BLYMYER
ENGINEERS, INC.

September 28, 1988
BEI Job No. 88263

Mr. Wayne Milani
PACIFIC SHOPS
1815 Clement Avenue
Alameda, CA. 94501

SUBJECT: SOIL CONTAMINATION
1829 CLEMENT AVENUE
ALAMEDA, CALIFORNIA 94501

Dear Wayne:

In accordance with your request, Blymyer Engineers has conducted soil sampling in the basement of the subject building. The samples were taken to determine whether soil contamination had occurred from leaking sanitary sewer drain lines in the basement and from equipment mounted in the first story of the building. BEI's investigation has revealed the following:

Data Acquisition

On September 16, 1988, BEI arranged to have four soil samples obtained from locations noted on Figure 1. The sampling points are located in portions of the subject building underlain by a dirt basement. The basement has apparently received fluid from leaking sanitary drain lines located in the basement. Surface samples were obtained in three locations. In addition, one sample was obtained four feet below ground surface, directly under the surface sample labeled 002501.

The soil samples were analyzed for the following contaminants: Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Xylene, Ethyl Benzene, Acetone, Polynuclear Aromatic Hydrocarbons, Halogenated Volatile Organics, CAM-17 Heavy Metals, Iron, Chlorides, Nitrates, Phenolics, Cyanide, and pH. These analyses were chosen after review of Material Safety Data Sheets provided to BEI by Kem-Mil Company. The laboratory analyses and laboratory methodology are attached as Appendix A. Table I summarizes those results above action levels set forth in California Administrative Code Title 22. In addition, some compounds for which no action levels have been set but which are above detectable limits are also included.

Data Analysis

The laboratory analysis of soil samples indicates that the soil underneath the 1829 Clement Avenue building is contaminated with heavy metals, cyanide, and other compounds. The levels of these compounds are over Soluble Threshold Limit Concentrations (STLC), the limits set by the State of California Department of Health Services, for cyanide and certain metals. In addition, some components, such as nitrates and phenolics, have been detected, but since these parameters are treated on a site by site basis a

formal action level has not been established. The pH levels of the soil indicate that potential exists for the production of hydrogen cyanide gas, a highly toxic vapor.

Recommendations

It is recommended that steps be taken to insure that the contaminated soils do not come in contact with acids which may produce hydrogen gas. This can be prevented in two ways, by isolating the soil with a type of liner or by stopping the use of acids in the 1829 Clement Avenue building. The situation as currently understood poses a danger to workers in the building.

It is also recommended that negotiations begin immediately with the DOHS to establish cleanup criteria for 1829 Clement Avenue. Although laboratory analysis indicates level of contamination over STLC's, risk analysis may possibly show that existing levels may not pose a threat to health or environment. Further investigation will be required before such a risk analysis can be performed.

BEI has developed a scope of work for further investigation, which has been attached as Appendix B. The cost for this work has been estimated to be between $25,000-$30,000. We have proceeded with the air sampling inside the building and hope to have results by September 30, 1988.

If you have any questions regarding this report, please call.

Cordially yours,

BLYMYER ENGINEERS, INC.

James C. Falbo

J C F
d. s.

James C. Falbo
Environmental Specialist

JCF/ds

Attachments

APPENDIX A

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
(415) 783-6960

H.6
88263

TAL

DATE: 9/21/88

LOG NO.: 6394

DATE SAMPLED: 9/15/88

DATE RECEIVED: 9/15/88

CUSTOMER: Pacific Shops
c/o Blymyer Engineers, Inc.

REQUESTER: Tony Rantz

PROJECT: No. 88263, Pacific Shops

Sample Type: Soil

Method and Constituent	Units	002499 Concentration	002499 Detection Limit	002500 Concentration	002500 Detection Limit	002501 Concentration	002501 Detection Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	< 500	500	< 500	500	< 500	500
Modified EPA Method 8020:							
Benzene	ug/kg	< 10	10	< 10	10	< 10	10
Toluene	ug/kg	< 10	10	< 10	10	< 10	10
Xylenes	ug/kg	< 30	30	< 30	30	< 30	30
Ethyl Benzene	ug/kg	< 10	10	< 10	10	< 10	10
Supelco Method:							
Acetone	ug/kg	< 400	400	< 400	400	< 400	400

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Sample Type: Soil

Method and Constituent	Units	002502 Concentration	Detection Limit
DHS Method:			
Total Petroleum Hydrocarbons as Gasoline	ug/kg	< 500	500
Modified EPA Method 8020:			
Benzene	ug/kg	< 10	10
Toluene	ug/kg	< 10	10
Xylenes	ug/kg	< 30	30
Ethyl Benzene	ug/kg	< 10	10
Supelco Method:			
Acetone	ug/kg	< 400	400

Method and Constituent	Units	Sample Type: Soil 002499 Concentration	002499 Detection Limit	002500 Concentration	002500 Detection Limit
EPA Method 8100:					
Naphthalene	ug/kg	< 5,000	5,000	< 330	330
Acenaphthylene	ug/kg	< 5,000	5,000	< 330	330
Acenaphthene	ug/kg	< 5,000	5,000	< 330	330
Fluorene	ug/kg	< 5,000	5,000	< 330	330
Phenanthrene	ug/kg	< 5,000	5,000	< 330	330
Anthracene	ug/kg	< 5,000	5,000	< 330	330
Fluoranthene	ug/kg	< 5,000	5,000	< 330	330
Pyrene	ug/kg	< 5,000	5,000	< 330	330
Benzo(a)anthracene	ug/kg	< 5,000	5,000	< 330	330
Chrysene	ug/kg	< 5,000	5,000	< 330	330
Benzo(b)fluoranthene	ug/kg	< 5,000	5,000	< 330	330
Benzo(k)fluoranthene	ug/kg	< 5,000	5,000	< 330	330
Benzo(a)pyrene	ug/kg	< 5,000	5,000	< 330	330
Dibenzo(a,h)anthracene	ug/kg	< 25,000	25,000	< 1,650	1,650
Indeno(1,2,3-cd)pyrene	ug/kg	< 25,000	25,000	< 1,650	1,650
Benzo(ghi)perylene	ug/kg	< 25,000	25,000	< 1,650	1,650

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Sample Type: Soil

Method and Constituent	Units	002501 Concentration	002501 Detection Limit	002502 Concentration	002502 Detection Limit
EPA Method 8100:					
Naphthalene	ug/kg	< 330	330	< 330	330
Acenaphthylene	ug/kg	< 330	330	< 330	330
Acenaphthene	ug/kg	< 330	330	< 330	330
Fluorene	ug/kg	< 330	330	< 330	330
Phenanthrene	ug/kg	< 330	330	< 330	330
Anthracene	ug/kg	< 330	330	< 330	330
Fluoranthene	ug/kg	< 330	330	< 330	330
Pyrene	ug/kg	< 330	330	< 330	330
Benzo(a)anthracene	ug/kg	< 330	330	< 330	330
Chrysene	ug/kg	< 330	330	< 330	330
Benzo(b)fluoranthene	ug/kg	< 330	330	< 330	330
Benzo(k)fluoranthene	ug/kg	< 330	330	< 330	330
Benzo(a)pyrene	ug/kg	< 330	330	< 330	330
Dibenzo(a,h)anthracene	ug/kg	< 1,650	1,650	< 1,650	1,650
Indeno(1,2,3-cd)pyrene	ug/kg	< 1,650	1,650	< 1,650	1,650
Benzo(ghi)perylene	ug/kg	< 1,650	1,650	< 1,650	1,650

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Method and Constituent	Units	Sample Type: Soil 002499 Concentration	002499 Detection Limit	002500 Concentration	002500 Detection Limit
EPA Method 8010:					
Benzyl chloride	ug/kg	< 20	20	< 20	20
Bis (2-chloroethoxy) methane	ug/kg	< 20	20	< 20	20
Bis (2-chloroisopropyl) ether	ug/kg	< 20	20	< 20	20
Bromobenzene	ug/kg	< 20	20	< 20	20
Bromodichloromethane	ug/kg	< 20	20	< 20	20
Bromoform	ug/kg	< 20	20	< 20	20
Bromomethane	ug/kg	< 20	20	< 20	20
Carbon tetrachloride	ug/kg	< 20	20	< 20	20
Chloracetaldehyde	ug/kg	< 20	20	< 20	20
Chloral	ug/kg	< 20	20	< 20	20
Chlorobenzene	ug/kg	< 20	20	< 20	20
Chloroethane	ug/kg	< 20	20	< 20	20
Chloroform	ug/kg	< 20	20	< 20	20
1-Chlorohexane	ug/kg	< 20	20	< 20	20
2-Chloroethyl vinyl ether	ug/kg	< 20	20	< 20	20
Chloromethane	ug/kg	< 20	20	< 20	20
Chloromethyl methyl ether	ug/kg	< 20	20	< 20	20
Chlorotoluene	ug/kg	< 20	20	< 20	20
Dibromochloromethane	ug/kg	< 20	20	< 20	20
Dibromomethane	ug/kg	< 20	20	< 20	20
1,2-Dichlorobenzene	ug/kg	< 20	20	< 20	20
1,3-Dichlorobenzene	ug/kg	< 20	20	< 20	20
1,4-Dichlorobenzene	ug/kg	< 20	20	< 20	20
Dichlorodifluoromethane	ug/kg	< 20	20	< 20	20
1,1-Dichloroethane	ug/kg	< 20	20	< 20	20

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Sample Type: Soil

Method and Constituent	Units	002499 Concentration	002499 Detection Limit	002500 Concentration	002500 Detection Limit
EPA Method 8010 (Continued):					
1,2-Dichloroethane	ug/kg	< 20	20	< 20	20
1,1-Dichloroethylene	ug/kg	< 20	20	< 20	20
trans-1,2-Dichloroethylene	ug/kg	< 20	20	< 20	20
Dichloromethane	ug/kg	< 20	20	< 20	20
1,2-Dichloropropane	ug/kg	< 20	20	< 20	20
1,3-Dichloropropylene	ug/kg	< 20	20	< 20	20
1,1,2,2-Tetrachloroethane	ug/kg	< 20	20	< 20	20
1,1,1,2-Tetrachloroethane	ug/kg	< 20	20	< 20	20
Tetrachloroethylene	ug/kg	< 20	20	< 20	20
1,1,1-Trichloroethane	ug/kg	< 20	20	< 20	20
1,1,2-Trichloroethane	ug/kg	< 20	20	< 20	20
Trichloroethylene	ug/kg	< 20	20	< 20	20
Trichlorofluoromethane	ug/kg	< 20	20	< 20	20
Trichloropropane	ug/kg	< 20	20	< 20	20
Vinyl chloride	ug/kg	< 20	20	< 20	20

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Method and Constituent	Units	Sample Type: Soil 002501 Concentration	002501 Detection Limit	002502 Concentration	002502 Detection Limit
EPA Method 8010:					
Benzyl chloride	ug/kg	< 20	20	< 20	20
Bis (2-chloroethoxy) methane	ug/kg	< 20	20	< 20	20
Bis (2-chloroisopropyl) ether	ug/kg	< 20	20	< 20	20
Bromobenzene	ug/kg	< 20	20	< 20	20
Bromodichloromethane	ug/kg	< 20	20	< 20	20
Bromoform	ug/kg	< 20	20	< 20	20
Bromomethane	ug/kg	< 20	20	< 20	20
Carbon tetrachloride	ug/kg	< 20	20	< 20	20
Chloracetaldehyde	ug/kg	< 20	20	< 20	20
Chloral	ug/kg	< 20	20	< 20	20
Chlorobenzene	ug/kg	< 20	20	< 20	20
Chloroethane	ug/kg	< 20	20	< 20	20
Chloroform	ug/kg	< 20	20	< 20	20
1-Chlorohexane	ug/kg	< 20	20	< 20	20
2-Chloroethyl vinyl ether	ug/kg	< 20	20	< 20	20
Chloromethane	ug/kg	< 20	20	< 20	20
Chloromethyl methyl ether	ug/kg	< 20	20	< 20	20
Chlorotoluene	ug/kg	< 20	20	< 20	20
Dibromochloromethane	ug/kg	< 20	20	< 20	20
Dibromomethane	ug/kg	< 20	20	< 20	20
1,2-Dichlorobenzene	ug/kg	< 20	20	< 20	20
1,3-Dichlorobenzene	ug/kg	< 20	20	< 20	20
1,4-Dichlorobenzene	ug/kg	< 20	20	< 20	20
Dichlorodifluoromethane	ug/kg	< 20	20	< 20	20
1,1-Dichloroethane	ug/kg	< 20	20	< 20	20

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Method and Constituent	Units	Sample Type: Soil 002501 Concentration	002501 Detection Limit	002502 Concentration	002502 Detection Limit
EPA Method 8010 (Continued):					
1,2-Dichloroethane	ug/kg	< 20	20	< 20	20
1,1-Dichloroethylene	ug/kg	< 20	20	< 20	20
trans-1,2-Dichloroethylene	ug/kg	< 20	20	< 20	20
Dichloromethane	ug/kg	< 20	20	< 20	20
1,2-Dichloropropane	ug/kg	< 20	20	< 20	20
1,3-Dichloropropylene	ug/kg	< 20	20	< 20	20
1,1,2,2-Tetrachloroethane	ug/kg	< 20	20	< 20	20
1,1,1,2-Tetrachloroethane	ug/kg	< 20	20	< 20	20
Tetrachloroethylene	ug/kg	< 20	20	< 20	20
1,1,1-Trichloroethane	ug/kg	< 20	20	< 20	20
1,1,2-Trichloroethane	ug/kg	< 20	20	< 20	20
Trichloroethylene	ug/kg	< 20	20	< 20	20
Trichlorofluoromethane	ug/kg	< 20	20	< 20	20
Trichloropropane	ug/kg	< 20	20	< 20	20
Vinyl chloride	ug/kg	< 20	20	< 20	20

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Sample Type: Soil

Method and Constituent	Units	002499 Concentration	002499 Detection Limit	002500 Concentration	002500 Detection Limit
EPA Method 7040: Sb	ug/kg	< 10,000	10,000	< 10,000	10,000
EPA Method 7061: As	ug/kg	1,500,000	20	130,000	20
EPA Method 7080: Ba	ug/kg	90,000	50,000	< 50,000	50,000
EPA Method 7090: Be	ug/kg	1,800	500	< 500	500
EPA Method 7130: Cd	ug/kg	1,000	1,000	< 1,000	1,000
EPA Method 7190: Cr	ug/kg	46,000	5,000	70,000	5,000
EPA Method 219.1: Co	ug/kg	2,800	2,000	< 2,000	2,000
EPA Method 7210: Cu	ug/kg	28,000	2,000	240,000	2,000
EPA Method 7420: Pb	ug/kg	160,000	5,000	< 5,000	5,000
EPA Method 7471: Hg	ug/kg	710	30	1,000	30
EPA Method 246.1: Mo	ug/kg	980,000	20,000	58,000	20,000
EPA Method 7520: Ni	ug/kg	5,200	2,000	8,200	2,000
EPA Method 7741: Se	ug/kg	< 200	200	< 200	200

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Sample Type: Soil

Method and Constituent	Units	002499 Concentration	002499 Detection Limit	002500 Concentration	002500 Detection Limit
EPA Method 7760:					
Ag	ug/kg	5,800	2,000	7,800	2,000
EPA Method 7841:					
Tl	ug/kg	< 100	100	< 100	100
EPA Method 7910:					
V	ug/kg	31,000	8,000	29,000	8,000
EPA Method 7950:					
Zn	ug/kg	430,000	500	70,000	500
EPA Method 7380:					
Fe	ug/kg	19,000,000	2,000	21,000,000	2,000

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Sample Type: Soil

Method and Constituent	Units	002501 Concentration	002501 Detection Limit	002502 Concentration	002502 Detection Limit
EPA Method 7040:					
Sb	ug/kg	< 10,000	10,000	< 10,000	10,000
EPA Method 7061:					
As	ug/kg	93,000	20	3,000	20
EPA Method 7080:					
Ba	ug/kg	< 50,000	50,000	55,000	50,000
EPA Method 7090:					
Be	ug/kg	750	500	< 500	500
EPA Method 7130:					
Cd	ug/kg	< 1,000	1,000	< 1,000	1,000
EPA Method 7190:					
Cr	ug/kg	350,000	5,000	60,000	5,000
EPA Method 219.1:					
Co	ug/kg	2,800	2,000	4,800	2,000
EPA Method 7210:					
Cu	ug/kg	3,000,000	2,000	13,000	2,000
EPA Method 7420:					
Pb	ug/kg	90,000	5,000	< 5,000	5,000
EPA Method 7471:					
Hg	ug/kg	1,400	30	67	30
EPA Method 246.1:					
Mo	ug/kg	710,000	20,000	< 20,000	20,000
EPA Method 7520:					
Ni	ug/kg	11,000	2,000	48,000	2,000
EPA Method 7741:					
Se	ug/kg	< 200	200	< 200	200

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Sample Type: Soil

Method and Constituent	Units	002501 Concentration	002501 Detection Limit	002502 Concentration	002502 Detection Limit
EPA Method 7760: Ag	ug/kg	5,200	2,000	40,000	2,000
EPA Method 7841: Tl	ug/kg	< 100	100	< 100	100
EPA Method 7910: V	ug/kg	280,000	8,000	35,000	8,000
EPA Method 7950: Zn	ug/kg	280,000	500	45,000	500
EPA Method 7380: Fe	ug/kg	73,000,000	2,000	16,000,000	2,000

DATE: 9/2[illegible]/88
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Sample Type: Soil

Method and Constituent	Units	002499 Concentration	002499 Detection Limit	002500 Concentration	002500 Detection Limit
Modified EPA Method 150.1:					
pH		9.4	±0.1	2.5	±0.1
EPA Method 325.3:					
Chloride	ug/kg	78,000	30	500	30
EPA Method 352.1:					
Nitrate	ug/kg	19,000	300	16,000	300
EPA Method 420.1:					
Phenolics	ug/kg	150,000	90	< 90	90
EPA Method 9010:					
Cyanide	ug/kg	11,000,000*	200	2,800,000*	200

DATE: 9/2[illegible]/88
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Sample Type: Soil

Method and Constituent	Units	002501 Concentration	002501 Detection Limit	002502 Concentration	002502 Detection Limit
Modified EPA Method 150.1:					
pH		2.6	±0.1	6.4	±0.1
EPA Method 325.3:					
Chloride	ug/kg	1,800	30	220	30
EPA Method 352.1:					
Nitrate	ug/kg	37,000	300	41,000	300
EPA Method 420.1:					
Phenolics	ug/kg	< 90	90	71,000	90
EPA Method 9010:					
Cyanide	ug/kg	3,900,000*	200	2,300,000*	200

*Matrix interference (especially color and turbidity) may have resulted in higher reported concentration for samples 002499, 002500, 002501, and 002502 for Cyanide analysis.

Hugh R. McLean
Supervisory Chemist

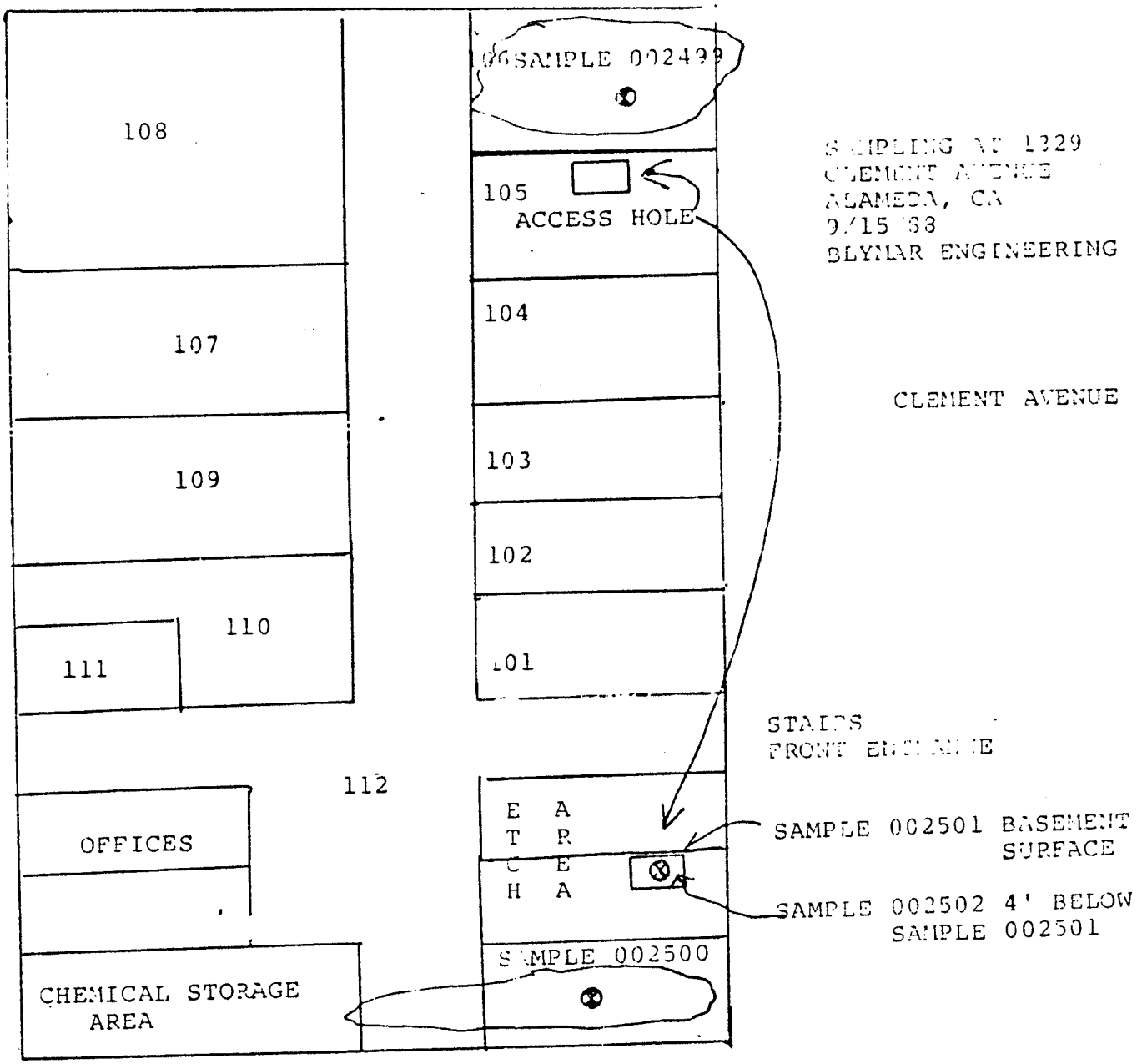
HRM:mln

CHIPS
Environmental
Consultants, Inc.

718 E. Evelyn Avenue
Sunnyvale, CA 94086

(408)736-1380

RECEIVED SEP 2 0 1988



MAP NOT TO SCALE
MLM 9/16/88

Log 6394 - V 1

CHIPS ENVIRONMENTAL CONSULTANTS, INC.
718 East Evelyn Avenue
SUNNYVALE, CALIFORNIA 94086
(408) 736-1880

PROJ NO: A 786

PROJECT NAME: Blumer

SAMPLERS: (Signature) [illegible]

Site	DATE	TIME	COMP	GRAB	Sample Number	NO OF CONTAINERS	REMARKS
Clement	9/15/86	10:00		X	002499	4	
Clement	9/15/86	10:30		X	002500	4	
Clement	9/15/86	11:00		X	002501	4	
Clement	9/15/86	11:30		X	002502	4	

CHIPS
Environmental
Consultants

[illegible] Avenue
Sunnyvale, CA 94086

(408) 736-1360

SAMPLE HANDLING

Date 9/15/88 Test Location 1829 Clement St Alameda CA 94501

	Sample Type	Volume	Comments
1	002459 Soil #1 southeast corner		Start for
2	002500 Soil #2 southwest corner		
3	002501 Soil #3 manhole access/surface		
4	002502 Soil #4 manhole access/4'		
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

CHAIN OF CUSTODY

Relinquished by: (Signature) [signature]	Date / Time 9/15/88 12:00	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: TRACE ANALYSIS, INC. 3440 Investment Blvd. Hayward, CA 94545 (415) 783-0580

invoice carbonless 0341 TRIP

INVOICE NO.

INVOICE

CHIPS ENVIRONMENTAL CONSULTANTS INC
718 E. EVELYN AVENUE
SUNNYVALE, CA 94086

RECEIVED SEP 2 0 1988

SOLD TO . TRACE ANALYSIS LABORATORY, INC
3423 INVESTMENT BOULEVARD, # 8
HAYWARD, CA 94545

SHIP TO SAME

CUSTOMER'S ORDER	SALESMAN	DATE SHIPPED	TERMS	SHIPPED VIA	F.O.B.	DATE
			NET 30			9-16-88

RE: FIELD SAMPLING AT BLYMAR ENGINEERING
1829 CLEMENT AVENUE, ALAMEDA, CA ON
9/15/88.

PAYMENT DUE CHIPS ENVIRONMENTAL CONSULTANTS FOR FIELD SAMPLING AT BLYMAR ENGINEERING, 1829 CLEMENT AVENUE, ALAMEDA CA ON 9/15/88 is $275.00 (Two HUNDRED SEVENTY FIVE DOLLARS AND NO CENTS). A COST BREAKDOWN IS AS FOLLOWS:

5 HOURS SAMPLING @ $45.00/HR	$225.00
MATERIALS	$50.00
TOTAL	$275.00

PAYMENT DUE ON OR BEFORE OCTOBER 16th, 1988

IF YOU HAVE ANY QUESTIONS PLEASE DO NOT HESITATE TO CONTACT US.

SINCERELY,

Michael L. Murtiff

MICHAEL L. MURTIFF

TABLE 1

TABLE I

	CONCENTRATION				DETECTION LIMIT	ACTION LEVEL
SAMPLE	2499	2500	2501	2502		
As	1,500	130	93	3	.02	5
Be	1.8	n/d	75	n/d	.5	.75
Cd	1	n/d	n/d	n/d	1	1
Cr	46	70	350	60	5	5
Cu	28	240	3,000	13	2	25
Pb	160	n/d	90	n/d	5	5
Hg	.7	1	1.4	.067	.03	.2
Mo	980	58	710	n/d	20	350
Ni	5.2	8.2	11	48	2	20
Ag	5.8	7.8	5.2	40	2	5
U	31	29	280	35	8	24
Zn	430	70	280	45	.5	250
CN	11,000	2,800	3,900	2,300	.2	2000*
Fe	19,000	21,000	73,000	16,000	2	
pH	9.4	2.5	2.6	6.4	2	
Chlorides	78	.5	1.8	.22	.030	
Nitrates	19	16	37	41	.3	
Phenolics	150	n/d	n/d	71	.09	

* This action level is based on DOHS guidelines and not on Title 22.

APPENDIX B

September 26, 1988
BEI Job No. 88263

PACIFIC SHOPS
SOIL CONTAMINATION INVESTIGATION
ALAMEDA, CALIFORNIA
SCOPE OF WORK - PHASE I

I. Obtain Air Samples in Building

- A. 3 samples in Basement
- B. 3 samples on First Floor
- C. 1 sample on Second Floor

II. Develop Health and Safety Plan

III. Conduct Further Basement Investment

- A. Obtain 3 soil grab samples at surface and 3 samples at depth from basement (through first story floor)
- B. Obtain 10 wipe samples from walls and ceiling of basement.
- C. Conduct laboratory analyses on both soil and wipe samples for cyanide, heavy metals, nitrates, chlorides, flourides, phenolics, and pH.

IV. Conduct Preliminary Definition Drilling

- A. Install 5 soils bores to 15 feet.
- B. Sample soil every 5 feet.
- C. Convert 3 bores into groundwater monitoring wells to 30 feet.
- D. Collect 3 groundwater samples.
- E. Survey wells to determine gradient.
- F. Conduct laboratory analyses on both soil and water samples as in III. C (above).

V. Conduct Survey of Groundwater wells in Surrounding Area.

VI. Compile Report with Conclusions and Recommendations for Submittal to Regulatory Agencies.