PHASE II

APRIL 1993

PHASE II SITE ASSESSMENT
2662 FRUITVALE AVENUE
Oakland, California

For:

Environmental Affairs Division
Office of Public Works
City of Oakland

BASELINE Environmental Consulting
5900 Hollis Street, Suite D
Emeryville, California 94608
(510) 420-8686

92404-A0.02

BASELINE

ENVIRONMENTAL CONSULTING

12 April 1993
92404-A0.02

STID 4457

Ms. Julie Carver
Environmental Programs Supervisor
Environmental Affairs Division
Office of Public Works
City of Oakland
1333 Broadway, Suite 800
Oakland, California 94612

Subject: Report on Phase II Site Assessment for 2662 Fruitvale Avenue, Oakland

Dear Ms. Carver:

Enclosed please find six copies of the Phase II Site Assessment report prepared for the property located at 2662 Fruitvale Avenue, Oakland, California. The Phase II report documents results and findings of sampling activities conducted at the site, and presents our recommendations for further actions. We have enjoyed working with you on this project. Please contact us at your convenience if you have any questions.

Sincerely,

Yane Nordhav
Principal
Reg. Geologist No. 4009
Env. Assessor No. 722

Dominic Roques
Project Manager

YN:DR:tt
Enclosure

92404Aph.2rp-4/12/93

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Emeryville Petaluma London

CITY OF OAKLAND

CITY HALL • 1333 BROADWAY • OAKLAND, CALIFORNIA 94612

Office of Public Works

(415) 273-3961
FAX: 273-2233
TDD 839-6451

April 26, 1993

Alameda County Health Care Services Agency
Department of Environmental Health
ATTN: Barney Chan
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT: 2662 Fruitvale Avenue, Oakland, California

Dear Mr. Chan:

Enclosed please find a Phase II Site Assessment report detailing an initial site characterization for the property located at 2662 Fruitvale Avenue in Oakland, California, and a completed "Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report" form. The initial site characterization and the Phase II Site Assessment report were completed by Baseline Environmental Consulting on behalf of the City of Oakland (City).

The property located at 2662 Fruitvale Avenue is currently owned by the City. The City purchased this property from Texaco in 1983, and since 1983 has rented the site for use as a produce stand and Christmas tree sales lot. Historical information indicates that a service station operated at the site from 1951 to 1978. Service station activities included fueling and auto repair. Prior to the service station operation, the site was occupied by a residence. The structures from the service station remain; however, records indicate that the underground storage tanks were removed in 1978. Information regarding the condition of the tanks during removal is not available.

The site investigation detailed in the attached report indicates that subsurface soils at the site contain detectable levels of gasoline, motor oil, and oil and grease, suggesting that past auto repair and service station activities may have affected the quality of soil at the site. Soil-water samples collected from open boreholes contained gasoline and gasoline-related volatile organic compounds, further suggesting that surface or subsurface releases of gasoline and motor oil may have occurred. Analytical results from a sludge sample retrieved from a sump on site indicate that the sump contents contain gasoline, motor oil, oil and grease, and volatile organic compounds.

The City intends to conduct a geophysical survey in the near future to determine the location and depth of any underground storage tank(s) potentially still present on-site. Once this geophysical investigation is completed, approximately ten soil borings will be drilled on the site in an attempt to characterize the vertical and lateral extent of soil contamination at the property. Three of the soil borings will be converted to groundwater monitoring wells and a groundwater investigation will be conducted to determine the degree and extent of organic compounds in groundwater at the site, and to determine groundwater flow directions. The contents of the sump will be removed and properly disposed of. The dimensions, construction, and condition of the sump will be further investigated to determine whether the contents of the sump may have affected soil or groundwater quality at the site. At the conclusion of this investigation, a report will be submitted to Alameda County Health Care Services Agency (ACHCSA) detailing the results of this investigation.

The City intends to begin additional subsurface investigation work at this site within the next 75 calendar days. Once the detailed subsurface sampling program is finalized, a work plan will be submitted to ACHCSA for review. In the meantime, should you desire to further discuss the results contained in the enclosed report, please do not hesitate to contact me. I can be reached at (510) 238-6361 and would welcome the opportunity to discuss this matter with you further.

JULIE A. CARVER
Environmental Programs Supervisor

cc: (with enclosures)
Vivian O'Neal, Office of the City Attorney
Roy Schweyer, Office of Housing & Neighborhood Development
Jeanne Zastera, Office of Housing & Neighborhood Development
Rich Hiett, Regional Water Quality Control Board

cc: (without enclosures)
Harry Schrauth, OPW Administration
Mike Bridges, Office of the City Manager
Bob Williams, Office of Housing & Neighborhood Development
Yane Nordhav, Baseline Environmental Consulting

PHASE II

APRIL 1993

PHASE II SITE ASSESSMENT
2662 FRUITVALE AVENUE
Oakland, California

For:

Environmental Affairs Division
Office of Public Works
City of Oakland

BASELINE Environmental Consulting
5900 Hollis Street, Suite D
Emeryville, California 94608
(510) 420-8686

92404-A0.02

TABLE OF CONTENTS

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 26, 1993 ChromaLab file number: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Received: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS: Sample I.D.: F5-2.0-2.5

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Antimony (Sb)	N.D.	1.00
Arsenic (As)	4.1	0.25
Barium (Ba)	N.D.	0.25
Beryllium (Be)	0.08	0.05
Cadmium (Cd)	N.D.	0.05
Cobalt (Co)	4.1	0.50
Chromium (Cr)	18	0.50
Copper (Cu)	3.0	0.25
Lead (Pb)	5.1	0.50
Mercury (Hg)	N.D.	0.05
Molybdenum (Mo)	N.D.	0.25
Nickel (Ni)	20	0.50
Selenium (Se)	N.D.	0.50
Silver (Ag)	N.D.	0.25
Thallium (Tl)	N.D.	2.00
Vanadium (V)	13	0.50
Zinc (Zn)	17	0.25

Method of Analysis: 3050/6010/7471

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

cc

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 26, 1993 ChromaLab file number: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Received: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS: Sample I.D.: F5-8.0-8.5

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Antimony (Sb)	N.D.	1.00
Arsenic (As)	8.3	0.25
Barium (Ba)	N.D.	0.25
Beryllium (Be)	0.09	0.05
Cadmium (Cd)	N.D.	0.05
Cobalt (Co)	4.1	0.50
Chromium (Cr)	18	0.50
Copper (Cu)	3.4	0.25
Lead (Pb)	6.2	0.50
Mercury (Hg)	N.D.	0.05
Molybdenum (Mo)	N.D.	0.25
Nickel (Ni)	20	0.50
Selenium (Se)	N.D.	0.50
Silver (Ag)	N.D.	0.25
Thallium (Tl)	N.D.	2.00
Vanadium (V)	13	0.50
Zinc (Zn)	19	0.25

Method of Analysis: 3050/6010/7471

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 ChromaLab file number: 0193145

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project Number: 92404.AO
Date Sampled: Jan. 21, 1993 Date Received: Jan. 21, 1993
Date Analyzed: Jan. 28, 1993

RESULTS: Sample I.D.: F6-2.0-2.5

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Antimony (Sb)	N.D.	1.00
Arsenic (As)	14	0.25
Barium (Ba)	207	0.25
Beryllium (Be)	0.89	0.05
Cadmium (Cd)	N.D.	0.05
Cobalt (Co)	11	0.50
Chromium (Cr)	22	0.50
Copper (Cu)	38	0.25
Lead (Pb)	120	0.50
Mercury (Hg)	0.48	0.05
Molybdenum (Mo)	N.D.	0.25
Nickel (Ni)	39	0.50
Selenium (Se)	N.D.	0.50
Silver (Ag)	N.D.	0.25
Thallium (Tl)	N.D.	2.00
Vanadium (V)	40	0.50
Zinc (Zn)	75	0.25

Method of Analysis: 3050/6010/7471

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

do

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 ChromaLab file number: 0193145

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project Number: 92404.AO
Date Sampled: Jan. 21, 1993 Date Received: Jan. 21, 1993
Date Analyzed: Jan. 28, 1993

RESULTS: Sample I.D.: F6-8.0-8.5

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Antimony (Sb)	2.8	1.00
Arsenic (As)	9.0	0.25
Barium (Ba)	120	0.25
Beryllium (Be)	0.75	0.05
Cadmium (Cd)	N.D.	0.05
Cobalt (Co)	14	0.50
Chromium (Cr)	62	0.50
Copper (Cu)	29	0.25
Lead (Pb)	13	0.50
Mercury (Hg)	0.14	0.05
Molybdenum (Mo)	N.D.	0.25
Nickel (Ni)	110	0.50
Selenium (Se)	N.D.	0.50
Silver (Ag)	N.D.	0.25
Thallium (Tl)	N.D.	2.00
Vanadium (V)	44	0.50
Zinc (Zn)	55	0.25

Method of Analysis: 3050/6010/7471

ChromaLab, Inc.

Refaat A.Mankarious
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Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 26, 1993 ChromaLab file number: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Received: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS: Sample I.D.: F7-2.0-2.5

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Antimony (Sb)	N.D.	1.00
Arsenic (As)	10	0.25
Barium (Ba)	150	0.25
Beryllium (Be)	0.62	0.05
Cadmium (Cd)	N.D.	0.05
Cobalt (Co)	13	0.50
Chromium (Cr)	80	0.50
Copper (Cu)	27	0.25
Lead (Pb)	13	0.50
Mercury (Hg)	0.120	0.05
Molybdenum (Mo)	N.D.	0.25
Nickel (Ni)	110	0.50
Selenium (Se)	N.D.	0.50
Silver (Ag)	N.D.	0.25
Thallium (Tl)	N.D.	2.00
Vanadium (V)	29	0.50
Zinc (Zn)	60	0.25

Method of Analysis: 3050/6010/7471

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

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Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 26, 1993 ChromaLab file number: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Received: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS: Sample I.D.: F7-8.5-9.0

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Antimony (Sb)	N.D.	1.00
Arsenic (As)	5.3	0.25
Barium (Ba)	N.D.	0.25
Beryllium (Be)	0.11	0.05
Cadmium (Cd)	N.D.	0.05
Cobalt (Co)	4.3	0.50
Chromium (Cr)	18	0.50
Copper (Cu)	3.1	0.25
Lead (Pb)	5.2	0.50
Mercury (Hg)	0.510	0.05
Molybdenum (Mo)	N.D.	0.25
Nickel (Ni)	22	0.50
Selenium (Se)	N.D.	0.50
Silver (Ag)	N.D.	0.25
Thallium (Tl)	N.D.	2.00
Vanadium (V)	12	0.50
Zinc (Zn)	18	0.25

Method of Analysis: 3050/6010/7471

ChromaLab, Inc.

Refaat A.Mankarious
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Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

Sump material is hazardous

5 DAYS TURNAROUND

January 26, 1993 ChromaLab file number: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Received: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS: Sample I.D.: SUMP

Metals	Concentration (mg/Kg)	Detection Limit (mg/Kg)
Antimony (Sb)	N.D.	1.00
Arsenic (As)	2.3	0.25
Barium (Ba)	150	0.25
Beryllium (Be)	N.D.	0.05
Cadmium (Cd)	N.D.	0.05
Cobalt (Co)	1.9	0.50
Chromium (Cr)	12	0.50
Copper (Cu)	101	0.25
Lead (Pb)	1300	0.50
Mercury (Hg)	0.190	0.05
Molybdenum (Mo)	N.D.	0.25
Nickel (Ni)	6.8	0.50
Selenium (Se)	N.D.	0.50
Silver (Ag)	N.D.	0.25
Thallium (Tl)	N.D.	2.00
Vanadium (V)	3.7	0.50
Zinc (Zn)	340	0.25

Method of Analysis: 3050/6010/7471

ChromaLab, Inc.

Refaat A. Mankarious
Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 26, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Seven soil samples for Lead analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS:

Sample I.D.	Lead (mg/Kg)
F1-2.0-2.5	5.7
F1-9.5-10.0	N.D.
F1-11.0-11.5	N.D.
F4-2.0-2.5	480
F4-10.0-10.5	3.5
F8-2.0-2.5	48
F8-8.5-9.0	19
BLANK	N.D.
DETECTION LIMIT	2.5
METHOD OF ANALYSIS	3050/7420

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 ChromaLab File No.: 0193145

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Two soil samples for Lead analysis

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project Number: 92404.AO
Date Sampled: Jan. 21, 1993 Date Submitted: Jan. 21, 1993
Date Analyzed: Jan. 28, 1993

RESULTS:

Sample I.D.	Lead (mg/Kg)
F2-2.0-2.5	14
F2-8.0-8.5	9.6
BLANK	N.D.
DETECTION LIMIT	2.5
METHOD OF ANALYSIS	3050/6010

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

do

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CHROMALAB, INC.

Environmental Laboratory (1094)

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FEB 2 2 1993
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5 DAYS TURNAROUND

February 5, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for STLC lead analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Feb. 5, 1993

RESULTS:

Sample I.D.	Lead (mg/L)
F4-2.0-2.5	1.1
BLANK	N.D.
DETECTION LIMIT	0.1
METHOD OF ANALYSIS	WET/3010/6010

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

February 5, 1993 ChromaLab File No.: 0193145

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One soil sample for STLC Lead analysis

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project Number: 92404.AO
Date Sampled: Jan. 21, 1993 Date Submitted: Jan. 21, 1993
Date Analyzed: Feb. 5, 1993

RESULTS:

Sample I.D.	Lead (mg/L)
F-6	0.6
BLANK	N.D.
DETECTION LIMIT	0.1
METHOD OF ANALYSIS	WET/3010/6010

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

do

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APPENDIX F

LABORATORY REPORTS, SOIL-WATER

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Four water samples for Gasoline analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Jan. 25, 1993

RESULTS:

Sample I.D.	Gasoline (µg/L)
F1-GROUNDWATER	13000
F4-GROUNDWATER	6800
F5-GROUNDWATER	N.D.
F7-GROUNDWATER	N.D.
BLANK	N.D.
SPIKE RECOVERY	106%
DETECTION LIMIT	50
METHOD OF ANALYSIS	5030/8015

ChromaLab, Inc.

Billy Thach
Analytical Chemist

Eric Tam
Laboratory Director

do

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 27, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Three water samples for TEPH analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Extracted: Jan. 26, 1993 Date Analyzed: Jan. 26, 1993

RESULTS:

Sample I.D.	Kerosene (µg/L)	Diesel (µg/L)	Motor Oil (mg/L)
F1-GROUNDWATER	N.D.	N.D.	N.D.
F4-GROUNDWATER	N.D.*	N.D.*	N.D.**
F7-GROUNDWATER	N.D.*	N.D.*	N.D.**
BLANK	N.D.	N.D.	N.D.
SPIKE RECOVERY	---	97%	---
DUP SPIKE RECOVERY	---	96%	---
DETECTION LIMIT	50	50	0.5
METHOD OF ANALYSIS	3510/8015	3510/8015	3510/8015

* Detection limit= 250 µg/L due to dilution needed.

** Detection limit= 2.5 mg/L due to dilution needed.

ChromaLab, Inc.

Yiu Tam
Analytical Chemist

Eric Tam
Laboratory Director

do

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136

BASELINE ENVIRONMENTAL CONSULTING — Attn: Dominic

Project Name: FRUITVALE, 2662 — Project No: 92404-AO
Date Sampled: Jan. 20, 1993 — Method of Analysis: EPA 624
Date Submitted: Jan. 20, 1993 — Matrix: Water
Date of Analysis: Jan. 27, 1993 — Reporting Limit: 2.0 µg/L
Sample I.D.: F1-GROUND — Dilution Factor: None

COMPOUND NAME	µg/L	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	107% 89%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TRANS)	N.D.	---
1,2-DICHLOROETHENE (CIS)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	610	---
TRICHLOROETHENE	N.D.	117% 98%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---
TOLUENE	18	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	118% 96%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
ETHYL BENZENE	830	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	123% 82%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	46	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

ChromaLab, Inc.

Mary Cappelli
Analytical Chemist

Eric Tam
Laboratory Director

do

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136

BASELINE ENVIRONMENTAL CONSULTING — Attn: Dominic

Project Name: FRUITVALE, 2662 — Project No: 92404-AO
Date Sampled: Jan. 20, 1993 — Method of Analysis: EPA 624
Date Submitted: Jan. 20, 1993 — Matrix: Water
Date of Analysis: Jan. 27, 1993 — Reporting Limit: 2.0 µg/L
Sample I.D.: F4-GROUND — Dilution Factor: None

COMPOUND NAME	µg/L	Spike Recovery
CHLOROMETHANE	N.D.	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	107% 89%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TRANS)	N.D.	---
1,2-DICHLOROETHENE (CIS)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	---
1,2-DICHLOROETHANE	N.D.	---
BENZENE	11	---
TRICHLOROETHENE	N.D.	117% 98%
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	7	---
TOLUENE	N.D.	---
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	118% 96%
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	---
ETHYL BENZENE	16	---
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	123% 82%
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---
TOTAL XYLENES	N.D.	---
ACETONE	N.D.	---
METHYL ETHYL KETONE	N.D.	---
METHYL ISOBUTYL KETONE	N.D.	---

ChromaLab, Inc.

Mary Cappelli
Analytical Chemist

Eric Tam
Laboratory Director

do

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 29, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One water sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Jan. 22, 1993

RESULTS: Sample I.D.: F1-GROUNDWATER

Metals	Concentration (mg/L)	Detection Limit (mg/L)
Antimony (Sb)	N.D.	0.020
Arsenic (As)	0.01	0.005
Barium (Ba)	0.17	0.005
Beryllium (Be)	N.D.	0.001
Cadmium (Cd)	N.D.	0.001
Cobalt (Co)	N.D.	0.01
Chromium (Cr)	N.D.	0.01
Copper (Cu)	0.02	0.005
Lead (Pb)	N.D.	0.010
Mercury (Hg)	N.D.	0.001
Molybdenum (Mo)	N.D.	0.005
Nickel (Ni)	0.04	0.020
Selenium (Se)	0.03	0.01
Silver (Ag)	N.D.	0.005
Thallium (Tl)	N.D.	0.01
Vanadium (V)	0.02	0.01
Zinc (Zn)	0.02	0.005

Method of Analysis: 3010/6010/7470

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 29, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One water sample for Total CAM 17 Metals analyses (CA Title 22)

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Jan. 22, 1993

RESULTS: Sample I.D.: F4-GROUNDWATER

Metals	Concentration (mg/L)	Detection Limit (mg/L)
Antimony (Sb)	N.D.	0.020
Arsenic (As)	0.02	0.005
Barium (Ba)	0.13	0.005
Beryllium (Be)	N.D.	0.001
Cadmium (Cd)	N.D.	0.001
Cobalt (Co)	N.D.	0.01
Chromium (Cr)	N.D.	0.01
Copper (Cu)	N.D.	0.005
Lead (Pb)	0.02	0.010
Mercury (Hg)	N.D.	0.001
Molybdenum (Mo)	0.01	0.005
Nickel (Ni)	N.D.	0.020
Selenium (Se)	0.02	0.01
Silver (Ag)	N.D.	0.005
Thallium (Tl)	N.D.	0.01
Vanadium (V)	N.D.	0.01
Zinc (Zn)	N.D.	0.005

Method of Analysis: 3010/6010/7470

ChromaLab, Inc.

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Eric Tam
Laboratory Director

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APPENDIX G

LABORATORY REPORTS, PAINT CHIP

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 26, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: One paint sample for Lead analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS:

Sample I.D.	Lead (mg/Kg)
Paint	2300
BLANK	N.D.
DETECTION LIMIT	2.5
METHOD OF ANALYSIS	3050/7420

ChromaLab, Inc.

Refaat A.Mankarious
Inorganic Supersvisor

Eric Tam
Laboratory Director

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APPENDIX H

CHAIN-OF-CUSTODY FORM

BASELINE
5900 Hollis Street, Suite D
Emeryville, CA 94608
(510) 420-8686

CHAIN OF CUSTODY RECORD

Turn-around Time: Normal
Lab: Chroma Lab
BASELINE Contact Person: Dominic

Project No.	Project Name and Location
92404-A0	Fruitvale, 2662

Samplers: (Signature) Melissa K Scott

Sample ID No. Station	Date	Time	Media	Depth	No. of Containers	TPH TVPH	TPH TEPH	BTX&E	Oil & Grease	Motor Oil	PNAs	Title 22 Metals	Total Lead	Solvents (8010)	VOC (8240)				Remarks
F4-2.0-2.5	1-20-93	9:20	Soil	2.0-2.5	1	X	X	X					X						
F4-10.0-10.5	1-20-93	9:51	Soil	10.0-10.5	1	X	X	X					X						
F4-Groundwater	1-20-93	10:45	water	—	4	X	X					X			X				
F7-2.0-2.5 ✓	1-20-93	10:26	Soil	2.0-2.5	1		X					X		##	(X)				
F7-8.5-9.0 ✓	1-20-93	10:50	Soil	8.5-9.0	1		X					X		##	(X)				
F7-Groundwater	1-20-93	11:15	water	—	4	X	X												
F3-2.0-2.5	1-20-93	11:45	Soil	2.0-2.5	1		X		X										
F3-8.0-8.5	1-20-93	12:05	Soil	8.0-8.5	1		X		X										
F8-2.0-2.5	~~1-20-93~~ 2.0-2.5	13:25	Soil	2.0-2.5	1	X	X	X					X						
F8-8.5-9.0	~~1-20-93~~ 8.5-9.0	13:36	Soil	8.5-9.0	1	X	X	X					X						

CHROMALAB FILE # 10170
ORDER # 93136

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Conditions of Samples Upon Arrival at Laboratory:
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks: (X) Per Dominic 1/21/93 RLM
Relinquished by: (Signature) Melissa K Scott	Date / Time 18:00 1-20-93	Received by: (Signature)	Date / Time 1/20/93 18:00	

BASELINE
5900 Hollis Street, Suite D
Emeryville, CA 94608
(415) 420-8686

CHAIN OF CUSTODY RECORD

Turn-Around Time: Normal
Lab: Chromalab
Contact Person: Dominic

Project No.: 92404-A0
Project Name and Location: Fruitvale, 2662

Samplers: (Signature) William K Scott

No. Station	Date	Time	Media	Depth	Composites	No. of Containers	Station Location	TVH ~~gasoline~~	TEH ~~diesel~~	BTXE	lead	Title 26 metals	Solvents (8010)	Oil + Grease	Semi-Volatile 8270 organic compounds	VOC 8240	Remarks	Detection Limits
FS-2.0-2.5	1-20-93	14:00	Soil	2.0-2.5		1		X	X			X	~~X~~			(X)		
FS, 8.0-8.5	1-20-93	14:17	Soil	8.0-8.5		1		X	X			X	~~X~~			(X)		
FS, Groundwater	1-20-93	14:30	~~Soil~~ water	—		4												
F1-2.0-2.5	1-20-93	14:52	Soil			1		X										
F1-9.5-10.0	1-20-93	15:15	Soil			1		X	X	X	X							
F1-11.0-11.5	1-20-93	15:30	Soil			1		X	X	X	X							
F1-Groundwater	1-20-93	14:00	water					X	X	X	X							
Paint chips	1-20-93	13:10	Paint					X	X			X				X		
Sump	1-20-93	13:49	Soil								X					[illegible]		
								X	X			X		X	+	X		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	
				Condition of Samples upon Arrival at Laboratory:
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	
Relinquished by: (Signature) William K Scott	1-20-93 18:00	Received for Laboratory by: (Signature) [signature]	1-20-93 18:00	Remarks:

BASELINE

5900 Hollis Street, Suite D
Emeryville, CA 94608
(415) 420-8686

CHROMALAB FILE # 193145
ORDER # ~~10429~~ 10180

Turn-Around Time Normal
Lab Chromalab
BASELINE Contact Person Dominic

Project No.	Project Name and Location
92404.10	2662 Fruitvale Ave, Oakland

Samplers: (Signature) J Fuller / William K Lee

No.	Station	Date	Time	Media	Depth	Composites	No. of Containers	Station Location	TVHC 5030/8015	TEHC 5030/8015	BTXE 5030/8015/8020	lead (total)	solvents 8240	Title 26 metals	STLC Pb (*)			Remarks	Detection Limits
FB-2.0-2.5		1-21-93	8:56	Soil	2-2.5'		1	Boring # 6		X			X	X	X				
FB-8.0-8.5		1-21-93	9:07	Soil	8-8.5'		1	Boring # 6		X			X	X					
F2-2.0-2.5		1-21-93	9:50	Soil	2-2.5'		1	Boring # 2	X	X	X	X							
F2-8.0-8.5		1-21-93	10:07	Soil	8-8.5'		1	Boring # 2	X	X	X	X							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature) William K Lee	Date / Time 1-21-93 15:25	Received for Laboratory by: (Signature) B Monsell	Date / Time 1-22-93 15:25

Condition of Samples upon Arrival at Laboratory: cold

Remarks (*) ADDED 2/2/93

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Seven soil samples for Gasoline and BTEX analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Jan. 25, 1993

RESULTS:

Sample I.D.	Gasoline (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
F1-11.0-11.5	66	N.D.	72	260	N.D.
F1-2.0-2.5	N.D.	N.D.	N.D.	N.D.	N.D.
F1-9.5-10.0	6.0	N.D.	N.D.	14	N.D.
F4-10.0-10.5	15	N.D.	N.D.	320	N.D.
F4-2.0-2.5	3.7	N.D.	N.D.	6.4	N.D.
F8-2.0-2.5	220	N.D.	N.D.	3400	17000
F8-8.5-9.0	810	N.D.	N.D.	5400	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	102%	111%	109%	106%	109%
DUP SPIKE RECOVERY	---	115%	112%	106%	110%
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/8015	8020	8020	8020	8020

ChromaLab, Inc.

Billy Thach
Analytical Chemist

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 29, 1993 ChromaLab File No.: 0193145

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Two soil samples for Gasoline and BTEX analysis

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project Number: 92404.AO
Date Sampled: Jan. 21, 1993 Date Submitted: Jan. 21, 1993
Date Analyzed: Jan. 28, 1993

RESULTS:

Sample I.D.	Gasoline (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
F2-2.0-2.5	N.D.	N.D.	N.D.	N.D.	N.D.
F2-8.0-8.5	1.1	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	88%	113%	115%	109%	106%
DUP SPIKE RECOVERY	----	113%	113%	107%	103%
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/8015	8020	8020	8020	8020

ChromaLab, Inc.

Billy Thach
Analytical Chemist

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 26, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Fourteen soil samples for TEPH analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Extracted: Jan. 25, 1993 Date Analyzed: Jan. 25, 1993

RESULTS:

Sample I.D.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Motor Oil (mg/Kg)
F1-2.0-2.5	N.D.	N.D.	N.D.
F1-9.5-10.0	N.D.	N.D.	N.D.
F1-11.0-11.5	N.D.	N.D.	N.D.
F3-2.0-2.5	N.D.	N.D.	N.D.
F3-8.0-8.5	N.D.	N.D.	14
F4-2.0-2.5	N.D.*	N.D.*	940
F4-10.0-10.5	N.D.	N.D.	N.D.
F5-2.0-2.5	N.D.	N.D.	N.D.
F5-8.0-8.5	N.D.	N.D.	N.D.
F7-2.0-2.5	N.D.	N.D.	13
F7-8.5-9.0	N.D.	N.D.	N.D.
F8-2.0-2.5	N.D.	N.D.	44
F8-8.5-9.0	N.D.	N.D.	N.D.
SUMP	N.D.**	N.D.**	110000
BLANK	N.D.	N.D.	N.D.
SPIKE RECOVERY	----	87%	----
DUP SPIKE RECOVERY	----	84%	----
DETECTION LIMIT	1.0	1.0	10.0
METHOD OF ANALYSIS	3550/8015	3550/8015	3550/8015

* Detection limit = 5.0 mg/Kg due to dilution needed.
**Detection limit = 50 mg/Kg due to dilution needed.

ChromaLab, Inc.

Yiu Tam
Analytical Chemist

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 29, 1993 ChromaLab File No.: 0193145

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Four soil samples for TEPH analysis

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project Number: 92404.AO
Date Sampled: Jan. 21, 1993 Date Submitted: Jan. 21, 1993
Date Extracted: Jan. 26, 1993 Date Analyzed: Jan. 26, 1993

RESULTS:

Sample I.D.	Kerosene (mg/Kg)	Diesel (mg/Kg)	Motor Oil (mg/Kg)
F2-2.0-2.5	N.D.	N.D.	11
F2-8.0-8.5	N.D.	N.D.	N.D.
F6-2.0-2.5	N.D.	N.D.	N.D.
F6-8.0-8.5	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.
SPIKE RECOVERY	--	97%	---
DUP SPIKE RECOVERY	---	96%	---
DETECTION LIMIT	1.0	1.0	10.0
METHOD OF ANALYSIS	3550/8015	3550/8015	3550/8015

ChromaLab, Inc.

Yiu Tam
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Eric Tam
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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 27, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Three soil samples for Oil & Grease analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: JAN. 26, 1993

RESULTS:

Sample I.D.	Oil & Grease (mg/Kg)
F3-2.0-2.5	N.D.
F3 8.0-8.5	300
SUMP	110000
BLANK	N.D.
DETECTION LIMIT	50
METHOD OF ANALYSIS	STD METHOD 5520 E & F

ChromaLab, Inc.

Carolyn M. House
Analyst

Eric Tam
Laboratory Director

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136 A

BASELINE ENVIRONMENTAL CONSULTING — Attn: Dominic

Project Name: FRUITVALE, 2662 — Project No: 92404-AO
Date Sampled: Jan. 20, 1993 — Method of Analysis: EPA 8240
Date Submitted: Jan. 20, 1993 — Matrix: Soil
Date of Analysis: Jan. 26, 1993 — Reporting Det Limit: 5.0 µg/Kg
Sample I.D.: F5-2.0-2.5 — Dilution Factor: None

Compound	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D.	----
VINYL CHLORIDE	N.D.	----
BROMOETHANE	N.D.	----
CHLOROETHANE	N.D.	----
TRICHLOROFLUOROMETHANE	N.D.	----
1,1-DICHLOROETHENE	N.D.	94% 89%
METHYLENE CHLORIDE	N.D.	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----
1,1-DICHLOROETHANE	N.D.	----
CHLOROFORM	N.D.	----
1,1,1-TRICHLOROETHANE	N.D.	----
CARBON TETRACHLORIDE	N.D.	----
BENZENE	N.D.	----
1,2-DICHLOROETHANE	N.D.	----
TRICHLOROETHENE	N.D.	82% 75%
1,2-DICHLOROPROPANE	N.D.	----
BROMODICHLOROMETHANE	N.D.	----
2-CHLOROETHYLVINYLETHER	N.D.	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----
TOLUENE	N.D.	----
CIS-1,3-DICHLOROPROPENE	N.D.	----
1,1,2-TRICHLOROETHANE	N.D.	----
TETRACHLOROETHENE	N.D.	87% 72%
DIBROMOCHLOROMETHANE	N.D.	----
CHLOROBENZENE	N.D.	----
ETHYLBENZENE	N.D.	----
BROMOFORM	N.D.	----
1,1,2,2-TETRACHLOROETHANE	N.D.	82% 68%
1,3-DICHLOROBENZENE	N.D.	----
1,4-DICHLOROBENZENE	N.D.	----
1,2-DICHLOROBENZENE	N.D.	----
TOTAL XYLENES	N.D.	----
ACETONE	N.D.	----
METHYL ETHYL KETONE	N.D.	----
METHYL ISOBUTYL KETONE	N.D.	----

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Mary Cappelli
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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136 B

BASELINE ENVIRONMENTAL CONSULTING — Attn: Dominic

Project Name: FRUITVALE, 2662 — Project No: 92404-AO
Date Sampled: Jan. 20, 1993 — Method of Analysis: EPA 8240
Date Submitted: Jan. 20, 1993 — Matrix: Soil
Date of Analysis: Jan. 26, 1993 — Reporting Det Limit: 5.0 µg/Kg
Sample I.D.: F5-8.0-8.5 — Dilution Factor: None

Compound	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D.	----
VINYL CHLORIDE	N.D.	----
BROMOETHANE	N.D.	----
CHLOROETHANE	N.D.	----
TRICHLOROFLUOROMETHANE	N.D.	----
1,1-DICHLOROETHENE	N.D.	94% 89%
METHYLENE CHLORIDE	N.D.	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----
1,1-DICHLOROETHANE	N.D.	----
CHLOROFORM	N.D.	----
1,1,1-TRICHLOROETHANE	N.D.	----
CARBON TETRACHLORIDE	N.D.	----
BENZENE	N.D.	----
1,2-DICHLOROETHANE	N.D.	----
TRICHLOROETHENE	N.D.	82% 75%
1,2-DICHLOROPROPANE	N.D.	----
BROMODICHLOROMETHANE	N.D.	----
2-CHLOROETHYLVINYLETHER	N.D.	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----
TOLUENE	N.D.	----
CIS-1,3-DICHLOROPROPENE	N.D.	----
1,1,2-TRICHLOROETHANE	N.D.	----
TETRACHLOROETHENE	N.D.	87% 72%
DIBROMOCHLOROMETHANE	N.D.	----
CHLOROBENZENE	N.D.	----
ETHYLBENZENE	N.D.	----
BROMOFORM	N.D.	----
1,1,2,2-TETRACHLOROETHANE	N.D.	82% 68%
1,3-DICHLOROBENZENE	N.D.	----
1,4-DICHLOROBENZENE	N.D.	----
1,2-DICHLOROBENZENE	N.D.	----
TOTAL XYLENES	N.D.	----
ACETONE	N.D.	----
METHYL ETHYL KETONE	N.D.	----
METHYL ISOBUTYL KETONE	N.D.	----

ChromaLab, Inc.

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Analytical Chemist

Eric Tam
Laboratory Director

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

February 3, 1993 — ChromaLab File # 0193145

BASELINE ENVIRONMENTAL CONSULT. — Attn: Dominic

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project No: 92404.AO
Date Sampled: Jan. 21, 1993 — Method of Analysis: EPA 8240
Date Submitted: Jan. 21, 1993 — Matrix: Soil
Date of Analysis: Feb. 2, 1993 — Reporting Det Limit: 5.0 µg/Kg
Sample I.D.: F6-2.0-2.5 — Dilution Factor: None

Compound	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D.	----
VINYL CHLORIDE	N.D.	----
BROMOETHANE	N.D.	----
CHLOROETHANE	N.D.	----
TRICHLOROFLUOROMETHANE	N.D.	----
1,1-DICHLOROETHENE	N.D.	119% 97%
METHYLENE CHLORIDE	N.D.	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----
1,1-DICHLOROETHANE	N.D.	----
CHLOROFORM	N.D.	----
1,1,1-TRICHLOROETHANE	N.D.	----
CARBON TETRACHLORIDE	N.D.	----
BENZENE	N.D.	----
1,2-DICHLOROETHANE	N.D.	----
TRICHLOROETHENE	N.D.	100% 103%
1,2-DICHLOROPROPANE	N.D.	----
BROMODICHLOROMETHANE	N.D.	----
2-CHLOROETHYLVINYLETHER	N.D.	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----
TOLUENE	N.D.	----
CIS-1,3-DICHLOROPROPENE	N.D.	----
1,1,2-TRICHLOROETHANE	N.D.	----
TETRACHLOROETHENE	N.D.	95% 95%
DIBROMOCHLOROMETHANE	N.D.	----
CHLOROBENZENE	N.D.	----
ETHYLBENZENE	N.D.	----
BROMOFORM	N.D.	----
1,1,2,2-TETRACHLOROETHANE	N.D.	82% 88%
1,3-DICHLOROBENZENE	N.D.	----
1,4-DICHLOROBENZENE	N.D.	----
1,2-DICHLOROBENZENE	N.D.	----
TOTAL XYLENES	N.D.	----
ACETONE	N.D.	----
METHYL ETHYL KETONE	N.D.	----
METHYL ISOBUTYL KETONE	N.D.	----

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

February 3, 1993

ChromaLab File # 0193145

BASELINE ENVIRONMENTAL CONSULT.

Attn: Dominic

Project Name: 2662 FRUITVALE AVE., OAKLAND
Project No: 92404.AO
Date Sampled: Jan. 21, 1993
Date Submitted: Jan. 21, 1993
Date of Analysis: Feb. 2, 1993
Sample I.D.: F6-8.0-8.5

Method of Analysis: EPA 8240
Matrix: Soil
Reporting Det Limit: 5.0 µg/Kg
Dilution Factor: None

Compound	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D.	----
VINYL CHLORIDE	N.D.	----
BROMOETHANE	N.D.	----
CHLOROETHANE	N.D.	----
TRICHLOROFLUOROMETHANE	N.D.	----
1,1-DICHLOROETHENE	N.D.	119% 97%
METHYLENE CHLORIDE	N.D.	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----
1,1-DICHLOROETHANE	N.D.	----
CHLOROFORM	N.D.	----
1,1,1-TRICHLOROETHANE	N.D.	----
CARBON TETRACHLORIDE	N.D.	----
BENZENE	N.D.	----
1,2-DICHLOROETHANE	N.D.	----
TRICHLOROETHENE	N.D.	100% 103%
1,2-DICHLOROPROPANE	N.D.	----
BROMODICHLOROMETHANE	N.D.	----
2-CHLOROETHYLVINYLETHER	N.D.	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----
TOLUENE	N.D.	----
CIS-1,3-DICHLOROPROPENE	N.D.	----
1,1,2-TRICHLOROETHANE	N.D.	----
TETRACHLOROETHENE	N.D.	95% 95%
DIBROMOCHLOROMETHANE	N.D.	----
CHLOROBENZENE	N.D.	----
ETHYLBENZENE	N.D.	----
BROMOFORM	N.D.	----
1,1,2,2-TETRACHLOROETHANE	N.D.	82% 88%
1,3-DICHLOROBENZENE	N.D.	----
1,4-DICHLOROBENZENE	N.D.	----
1,2-DICHLOROBENZENE	N.D.	----
TOTAL XYLENES	N.D.	----
ACETONE	N.D.	----
METHYL ETHYL KETONE	N.D.	----
METHYL ISOBUTYL KETONE	N.D.	----

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136 C

BASELINE ENVIRONMENTAL CONSULTING — Attn: Dominic

Project Name: FRUITVALE, 2662 — Project No: 92404-AO
Date Sampled: Jan. 20, 1993 — Method of Analysis: EPA 8240
Date Submitted: Jan. 20, 1993 — Matrix: Soil
Date of Analysis: Jan. 26, 1993 — Reporting Det Limit: 5.0 µg/Kg
Sample I.D.: F7-2.0-2.5 — Dilution Factor: None

Compound	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D.	----
VINYL CHLORIDE	N.D.	----
BROMOETHANE	N.D.	----
CHLOROETHANE	N.D.	----
TRICHLOROFLUOROMETHANE	N.D.	----
1,1-DICHLOROETHENE	N.D.	94% 89%
METHYLENE CHLORIDE	N.D.	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----
1,1-DICHLOROETHANE	N.D.	----
CHLOROFORM	N.D.	----
1,1,1-TRICHLOROETHANE	N.D.	----
CARBON TETRACHLORIDE	N.D.	----
BENZENE	N.D.	----
1,2-DICHLOROETHANE	N.D.	----
TRICHLOROETHENE	N.D.	82% 75%
1,2-DICHLOROPROPANE	N.D.	----
BROMODICHLOROMETHANE	N.D.	----
2-CHLOROETHYLVINYLETHER	N.D.	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----
TOLUENE	N.D.	----
CIS-1,3-DICHLOROPROPENE	N.D.	----
1,1,2-TRICHLOROETHANE	N.D.	----
TETRACHLOROETHENE	N.D.	87% 72%
DIBROMOCHLOROMETHANE	N.D.	----
CHLOROBENZENE	N.D.	----
ETHYLBENZENE	N.D.	----
BROMOFORM	N.D.	----
1,1,2,2-TETRACHLOROETHANE	N.D.	82% 68%
1,3-DICHLOROBENZENE	N.D.	----
1,4-DICHLOROBENZENE	N.D.	----
1,2-DICHLOROBENZENE	N.D.	----
TOTAL XYLENES	N.D.	----
ACETONE	N.D.	----
METHYL ETHYL KETONE	N.D.	----
METHYL ISOBUTYL KETONE	N.D.	----

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136 D

BASELINE ENVIRONMENTAL CONSULTING — Attn: Dominic

Project Name: FRUITVALE, 2662 — Project No: 92404-AO
Date Sampled: Jan. 20, 1993 — Method of Analysis: EPA 8240
Date Submitted: Jan. 20, 1993 — Matrix: Soil
Date of Analysis: Jan. 26, 1993 — Reporting Det Limit: 5.0 µg/Kg
Sample I.D.: F7-8.5-9.0 — Dilution Factor: None

Compound	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D.	----
VINYL CHLORIDE	N.D.	----
BROMOETHANE	N.D.	----
CHLOROETHANE	N.D.	----
TRICHLOROFLUOROMETHANE	N.D.	----
1,1-DICHLOROETHENE	N.D.	94% 89%
METHYLENE CHLORIDE	N.D.	----
1,2-DICHLOROETHENE (TOTAL)	N.D.	----
1,1-DICHLOROETHANE	N.D.	----
CHLOROFORM	N.D.	----
1,1,1-TRICHLOROETHANE	N.D.	----
CARBON TETRACHLORIDE	N.D.	----
BENZENE	N.D.	----
1,2-DICHLOROETHANE	N.D.	----
TRICHLOROETHENE	N.D.	82% 75%
1,2-DICHLOROPROPANE	N.D.	----
BROMODICHLOROMETHANE	N.D.	----
2-CHLOROETHYLVINYLETHER	N.D.	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----
TOLUENE	N.D.	----
CIS-1,3-DICHLOROPROPENE	N.D.	----
1,1,2-TRICHLOROETHANE	N.D.	----
TETRACHLOROETHENE	N.D.	87% 72%
DIBROMOCHLOROMETHANE	N.D.	----
CHLOROBENZENE	N.D.	----
ETHYLBENZENE	N.D.	----
BROMOFORM	N.D.	----
1,1,2,2-TETRACHLOROETHANE	N.D.	82% 68%
1,3-DICHLOROBENZENE	N.D.	----
1,4-DICHLOROBENZENE	N.D.	----
1,2-DICHLOROBENZENE	N.D.	----
TOTAL XYLENES	N.D.	----
ACETONE	N.D.	----
METHYL ETHYL KETONE	N.D.	----
METHYL ISOBUTYL KETONE	N.D.	----

ChromaLab, Inc.

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136

BASELINE ENVIRONMENTAL CONSULTING — Attn: Dominic

Project Name: FRUITVALE, 2662 — Project No: 92404-AO
Date Sampled: Jan. 20, 1993 — Method of Analysis: EPA 8240
Date Submitted: Jan. 20, 1993 — Matrix: Soil
Date of Analysis: Jan. 27, 1993 — Reporting Det Limit: 5.0 µg/Kg
Sample I.D.: SUMP — Dilution Factor: None

Compound	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D.	----
VINYL CHLORIDE	N.D.	----
BROMOETHANE	N.D.	----
CHLOROETHANE	N.D.	----
TRICHLOROFLUOROMETHANE	N.D.	----
1,1-DICHLOROETHENE	N.D.	97% 91%
METHYLENE CHLORIDE	N.D.	----
1,2-DICHLOROETHENE (TOTAL)	1100	----
1,1-DICHLOROETHANE	N.D.	----
CHLOROFORM	N.D.	----
1,1,1-TRICHLOROETHANE	N.D.	----
CARBON TETRACHLORIDE	N.D.	----
BENZENE	N.D.	----
1,2-DICHLOROETHANE	N.D.	----
TRICHLOROETHENE	N.D.	109% 104%
1,2-DICHLOROPROPANE	N.D.	----
BROMODICHLOROMETHANE	N.D.	----
2-CHLOROETHYLVINYLETHER	N.D.	----
TRANS-1,3-DICHLOROPROPENE	N.D.	----
TOLUENE	3000	----
CIS-1,3-DICHLOROPROPENE	N.D.	----
1,1,2-TRICHLOROETHANE	N.D.	----
TETRACHLOROETHENE	N.D.	104% 106%
DIBROMOCHLOROMETHANE	N.D.	----
CHLOROBENZENE	N.D.	----
ETHYLBENZENE	950	----
BROMOFORM	N.D.	----
1,1,2,2-TETRACHLOROETHANE	N.D.	88% 100%
1,3-DICHLOROBENZENE	N.D.	----
1,4-DICHLOROBENZENE	N.D.	----
1,2-DICHLOROBENZENE	1200	----
TOTAL XYLENES	2600	----
ACETONE	4200	----
METHYL ETHYL KETONE	N.D.	----
METHYL ISOBUTYL KETONE	N.D.	----

ChromaLab, Inc.

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 — ChromaLab File # 0193136

Client: BASELINE — Attn: Dominic

Date Sampled: Jan. 20, 1993 — Date Submitted: Jan. 20, 1993
Date Extracted: Jan. 27, 1993 — Date Analyzed: Jan. 27, 1993

Project Name: Fruitvale, 2662 — Project No: 92404-A0
Sample I.D.: SUMP
Method of Analysis: EPA 8270 — Matrix: oil

COMPOUND NAME	Sample mg/kg	MDL mg/kg	Spike Recovery
PHENOL	N.D.	50	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	50	-----
2-CHLOROPHENOL	N.D.	50	62% 71%
1,3-DICHLOROBENZENE	N.D.	50	-----
1,4-DICHLOROBENZENE	N.D.	50	80% 78%
BENZYL ALCOHOL	N.D.	100	-----
1,2-DICHLOROBENZENE	N.D.	50	-----
2-METHYLPHENOL	N.D.	50	-----
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	50	-----
4-METHYLPHENOL	N.D.	50	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	50	-----
HEXACHLOROETHANE	N.D.	50	-----
NITROBENZENE	N.D.	50	-----
ISOPHORONE	N.D.	50	-----
2-NITROPHENOL	N.D.	50	-----
2,4-DIMETHYLPHENOL	N.D.	50	-----
BENZOIC ACID	N.D.	250	-----
BIS(2-CHLOROETHOXY)METHANE	N.D.	50	-----
2,4-DICHLOROPHENOL	N.D.	50	-----
1,2,4-TRICHLOROBENZENE	N.D.	50	71% 75%
NAPHTHALENE	N.D.	50	-----
4-CHLOROANILINE	N.D.	100	-----
HEXACHLOROBUTADIENE	N.D.	50	-----
4-CHLORO-3-METHYLPHENOL	N.D.	100	-----
2-METHYLNAPHTHALENE	N.D.	50	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	50	-----
2,4,6-TRICHLOROPHENOL	N.D.	50	-----
2,4,5-TRICHLOROPHENOL	N.D.	50	-----
2-CHLORONAPHTHALENE	N.D.	50	-----
2-NITROANILINE	N.D.	250	-----
DIMETHYL PHTHALATE	N.D.	50	-----
ACENAPHTHYLENE	N.D.	50	-----
3-NITROANILINE	N.D.	250	-----
ACENAPHTHENE	N.D.	50	70% 73%
2,4-DINITROPHENOL	N.D.	250	-----
4-NITROPHENOL	N.D.	250	-----
DIBENZOFURAN	N.D.	50	-----

(continued on next page)

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CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

ChromaLab File # 0193136

Project Name: Fruitvale, 2662
Project No: 92404-A0
Sample I.D.: SUMP
Method of Analysis: EPA 8270 Matrix: oil

COMPOUND NAME	Sample mg/kg	MDL mg/kg	Spike Recovery
2,4-DINITROTOLUENE	N.D.	50	-----
2,6-DINITROTOLUENE	N.D.	50	76% 79%
DIETHYL PHTHALATE	N.D.	50	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	50	-----
FLUORENE	N.D.	50	-----
4-NITROANILINE	N.D.	250	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	250	-----
N-NITROSODIPHENYLAMINE	N.D.	50	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	50	-----
HEXACHLOROBENZENE	N.D.	50	-----
PENTACHLOROPHENOL	N.D.	250	81% 84%
PHENANTHRENE	N.D.	50	-----
ANTHRACENE	N.D.	50	-----
DI-N-BUTYL PHTHALATE	N.D.	50	-----
FLUORANTHENE	N.D.	50	-----
PYRENE	N.D.	50	85% 80%
BUTYLBENZYLPHTHALATE	N.D.	50	-----
3,3'-DICHLOROBENZIDINE	N.D.	100	-----
BENZO(A)ANTHRACENE	N.D.	50	-----
BIS(2-ETHYLHEXYL)PHTHALATE	N.D.	50	-----
CHRYSENE	N.D.	50	-----
DI-N-OCTYLPHTHALATE	N.D.	50	-----
BENZO(B)FLUORANTHENE	N.D.	50	-----
BENZO(K)FLUORANTHENE	N.D.	50	-----
BENZO(A)PYRENE	N.D.	50	-----
INDENO(1,2,3 C,D)PYRENE	N.D.	50	-----
DIBENZO(A,H)ANTHRACENE	N.D.	50	-----
BENZO(G,H,I)PERYLENE	N.D.	50	-----

ChromaLab, Inc.

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Eric Tam
Lab Director

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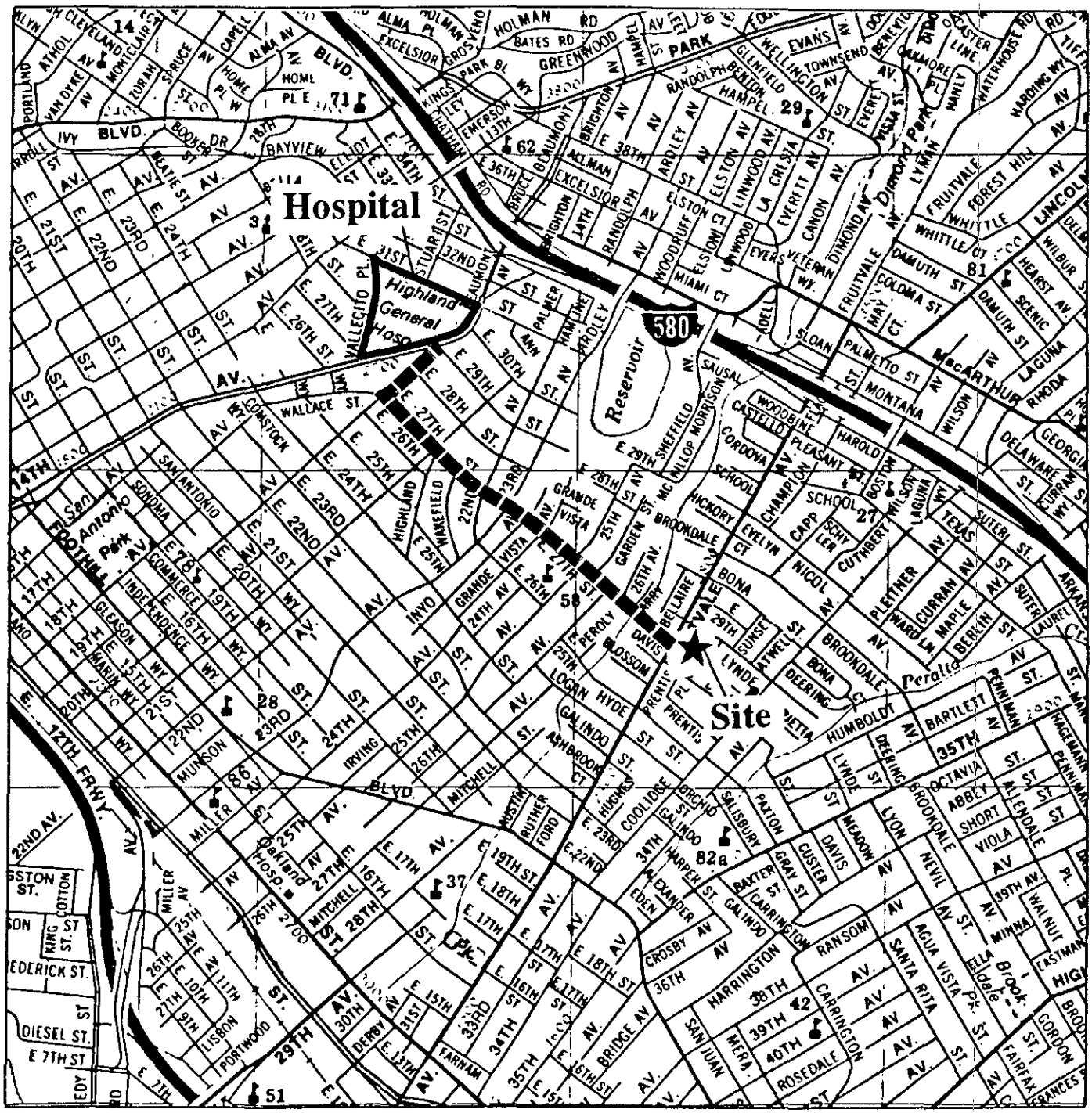
Federal ID #68-0140157

Table 1. **CHEMICAL HAZARDS**

Chemical	Source; Description	TLV	PEL	Routes of Exposure	Symptoms of Acute Exposure	Monitoring Instrument	Respirator Cartridge
Lead	Past land use; inorganic metal	50 $\mu g/m^3$	50 $\mu g/m^3$	Ingestion, inhalation	Insomnia, lassitude, palpitations, constipation, eye irritation	--	High efficiency filter (if dusty conditions)
Zinc	Past land use; zinc oxide dust, inorganic metal	10 mg/m^3	10 mg/m^3	Ingestion, inhalation	Skin and eye irritant		
Copper	Past land use; inorganic metal	1 mg/m^3	1 mg/m^3	Ingestion, inhalation	Respiratory system and eye irritant		
Cadmium	Past land use; suspected carcinogen	0.05 mg/m^3	0.2 mg/m^3	Ingestion, inhalation	Pulmonary edema, coughing, tight chest, headache, chills		
Antimony	Past land use; antimony compounds	0.5 mg/m^3	0.5 mg/m^3	Ingestion, inhalation	Inflammation of skin or mucous membranes of nose and throat, metallic taste, gastrointestinal upset, fatigue, nausea		
Mercury	Past land use; inorganic metal	0.1 mg/m^3	1 $mg/10\ m^3$ (acceptable ceiling concen-tration)	Ingestion, inhalation, skin contact	Coughing, excessive salivation, pneumonia, irritability, loss of memory, insomnia		
Fluorides	Past land use; inorganic	2.5 mg/m^3	2.5 mg/m^3	Ingestion, inhalation	Irritation of eyes, skin, and mucous membranes, skin rash, irritation of respiratory system, nausea, excessive salivation		
Nickel	Past land use; metal carcinogen	1 mg/m^3	1 mg/m^3	Ingestion, inhalation	Dermatitis, ingestion of soluble salts may cause nausea, vomiting, diarrhea		
Solvents	Past land use; organics, may include carcinogens	Compound specific	Compound specific	Ingestion, inhalation, skin contact	Headache, dizziness, irritation of eyes, skin, or mucous membranes	HNu	Organic vapor
Fuel hydrocarbons	Past land use; examples: gasoline, diesel, benzene, toluene, xylenes, ethylbenzene	100 ppm, gasoline; 10 ppm, benzene	100 ppm, gasoline; 1 ppm, benzene	Inhalation, skin contact, ingestion	Headache, dizziness, skin or eye irritation	HNu and Sensidyne detector tube for benzene	Organic vapor

Figure 1



Hospital/Clinic: Highland Hospital

Telephone No.: (510) 534-8055

Hospital Address: 1411 E. 31st Street

Directions: From Site, go north on E. 27th Street, to 19th Avenue turn right, merge right with 14th Street, turn left on 31st Street. Entrance to the hospital is on the left.

BASELINE

APPENDIX C

GROUNDWATER PROTECTION ORDINANCE PERMIT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94566 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 2662 Fruitvale Ave.
Oakland, CA

CLIENT
Name City of Oakland, Office of Public Works
Address 1333 Broadway Phone 268-6361
City Oakland Zip 94612

APPLICANT
Name Baseline Environmental Consulting
5900 Hollis, Suite D
Address Phone 510-420-8686
City Emeryville Zip 94608

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	X
Monitoring	___	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. 604987

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings 8 Maximum
Hole Diameter ___ in. Depth 15 ft.

ESTIMATED STARTING DATE 20 January 1993
ESTIMATED COMPLETION DATE 21 January 1993

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 1/13/93

FOR OFFICE USE

PERMIT NUMBER 93033
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
(1.) A permit application should be submitted so as arrive at the Zone 7 office five days prior proposed starting date.
2. Submit to Zone 7 within 60 days after completi of permitted work the original Department Water Resources Water Well Drillers Report equivalent for well projects, or drilling lo and location sketch for geotechnical projects.
3. Permit is void if project not begun within days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal a industrial wells or 20 feet for domestic an irrigation wells unless a lesser depth specially approved. Minimum seal depth f monitoring wells is the maximum depth practicab or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cu tings or heavy bentonite and upper two feet with co pacted material. In areas of known or suspect contamination, tremied cement grout shall be used place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concre placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 22 Jan 9
Wyman Hong

12196

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (510) 484-2600

TELEFAX TRANSMITTAL

DATE: 25 Jan 93

DELIVER TO: Sandi Potter

NAME OF FIRM: Baseline

FAX PHONE #: 420 - 1707

FROM: Wyman Hong

NUMBER OF PAGES: 2
(Including transmittal)

FOR VOICE CONTACT CALL: (510) 484-2600

FOR RETURN FAX: (510) 462-3914

REMARKS: Transmitting drilling permit 93033 for a contamination investigation at 2662 Russell Avenue in Oakland

APPENDIX D

ASBESTOS SURVEY

ACUMEN

INDUSTRIAL HYGIENE INC

1250 FOLSOM STREET SAN FRANCISCO CA 94103

TEL 415 252 0778 FAX 415 252 1411

ASBESTOS SURVEY REPORT

2662 Fruitvale Avenue
Oakland, CA

January, 1993

Prepared for:

Baseline Environmental
5900 Hollis Street, Suite D
Emeryville, CA

Project No. BE 9305

1.0 Introduction

The purpose of the report is to present the findings of an asbestos survey conducted at the building located at 2662 Fruitvale Avenue, Oakland, CA. This survey was performed on January 27, 1993.

The objective of this investigation was to determine the presence of accessible asbestos-containing material (ACM) on the premises. Accessible ACM is defined as materials that does not require demolition, disassembly, or destructive procedures in order to access it for sampling and evaluation. Ms. Katherine McNamara and Ms. Elizabeth Murphy, AHERA-certified Building Inspectors, surveyed the building.

2.0 Investigation Method

Our inspection consisted of a walkthrough of the building to inspect for the presence of friable and non-friable suspect ACMs. Friable ACM is defined as material that can be easily crumbled of pulverized under hand pressure. Friable ACM is generally considered more hazardous than non-friable ACM because of the higher fiber release potential. However, during building renovation non-friable ACM can become friable. At this time, the California Department of Health Services does not consider non-friable ACM as a hazardous waste (22 CCR 66699).

For each type of suspect ACM noted, we collected duplicate bulk samples. AHERA guidelines require that multiple samples of suspect materials be collected and analyzed to establish the absence of asbestos. At the same time we assessed the condition of the material. Suspect materials sampled included flooring and roofing materials. We did not find drywall, thermal systems insulation, spray-on insulation, or fireproofing in the building.

The building is constructed primarily out of sheet metal on a concrete slab. Interior partitions were constructed out of sheet metal or wood. Fluorescent light ballasts, located along the building ceiling, may contain PCBs. These fixtures require disassembly to determine the presence of PCBs.

Two restrooms were located on the west side of the building. Only one was accessible, which consisted of a ceramic tile floor and sheet metal walls. The hot water pipes were not insulated. The second restroom door was locked. It is probable that this room contained similar materials, however, we were not able to inspect it at the time of the survey.

The samples were submitted to R.J. Lee Group, Inc. of Berkeley, CA. This laboratory is accredited by the National Bureau of Standards, National Voluntary Laboratory Accreditation Program for selected test methods for asbestos. It has also successfully participated in the EPA's round robin quality assurance program for asbestos bulk sample analysis.

The samples were analyzed by polarized light microscopy (PLM). This method identifies the type(s) of asbestos present in the sample and its corresponding percent concentrations(s). The reliable limit of detection of this method is 1% asbestos. The PLM method was developed for analysis of friable ACM. Analysis of non-friable materials, particularly floor tiles, can be complicated by the presence of binding agents. In addition, the length of asbestos fibers in floor tile tends to be shorter than asbestos fibers found in insulation and other products, and is therefore may not as easily be detected by PLM. Electron microscopy analysis may be used as a more accurate method to determine asbestos content.

3.0 Findings and Discussion

Table 1 summarizes the asbestos-containing materials collected in the building located at 2662 Fruitvale Avenue. No non-asbestos containing materials were found in the building. Acumen collected a total of 12 samples in this building, all of which proved to contain asbestos. The laboratory reports are appended to this report.

No friable asbestos containing materials were found in the building. The following is a summary of non-friable ACMs found in the building located at 2662 Fruitvale Avenue:

Non-friable Asbestos Containing Material

- Brown 12x12" vinyl tile and associated mastic (sample no. BE 9305-01, BE 9305-02 and BE 9305-03); 180 square feet; located in the west office.
- Grey vent mastic (sample no. BE 9305-04, BE 9305-05 and BE 9305-06); approximately 12 square feet; located on the roof penetrations.
- Black vent mastic (sample no. BE 9305-07, BE 9305-08 and BE 9305-09); approximately 6 square feet; located on the roof penetrations and bolts.
- Parapet mastic (sample no. BE 9305-10, BE 9305-11 and BE 9305-12); approximately 20 square feet; located on the roof parapet.

The building roof was constructed out of sheet metal. Patches of mastic were located at the base of roof penetrations and randomly around the roof parapet. Non-friable tar paper was found covering some bolts that perforated the sheet metal, but was not in sufficient amount to sample and was therefore assumed to contain asbestos and should be removed at the time of abatement.

The roof of the overhead canopy was partially visible from our vantage point on the building roof. We did not inspect this area as it was not included in the original scope of work. Roof penetrations and parapet mastic were not visible from this location. However, tar paper may be present in areas where sheet metal is bolted. This area should be further inspected at the time of abatement to verify that no additional suspect ACMs are present.

Non-Asbestos Containing Material

None of the materials sampled were non-asbestos containing.

4.0 Recommendations

There are three principal recommendations pertaining to the findings of this investigation. First, the removal of any of the identified ACM should be conducted in accordance with applicable federal, state and local regulations. California requires that only licensed and registered abatement contractors be used.

Secondly, clear and careful specification documents should be prepared prior to any asbestos removal. This document should specify acceptable removal methods, replacement materials, clearance air sampling and asbestos disposal procedures.

Thirdly, a qualified, Cal-OSHA licensed asbestos consultant should be retained to ensure renovation or demolition is conducted in accordance with applicable regulations.

Currently, the BAAQMD requires notification of all demolitions (regardless of asbestos content), and all renovations involving more than 100 square feet or 100 linear feet of ACM. Job notifications must now also be accompanied by a building survey report.

5.0 Conclusions

ACM was found in the building inspected at 2662 Fruitvale Avenue, Oakland, CA as follows:

- 180 square feet of brown 12x12" vinyl tile and mastic located in the west office
- Approximately 40 square feet of roofing material, located at the base of roof penetrations, randomly around the roof parapet, and covering some roof bolts.

The ACM is not damaged and does not appear to represent a significant health hazard as defined by current Cal-OSHA regulations. However, it is important to properly manage these materials, which requires that the materials not be damaged to avoid fiber release.

Table 1

Asbestos Containing Materials
2662 Fruitvale Avenue
Oakland, CA

Sample No.	Description	Sample Location	Result	Comments	Est. Amount
BE 9305-01 BE 9305-02 BE 9305-03	Brown 12x12" vinyl tile and mastic	Interior, west office	t: 3-5% Ch[1] m: 3-5% Ch	AU, No D[2]	180 sf
BE 9305-04 BE 9305-05 BE 9305-06	Grey vent mastic	Roof penetrations	5-10% Ch	AU, No D	12 sf[3]
BE 9305-07 BE 9305-08 BE 9305-09	Black vent mastic	Roof penetrations	5-10% Ch	AU, No D	6 sf
BE 9305-10 BE 9305-11 BE 9305-12	Parapet mastic	Roof parapet	5-10% Ch	AU, No D	20 sf

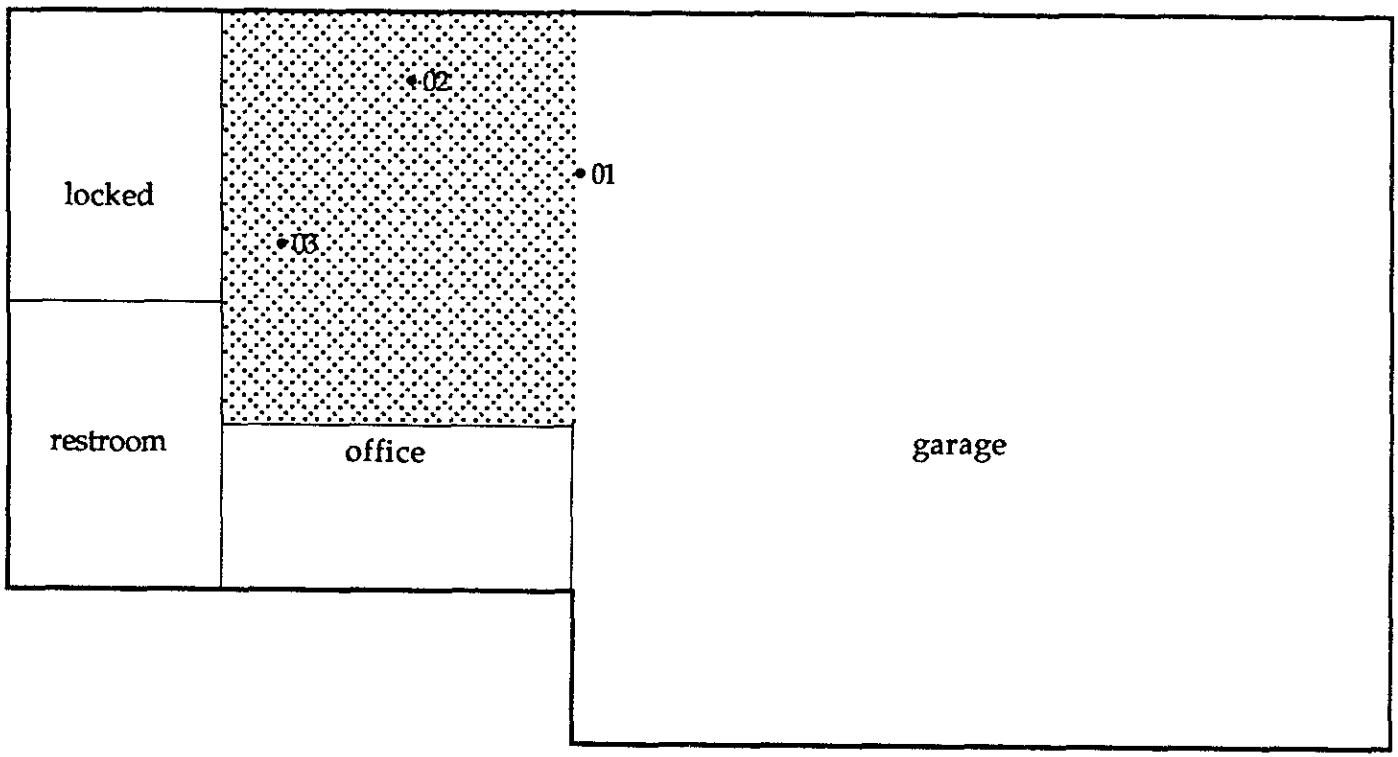
[1] Ch refers to chrysotile asbestos
[2] AU indicates accessible/unoccupied, No D indicates not damaged
[3] Quantities of roofing material are approximate

Figure 1

N

2662 Fruitvale Avenue
Oakland, CA

Ground Floor Sample Locations



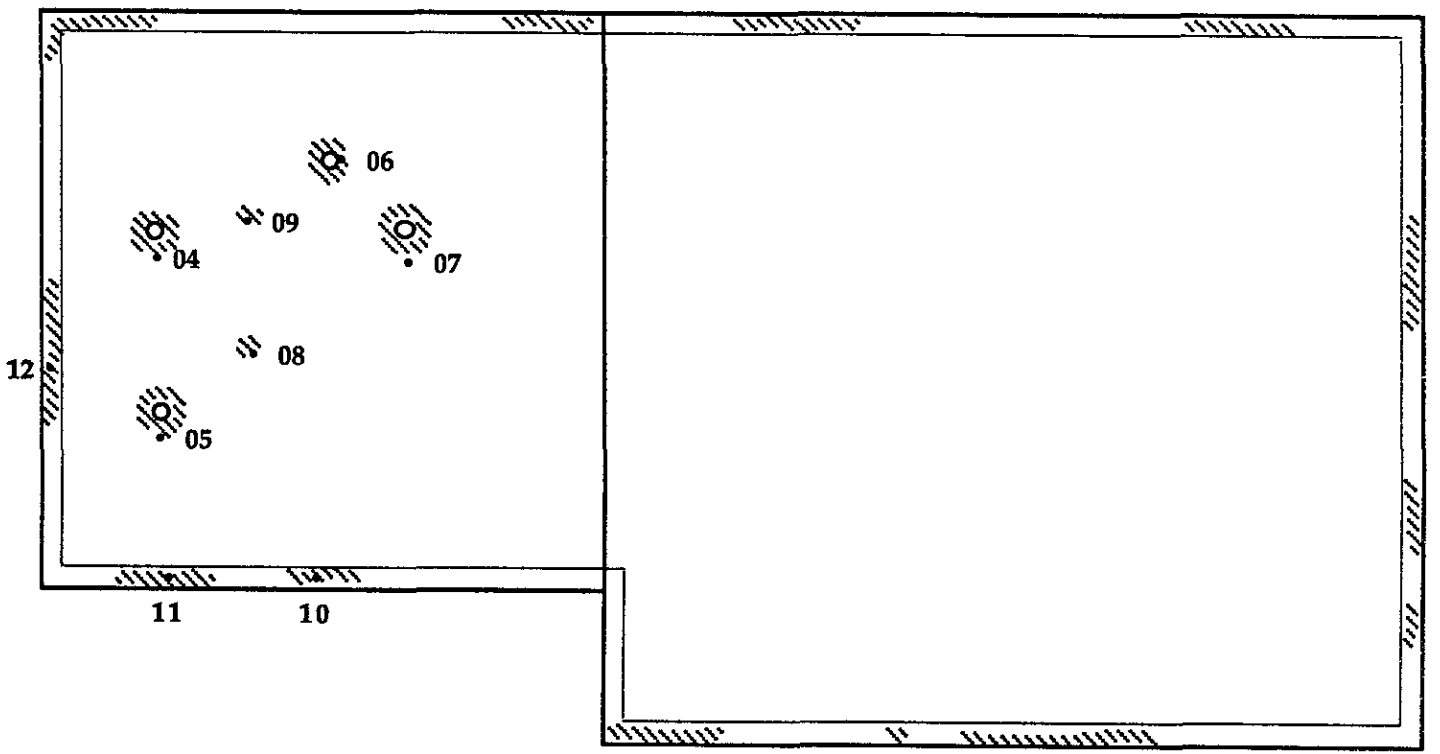
Vinyl Asbestos Tile

Figure 2

2662 Fruitvale Avenue
Oakland, CA

Roof Sample Locations

N



ACM

Client Name Acumen, Inc.
Address 1250 Folsom Street
San Francisco, CA 94103
Attn: Michael Connor
Project BE9305
Location 2662 Fruitvale

R J Lee Job Number AOC301280
Date of Sample Receipt 1/27/93
Date of Sample Report 2/9/93

Sample Number and Description		% Asbestos Fibers	% Non-Asbestos Fibers	% Non-Fibrous Materials	Analyst Run Date Homogeneity Data Entry
BE9305-01 Brown tile and black mastic; Office	124870CPL	3-5 Chrysotile Tile: 3-5 Chrysotile Mastic: 3-5 Chrysotile		95-97 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 No DIN
BE9305-02 Brown tile and black mastic; Office	124871CPL	3-5 Chrysotile Tile: 3-5 Chrysotile Mastic: 3-5 Chrysotile		95-97 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 No DIN
BE9305-03 Brown tile and black mastic; Office	124872CPL	3-5 Chrysotile Tile: 3-5 Chrysotile Mastic: 3-5 Chrysotile		95-97 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 No DIN
BE9305-04 Grey vent mastic; Roof	124873CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DIN

Comments:

Analysis Method:
EPA Interim Method, 1987 (40 CFR, Pt. 763, Subpt. F, App. A, pp 293-299)
NIST NVLAP Participant Number 1208-2

David C. Ewing
NVLAP Signatory

RJ Lee
Berkeley
2424 Sixth Street
Berkeley, CA 94710
510-486-8319
Telefax 510-486-0927

Client Name Acumen, Inc.
Address 1250 Folsom Street
San Francisco, CA 94103
Attn: Michael Connor
Project BE9305
Location 2662 Fruitvale

R J Lee Job Number AOC301280
Date of Sample Receipt 1/27/93
Date of Sample Report 2/9/93

Sample Number and Description		% Asbestos Fibers	% Non-Asbestos Fibers	% Non-Fibrous Materials	Analyst Run Date Homogeneity Data Entry
BE9305-05 Grey vent mastic; Roof	124874CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN
BE9305-06 Grey vent mastic; Roof	124875CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN
BE9305-07 Black vent mastic; Roof	124876CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN
BE9305-08 Black vent mastic; Roof	124877CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN

Comments:

Analysis Method:
EPA Interim Method, 1987 (40 CFR, Pt. 763, Subpt. F, App. A, pp 293-299)
NIST NVLAP Participant Number 1208-2

These results are pursuant to RJ Lee Group's current terms and conditions of sale including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted.

David C. Ewing
NVLAP Signatory

RJ Lee
Berkeley
2424 Sixth Street
Berkeley, CA 94710
510-486-8319
Telefax 510-486-0927

Client Name Acumen, Inc.
Address 1250 Folsom Street
San Francisco, CA 94103
Attn: Michael Connor
Project BE9305
Location 2662 Fruitvale

R J Lee Job Number AOC301280
Date of Sample Receipt 1/27/93
Date of Sample Report 2/9/93

Sample Number and Description		% Asbestos Fibers	% Non-Asbestos Fibers	% Non-Fibrous Materials	Analyst Run Date Homogeneity Data Entry
BE9305-09 Black vent mastic; Roof	124878CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN
BE9305-10 Parapet mastic; Roof	124879CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN
BE9305-11 Parapet mastic; Roof	124880CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN
BE9305-12 Parapet mastic; Roof	124881CPL	5-10 Chrysotile		90-95 Tar, Clay, Carbonate, Binder, Opaques, Fine Grains, Misc. Particles	RC 1/29/93 Yes DTN

Comments:

Analysis Method:
EPA Interim Method, 1987 (40 CFR, Pt. 763, Subpt. F, App. A, pp 293-299)
NIST NVLAP Participant Number 1208-2

David C. Ewing
NVLAP Signatory

RJ Lee
Berkeley
2424 Sixth Street
Berkeley, CA 94710
510-486-8319
Telefax 510-486-0927

AOC 301280

Chain of Custody Form

Acumen Industrial Hygiene, Inc.
1250 Folsom Street
San Francisco, CA 94103

Phone: 415/252-0778
Fax: 415/252-1411

Project Number BE9305

Laboratory: RJ Lee

Job Site: 2662 Fruitvale

Turn Around Time. Reg

Lab ID#	Acumen ID#	Location/Description	Analysis	Total Liters	NIOSH Method
	BE9305-01	Brown tile & mastic - office	PLM		
	BE9305-02	↓	↓		
	BE9305-03	↓	↓		
	BE9305-04	grey vent mastic - roof	↓		
	BE9305-05	↓	↓		
	BE9305-06	↓	↓		
	BE9305-07	black vent mastic roof	↓		
	BE9305-08	↓	↓		
	BE9305-09	↓	↓		
	BE9305-10	parapet mastic roof	↓		
	BE9305-11	↓	↓		
	BE9305-12	↓			

Notes: Please fax results to (415) 252-1411. Please also sign this form acknowledging sample receipt and return with reports.

K. Mellon 1/26/93 — Relinquished By / Date

B. Reynolds 1/27/93 10:25 AM — Received By / Date

APPENDIX E

LABORATORY REPORTS, SOILS

TABLE E-1

SUMMARY OF LABORATORY RESULTS FOR METALS[1] IN SOILS
2662 Fruitvale Avenue, Oakland, California
January 1993

(mg/kg)

Sample Location	Depth (feet)	Sb	As	Ba	Be	Co	Cr	Cu	Pb[2]	Hg	Ni	V	Zn
F1	2.0-2.5	--	--	--	--	--	--	--	5.7	--	--	--	--
	9.5-10.0	--	--	--	--	--	--	--	<2.5	--	--	--	--
	11.0-11.5	--	--	--	--	--	--	--	<2.5	--	--	--	--
F2	2.0-2.5	--	--	--	--	--	--	--	14	--	--	--	--
	8.0-8.5	--	--	--	--	--	--	--	9.6	--	--	--	--
F4	2.0-2.5	--	--	--	--	--	--	--	480 (1.1)	--	--	--	--
	10.0-10.5	--	--	--	--	--	--	--	3.5	--	--	--	--
F5	2.0-2.5	<1.0	4.1	<0.25	0.08	4.1	18	3.0	5.1	<0.05	20	13	17
	8.0-8.5	<1.0	8.3	<0.25	0.09	4.1	18	3.4	6.2	<0.05	20	13	19
F6	2.0-2.5	<1.0	14	207	0.89	11	22	38	120 (0.6)	0.48	39	40	75
	8.0-8.5	2.8	9.0	120	0.75	14	62	29	13	0.14	110	44	55
F7	2.0-2.5	<1.0	10	150	0.62	13	80	27	13	0.120	110	29	60
	8.5-9.0	<1.0	5.3	<0.25	0.11	4.3	18	3.1	5.2	0.510	22	12	18
F8	2.0-2.5	--	--	--	--	--	--	--	48	--	--	--	--
	8.5.9.0	--	--	--	--	--	--	--	19	--	--	--	--
Sump		<1.0	2.3	150	<0.05	1.9	12	101	1,300	0.190	6.8	3.7	340

Notes: Sample locations are shown in Figure 2.
Laboratory results are included in Appendix E.
-- indicates that sample was not analyzed for this compound.
Refer to Table 1 for laboratory methods.

[1] Cadmium (Cd), Molybdenum (Mo), Selenium (Se), Silver (Ag), and Thallium (Tl) were not present above levels of detection. The detection limits are: Cd: 0.05 mg/kg; Mo: 0.25 mg/kg; Se: 0.5 mg/kg; Ag: 0.25 mg/kg; and Tl: 2.0 mg/kg.

[2] Values in parentheses are soluble lead concentration presented in mg/L using Waste Extraction Method.

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

January 28, 1993 ChromaLab File No.: 0193136

BASELINE ENVIRONMENTAL CONSULTING

Attn: Dominic

RE: Three soil samples for Gasoline analysis

Project Name: FRUITVALE, 2662
Project Number: 92404-AO
Date Sampled: Jan. 20, 1993 Date Submitted: Jan. 20, 1993
Date Analyzed: Jan. 26, 1993

RESULTS:

Sample I.D.	Gasoline (mg/Kg)
F5-2.0-2.5	N.D.
F5-8.0-8.5	N.D.
SUMP	16
BLANK	N.D.
SPIKE RECOVERY	90%
DETECTION LIMIT	1.0
METHOD OF ANALYSIS	5030/8015

ChromaLab, Inc.

Billy Thach
Analytical Chemist

Eric Tam
Laboratory Director

do

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

Gasoline detected in soil-water at borings F1 and F4, at locations presumed downgradient from boring F8, possibly originated from a source near location F8.[1] It is unknown whether groundwater at boring F2, also located presumably downgradient from F8, contains gasoline since soil-water was not sampled at that location.

The results of this Phase II investigation are consistent with those of a previous geotechnical investigation (TransPacific, 1986) in which gasoline odors were detected at two of four boring locations (Figure 2). One boring location within ten feet of boring F8 emitted strong odors at depths between 4 and 15 feet, suggesting that gasoline had affected the soil at that location in 1989. Odors were also detected at a boring located within ten feet of boring F5 (Figure 2). At that location gasoline odors were detected at greater depths in the borehole, near the soil-groundwater interface (8 to 12 feet), suggesting that gasoline had entered the groundwater.

The distribution of gasoline in the unsaturated soil column suggests that the gasoline originated on-site as a surface spill or was associated with a leaking underground storage tank. Boring F8 is located in the immediate vicinity of a historical structure indicated as "gas and oil" on a 1946 Sanborn Map of the site (BASELINE, 1992) (Figure 3), the structure is also visible in the 1950 aerial photograph and may be a pump island and canopy. It is possible that underground fuel tanks were located in the vicinity of the structure. Information on the use or removal of underground tanks, associated with the earlier service station, was not available in agency records during file review conducted for the Phase I site assessment (BASELINE, 1992).

The data suggest a surface release of motor oil and oil and grease may have affected the quality of shallow soils at borings F2, F4, and F7. Motor oil and oil and grease detected in soil at F3 suggests a different origin; at this location oil was not detected in soil sampled at a depth of two feet but was present at a depth of eight feet, indicating a subsurface source. Boring F3 is located within the footprint of a historical facility indicated as "grease" on a 1946 Sanborn Map of the site (BASELINE, 1992) (Figure 3). It is possible that a waste oil or grease sump or tank was located in this area. It is unknown whether the subsurface structure has been removed.

Results of lead analysis of paint chips indicate that the garage/office building contains potentially hazardous levels of lead in paint. Lead-based paint dust may be of concern if building demolition or renovation were to occur at the site. Adequate dust suppression measures should be employed during demolition of this building.

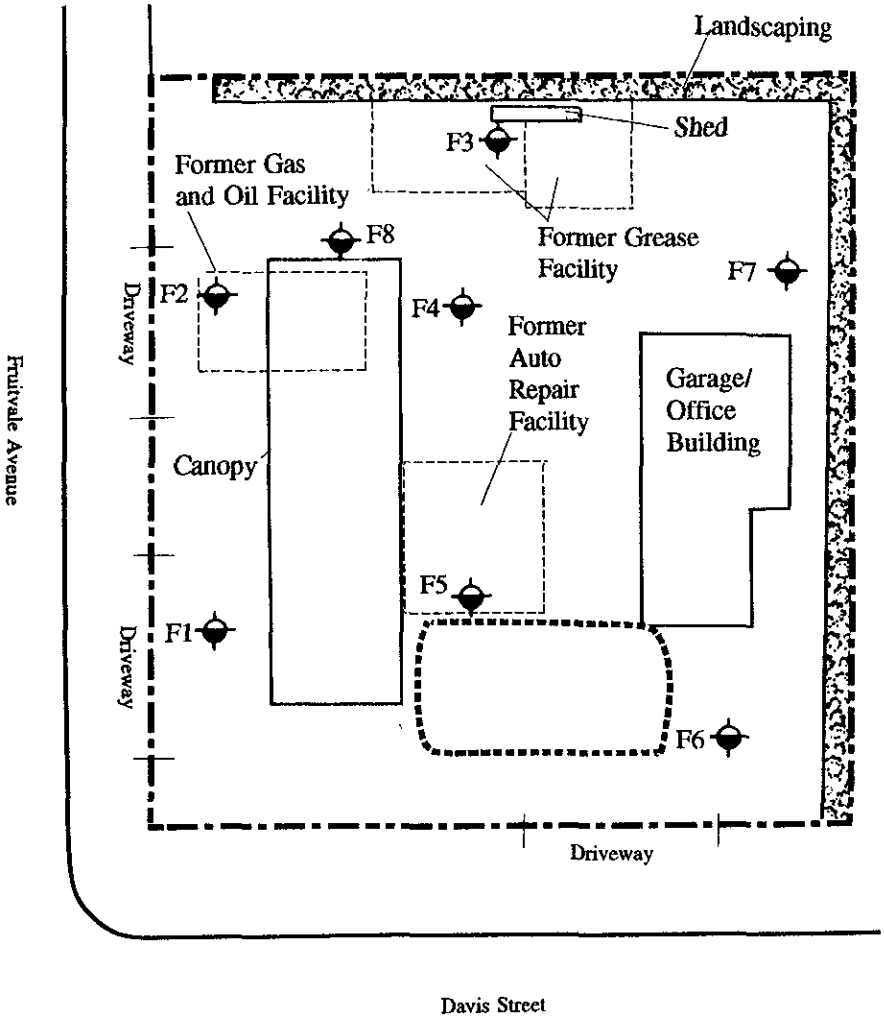
Results of the asbestos survey indicate that the office/garage building contains non-friable ACM in floor tiles and roof mastic. These materials do not present a public health and safety risk in their current condition.

---

[1] Soil-water samples are often turbid and may not provide a representative sample of chemical constituents in the groundwater since the presence of soil particles can affect analytical results of petroleum hydrocarbons in groundwater samples. However, these preliminary results suggest that groundwater underlying the site may have been affected by on-site gasoline release.

POTENTIAL SOURCES OF ON-SITE CONTAMINATION

Figure 3



Legend

F2 ⊕ Soil Boring Location (BASELINE, 1993)

Outline of Former Service Station Facilities (1947 Sanborn Map)

Approximate Location of Tanks Removed in 1978 (Trans Pacific, 1986)

Project Site Boundary

0 20 Feet

2662 Fruitvale Avenue
Oakland, California

BASELINE

RECOMMENDATIONS

- The City should seek legal counsel to evaluate the applicability of reporting requirements to this site. BASELINE also recommends the following actions:

- Conduct a geophysical survey to determine if underground tanks are present at the site and to aid in identifying the source of on-site gasoline, motor oil, and oil and grease in the subsurface.

- Collect and analyze additional soil samples in the vicinity of F8 and F4 to further characterize the extent of gasoline in the soil. The sampling plan should be based on the results of the geophysical survey and the analytical results presented in this report. Sampling should be designed to define a zone of soil that contains non-detectable levels of gasoline.

- Collect and analyze additional soil samples in the vicinity of F3 to further characterize the extent of motor oil and oil and grease in the soil. The sampling plan should be developed in a manner similar to that described in recommendation 2) above.

- Conduct a groundwater investigation to determine the degree and extent groundwater has been affected by organic compounds at the site. The groundwater monitoring wells would also provide information about the groundwater gradient and flow direction at the site.

- Remove and dispose of sump contents in accordance with all relevant laws and regulations. Following removal of the oily sludge from the sump, further evaluation of the dimensions, construction, and condition of the sump structure should be made to determine if the contents of the sump have affected the soil or groundwater.

- Properly dispose of all waste generated at the site.

- Lead-based paint debris containing hazardous concentrations of lead should be disposed of in accordance with all applicable laws and regulations.

- If building demolition or renovation were to occur non-friable ACM could become friable and could result in airborne asbestos. All demolition or renovation activities should be conducted in accordance with specifications prepared by a qualified asbestos consultant.

LIMITATIONS

The conclusions presented in this report are professional opinions based on the indicated data described in this report. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study. Changes in the conditions of the subject property can occur with time, because of natural processes or the works of man, on the subject sites or on adjacent properties. Changes in applicable standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

REFERENCES

TransPacific, 1986, *Geotechnical Investigation Peralta Hacienda Turnkey Relocation Project Fruitvale Avenue and Davis Street, Oakland, California*, prepared for the City of Oakland, 5 March.

BASELINE Environmental Consulting, 1992, *Phase I Site Assessment, 2662 Fruitvale Avenue, Oakland, California*, prepared for the City of Oakland, June.

Resna, 1991, *Offsite Groundwater Monitoring Well Installation and November Quarterly Monitoring Report for Former Chevron Service Station No. 9-4340, 2681 Fruitvale Avenue, Oakland, California*, November.

U.S.G.S., 1959, Topographic map of Oakland East, California, 7.5 minute quadrangle, photo revised 1980.

APPENDIX A

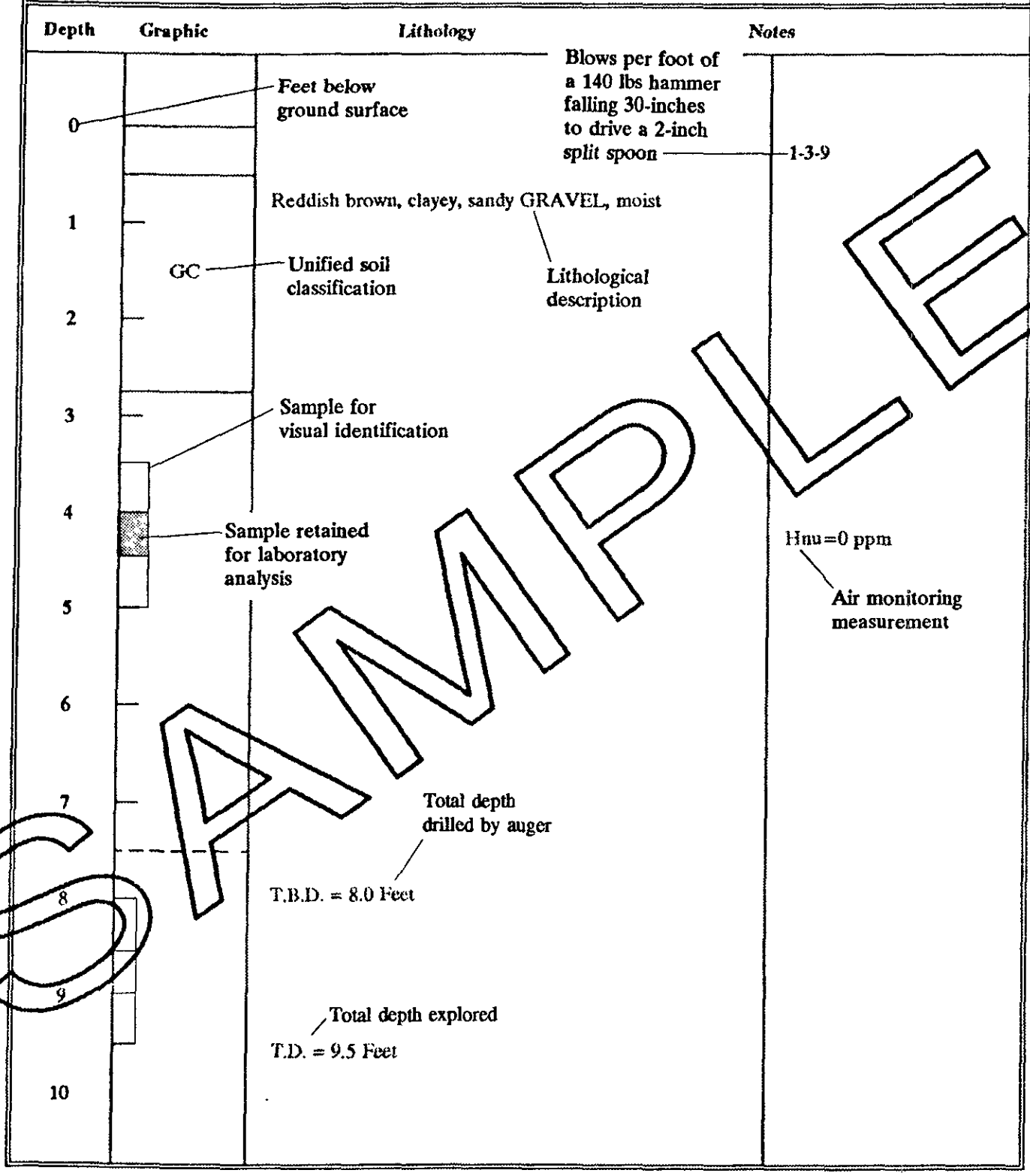
SOIL BORING LOGS

SAMPLE DRILLING LOG

DRILLING LOG

BASELINE
5900 Hollis Street, Suite D
Emeryville, CA 94608
(510) 420-8686

Location _____ Boring No. _____
Driller _____ Project No. _____
Method _____ Date _____
Logger _____ Datum _____ Bore size _____ Casing size _____



Scale: 1 inch = 1.5 feet

Signature _____

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS — MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS — MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS — LIQUID LIMIT IS LESS THAN 50%		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS — LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

DEFINITION OF TERMS

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

GRAIN SIZES

SANDS AND GRAVELS	BLOWS/FOOT†
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

RELATIVE DENSITY

SILTS AND CLAYS	STRENGTH‡	BLOWS/FOOT†
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

CONSISTENCY

†Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) split spoon (ASTM D-1586).

‡Unconfined compressive strength in tons/sq. ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586), pocket penetrometer, torvane, or visual observation.

BASELINE
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Emeryville, CA 94608
(510) 420-8686

DRILLING LOG

Location	2662 Fruitvale, Oakland, CA	Boring No.	F1
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-20-93
Logger	SP/WKS Datum _____ Bore size 7¾"	Casing size	NA

Depth	Graphic	Lithology	Notes
0	GW	Asphalt Baserock	
1	CL	Dark gray, silty CLAY, with sand. Low-medium plasticity, soft-firm, moist.	HNu = 0 ppm in breathing zone 3-3-6
2			
3			
4		Dark brown CLAY, trace gravel, low plasticity, moist.	
5	CL		
6			
7			
8	CL	Brown, silty CLAY with gravel, veinlets of iron oxide, low plasticity, firm to stiff, moist.	5-7-9
9			
10		Increased silt.	3-6-6

Scale: 1 inch = 1.5 feet

92404A0.LOG(2/25/93)

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DRILLING LOG

Location	2662 Fruitvale, Oakland, CA	Boring No.	F1
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-20-93
Logger	SP/WKS Datum ____ Bore size 7¾"	Casing size	NA

Depth	Graphic	Lithology	Notes
10	CL		
11	SW	Dark greenish gray, gravelly clayey SAND, very fine grained, gravel, ¼" to ½" subangular to subrounded clasts, firm, wet.	6-7-8 HNu = 1 ppm in cuttings Petroleum odor
12			
13 ▼		T.B.D./T.D. = 13 feet	13 mg/l gas
14			
15			
16			
17			
18			
19			
20			

Scale: 1 inch = 1.5 feet

92404A0.LOG(2/25/93)

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DRILLING LOG

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Location	2662 Fruitvale, Oakland, CA	Boring No.	F2
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-21-93
Logger	SP/WKS Datum _____ Bore size 7¾"	Casing size	NA

Depth	Graphic	Lithology	Notes
0		Asphalt	HNu = 0 ppm in breathing zone
	GW	Baserock	1 ppm in soil
1		Dark brown, silty CLAY with sand, veinlets with iron oxide, medium-low plasticity, firm, moist.	Hit pipe (electrical?) runs parallel to Fruitvale between light poles
	CL		5-6-7
2			
3			
		Dark gray, silty CLAY with sand, trace gravel, high-medium plasticity, soft, moist.	
4			
5			
	CH		*0 ppm breathing zone*
6			0.5 ppm in soil
7			
		T.B.D. = 7.5 feet	
8			
		Increase in gravel and sand at 8.5 feet.	3-3-4
	▼		1 ppm in soil
9		T.D. = 9 feet	*0 ppm in breathing zone*
10			

Scale: 1 inch = 1.5 feet

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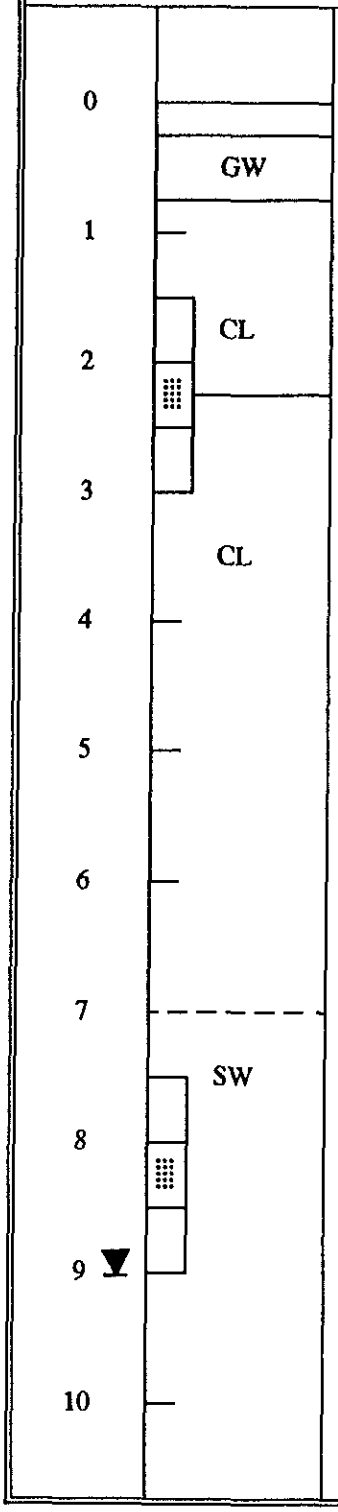
DRILLING LOG

Location	2662 Fruitvale, Oakland, CA	Boring No.	F3
Driller	HEW Drilling	Project No.	92404A0.02
Method	Solid Stem	Date	1-20-93
Logger	SP/WKS Datum _____ Bore size 6"	Casing size	NA



Depth	Lithology	Notes
0	Asphalt	
	Baserock	
1	Very dark brown, gravelly silty CLAY, medium-low plasticity, ¼" to ½", subangular clasts, firm, moist.	HNu = 0 ppm in boring 7-5-8
2	Dark brown, silty CLAY, med to low plasticity, veinlets with red iron oxide stain, moist.	
3		
4		
5		
6		
7	Light brown, clayey, gravelly SAND, very fine to fine-grained, ¼" to 1", subrounded to subangular clasts, low to moderate plasticity clay, very loose, moist.	Drilling easiest around 7 feet 3-3-2
8		
9 ▼	T.B.D./T.D. = 9.5 feet	
10		

Scale: 1 inch = 1.5 feet

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Signature _____

DRILLING LOG

BASELINE
5900 Hollis Street, Suite D
Emeryville, CA 94608
(510) 420-8686

Location	2662 Fruitvale, Oakland, CA	Boring No.	F4
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-20-93
Logger	SP/WKS Datum _____ Bore size 7¾"	Casing size	NA

Depth	Graphic	Lithology	Notes
0		Asphalt	
	GW	Baserock	
1	GW	Reddish brown, sandy GRAVEL with clay, moist.	HNu = 3 ppm in boring 0 ppm in breathing zone
	CL		
2		Dark gray silty CLAY, damp, some veinlets with iron oxide, soft to firm, moist.	3-4-5
3	CL	Brown, silty CLAY, medium to high plasticity, soft to firm, moist.	
4		Becoming lighter brown in color.	
5			
6			
7		Dark gray, silty CLAY, high plasticity, increase in moisture, decrease in stiffness.	Drilling became easier at about 7.5 feet *Potentiometric surface at* 7 feet; groundwater at 10.5 feet HNu 15 ppm in soil cuttings Petroleum odor at 7 feet
8	CH		
9		Dark gray, silty SAND with clay, very fine grained, very loose, moist.	1-1-6
	SP-SC	T.B.D. = 9.5 feet	
10			

Scale: 1 inch = 1.5 feet

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DRILLING LOG

BASELINE
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Emeryville, CA 94608
(510) 420-8686

Location	2662 Fruitvale, Oakland, CA	Boring No.	F4
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-20-93
Logger	SP/WKS Datum ____ Bore size 7¾"	Casing size	NA

Depth	Graphic	Lithology	Notes
10	GW	Dark gray, clayey sandy GRAVEL, ⅛" to ¾", subangular to angular clasts, loose, wet.	Strong petroleum odor Floating product gasoline less than ¼ inch thick Free water at 10.5 feet
11 ▼		T.D. = 11 feet	
12			
13			
14			
15			
16			

Scale: 1 inch = 1.5 feet

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DRILLING LOG

Location	2662 Fruitvale, Oakland, CA	Boring No.	F5
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-20-93
Logger	SP/WKS Datum ____ Bore size 7¾"	Casing size	NA

Depth	Graphic	Lithology	Notes
0		Asphalt	
	GW	Baserock	
1	SP	Light brown, SAND, homogeneous, very fine to fine, dry, loose. Some wood fragments.	4-6-6 HNu = 0 ppm in cuttings
2			
3		Increase in moisture.	
4			
5			
6			
7			
8		Light brown, SAND, homogeneous, very fine to fine, loose, wet. Some wood fragments.	1-0.5-0.5
9 ▼			Groundwater at 8.75 feet
10		T.B.D./T.D. = 10 feet	Groundwater sampled

Scale: 1 inch = 1.5 feet

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BASELINE
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Emeryville, CA 94608
(510) 420-8686

DRILLING LOG

Location	2662 Fruitvale, Oakland, CA	Boring No.	F6
Driller	HEW Drilling	Project No.	92404A0.02
Method	Solid Stem	Date	1-21-93
Logger	SP Datum ____ Bore size 6"	Casing size	NA

Depth	Graphic	Lithology	Notes
0		Asphalt	HNu = 1 ppm in breathing zone
	GW	Baserock	HNu = 5 ppm in boring
1		Dark brown, silty CLAY trace sand and gravel, medium to low plasticity, very soft, moist.	1-1-2
2	CL		
3			
4	CH	Dark brown, silty CLAY, trace sand and gravel, medium to high plasticity, very soft, moist.	
5			
6			
7			
		T.B.D. = 7.5 feet	
8	GC	Brown, gravelly CLAY with sand, medium plasticity, ¼" to ¾" inch subrounded-rounded clasts, very soft-firm, wet.	2-4-6 Free water at 8.25 feet Potentiometric surface at 7.0 feet
9		T.D. = 9.0 feet	
10			

Scale: 1 inch = 1.5 feet

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Emeryville, CA 94608
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DRILLING LOG

Location	2662 Fruitvale, Oakland, CA	Boring No.	F7
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-21-93
Logger	SP/WKS Datum ____ Bore size 7¾"	Casing size	NA

Depth	Graphic	Lithology	Notes
0		Asphalt	
	GW	Baserock	
1	GW-GC	Reddish brown, sandy GRAVEL with clay, very loose, moist.	2-1-2
2	SP	Light brown, SAND, fine grained, homogenous, very loose, moist.	HNu = 0 ppm Gas-tech = 0 ppm (restarted hole 1-foot to the west)
3			
4	CH	Dark brown, silty sandy CLAY, high plasticity, fine-grained, very soft, moist. Increase in plasticity.	1-2-3
5			
6		Decrease in sand.	
7	CH	Dark brown, silty CLAY, high plasticity, soft-firm, very moist.	4-4-5
8	CL	T.B.D. = 8.0 feet Dark brown, silty gravelly CLAY, medium-low plasticity, 1¼" angular clasts, organic material, soft-firm, moist.	3-7-4
9	SW	Light brown, clayey gravelly SAND, medium to fine grained, ⅛" - ½" diameter subangular clasts, very loose, loose, wet. T.D. = 9.5 feet	
10			

Scale: 1 inch = 1.5 feet

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BASELINE
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Emeryville, CA 94608
(510) 420-8686

DRILLING LOG

Location	2662 Fruitvale, Oakland, CA	Boring No.	F8
Driller	HEW Drilling	Project No.	92404A0.02
Method	Hollow Stem	Date	1-20-93
Logger	SP Datum ____	Bore size 7¾"	Casing size NA

Depth	Graphic	Lithology	Notes
0		Asphalt	
	GW	Baserock	
1		Dark brown, gravelly silty CLAY with sand, medium-low plasticity, ¼" to ¾" subangular clasts, fine-medium grained, firm-soft, moist.	
	CL		
2			4-6-6
			Petroleum odor
3			
		Dark gray, gravelly silty CLAY, light gray and rust stains, medium-low plasticity, ¼" to ½", subangular clasts, moist.	HNu = 1 ppm
4		Increase in plasticity.	
	CL		
5			
6			
7			
		T.B.D. = 7.5 feet	
8			
		Dark bluish gray, clayey sandy GRAVEL, ¼" to ½" subrounded to subangular clasts, very loose, wet.	0-0-4
	GW		
9 ▼		T.D. = 9.0 feet	Strong petroleum odor
10			

Scale: 1 inch = 1.5 feet

92404A0.LOG(2/25/93)

Signature _____

APPENDIX B

SITE SAFETY PLAN

BASELINE Environmental Consulting
5900 Hollis, Suite D, Emeryville, CA 94608
Phone: (510) 420-8686
Fax: (510) 420-1707

SITE SAFETY PLAN

Project No.: 92404-AO.02

Field Activities Date: 20-21 January 1993

Client: City of Oakland Real Estate Services

Address: 1330 Broadway, Suite 1001, Oakland, CA 94612

Contact Person: Ms. Julie Carver

Telephone No.: (510) 258-3541

Job Location: 2662 Fruitvale Avenue, Oakland

Project Description: Drilling of eight soil borings by HEW Drilling of East Palo Alto; collection of soil samples by BASELINE. Samples will be analyzed for volatile organics, Title 26 metals, total extractable and volatile hydrocarbons, and semi-volatile organics, and oil and grease.

Project Manager: Dominic Roques

Site Health & Safety Manager: Dominic Roques

Site History: The project site is located at 2662 Fruitvale Avenue, at the northeast corner of Fruitvale Avenue and Davis Street, in the City of Oakland in Alameda County. The site is occupied by a vacant service station consisting of a building, islands with canopy, and a metal shed. Service station activities included fueling and auto repair. Prior to the service station operation, the site was occupied by a residence. The service station operated at the site from 1951 to 1978. Records indicate that the underground storage tanks were removed in 1978. There are no available records regarding the condition of the tanks during removal or whether any release of petroleum hydrocarbons had occurred. During a geotechnical investigation conducted at the site in 1985, petroleum odors were detected in soil borings.

Chemical Hazards: All sampling and drilling personnel may be exposed to chemical hazards through inhalation of airborne dust/dirt, ingestion of foods where airborne dusts have settled, and, most important, skin contact. Although site has not been characterized, the chemicals listed in Table 1 may be present, based on a preliminary site assessment.

Physical Hazards: Fire and explosion, heavy equipment, heat stress, noise. Drill rig safety requirements are the responsibility of the operator. Drilling contractor shall be responsible for complying with all OSHA requirements and accepted industry practices for protection of employee health and safety. The drilling contractor shall ensure that all equipment is in good working order prior to starting work. The drilling contractor shall ensure that proper housekeeping is maintained around the work area at all times.

BASELINE employees shall observe the following precautions:

1) Watch for slippery ground;
2) Adequately cover all unattended boreholes;
3) Maximize distance from the rig and do not take readings at rig during auger clearing or drive sampling;
4) Wear safety hard hats and safety footwear; and
5) Prevent strain injuries by using small sample shipping containers and/or material handling aids. Use portable table for opening split spoon samplers.

Personal Protective Equipment Required: Hard hats, respirators equipped with high efficiency filters and/or organic vapor cartridges (use to be designated by Health and Safety Officer), nitrile gloves, safety goggles, rubber boots, water supply for washing, decontamination, and for drinking, disposable overalls (non-coated), first-aid kit, noise protection (ear plugs).

Air Monitoring Strategy (including action levels): Before field work begins, collect background readings using HNu and combustible gas indicator. Monitor soil borings using the combustible gas indicator. If >20% LEL, stop work to air out boring

until <20% LEL. If necessary, eliminate ignition sources. May use HNu and/or methane detector tubes to characterize vapors. Monitor workers' breathing zones in boring vicinity, using HNu. If HNu reads > background + 5 ppm, don respirator with organic vapor cartridge. May use Sensidyne detector tubes for characterizing emissions if HNu readings exceed background levels (e.g., for benzene).

Site Control Measures: Define and demarcate exclusion and clean zones for each boring location. No eating, drinking, or smoking permitted in exclusion zone. Avoid skin and eye contact with soil to maximum extent possible. If dusty conditions, don safety goggles and respirators equipped with filters. USA will provide utility clearance. Hand-digging may be performed where utilities are suspected (even though not identified through USA). Personal hygiene imperative to prevent prolonged skin contact with site soils and dusts. Place cuttings in drums, secure and label. Dispose of decontamination equipment and personal protective gear in BASELINE-provided containers. No contact lenses.

Decontamination Procedures (personal and equipment): Decontaminate boots and soil sampling equipment on-site. Remove and dispose of gloves and overalls in appropriate manner.

Hospital/Clinic: Highland Hospital Phone: (510) 534-8055

Hospital Address: 1411 E. 31st Street, Oakland (see attached Figure 1)

Paramedic: 911 Fire/Police Dept.: 911

Emergency Procedures: Notify Yane Nordhav at (510) 420-8686.

Prepared by: Yane Nordhav Reviewed/Approved by: Yane Nordhav

Date: 1/19/93 Date:

Read by: Dominic Roques Date:

Read by: B. Potter Sandi Potter Date: 1/20/93

Read by: Bill Scott Date:

Read by: Date: 1 20 93 1/20/93

Table of Contents - *continued*

page

FIGURES

TABLES

EXECUTIVE SUMMARY

Site Location: The site is located at 2662 Fruitvale Avenue, Oakland, on the northeast corner of Fruitvale Avenue and Davis Street. The parcel is described in Property Survey, Lots 50 and 51, subdivision of the Deering Tract, Oakland, Alameda County, California.

Work Performed: Subsurface investigation consisting of the drilling of eight soil borings and the collection of a total of 17 soil samples, analyzed for chemical compounds potentially present based on the results of a Phase I site assessment. Soil analyses included total petroleum hydrocarbons, oil and grease, volatile and semi-volatile organic compounds, and metals.

Soil-water samples were collected from the open holes at four of the soil borings and analyzed for total petroleum hydrocarbons, oil and grease, volatile organic compounds, and metals to assess the potential for past land uses to have affected the quality of groundwater underlying the site.

In addition, the contents of an on-site sump were sampled and analyzed for total petroleum hydrocarbons, oil and grease, volatile and semi-volatile organic compounds, and metals; a composite sample of paint chips collected from the interior walls of the building was analyzed for lead; and a preliminary asbestos survey of the main office/garage building was conducted.

Conclusions: Subsurface soils at the project site contained detectable levels of gasoline, motor oil, and oil and grease, suggesting that past auto repair and service station activities at the site have affected the quality of soil. Analytical results indicated that surface or subsurface releases of gasoline and motor oil may have occurred. Soil-water samples, collected from open boreholes contained gasoline and gasoline-related volatile organic compounds.

Results of the Phase I site assessment indicated that four underground tanks were permitted for removal from the site in 1978. Further documentation of underground tank operation or removal activities has not been located, and it is unknown whether additional underground structures from earlier service station operations remain in the subsurface.

Analytical results from sampling of oily sludge from the sump indicated that the sump contents contain gasoline, motor oil, oil and grease, and volatile organic compounds. Results of lead analysis on paint chips from the garage/office building indicated that lead-based paint was present on walls in the building. Results of the preliminary asbestos survey indicated that floor tile and roof mastic from the building contained non-friable asbestos containing materials.

Recommendations: The following recommendations are provided for this site:

- The City should seek legal counsel to evaluate the applicability of reporting requirements to this site based on the data presented in this Phase II assessment.
- Conduct a geophysical survey to determine if any underground tanks are present at the site.
- Collect and analyze additional soil samples in the vicinity of boring F8 and F4 to further characterize the extent of gasoline in the soil.
- Collect and analyze additional soil samples in the vicinity of boring F3 to further characterize the extent of motor oil and oil and grease in soils.
- Conduct a groundwater investigation to determine the degree and extent of organic compounds in groundwater at the site, and to determine groundwater flow directions.
- Remove and dispose of the sump contents and further characterize sump dimensions, construction, and condition to determine whether the contents of the sump may have affected the soil or groundwater.
- Properly dispose of all waste generated at the site during the Phase II investigation.
- Lead-based paint debris containing hazardous concentrations of lead should be disposed of in accordance with all applicable laws and regulations.
- If building demolition or renovation were to occur, non-friable asbestos-containing material could become friable and could result in airborne asbestos. All demolition or renovation activities should be conducted in accordance with specifications prepared by a qualified asbestos consultant.

PHASE II SITE ASSESSMENT
2662 FRUITVALE AVENUE
Oakland, California

INTRODUCTION

This report presents the results of Phase II of an environmental site assessment of the property at 2662 Fruitvale Avenue conducted by BASELINE for the City of Oakland. A report on Phase I of the site assessment conducted by BASELINE was submitted to the City of Oakland in June 1992.

The purpose of the Phase II site assessment was: 1) to verify whether past land uses, identified in the Phase I site assessment, have affected the quality of subsurface soils and/or groundwater at the site; 2) to characterize the contents of the building sump; 3) to ascertain whether the building contains lead-based paint or asbestos containing materials; and 4) to evaluate requirements for site remediation based on the results of sampling activities.

SITE HISTORY

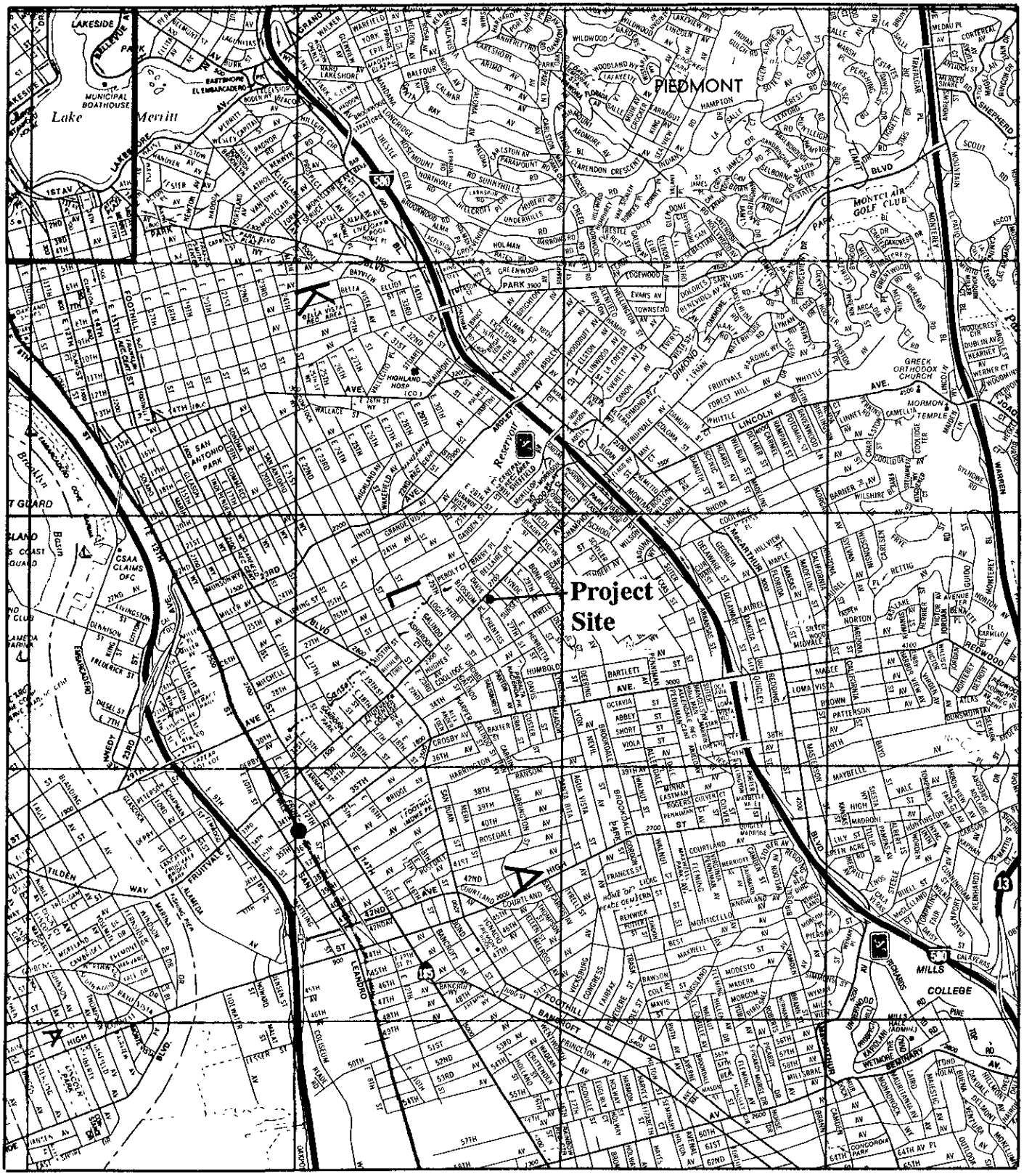
The site is located at 2662 Fruitvale Avenue, at the northeast corner of Fruitvale Avenue and Davis Street in Oakland, Alameda County (Figure 1). Previous activities conducted at the site by BASELINE during Phase I of the site assessment included: review of historical aerial photographs and maps; review of regulatory agency records; review of available geotechnical information; and a site reconnaissance (BASELINE, 1992). The results of the Phase I site assessment indicated that past land uses at the site included a residence and storage facility in the early 1900s, and auto repair, gas, and oil and grease facilities as part of a service station from about the 1940s to the 1980s. In 1963 the City issued a permit for service station reconstruction, which resulted in development of the site to its current configuration (which appears in a 1966 aerial photograph) (BASELINE, 1992). The City of Oakland purchased the site from Texaco in 1983, and since 1983 the City has rented the site for use as a produce stand and Christmas tree sales lot.

The aboveground structures from the last service station remain; City of Oakland Fire Department records indicate that three underground gasoline storage tanks and one underground tank possibly containing waste oil, were removed in 1978 (TransPacific, 1986). There are no available records regarding the condition of the tanks during removal or whether any releases of petroleum hydrocarbons had occurred. It is not known whether any underground tanks associated with service station operations prior to 1963 remain at the site. During a geotechnical investigation conducted at the site in 1985, four soil borings were drilled by TransPacific (Figure 2); petroleum odors were detected in two of the soil borings, which were located north of the presumed former location of the four underground tanks removed in 1978 (TransPacific, 1986).

The results of the Phase I site assessment indicated that hazardous materials could be present at the site in subsurface soil and/or groundwater, in the building sump, in building paint, and in building materials. A work plan for performing an asbestos survey, paint chip sampling, sump contents sampling, and subsurface sampling, was developed by BASELINE in the Phase I report to assess the

REGIONAL LOCATION

Figure 1



2662 Fruitvale Avenue
Oakland, California

BASELINE

potential presence of hazardous materials and determine subsurface conditions at the site. That work plan was implemented during this Phase II investigation.

SITE DESCRIPTION

The site measures approximately 113 feet by 121 feet. The majority of the site is paved, with limited landscaping along the eastern and northern perimeter. The site, which was formerly occupied by an auto service station, contains gasoline pump islands, an overhead canopy, an office/garage building, and a shed (Figure 2). The site is relatively level at about elevation 104 feet above mean sea level (TransPacific, 1986).

SUBSURFACE CONDITIONS

Subsurface conditions at the site were determined through field observations by BASELINE geologists during Phase II drilling activities. Eight soil borings were drilled to depths that ranged from 9.0 to 13.0 feet below the ground surface. Based on the subsurface materials encountered in the eight borings, the asphalt pavement covering the project site is underlain by several inches of baserock. The baserock is generally underlain by dark grey to dark brown silty clay, ranging from less than one foot below ground surface (bgs) to about 11 feet bgs. However, at boring F5 (Figure 2), baserock is underlain directly with homogeneous fine sand to a depth of 10 feet bgs, the total depth explored; this material may possibly be backfill material associated with removed tanks. In four of the eight borings, sand was encountered underlying the silty clay near the soil-groundwater interface between 7 and 13 feet bgs. Gravel was encountered in two borings, underlying sand or clay at depths between 8.25 and 11 feet bgs. A strong odor of gasoline was detected in borings F1, F4, and F8 at depths of about 11.0 feet, 7.0 feet, and 4.0 feet, respectively. Appendix A contains logs of soil borings.

Groundwater was encountered in the borings, ranging in depth form 8.5 to 13.0 feet. Groundwater rose in the borings to about seven feet below the ground surface after one-half hour, suggesting confined or semi-confined conditions.

Shallow groundwater in the vicinity of the site would be generally expected to flow towards the Bay (U.S.G.S., 1959) following topography (elevated areas are located immediately east of the site). Based on information from a groundwater investigation conducted at the parcel across Fruitvale Avenue west of the site, the groundwater flow direction at the project site is to the west-southwest (Resna, 1991).

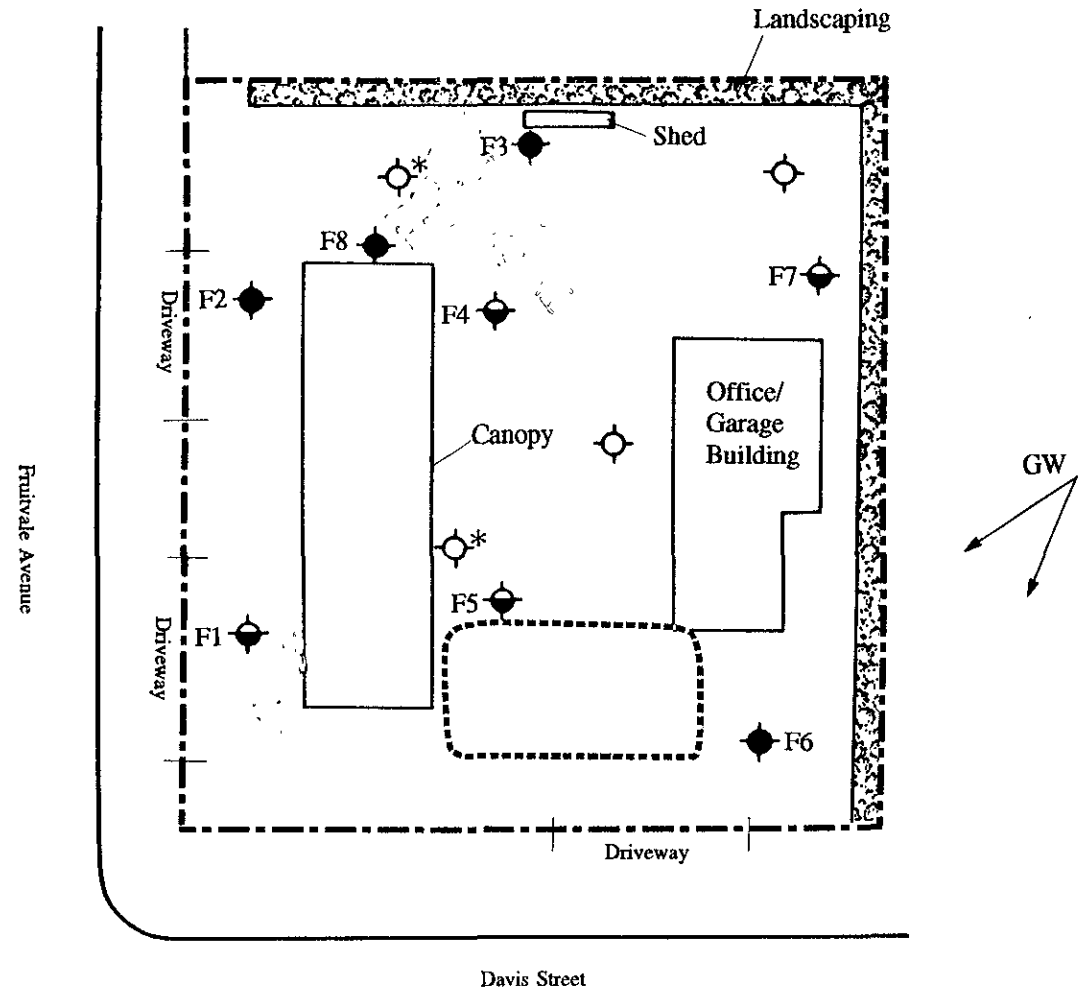
REGULATORY FRAMEWORK

Federal, State, and local laws and guidelines have been established to regulate the use, storage, and transport of hazardous materials. A hazardous material is defined as,

> "... any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety

SOIL BORING LOCATIONS

Figure 2



Legend

F2 ⊕ Soil Boring Location (BASELINE, 1993)

F1 ⊕ Soil Boring Location Where Groundwater Sample Collected (BASELINE, 1993)

⊕ Location of Geotechnical Soil Borings (*indicates gasoline odor noticed during drilling) (Trans Pacific, 1986)

GW Inferred Direction of Groundwater Flow (Resna, 1991)

..... Approximate Former Location of Four Underground Storage Tanks (Trans Pacific, 1986)

— · — Project Site Boundary

0 20 Feet

2662 Fruitvale Avenue
Oakland, California

BASELINE

92404-AO.02 2/25/93

of persons or harmful to the environment is released into the workplace or the environment." (California Health & Safety Code, Section 25501)

A waste is generally defined as a material that has been discarded, such as by being disposed of, or accumulated or stored in lieu of being disposed of.

In California, laws pertaining to hazardous materials are codified in the Health and Safety Code; regulations are contained in the California Code of Regulations (CCR). These regulations are administered by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), the Regional Water Quality Control Board (RWQCB) a regional division of the State Water Resources Control Board, and Alameda County. Worker health and Safety regulations are administered by the California Occupational Safety and Health Act (Cal OSHA).

The RWQCB enforces the California underground tank regulations. The RWQCB has developed guidelines pertaining to leaking underground fuel tanks and soil and groundwater contamination that may have resulted from underground tanks or pipelines. Investigations at 2662 Fruitvale Avenue would need to follow RWQCB guidelines for investigation and clean up of fuel-contaminated soils and groundwater, locally administered by Alameda County.

The Federal government has established interim guidelines for the identification and abatement of lead-based paint in public and Indian housing; however, no Federal, State, or local guidelines have been developed to regulate the remediation, handling, or disposal of lead-based paint in buildings or construction/demolition debris.

Asbestos-containing materials (ACM), when present in schools, public, or commercial buildings are regulated by Federal law. Demolition or renovation of structures containing ACM is regulated by the Bay Area Air Quality Management District.

FIELD ACTIVITIES

The objective of the field sampling plan was to collect representative samples of on-site materials that may contain substances that could affect the environment and the public. Eight soil borings were drilled at the site (Figure 2); with the exception of boring F1, two samples were collected from each boring, one at a depth of 2.0 to 2.5 feet and another at the approximate soil-groundwater interface which ranged from about 8.0 to 13.0 feet. A total of three samples (depths of 2.0, 9.5, and 11.0 feet) were collected at boring F1 where groundwater was at its deepest recorded level. Soil-water samples were collected from four open borings to provide a preliminary determination as to whether groundwater may have been affected by past land uses at the site.

Field activities also included collection and analysis of one oily sludge sample from the building sump, one composite paint chip sample from the building's interior walls, and twelve samples from potential ACM from the buildings.

Site Safety Plan

A site safety plan specific to the site was prepared by BASELINE's health and safety officer prior to field activities at the site (Appendix B). The site safety plan was reviewed by all individuals

performing field activities, and an on-site safety tailgate meeting was conducted by the BASELINE geologist on 20 January 1993.

Air monitoring was conducted at the site in accordance with the requirements of the site safety plan. Prior to field work, background readings of volatile organic compounds and combustible gas were measured using an HNu (photoionization detector) and Gastec (combustible gas meter), respectively. Measurements were made at each boring at ground level and in the breathing zone during drilling. Concentrations are recorded in boring logs contained in Appendix A.

Soil

Permits

Alameda County Water Conservation and Flood Control District, Zone 7, granted BASELINE a Groundwater Protection Ordinance Permit for soil boring construction. A copy of the permit is contained in Appendix C.

Soil Sampling Approach

The location, sample depth, sample media, and chemical analyses performed for each sample were determined based on: 1) location of past land uses, including operation of underground tanks, which may have affected the subsurface, 2) presumed depth and flow direction of groundwater; 3) site conditions encountered during field activities; and 4) results of prior investigations at the site. Soils were analyzed for chemical compounds commonly found in gasoline, diesel, motor oil, and solvents, which are associated with gasoline service station operations identified as a past land use in the Phase I evaluation. Boring locations are shown in Figure 2; chemical analyses performed on the samples are summarized in Table 1.

Soil Sample Collection

HEW Drilling Company, Inc. completed six soil borings at the site on 20 January 1993 and two soil borings on 21 January 1993 under the supervision of a BASELINE geologist. The borings were completed using a drill rig with nominal eight-inch hollow-stem augers and six-inch solid-stem augers. Borings were drilled to the approximate depth of the soil-groundwater interface (8.0 to 13.0 feet below the ground surface).

Soil samples were collected using a California modified sampler (two-inch diameter) fitted with three six-inch stainless steel liners. The sampler was driven into the ground by a 140-pound hammer through the hollow stem of the auger in borings B1, B2, B4, B5, B7, and B8. The sampler was driven through the boring at borings B3 and B6 after removal of the solid-stem auger. Following sample retrieval, the filled stainless steel liner near the "shoe" of the sampler or, in the middle of the sampler, depending on sample integrity, was removed from the sampler, capped with Teflon and plastic caps, taped with silicon tape, labeled, placed in a zip-lock bag, and stored in a refrigerated plastic cooler on Blue Ice. Sample collection information was recorded on chain-of-custody forms, which, together with the samples, were brought to the laboratory for analysis.

Drilling equipment was decontaminated by steam cleaning after each boring was completed. Sampling equipment was decontaminated by washing in a trisodium phosphate and water solution and

TABLE 1

ANALYSES PERFORMED ON SOIL AND SLUDGE SAMPLES
2662 Fruitvale Avenue, Oakland, California
January 1993

Sample Location	Depth (feet)	Total Petroleum Hydrocarbons		Oil and Grease[3]	BTXE[4]	Volatile Organic Compounds[5]	Semi-volatile Organic Compounds[6]	Metals	
		Gasoline[1]	Kerosene, Diesel, Motor Oil[2]					Lead[7]	Title 26 Metals[8]
F1	2.0-2.5	✓	✓	--	✓	--	--	✓	--
	9.5-10.0	✓	✓	--	✓	--	--	✓	--
	11.0-11.5	✓	✓	--	✓	--	--	✓	--
F2	2.0-2.5	✓	✓	--	✓	--	--	✓	--
	8.0-8.5	✓	✓	--	✓	--	--	✓	--
F3	2.0-2.5	--	✓	✓	--	--	--	--	--
	8.0-8.5	--	✓	✓	--	--	--	--	--
F4	2.0-2.5	✓	✓	--	✓	--	--	✓[9]	--
	10.0-10.5	✓	✓	--	✓	--	--	✓	--
F5	2.0-2.5	✓	✓	--	--	✓	--	--	✓
	8.0-8.5	✓	✓	--	--	✓	--	--	✓
F6	2.0-2.5	--	✓	--	--	✓	--	✓[9]	✓
	8.0-8.5	--	✓	--	--	✓	--	--	✓
F7	2.0-2.5	--	✓	--	--	✓	--	--	✓
	8.5-9.0	--	✓	--	--	✓	--	--	✓

Table 1 - *continued*

Sample Location	Depth (feet)	Total Petroleum Hydrocarbons		Oil and Grease[3]	BTXE[4]	Volatile Organic Compounds[5]	Semi-volatile Organic Compounds[6]	Metals	
		Gasoline[1]	Kerosene, Diesel, Motor Oil[2]					Lead[7]	Title 26 Metals[8]
F8	2.0-2.5	✓	✓	--	✓	--	--	✓	--
	8.5-9.0	✓	✓	--	✓	--	--	✓	--
Sump	N/A	✓	✓	✓	--	✓	✓	--	✓

Notes: -- = Not analyzed for.
Sample locations are shown in Figure 2
Laboratory results are included in Appendix E.
N/A = Not applicable

[1] EPA Method 5030/8015.
[2] EPA Method 3550/8015, measured kerosene, diesel, and motor oil. Kerosene and diesel were not present in concentrations above 1.0 mg/kg, the detection limit.
[3] Standard method 5520 E & F.
[4] BTXE = Benzene, Toluene, Ethylbenzene, and Total Xylenes, EPA Method 8020.
[5] EPA Method 8240.
[6] EPA Method 8270, no compounds were present in concentrations above detection limits.
[7] Method 3050/7420, lead concentrations in all soil samples (except for the oily sludge in the sump) were below the TTLC (1,000 mg/kg) and STLC (5 mg/L).
[8] Method 3010/6010/7470.
[9] WET/3010/6010.

rinsing with deionized water after each sampling event. Water from decontamination and drilling cuttings were contained on-site and stored in labeled, secured 55-gallon drums. Soil samples were submitted for chemical analyses to Chromalab, Inc., a State-certified laboratory located in San Ramon, California. Laboratory reports are included in Appendix E; chain-of-custody forms are included in Appendix H. Following completion of soil and soil-water sampling, borings were grouted using Portland cement.

Four 55-gallon drums were generated during field activities on 20 and 21 January 1993. The drums are sealed, labeled, and temporarily stored between the main office/garage building and the fence. Drum No. 1 contains potentially hazardous materials from borings F3, F4, F7, and F8; drum No. 2 contains potentially hazardous materials from borings F1, F2, F5, F6, and F8. Drums No. 3 and No. 4 contain steam-cleaning rinsate from decontamination activities.

Soil-Water

Sampling Approach

The Phase I site assessment recommended collection of two liquid samples to provide a preliminary assessment of groundwater quality at the site. Soil-water samples were collected at borings F1 and F7 to provide information in upgradient and downgradient locations. A strong petroleum odor was detected at boring F4 during drilling and a soil-water sample at this location. A fourth soil-water sample was collected at boring F5, located in the vicinity of an earlier boring (TransPacific, 1986) where petroleum odors had been detected. Boring locations are shown in Figure 2; chemical analyses performed on soil-water samples are summarized in Table 2.

TABLE 2

ANALYSES PERFORMED ON SOIL-WATER SAMPLES
2662 Fruitvale Avenue, Oakland, California
20-21 January 1993

Sample Location	Total Petroleum Hydrocarbons		Volatile Organic Compounds[3]	Title 26 Metals[4]
	Gasoline[1]	Kerosene, Diesel, Motor Oil[2]		
F1	✓	✓	✓	✓
F4	✓	✓	✓	✓
F5	✓	--	--	--
F7	✓	✓	--	--

Notes: Sample locations are shown in Figure 2
Laboratory results are included in Appendix F.
-- = Not analyzed for.

1 EPA Method 5030/8015.
2 EPA Method 3550/8015. Kerosene, diesel, and motor oil were evaluated, however, concentrations did not exceed detection limits of 50 µg/L, 50 µg/L, and 500 µg/L, respectively
3 EPA Method 624.
4 EPA Method 3010/6010/7470, no compounds were detected that exceeded State or Federal regulatory thresholds

Sample Collection

Soil-water was collected from four open boreholes following soil sample collection. At the time of sampling, the boring was checked for floating product with a dual-interface probe. The probe did not detect floating product in the holes, but a sheen was observed during sampling in soil boring F4. The groundwater was allowed to rise to the potentiometric surface within the borehole before a soil-water sample was collected. The soil-water sample was collected using a new disposable PVC bailer. The portion of the sample collected for volatile organic compound

analyses was decanted into volatile organic analysis (VOA) sample bottles using a volatile organic compounds (VOC) attachment to minimize turbulence and volatilization. The VOAs contained hydrochloric acid as a preservative. The portion of the sample collected for inorganic analyses was decanted into 1-liter amber glass sample bottles without the VOC attachment. The sample containers were labeled, VOAs were sealed in zip-lock bags, stored in a plastic cooler containing Blue Ice, and transported under chain-of-custody to Chromalab for analysis.

Sump

Sampling Approach

The Phase I site assessment identified a sump located in the garage/office building; the contents of the sump were unknown. The purpose of the sump sampling was to characterize the chemical components of sump contents to determine disposal/recycling requirements and remediation that may be required. One sample of the sump material, an oily sludge, was collected and analyzed for total petroleum hydrocarbons, oil and grease, volatile and semi-volatile organic compounds, and Title 26 metals.

Sample Collection

The contents of the sump were sampled using a stainless steel tube. One end of the tube was covered with Teflon and a plastic cap and the contents of the sump were transferred into the container. The full stainless steel tube was then capped at the other end, labeled, cooled, and submitted to the laboratory for analysis.

Paint Chip

Sampling Approach

The purpose of the paint sampling component of this investigation was to comply with City of Oakland environmental site assessment requirements to test lead in paint. The garage/office building was originally constructed in the 1960s when lead-based paint was commonly used. One composite sample of paint chips from the walls of the garage portion of the building was collected and analyzed for total lead to determine if lead-based paints are present and to provide information pertaining to waste disposal requirements for materials that could be generated during building demolition.

Sample Collection

A clean knife was used to remove peeling paint from the interior metal and wood surfaces on the garage portion of the office/garage building. The paint was sampled from wall surfaces where flakes of paint greater than one-half inch in diameter, and multiple layers were present. Paint chips were placed in a zip-lock bag, labeled, cooled, and submitted to the laboratory for analysis.

Asbestos Survey

Survey Approach

A preliminary asbestos survey was conducted at the main office/garage building located at the site. The purpose of the survey, performed on 27 January 1993 by Acumen Industrial Hygiene, was to determine if building materials contained accessible friable or non-friable ACM.

Sample Collection

The survey was performed by a Registered Asbestos Consultant using sampling methodology outlined by the EPA for the Asbestos Hazard Emergency Response Act. The survey was limited to the main building and consisted of analyses of twelve samples collected at four locations illustrated in Appendix D. Laboratory results indicated that ACM, in a non-friable form, was present in vinyl floor tile in the west office and in roof mastic used to seal vents, bolts, and the roof parapet. All samples collected contained three percent or greater chrysotile asbestos. Friable ACM was not detected during the survey. Appendix D contains the asbestos survey report, including the location of samples identified as containing asbestos.

ANALYTICAL RESULTS

Laboratory Quality Assurance

Chemical analyses were preformed by Chromalab, certified by the State of California Department of Health Services ELAP program for the analyses of organic and inorganic materials in hazardous waste, soils, waste water, and drinking water (certificate No. 1094). Chromalab's quality assurance program incorporates Federal, State, and local guidelines for sample preparation, handling, and analysis. Quality assurance procedures are incorporated into sample analyses as appropriate including: machine calibration and calibration checks, analysis of blank samples to detect contamination in laboratory equipment; analysis of spike samples to determine the percent recovery of a compound of known concentration; duplicate spike samples to verify the recovery of chemical species; matrix spikes and analysis of surrogate samples to detect matrix interference.

Soils

Total Petroleum Hydrocarbons

The results of the chemical analyses performed on soil samples collected from 2662 Fruitvale Avenue indicate that soil quality has been affected by total petroleum hydrocarbons as gasoline and motor oil, and toluene, ethylbenzene, and total xylenes (Table 3). Gasoline was detected at boring F8 at concentrations of 220 mg/kg at a depth of 2.0 feet bgs and at 810 mg/kg at a depth of 8.5 feet, near the soil-groundwater interface (Table 3). Gasoline was also detected at boring F4 in concentrations of 3.7 mg/kg and 15.0 mg/kg at depths of 2.0 feet and 10.0 feet bgs, respectively. At boring F1, gasoline was detected at 9.5 feet and 1..0 feet bgs at concentrations of 6 mg/kg and 66 mg/kg, respectively. Gasoline was detected at boring F2 at a concentration of 1.1 mg/kg at a depth of 8.0 feet bgs.

Motor oil was detected at boring locations F2 (11 mg/kg), F4 (940 mg/kg), F7 (13 mg/kg), and F8 (44 mg/kg) in samples collected between 2.0 and 2.5 feet bgs. Motor oil and oil and grease were detected in boring F3 at concentrations of 14 mg/kg and 300 mg/kg, respectively, near the soil-groundwater interface (8.0 feet bgs).

Volatile Organic Compounds

Soil samples from borings F5, F6, and F7, at depths of 2.0 to 2.5 feet below the ground surface and at the soil/groundwater interface were analyzed for volatile organic compounds. No volatile organic compounds were present above laboratory detection limits at these three locations (Appendix E).

TABLE 3

SUMMARY OF ANALYTICAL RESULTS FOR ORGANIC COMPOUNDS, SOILS
2662 Fruitvale Avenue, Oakland, California
January 1993

Sample Location	Depth (feet)	Total Petroleum Hydrocarbons (mg/kg)[1]			Volatile Organic Compounds (µg/kg)[2]						
		Gasoline	Motor Oil	Oil and Grease (mg/kg)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,2-dichloro-ethene (total)	1,2-dichloro-benzene	Acetone
F1	2.0-2.5	<1	<10	--	<5	<5	<5	<5	--	--	--
	9.5-10.0	6	<10	--	<5	<5	14	<5	--	--	--
	11.0-11.5	66	<10	--	<5	72	260	<5	--	--	--
F2	2.0-2.5	<1	11	--	<5	<5	<5	<5	--	--	--
	8.0-8.5	1.1	<10	--	<5	<5	<5	<5	--	--	--
F3	2.0-2.5	--	<10	<50	--	--	--	--	--	--	--
	8.0-8.5	--	14	300	--	--	--	--	--	--	--
F4	2.0-2.5	3.7	940	--	<5	<5	6.4	<5	--	--	--
	10.0-10.5	15	<10	--	<5	<5	320	<5	--	--	--
F5	2.0-2.5	<1	<10	--	<5	<5	<5	<5	<5	<5	<5
	8.0-8.5	<1	<10	--	<5	<5	<5	<5	<5	<5	<5
F6	2.0-2.5	--	<10	--	<5	<5	<5	<5	<5	<5	<5
	8.0-8.5	--	<10	--	<5	<5	<5	<5	<5	<5	<5
F7	2.0-2.5	--	13	--	<5	<5	<5	<5	<5	<5	<5
	8.5-9.0	--	<10	--	<5	<5	<5	<5	<5	<5	<5
F8	2.0-2.5	220	44	--	<5	<5	3,400	17,000	--	--	--
	8.5-9.0	810	<10	--	<5	<5	5,400	<5	--	--	--
Sump		16	110,000	110,000	<5	3,000	950	2,600	1,100	1,200	4,200

Notes: Sample locations are shown in Figure 2
Laboratory results are included in Appendix E
-- indicates that sample was not analyzed for this compound.
Refer to Table 1 for laboratory methods

[1] Motor oil, kerosene, and diesel were measured, however, kerosene or diesel was not detected

[2] Only those compounds that were present above detection limits are listed.

Soils from borings F1, F4, and F8, at depths of 2.0 to 2.5 feet and at the soil-groundwater interface, were analyzed for the following volatile organic compounds which are commonly associated with gasoline: benzene, toluene, ethylbenzene, and total xylenes. Benzene was not present above detection limits in any of the samples (Table 3). Toluene was detected at boring F1 at a depth of 11.0 feet bgs at concentrations of 72 µg/kg. Ethylbenzene was detected in soils at all three locations, with the highest concentrations (up to 5,400 µg/kg) at boring F8. Total xylenes at a concentration of 17,000 µg/kg were also detected at boring F8 (at a depth of 2.0 bgs) (Table 3).

Metals

Soils from borings F5, F6, and F7 were analyzed for Title 26 metals. Soil samples from F1, F2, F4, and F8 were analyzed for lead, a common constituent of gasoline. Metal concentrations in the soil did not exceed State regulatory thresholds. Total lead concentrations at F4 and F6 at a depth of 2.0 feet exceeded ten times the STLC; therefore, the samples were also analyzed for soluble lead using WET. Analyses using WET indicated soluble concentrations below the STLC (Table E-1, Appendix E).

Soil-Water

Groundwater was collected from open boreholes at four locations and analyzed for total petroleum hydrocarbons, volatile organic compounds, and Title 26 metals as indicated in Table 2. Gasoline and gasoline-related volatile compounds were detected at two locations, borings F1 and F4, at concentrations of 13,000 and 6,800 µg/L, respectively (Table 4).

Sump

Analytical results from the oily sludge materials collected from the sump indicated that waste oil, gasoline, and solvents were present above the levels of detection. Gasoline was detected at concentrations of 16 mg/kg (Table 3) and total lead at concentrations of 1,300 mg/kg exceeding the TTLC of 1,000 mg/kg. Toluene, ethylbenzene, and total xylenes were present at concentrations of 3,000, 950, and 2,600 µg/kg, respectively. Motor oil and oil and grease were detected, each at concentrations of 110,000 mg/kg.

Paint Chip

The analytical results of one composite sample of paint chips collected from the garage/office building indicated a total lead concentration of 2,300 mg/kg. This concentration is below the U.S. Department of Housing and Urban Development's regulatory threshold for lead-based paint (5,000 mg/kg) in Indian and public housing. According to CCR Title 26, total lead concentrations of 1,000 mg/kg are considered hazardous. Total concentrations in excess of 50 mg/kg, and less than the total threshold limit concentration, must be reanalyzed by WET to assess whether soluble concentrations may exceed the STLC of 5 mg/L

CONCLUSIONS

Analytical results indicated that soil and groundwater have been affected by past land uses at the site. Soil at boring F8 contained gasoline at depths ranging from 2 to 9 feet; concentrations of gasoline increased with depth at this location, suggesting a subsurface source, possibly an underground tank.