



March 10, 1997  
961276NA

Ms. Susan Hugo  
Division of Environmental Protection  
Department of Environmental Health  
Alameda County Health Agency  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

Subject: Transmittal of Proposed RBCA Approach for the  
Fire Station No. 2 UST Site  
Emeryville, California

Dear Ms. Hugo:

On behalf of the City of Emeryville Redevelopment Agency, transmitted herewith is the subject site proposed RBCA approach for your review and approval. The approach has been prepared following the recommendations in the Regional Water Quality Control Board - San Francisco Bay Region's Directive of January 5, 1996.

Please do not hesitate to call me at (510) 874-3060 or Mr. Ignacio Dayrit at (510) 596-4356 for questions or comments.

Sincerely,

Xinggang Tong, P.E., Ph.D.  
Project Manager

Enclosure.

# WORKPLAN

## PROPOSED APPROACH FOR DEVELOPMENT OF SITE-SPECIFIC TARGET LEVELS FOR SOIL AND GROUNDWATER - FIRE STATION NO. 2, EMERYVILLE, CALIFORNIA

*Prepared for*

City of Emeryville Redevelopment Agency  
2200 Powell Street, 12th Floor  
Emeryville, CA 94608-4356

March 5, 1997

**Woodward-Clyde**



Woodward-Clyde Consultants  
500 12th Street, Suite 100  
Oakland, CA 94607-4014  
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**WORKPLAN**

**ENVIRONMENTAL  
PROTECTION**

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**PROPOSED APPROACH FOR  
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Ms. Susan Hugo  
Senior Hazardous Materials Specialist  
Alameda County Health Agency  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

**Subject: Proposed Approach for Development of Site-Specific Target Levels for Soil and Groundwater - Fire Station No. 2, Emeryville, California**

Dear Ms. Hugo:

On behalf of the City of Emeryville Redevelopment Agency (the City), Woodward-Clyde Consultants (WCC) presents a proposed approach for development of risk-based site-specific target levels (SSTLs) for soil and groundwater for the Fire Station No. 2 located at 6303 Hollis Street in Emeryville, California (the site). Following the recommendations in the Regional Water Quality Control Board (RWQCB) - San Francisco Bay Region's Directive of January 5, 1996, a Risk-Based Corrective Action (RBCA) evaluation based on the ASTM Standard E-1739-95 will be used to develop the SSTLs. The RBCA evaluation approach for the site was described in the Workplan for Additional Site Investigation (WCC 1996), which was approved by the Alameda County Department of Environmental Health (ACDEH) in a letter to the City dated October 8, 1996. The soil and groundwater SSTLs to be developed will be utilized to evaluate the need (if any) and extent of remediation activities at the site, and ultimately to obtain a no further action (NFA) decision from the ACDEH.

Site-specific approach and parameters for the risk-based evaluation are presented here for your review and approval prior to initiating the evaluation. This letter presents an overview of the site environmental setting, followed by a description of the RBCA approach. Appendix A provides a summary of site investigations results. A list of references is provided at the end of this letter.

## **ENVIRONMENTAL SETTING**

The City of Emeryville Fire Station No. 2 is located at 6303 Hollis Street, in Emeryville, at the northwest corner of Hollis and 63rd Streets, as shown in Figure 1. The facility is located in a generally mixed commercial and residential use area. However, structures immediately near the facility are all commercial buildings. The site is at an approximate elevation of 15 feet above mean sea level and about one-half mile east of San Francisco Bay. The site is underlain by Holocene alluvial deposits, primarily unconsolidated, fine sand, silt, and clayey silt with occasional thin beds of coarse sand. A brief overview of past investigation and remediation activities is provided below.

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## **Initial Investigations March and July 1995**

WCC performed a preliminary investigation of the tank site area in March 1995 and presented the results in a report dated June 20, 1995 (WCC 1995a). The detections of TPH gasoline and BTEX in soil appear to occur mostly in the soil samples from approximately 5 feet in depth. Borings SB-1 through SB-5 were drilled at the site during the March 1995 investigation (see Figure 2).

The highest reported detection of gasoline in soil was 540 mg/kg in a soil sample from a depth of 5 feet in SB-1. The highest reported detection of benzene in soil was 0.63 mg/Kg in a soil sample from a depth of 6 feet in SB-2. TPH diesel was not detected in soil from these borings.

The March 1995 investigation included grab groundwater samples collected from SB-1 and SB-3. Only 0.99 mg/L TPH gasoline was reported in groundwater from SB-1. Benzene was detected at 0.22 mg/L in water from SB-3, and 0.0061 mg/L in water from SB-1.

A further round of site investigation was conducted by WCC in July 1995 (WCC 1995b) to better characterize the site and to prepare for tank removal. Borings SB-6 through SB-12 were selected to explore for evidence of petroleum in soil or groundwater at distances farther from the USTs. The July 1995 samples were not analyzed for diesel, because diesel was not detected in the March 1995 investigation. Like in March, the detections of TPH gasoline and BTEX in soil appear to occur mostly in the soil samples from approximately 5 feet in depth. The highest reported concentration of TPH gasoline in soil was 480 mg/Kg at 5.5 feet in SB-7. The highest reported concentration of benzene in soil was 1.2 mg/Kg at 5.5 feet in SB-6.

The July 1995 investigation included grab groundwater samples collected from SB-6 through SB-12. The highest reported detection of TPH gasoline was 5.5 mg/L in groundwater from SB-7. The highest reported detection of benzene was 0.04 mg/L in groundwater from SB-12. Tables of results and figures from these prior reports are included in Appendix A.

## **Underground Tank Removal October 1995**

The two USTs and associated piping were removed in October 1995 (WCC 1996). The depth of both tank excavations was approximately 7.5 feet. Groundwater was encountered at an approximate depth of 7 feet. Soil samples from the floor of each end of both UST excavations were collected after the tanks were removed. Although groundwater was encountered in the excavations, groundwater samples were not collected from the excavations because, in accordance with the workplan for this phase of work, groundwater samples had been collected in the previous site investigations.

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TPH gasoline was detected at 380 mg/Kg, and benzene was detected at 0.34 mg/Kg from the east end of the gasoline UST excavation. TPH gasoline was detected up to 560 mg/Kg in stockpile sample Stock-Gas-2, and benzene was detected in sample Stock-Gas-2 at 0.58 mg/Kg. These samples were also analyzed for MTBE, with one detection of MTBE at 0.28 mg/Kg in the west end of the gasoline UST excavation.

TPH diesel was not detected in the diesel UST excavation samples or the stockpile sample. The diesel UST samples were not analyzed for parameters other than TPH diesel. The soils from the two excavations were placed in two separate stockpiles. After sampling the stockpiles, the gasoline UST excavation was backfilled with soils from both tank excavations. The diesel UST excavation was backfilled with imported soil. Both excavation areas were paved with asphalt and concrete to match the surrounding grade.

## Additional Site Investigation 1996-97

The results of the additional site investigation as described in the August 1996 work plan are currently not yet entirely available. They will be summarized in the upcoming RBCA report.

## PROPOSED APPROACH

This section describes the proposed approach to develop risk-based SSTLs for soil and groundwater at the site. The SSTLs will be developed according to the methods described in the American Society for Testing and Materials (ASTM) guidance ES 1739-95 "Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites" (RBCA, ASTM 1995). The RBCA methodology evaluates sites according to a three tiered approach. We will apply Tier 1 to initially classify the site, and then develop the SSTLs using Tier 2, as appropriate.

### Description of the RBCA Tier 1 process

The scope of the RBCA Tier 1 process is to classify the site in terms of urgency of need of initial corrective action, based on (1) historical information, (2) visual inspection, and (3) site assessment data. Specifically, Tier 1 consists in the following:

- Identification of site-related contaminant sources, environmental impacts, potential transport pathways, and potentially impacted receptors

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- Comparison of site-related contaminant concentrations with conservative corrective action goals based on a list of non-site-specific risk-based screening levels (RBSLs) and other appropriate standards.

Tier 1 RBSL concentrations are based on default exposure and site parameters. Since the parameters are not site-specific, Tier 1 RBSLs incorporate a great amount of conservatism, and therefore are quite stringent.

## Description of the RBCA Tier 2 process

Some of the maximum detected chemical concentrations in soil and groundwater at the site may exceed the Tier 1 RBSL concentrations. Therefore, according to the RBCA process, after the initial Tier 1 screening, the site (or the part of the site in which the exceedance occurred) will be evaluated and classified according to Tier 2. In Tier 2, a new set of risk-based site-specific target levels (SSTLs) for the chemicals and exposure pathways of concern is developed based on site-specific input parameters. Comparison of site chemical concentrations in soil and groundwater with the SSTLs will enable risk managers to evaluate whether the site may be closed without need of further consideration or, if appropriate, identify specific areas where additional investigation and/or remedial action is recommended.

## **ASSUMPTIONS FOR THE RISK-BASED EVALUATION**—

The RBCA Tier 1 and 2 evaluation will be based on the following assumptions:

### **Overall Approach**

In Tier 1, the maximum detected soil and shallow groundwater concentration will be compared with the appropriate Tier 1 RBSL concentration. If necessary, RBSLs will be developed for chemicals that do not have published RBSLs. This will be accomplished with a computer software tool developed by WCC. The model reproduces the RBSL values published by the ASTM, and has been already used for risk assessments under Cal-EPA DTSC and Alameda County oversight. If the maximum detections do not exceed RBSL in a given area, the area is considered not of concern. If RBSLs are exceeded, then a new set of SSTLs will be generated according to Tier 2, as appropriate. Soil and groundwater that exceed Tier 2 SSTLs will be recommended for further consideration in terms of additional investigation and/or remedial action.

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## Source Characterization

Chemicals of concern for the risk-based assessment will include the following:

- Gasoline and diesel indicator compounds: benzene, toluene, ethylbenzene, xylenes (BTEX), benzo(a)pyrene, and naphthalene.
- MTBE and lead.

In case benzo(a)pyrene and naphthalene data are not available for soil and groundwater in a specific area, concentration for these compounds will be based on available total petroleum hydrocarbon (TPH) as diesel data assuming the following: naphthalene concentration is 0.13 percent of TPH-diesel concentration, and benzo(a)pyrene concentration is 0.07 milligrams (mg) for every kilogram (kg) of TPH-diesel detected (Guerin et al., 1984). If TPH-diesel data are not available or non-detected, we will conservatively use the TPH-gasoline results.

Due to the historical nature of the hydrocarbon source(s), MTBE is not expected to be a significant concern at the site. However, we will develop SSTLs for MTBE to provide reference criteria for site monitoring activities.

For lead in soil we will use the USEPA Region 9 Industrial PRG of 1,000 mg/kg as screening level. If necessary, we will develop a lead SSTL using the Cal-EPA DTSC Leadsread model.

## Exposure Scenarios and Assumptions

- 1) Soil and shallow groundwater SSTLs will be developed for an indoor commercial exposure scenario, based on the fact that the present and future land use for the site is to continue to be a fire station. It will be conservatively assumed that the station's employees may be spending up to forty hours per week at the site, 50 weeks per year, for 25 years.
- 2) We will evaluate a construction worker scenario, to verify that the above described soil and shallow groundwater SSTLs are also protective of construction workers.
- 3) The exposure pathway of concern is inhalation of vapor emissions from soil and from shallow groundwater. It is assumed that the soil will remain covered by asphalt or concrete pavement or buildings.



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- 4) Exposure point concentrations for the vapor emission estimations will be based on detected concentrations averaged over the respective area of emission and depth of emission. Where appropriate, particular "hot spots" will be addressed individually. }
- 5) Shallow groundwater at the site is not considered a viable source of drinking water. >
- 6) Soil and groundwater SSTLs will be calculated for a cancer risk level of  $1 \times 10^{-5}$  and a chronic hazard quotient of 1. }

## Use of the Site-Specific Target Levels in Remedial Response

The SSTLs developed in RBCA Tier 2 are site-specific concentrations in soil and shallow groundwater that are estimated to be protective of human health and the environment based on the application of exposure and chemical fate and transport models. The SSTLs are based on conservative exposure assumptions and input parameters (e.g., for a residential scenario: 30 years, 350 days/year, 24 hours/day continuous exposure to an infinite mass, non-degrading chemical source, etc.). However, the SSTLs do not necessarily represent the cleanup goals for the site. In general, if the SSTLs are exceeded, the site conditions may warrant further consideration in terms of additional investigation, monitoring, fate and transport modeling, or remedial action. On the other hand, if the SSTLs are not exceeded, the site does not require further consideration.

Cleanup goals should consider potential effects on human health and the environment as well as other criteria described by the National Contingency Plan (NCP, USEPA 1990). The SSTLs produced by a risk-based evaluation represent only one of the variables in the remedial action equation leading towards cleanup goals. The SSTLs are a conservative initial reference for site cleanup, but the cleanup goals are the outcome of risk management decisions, which consider the protection of human health and the environment as well as the other remedial action criteria listed in the NCP (i.e., implementability, cost effectiveness, remediation time frame, public acceptability, etc.). In conclusion, the ASTM RBCA Tier 2 SSTLs developed for the site represent a conservative starting point for remedial decision making.

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We appreciate your consideration of the risk assessment approach before we initiate this activity. If you have any questions, please do not hesitate to contact Marco Lobascio at (510) 874-3254 or Xinggang Tong at (510) 874-3060.

Sincerely,



Marco C. Lobascio, P.E., R.E.A.  
RBCA Specialist



Xinggang Tong, Ph.D., P.E.  
Project Manager

cc: Ms. Madhulla Logan, Alameda County  
Mr. Ignacio Dayrit, City of Emeryville Redevelopment Agency

### REFERENCES

ASTM. 1995. "Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites". 1739-95. November.

Calabrese et al. 1993. Hydrocarbon Contaminated Soils. Volume III. Lewis Publishers.

California State Water Resource Control Board, December 8, 1995. Interim Guidance on Required Cleanup at Low Risk Fuel Sites.

Guerin, M. R., et al., 1984. Comparative Toxicological and Chemical Properties of Fuels Developed from Coal, Shale, or Petroleum. Oak Ridge National Laboratory. Presented at the 1984 Spring National Meeting of the American Institute of Chemical Engineers, Anaheim, CA, May 20-23.

Lawrence Livermore National Laboratory, 1995. Environmental Protection Department. Recommendations To Improve the Cleanup Process for California's Leaking Underground Fuel Tanks (LUFTs). October 16.

Regional Water Quality Control Board - North Coast, San Francisco Bay, and Central Valley Regions, August, 1990. Tri-Regional Board Staff Recommendation for Preliminary Evaluation and Investigation of Underground Tank Sites. Appendix A- Reports, August 1991.

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Regional Water Quality Control Board - San Francisco Bay Region, January 1996.  
Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on  
Required Cleanup at Low Risk Fuel Sites.

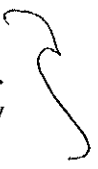
Woodward-Clyde Consultants. 1995. Workplan for Phase II Soil and Groundwater  
Investigation, City of Emeryville Fire Station No. 2, Emeryville, California. June 20.

Woodward-Clyde Consultants. 1995. Preliminary Investigation and Evaluation Report, City of  
Emeryville Fire Station No. 2, Emeryville, California. August 25.

Woodward-Clyde Consultants. 1996. Report on Removal of Two Underground Fuel Storage  
Tanks and Associated Piping, Emeryville Fire Station No. 2, Emeryville, California.  
January 8.

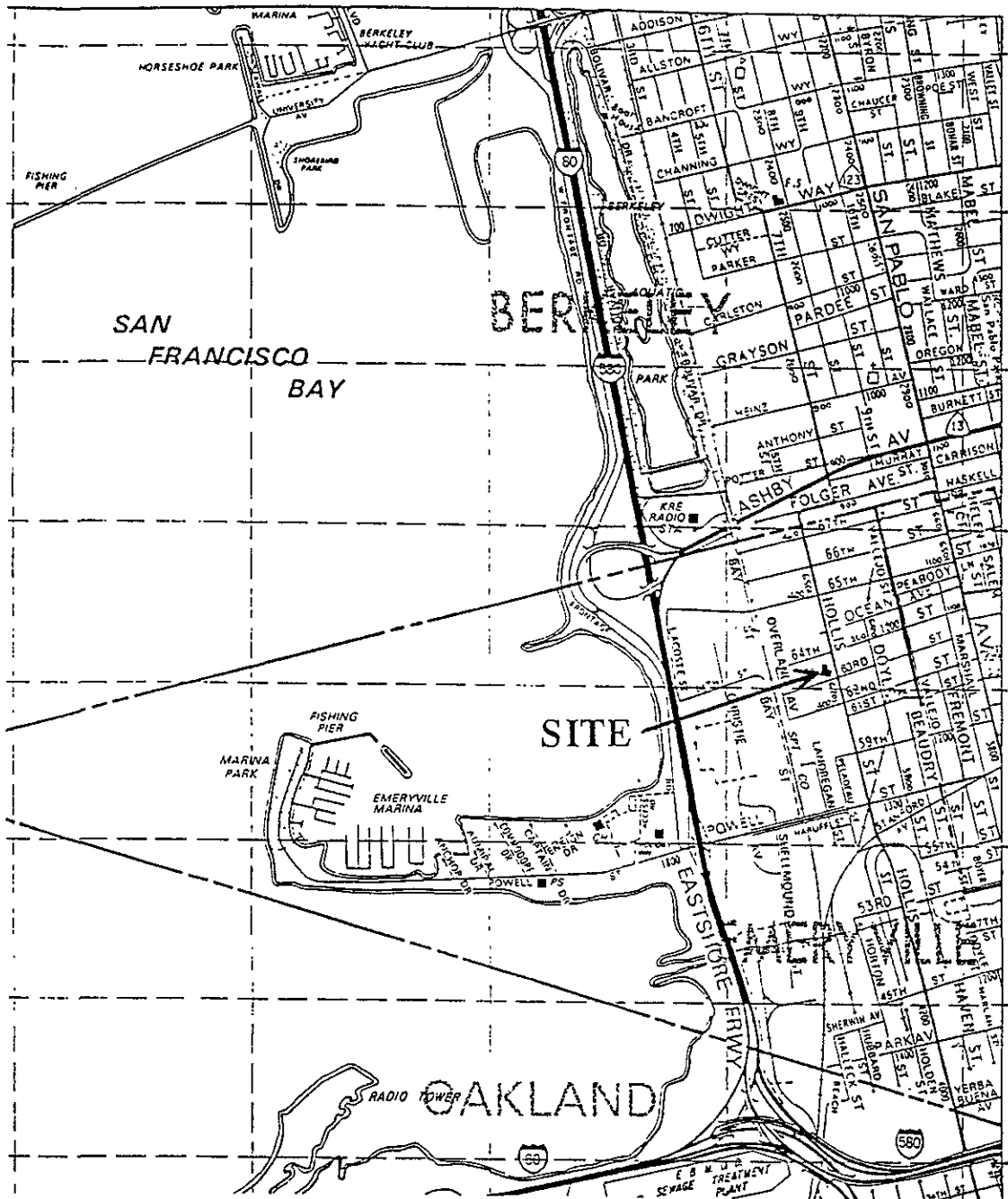
Woodward-Clyde Consultants. 1996. Workplan for Additional Site Investigation at the City of  
Emeryville Fire Station No. 2. August 7.

U.S. Environmental Protection Agency (U.S. EPA), 1990. 40 CFR Part 300. Fed. Reg. 55 (46):  
8660-1990.

U.S. EPA 1992. Supplemental Guidance to RAGS: Calculating the Concentration Term.  
Intermittent Bulletin, Volume 1, Number 1, Office of Solid Waste and Emergency  
Response, Washington, D.C. PB92-963373. 

## ATTACHMENTS

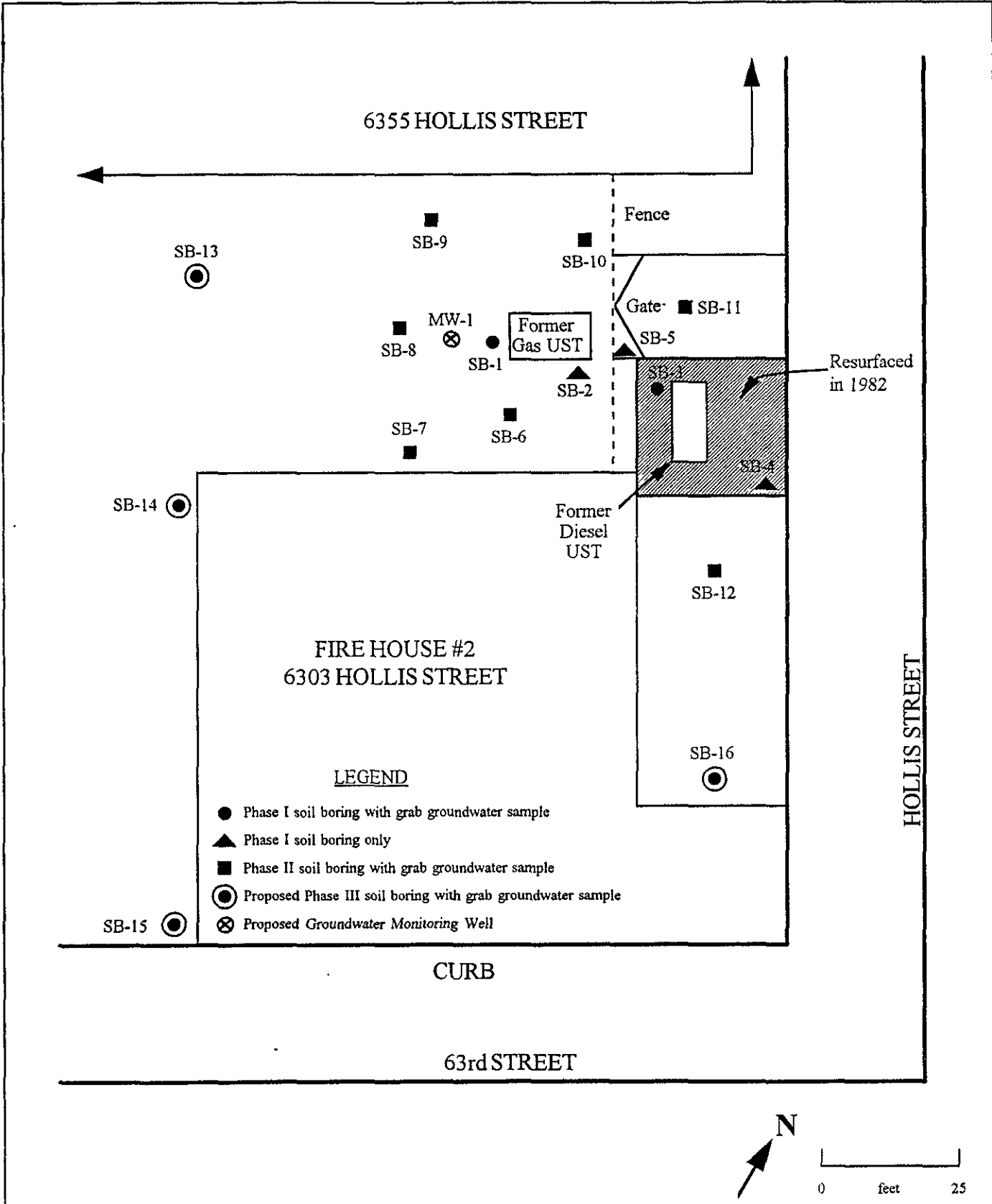
- Figure 1. Site Location Map
- Figure 2. Soil Boring and Monitoring Well Locations
- Appendix A. Summary of Site Investigation and Remediation Results



1" = 0.5 mile

from Thomas Map 1991

<p>CITY OF EMERYVILLE Fire Station No. 2</p>	<p>SITE LOCATION MAP</p>	<p>Figure 1</p>
<p>Woodward-Clyde Consultants</p>		



Project No. 941366NA	City of Emeryville Fire Station No. 2	<b>PHASE III PROPOSED SAMPLE AND MONITORING WELL LOCATIONS</b>	Figure 2
<b>Woodward-Clyde Consultants</b>			

**APPENDIX A**

**Summary of Site Investigation and Remediation Results**

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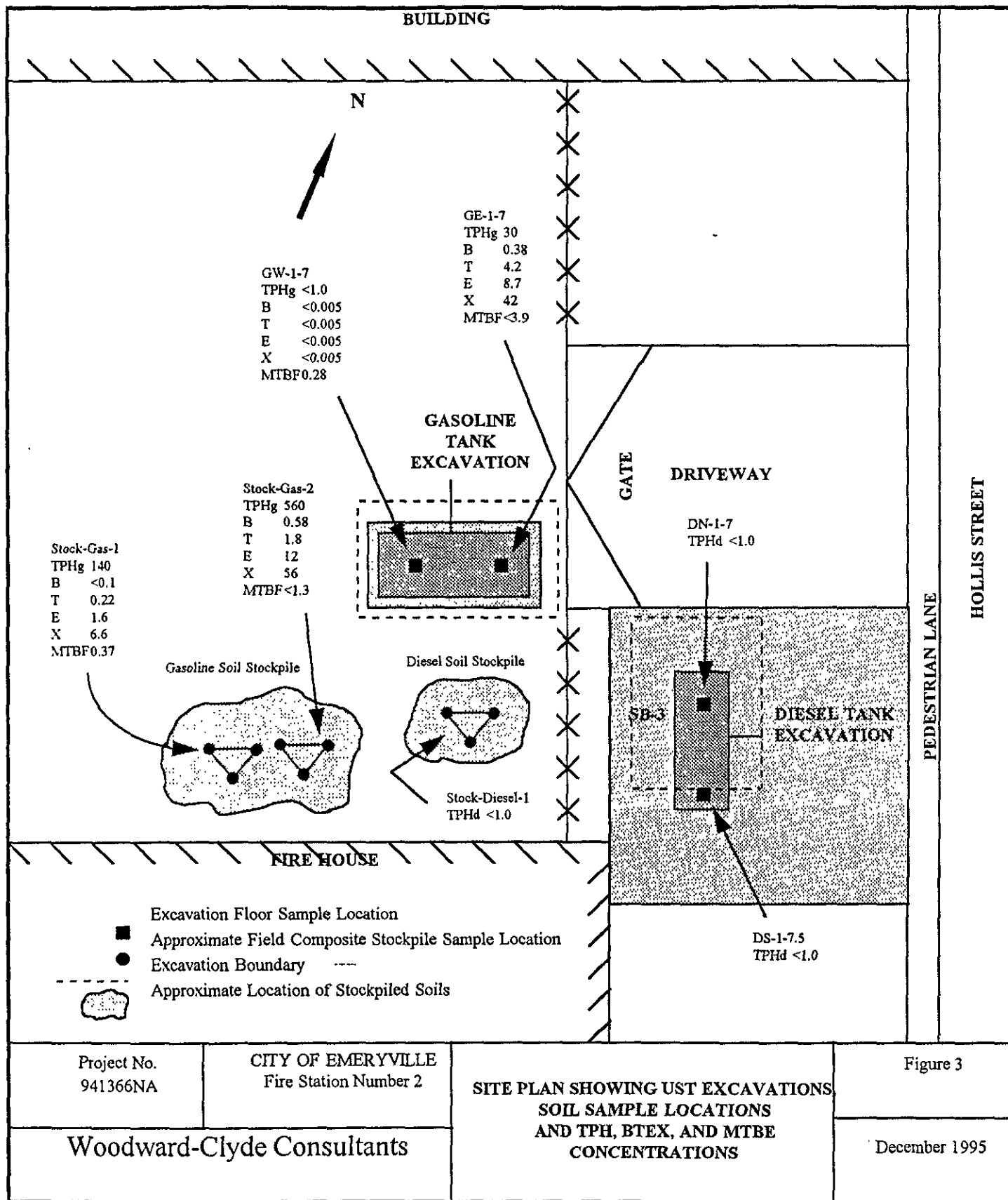


TABLE 1

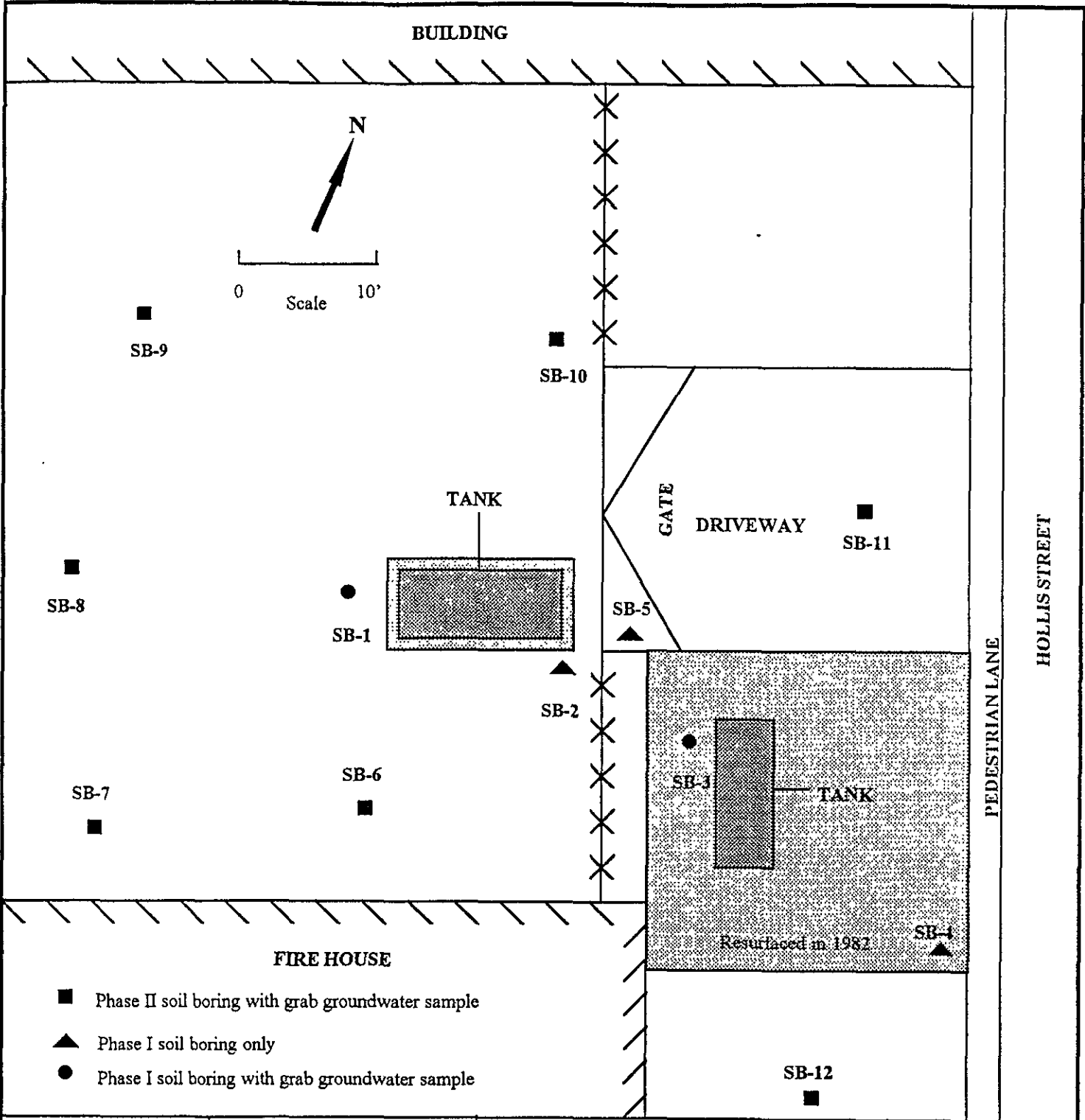
SOIL ANALYTICAL RESULTS  
CITY OF EMERYVILLE  
FIRE STATION NO. 2

Sample No.	TPH <sup>a</sup>	TPH <sup>b</sup>	Benzene <sup>c</sup> (mg/kg)	Toluene <sup>c</sup> (mg/kg)	Ethylbenzene <sup>c</sup> (mg/kg)	Xylenes <sup>c</sup> (mg/kg)	MTBE <sup>c</sup> (mg/kg)
	Gasoline (mg/kg)	Diesel (mg/kg)					
GE-1-7'	380	---	0.34	4.2	8.7	42	<3.9
GW-1-7'	<1.0	---	<0.005	<0.005	<0.005	<0.005	0.28
STOCK-GAS-1	140	---	<0.1	0.22	1.6	6.6	<0.37
STOCK-GAS-2	560	---	0.58	1.8	12	56	<1.3
STOCK-DIESEL-1	---	<1.0	---	---	---	---	---
DN-1-7.5'	---	<1.0	---	---	---	---	---
DS-1-7.5'	---	<1.0	---	---	---	---	---

Notes:

- <sup>a</sup> Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as gasoline.
- <sup>b</sup> Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as diesel.
- <sup>c</sup> Benzene, toluene, ethylbenzene, xylenes, and MTBE by EPA Method 8020.
- Not analyzed





- Phase II soil boring with grab groundwater sample
- ▲ Phase I soil boring only
- Phase I soil boring with grab groundwater sample

Project No. 941366NA	CITY OF EMERYVILLE Fire Station Number 2	PHASE I & II SOIL BORING LOCATIONS	Figure 2
			July 15, 1995

TABLE 2.

SOIL SAMPLES ANALYTICAL RESULTS SUMMARY  
 FIRE STATION NO. 2  
 EMERYVILLE, CALIFORNIA

Sample ID (Depth, ft)	TPH as Gasoline/BTEX (EPA modified 8015/8020)				
	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH as Gasoline
SB-6-5.5	1200	4900	8600	47000	440
SB-6-11	ND	ND	ND	ND	ND
SB-7-5.5	690	760	7500	28000	480
SB-7-11	ND	ND	ND	ND	ND
SB-8-5.5	190	230	1500	3500	120
SB-8-11	ND	ND	ND	ND	ND
SB-9-5.5	ND	ND	ND	ND	ND
SB-9-13	ND	ND	ND	ND	ND
SB-10-11.5	ND	ND	ND	ND	ND
SB-11-5.5	1200	5300	3300	17000	170
SB-11-11	ND	ND	5.7	26	ND
SB-12-5.5	8.3	15	ND	24	ND
SB-12-11.5	ND	ND	ND	ND	ND

Notes:

- (1) Gasoline results are in mg/Kg, all other results are in ug/Kg
  - (2) Samples analyzed by Chromalab, Inc., July 17-18, 1995
  - (3) Refer to laboratory reports for analytical reporting limits
- ND Not detected

TABLE 3.

GROUNDWATER SAMPLES ANALYTICAL RESULTS SUMMARY  
 FIRE STATION NO. 2  
 EMERYVILLE, CALIFORNIA

Sample ID (Depth, ft)	TPH as Gasoline/BTEX (EPA Modified 8015/8020)				
	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH as Gasoline
SB-6-W	24	27	27	110	0.41
SB-7-W	36	30	180	510	5.5
SB-8-W	18	36	27	100	0.46
SB-9-W	ND	ND	0.7	3.7	ND
SB-10-W	ND	ND	0.6	3.3	ND
SB-11-W	12	8.6	12	44	0.23
SB-12-W	40	130	38	170	0.97
TB	ND	ND	ND	ND	ND

Notes:

- (1) Gasoline results are in mg/L, all other results are in ug/L
  - (2) Samples analyzed by Chromolab, Inc., July 17-18, 1995
  - (3) Refer to laboratory reports for analytical reporting limits
- ND Not Detected

TABLE 1  
PHASE I SOIL ANALYTICAL RESULTS  
CITY OF EMERYVILLE  
FIRE STATION No. 2

Sample No.	Date Sampled	TPH <sup>a</sup> Gasoline (mg/kg)	TPH <sup>b</sup> Diesel (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)
SB-1-2'	3/15/95	2.4	NA	280	12	200	370
SB-1-5'	3/15/95	540	NA	ND (1,000)	7,000	10,000	51,000
SB-1-10'	3/15/95	ND (1.0)	NA	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
SB-2-6'	3/15/95	3.0	NA	630	5.7	ND (5.0)	15
SB-2-10'	3/15/95	ND (1.0)	NA	110	ND (5.0)	9.7	6.1
SB-3-6'	3/15/95	NA	ND (1.0)	420	11,000	5,500	27,000
SB-3-10'	3/15/95	NA	ND (1.0)	47	81	60	80
SB-4-6'	3/15/95	NA	ND (1.0)	ND (50)	54	1,100	3,300
SB-4-11'	3/15/95	NA	ND (1.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
SB-5-5.5'	3/15/95	NA	ND (1.0)	240	170	2,300	8,200
SB-5-10'	3/15/95	NA	ND (1.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)

Notes:   <sup>a</sup> Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as gasoline.  
<sup>b</sup> Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as diesel.  
Benzene, toluene, ethylbenzene and xylenes by EPA Method 8020.  
NA - Not analyzed; ND - Not detected at or above the detection limit given in parentheses.

TABLE 2  
GROUNDWATER ANALYTICAL RESULTS  
CITY OF EMERYVILLE  
FIRE STATION No. 2

Sample No.	Date Sampled	TPH <sup>a</sup> Gasoline (mg/L)	TPH <sup>b</sup> Diesel (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
SB-3	3/15/95	NA	NA	220	3,800	2,500	14,000
SB-1	3/15/95	0.99	NA	6.1	40	33	160
Trip Blank	3/15/95	NA	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)

Notes:    <sup>a</sup>    Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as gasoline.  
           <sup>b</sup>    Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as diesel.  
 Benzene, toluene, ethylbenzene and xylenes by EPA Method 8020.  
 NA - Not analyzed;    ND - Not detected at or above the detection limit given in parentheses.