND	200
2-Hexanone	591-78-6	ND	2000
Methylene chloride	75-09-2	ND	200
4-Methyl-2-pentanone	108-10-1	ND	2000
Styrene	100-42-5	ND	200
1,1,2,2-Tetrachloroethane	79-34-5	ND	200
Tetrachloroethene	127-18-4	ND	200

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**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-8A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-18

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**Sample:** MS-18(cont.)

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Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	200
1,1,1-Trichloroethane	71-55-6	ND	200
1,1,2-Trichloroethane	79-00-5	ND	200
Trichloroethylene	79-01-6	ND	200
Trichlorofluoromethane	75-69-4	ND	200
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	200
Vinyl acetate	108-05-4	ND	2000
Vinyl chloride	75-01-4	ND	400
Xylenes, total	1330-20-7	ND	400

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ENVIRONMENTAL LABORATORIES CORP.

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**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

<b>Client:</b> AllWest Environmental One Sutter Street San Francisco, CA 94104	<b>Project No.:</b> 91287.23 <b>Contact:</b> Long Ching <b>Phone:</b> (415) 391-2510
<b>Project:</b> Mariner Square	<b>AELC Contact:</b> Mark Smith <b>Job No.:</b> 798646 <b>COC Log No.:</b> NO NUMBER
<b>Date Sampled:</b> 04/08/92	<b>AELC ID No.:</b> L8646-9A
<b>Date Received:</b> 04/08/92	<b>Batch No.:</b> 9080
<b>Date Extracted:</b> 04/10/92	<b>Matrix:</b> SOIL
<b>Date Analyzed:</b> 04/10/92	
<b>Date Reported:</b> 04/16/92	
<b>Client ID No.:</b> MS-19	

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	2000	94
Toluene-d8	N/A	2000	102
p-Bromofluorobenzene	460-00-4	2000	99

**Sample: MS-19**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	2000
Benzene	71-43-2	ND	100
Bromodichloromethane	75-27-4	ND	100
Bromoform	75-25-2	ND	100
Bromomethane	74-83-9	ND	200
2-Butanone	78-93-3	ND	2000
Carbon disulfide	75-15-0	ND	100
Carbon tetrachloride	56-23-5	ND	100
Chlorobenzene	108-90-7	ND	100
Chloroethane	75-00-3	ND	200
2-Chloroethyl vinyl ether	110-75-8	ND	1000
Chloroform	67-66-3	ND	100
Chloromethane	74-87-3	ND	200
Dibromochloromethane	124-48-1	ND	100
Dibromomethane	74-95-3	ND	100
1,2-Dichlorobenzene	95-50-1	ND	100
1,3-Dichlorobenzene	541-73-1	ND	100
1,4-Dichlorobenzene	106-46-7	ND	100
Dichlorodifluoromethane	75-71-8	ND	200
1,1-Dichloroethane	75-34-3	ND	100
1,2-Dichloroethane	107-06-2	ND	100
1,1-Dichloroethene	75-35-4	ND	100
1,2-Dichloroethene, total	540-59-0	ND	100
1,2-Dichloropropane	78-87-5	ND	100
cis-1,3-Dichloropropene	10061-01-5	ND	100
trans-1,3-Dichloropropene	10061-02-6	ND	100
Ethylbenzene	100-41-4	ND	100
2-Hexanone	591-78-6	ND	1000
Methylene chloride	75-09-2	ND	100
4-Methyl-2-pentanone	108-10-1	ND	1000
Styrene	100-42-5	ND	100
1,1,2,2-Tetrachloroethane	79-34-5	ND	100
Tetrachloroethene	127-18-4	ND	100

ND - Not detected at or above indicated Reporting Limit

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**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOCS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mark Smith  
Job No.: 798646  
COC Log No.: NO NUMBER  
AELC ID No.: L8646-9A  
Batch No.: 9080  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/08/92  
Date Extracted: 04/10/92  
Date Analyzed: 04/10/92  
Date Reported: 04/16/92  
Client ID No.: MS-19

Sample: MS-19(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	100
1,1,1-Trichloroethane	71-55-6	ND	100
1,1,2-Trichloroethane	79-00-5	ND	100
Trichloroethene	79-01-6	ND	100
Trichlorofluoromethane	75-69-4	ND	100
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	100
Vinyl acetate	108-05-4	ND	1000
Vinyl chloride	75-01-4	ND	200
Xylenes, total	1330-20-7	ND	200

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Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646-10A  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/08/92  
**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92  
**Client ID No.:** MS-20

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	105
Toluene-d8	N/A	100	96
p-Bromofluorobenzene	460-00-4	100	NR

Sample: MS-20

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

<b>Client:</b> AllWest Environmental One Sutter Street San Francisco, CA 94104	<b>Project No.:</b> 91287.23 <b>Contact:</b> Long Ching <b>Phone:</b> (415) 391-2510
<b>Project:</b> Mariner Square	<b>AELC Contact:</b> Mark Smith <b>Job No.:</b> 798646 <b>COC Log No.:</b> NO NUMBER
<b>Date Sampled:</b> 04/08/92	<b>AELC ID No.:</b> L8646-10A
<b>Date Received:</b> 04/08/92	<b>Batch No.:</b> 9080
<b>Date Extracted:</b> 04/10/92	<b>Matrix:</b> SOIL
<b>Date Analyzed:</b> 04/10/92	
<b>Date Reported:</b> 04/16/92	
<b>Client ID No.:</b> MS-20	

**Sample: MS-20(cont.)**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92

**MB SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	MB Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	96
Toluene-d8	N/A	100	100
p-Bromofluorobenzene	460-00-4	100	97

**METHOD BLANK**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92

**METHOD BLANK(cont.)**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92

**MB SPIKE SURROGATE**

Analyte	CAS No.	MBS Surr. Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	101
Toluene-d8	N/A	100	102
p-Bromofluorobenzene	460-00-4	100	96

**MB SPIKE**

Analyte	CAS No.	MBS Conc. (ug/kg)	MBS Recovery (percent)
Benzene	71-43-2	50	119
Chlorobenzene	108-90-7	50	102
1,1-Dichloroethene	75-35-4	50	127
Toluene	108-88-3	50	123
Trichloroethene	79-01-6	50	118

**MB SPIKE DUPLICATE SURR.**

Analyte	CAS No.	MBSD Surr. Conc. (ug/kg)	MBSD Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	110
Toluene-d8	N/A	100	103
p-Bromofluorobenzene	460-00-4	100	96

**MB SPIKE DUPLICATE**

Analyte	CAS No.	MBSD Conc. (ug/kg)	MBSD Recovery (percent)
Benzene	71-43-2	50	111
Chlorobenzene	108-90-7	50	93
1,1-Dichloroethene	75-35-4	50	115
Toluene	108-88-3	50	115
Trichloroethene	79-01-6	50	107

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Extracted:** 04/10/92  
**Date Analyzed:** 04/10/92  
**Date Reported:** 04/16/92

**MB SPIKE RPD**

MBS  
Relative  
Percent  
Difference  
(percent)

Analyte	CAS No.	MBS	Relative	Percent	Difference	(percent)
Benzene	71-43-2	7				
Chlorobenzene	108-90-7	9				
1,1-Dichloroethene	75-35-4	10				
Toluene	108-88-3	7				
Trichloroethene	79-01-6	10				

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mark Smith  
**Job No.:** 798646  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8646  
**Batch No.:** 9080  
**Matrix:** SOIL

**Date Reported:** 04/16/92

**LAB CONTROL STANDARD**

Analyte	CAS No.	LCS Conc. (ug/L)	LCS Recovery (percent)
Benzene	71-43-2	50	111
Chlorobenzene	108-90-7	50	94
1,1-Dichloroethene	75-35-4	50	102
Toluene	108-88-3	50	106
Trichloroethene	79-01-6	50	108

1997

## Chain of Custody Form

AllWest Environmental, Inc.  
Consultants in Real Estate Finance

303 Second Street Suite 680  
San Francisco, CA 94107-1317

Job Description TRAINER - SQUARE

Job Number 71-287-23

Client Contact: LONGB CHING

Samplers LONG CHINE

Recorder LONIE CHINK

Water	Soil	Waste	Oil	Containment	Method Preserved	Sample Number	Sampling Date				SAMPLE NOTES	
							H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	TGA	None	HgCl <sub>2</sub>	
X			1		X	MS-21			920408	1615		3'-4'
X			1		X	MS-22			920408	1635		3'-4'
X			1		X	MS-23			920408	1805		2'-3'
X			2		X	WS-18 VOC	920408		1310			40ml
X			1		X	WS-13 TRH	920409		1055			1-liter
X			2		X	WS-13 VOC	920409		1115			40ml
X			1		X	WS-18 TRH	920409		1230			1-liter

### Laboratory Notes :

ONE WEEK TURNAROUND  
PLEASE FAX COC TO ALLECT OFFICE

Chain of Custody Record	
Relinquished by: (signature) Date/Hr <i>Long Obj 4/7/92 13:10</i>	Received by (signature) <i>John Balmer</i>
Relinquished by: (signature) Date/Hr <i>John Balmer 4/9/92 15:10</i>	Received by (signature) <i>John Balmer 4/9/92 15:10</i>
Relinquished by: (signature) Date/Hr	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Dispatched by: (signature) Date/Hr	Received for Lab by (signature)

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

AllWest Environmental  
One Sutter Street  
Suite 600  
San Francisco, CA 94104

04/22/92

Attention: Long Ching

Reference: Analytical Results

Project Name: Mariner Square  
Project No.: 91287.23  
Date Received: 04/09/92  
Chain Of Custody: NO NUMBER

AELC ID No.: L8661  
AELC Job No.: 798661

The following analyses were performed on the above referenced project:

No. of Samples	Turnaround Time	Analysis Description
5	7 Days	Total Recoverable Petroleum Hydrocarbons
2	7 Days	Volatile Organics by EPA Method 624
3	7 Days	Volatile Organic Compounds by GC/MS

The initial Method 8240 analysis of sample "MS-23" produced surrogate standard recovery data that did not satisfy laboratory QA/QC criteria. Re-analysis of the sample produced similar results, thereby substantiating a "matrix effect" per EPA Contract Lab protocol.

Elevated Method 624 reporting limits for "WS-18VOC" are due to the presence of hydrocarbons in this sample.

These samples were received by American Environmental Laboratories in a chilled, intact state and accompanied by a valid chain of custody document.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

  
George Hampton  
Laboratory Director

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661  
Batch No.: 9075  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/09/92  
Date Extracted: 04/09/92  
Date Analyzed: 04/15/92  
Date Reported: 04/16/92

**ANALYTE**

Client	Sample I.D.	AELC	Total Recoverable Hydrocarbons (mg/kg)
MS-21		1A	39
MS-22		2A	ND
MS-23		3A	6200
Rep. Limit			10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661  
Batch No.: 9075  
Matrix: SOIL

Date Extracted: 04/09/92  
Date Analyzed: 04/15/92  
Date Reported: 04/16/92

METHOD BLANK

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)
Total Recoverable Hydrocarbons	N/A	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Shaker, DOHS LUFT Method****Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510**Project:** Mariner Square**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9075  
**Matrix:** SOIL**Date Extracted:** 04/09/92  
**Date Analyzed:** 04/15/92  
**Date Reported:** 04/21/92

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**MB SPIKE**

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Analyte	CAS No.	MBS Conc. (mg/kg)	MBS Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	102

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**MB SPIKE DUPLICATE**

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Analyte	CAS No.	MBSD Conc. (mg/kg)	MBSD Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	103

---

**MB SPIKE RPD**

---

Analyte	CAS No.	MBS Relative Percent Difference (percent)
Total Recoverable Hydrocarbons	N/A	1

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Separatory Funnel, EPA Method 3510

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661  
Batch No.: 9079  
Matrix: WATER

Date Sampled: 04/09/92  
Date Received: 04/09/92  
Date Extracted: 04/11/92  
Date Analyzed: 04/14/92  
Date Reported: 04/15/92

**ANALYTE**

Sample I.D.	Total Recoverable Hydrocarbons
Client	(mg/L)

WS-13TRH	5A	23
WS-18TRH	7A	1200

Rep. Limit	1
------------	---

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report:** Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Separatory Funnel, EPA Method 3510

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104                   **Project No.:** 91287.23  
**Project:** Mariner Square                   **Contact:** Long Ching  
**Date Extracted:** 04/11/92               **Phone:** (415) 391-2510  
**Date Analyzed:** 04/14/92               **AELC Contact:** Mike Jaeger  
**Date Reported:** 04/14/92               **Job No.:** 798661  
   **COC Log No.:** NO NUMBER  
   **AELC ID No.:** L8661  
   **Batch No.:** 9079  
   **Matrix:** WATER

**METHOD BLANK**

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)
Total Recoverable Hydrocarbons	N/A	ND	1

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report:** Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1  
Separatory Funnel, EPA Method 3510**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510**Project:** Mariner Square**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9079  
**Matrix:** WATER**Date Extracted:** 04/11/92  
**Date Analyzed:** 04/14/92  
**Date Reported:** 04/14/92**MB SPIKE**

Analyte	CAS No.	MBS Conc. (mg/L)	MBS Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	88

**MB SPIKE DUPLICATE**

Analyte	CAS No.	MBSD Conc. (mg/L)	MBSD Recovery (percent)
Total Recoverable Hydrocarbons	N/A	60	92

**MB SPIKE RPD**

Analyte	CAS No.	MBS Relative Percent Difference (percent)
Total Recoverable Hydrocarbons	N/A	4

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661-1A  
**Batch No.:** 9091  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/09/92  
**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/15/92  
**Client ID No.:** MS-21

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	106
Toluene-d8	N/A	100	103
p-Bromofluorobenzene	460-00-4	100	100

**Sample: MS-21**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOBS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project: Mariner Square

Date Sampled: 04/08/92  
Date Received: 04/09/92  
Date Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/15/92  
Client ID No.: MS-21

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661-1A  
Batch No.: 9091  
Matrix: SOIL

Sample: MS-21(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit  
Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOSS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661-2A  
**Batch No.:** 9091  
**Matrix:** SOIL

**Date Sampled:** 04/08/92  
**Date Received:** 04/09/92  
**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/15/92  
**Client ID No.:** MS-22

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	100
Toluene-d8	N/A	100	104
p-Bromofluorobenzene	460-00-4	100	97

Sample: MS-22

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661-2A  
Batch No.: 9091  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/09/92  
Date Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/15/92  
Client ID No.: MS-22

Sample: MS-22(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethylene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661-3A  
Batch No.: 9091  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/09/92  
Date Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/15/92  
Client ID No.: MS-23

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	NR
Toluene-d8	N/A	100	92
p-Bromofluorobenzene	460-00-4	100	NR

Sample: MS-23

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COG Log No.: NO NUMBER  
AELC ID No.: L8661-3A  
Batch No.: 9091  
Matrix: SOIL

Date Sampled: 04/08/92  
Date Received: 04/09/92  
Date Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/15/92  
Client ID No.: MS-23

Sample: MS-23(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

# AMERICAN

ENVIRONMENTAL LABORATORIES CORP.

CA DOCS ELAP Accreditation/Registration Number 1233

## Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240

<b>Client:</b> AllWest Environmental One Sutter Street San Francisco, CA 94104	<b>Project No.:</b> 91287.23 <b>Contact:</b> Long Ching <b>Phone:</b> (415) 391-2510
<b>Project:</b> Mariner Square	
<b>Date Extracted:</b> 04/13/92 <b>Date Analyzed:</b> 04/13/92 <b>Date Reported:</b> 04/15/92	<b>AELC Contact:</b> Mike Jaeger <b>Job No.:</b> 798661 <b>COC Log No.:</b> NO NUMBER <b>AELC ID No.:</b> L8661 <b>Batch No.:</b> 9091 <b>Matrix:</b> SOIL

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### MB SURROGATE

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Analyte	CAS No.	Surr Conc. (ug/kg)	MB Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	95
Toluene-d8	N/A	100	99
p-Bromofluorobenzene	460-00-4	100	98

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### METHOD BLANK

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Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9091  
**Matrix:** SOIL

**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/15/92

**METHOD BLANK(cont.)**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

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Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

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**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661  
Batch No.: 9091  
Matrix: SOIL

Date Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/15/92

**MS SURROGATE**

Analyte	CAS No.	MS Surr. Conc. (ug/kg)	MS Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	110
Toluene-d8	N/A	100	104
p-Bromofluorobenzene	460-00-4	100	104

**MATRIX SPIKE**

Analyte	CAS No.	MS Conc. (ug/kg)	MS Recovery (percent)
Benzene	71-43-2	50	122
Chlorobenzene	108-90-7	50	110
1,1-Dichloroethene	75-35-4	50	125
Toluene	108-88-3	50	125
Trichloroethene	79-01-6	50	116

**MSD SURROGATE**

Analyte	CAS No.	MSD Surr. Conc. (ug/kg)	MSD Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	106
Toluene-d8	N/A	100	101
p-Bromofluorobenzene	460-00-4	100	104

**MATRIX SPIKE DUPLICATE**

Analyte	CAS No.	MSD Conc. (ug/kg)	MSD Recovery (percent)
Benzene	71-43-2	50	112
Chlorobenzene	108-90-7	50	102
1,1-Dichloroethene	75-35-4	50	114
Toluene	108-88-3	50	116
Trichloroethene	79-01-6	50	106

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**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9091  
**Matrix:** SOIL

**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/15/92

**RELATIVE % DIFFERENCE**

Analyte	CAS No.	Relative Percent Difference (percent)
Benzene	71-43-2	8
Chlorobenzene	108-90-7	8
1,1-Dichloroethene	75-35-4	9
Toluene	108-88-3	7
Trichloroethene	79-01-6	9

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS, EPA Method 8240**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9091  
**Matrix:** SOIL

**Date Reported:** 04/15/92

**LAB CONTROL STANDARD**

Analyte	CAS No.	LCS Conc. (ug/L)	LCS Recovery (percent)
Benzene	71-43-2	50	111
Chlorobenzene	108-90-7	50	94
1,1-Dichloroethene	75-35-4	50	102
Toluene	108-88-3	50	106
Trichloroethene	79-01-6	50	98

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624**

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COG Log No.:** NO NUMBER  
**AELC ID No.:** L8661-4A  
**Batch No.:** 9092  
**Matrix:** WATER

**Date Sampled:** 04/08/92  
**Date Received:** 04/09/92  
**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/16/92  
**Client ID No.:** WS-18VOC

**SURROGATE**

Analyte	CAS No.	Surrogate (ug/L)	Recovery (percent)
1,2-Dichloroethane-d4	N/A	1000	97
Toluene-d8	N/A	1000	102
p-Bromofluorobenzene	460-00-4	1000	103

Sample: WS-18VOC

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Acetone	67-64-1	ND	1000
Benzene	71-43-2	ND	50
Bromodichloromethane	75-27-4	ND	50
Bromoform	75-25-2	ND	50
Bromomethane	74-83-9	ND	100
2-Butanone	78-93-3	ND	1000
Carbon disulfide	75-15-0	ND	50
Carbon tetrachloride	56-23-5	ND	50
Chlorobenzene	108-90-7	ND	50
Chloroethane	75-00-3	ND	100
2-Chloroethyl vinyl ether	110-75-8	ND	500
Chloroform	67-66-3	ND	50
Chloromethane	74-87-3	ND	100
Dibromochloromethane	124-48-1	ND	50
Dibromomethane	74-95-3	ND	50
1,2-Dichlorobenzene	95-50-1	ND	50
1,3-Dichlorobenzene	541-73-1	ND	50
1,4-Dichlorobenzene	106-46-7	ND	50
Dichlorodifluoromethane	75-71-8	ND	100
1,1-Dichloroethane	75-34-3	ND	50
1,2-Dichloroethane	107-06-2	ND	50
1,1-Dichloroethene	75-35-4	ND	50
1,2-Dichloroethene, total	540-59-0	ND	50
1,2-Dichloropropane	78-87-5	ND	50
cis-1,3-Dichloropropene	10061-01-5	ND	50
trans-1,3-Dichloropropene	10061-02-6	ND	50
Ethylbenzene	100-41-4	ND	50
2-Hexanone	591-78-6	ND	500
Methylene chloride	75-09-2	ND	50
4-Methyl-2-pentanone	108-10-1	ND	500
Styrene	100-42-5	ND	50
1,1,2,2-Tetrachloroethane	79-34-5	ND	50
Tetrachloroethene	127-18-4	ND	50

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Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

*Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624*

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661-4A  
**Batch No.:** 9092  
**Matrix:** WATER

**Date Sampled:** 04/08/92  
**Date Received:** 04/09/92  
**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/16/92  
**Client ID No.:** WS-18VOC

*Sample: WS-18VOC(cont.)*

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Toluene	108-88-3	ND	50
1,1,1-Trichloroethane	71-55-6	ND	50
1,1,2-Trichloroethane	79-00-5	ND	50
Trichloroethene	79-01-6	ND	50
Trichlorofluoromethane	75-69-4	ND	50
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	50
Vinyl acetate	108-05-4	ND	500
Vinyl chloride	75-01-4	ND	100
Xylenes, total	1330-20-7	ND	100

ND - Not detected at or above indicated Reporting Limit

Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

*Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624*

**Client:** AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

**Project No.:** 91287.23  
**Contact:** Long Ching  
**Phone:** (415) 391-2510

**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661-6A  
**Batch No.:** 9092  
**Matrix:** WATER

**Date Sampled:** 04/09/92  
**Date Received:** 04/09/92  
**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/16/92  
**Client ID No.:** WS-13VOC

**SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/L)	Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	104
Toluene-d8	N/A	100	104
p-Bromofluorobenzene	460-00-4	100	114

*Sample: WS-13VOC*

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	50
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5

ND = Not detected at or above indicated Reporting Limit

Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624**

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661-6A  
Batch No.: 9092  
Matrix: WATER

Date Sampled: 04/09/92  
Date Received: 04/09/92  
Date Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/16/92  
Client ID No.: WS-13VOC

Sample: WS-13VOC(cont.)

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

**AMERICAN**  
ENVIRONMENTAL LABORATORIES CORP.

CA DOHS ELAP Accreditation/Registration Number 1233

**Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624**

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104

Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661  
Batch No.: 9092  
Matrix: WATER

Date Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/16/92

**MB SURROGATE**

Analyte	CAS No.	Surr Conc. (ug/L)	MB Surrogate Recovery (percent)
1,2-Dichloroethane-d4	N/A	100	95
Toluene-d8	N/A	100	99
p-Bromofluorobenzene	460-00-4	100	98

**METHOD BLANK**

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5

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Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

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## Analysis Report: Volatile Organic Compounds by GC/MS - EPA Method 624

Client: AllWest Environmental  
One Sutter Street  
San Francisco, CA 94104Project No.: 91287.23  
Contact: Long Ching  
Phone: (415) 391-2510

Project: Mariner Square

AELC Contact: Mike Jaeger  
Job No.: 798661  
COC Log No.: NO NUMBER  
AELC ID No.: L8661  
Batch No.: 9092  
Matrix: WATERDate Extracted: 04/13/92  
Date Analyzed: 04/13/92  
Date Reported: 04/16/92

## METHOD BLANK(cont.)

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND - Not detected at or above indicated Reporting Limit  
Rep. Limit = Reporting Limit unless otherwise indicated in parentheses.

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One Sutter Street  
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**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9092  
**Matrix:** WATER

**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/16/92

**MB SPIKE SURROGATE**

Analyte	CAS No.	MBS Surr. Conc. (ug/L)	Surrogate Recovery (percent)
1,2-Dichloroethane	107-06-2	100	93
Toluene-d8	N/A	100	99
p-Bromofluorobenzene	460-00-4	100	101

**MB SPIKE**

Analyte	CAS No.	MBS Conc. (ug/L)	MBS Recovery (percent)
Benzene	71-43-2	50	113
Chlorobenzene	108-90-7	50	103
1,1-Dichloroethene	75-35-4	50	105
Toluene	108-88-3	50	112
Trichloroethene	79-01-6	50	98

**MB SPIKE DUPLICATE SURR.**

Analyte	CAS No.	MBSD Surr. Conc. (ug/L)	MBSD Recovery (percent)
1,2-Dichloroethane	107-06-2	100	95
Toluene-d8	N/A	100	99
p-Bromofluorobenzene	460-00-4	100	99

**MB SPIKE DUPLICATE**

Analyte	CAS No.	MBSD Conc. (ug/L)	MBSD Recovery (percent)
Benzene	71-43-2	50	112
Chlorobenzene	108-90-7	50	100
1,1-Dichloroethene	75-35-4	50	104
Toluene	108-88-3	50	110
Trichloroethene	79-01-6	50	96

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**Project:** Mariner Square

**AELC Contact:** Mike Jaeger  
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**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9092  
**Matrix:** WATER

**Date Extracted:** 04/13/92  
**Date Analyzed:** 04/13/92  
**Date Reported:** 04/16/92

**MB SPIKE RPD**

Analyte	CAS No.	MBS Relative Percent Difference (percent)
Benzene	71-43-2	1
Chlorobenzene	108-90-7	3
1,1-Dichloroethene	75-35-4	1
Toluene	108-88-3	2
Trichloroethene	79-01-6	2

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**AELC Contact:** Mike Jaeger  
**Job No.:** 798661  
**COC Log No.:** NO NUMBER  
**AELC ID No.:** L8661  
**Batch No.:** 9092  
**Matrix:** WATER

**Date Reported:** 04/16/92

**LAB CONTROL STANDARD**

Analyte	CAS No.	LCS Conc. (ug/L)	LCS Recovery (percent)
Benzene	71-43-2	50	111
Chlorobenzene	108-90-7	50	94
1,1-Dichloroethene	75-35-4	50	102
Toluene	108-88-3	50	106
Trichloroethene	79-01-6	50	98