

June 20, 2001
Job No. 43-26640

JUN 22 2001

Alameda County Healthcare Authority
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94205-6577

Attention: Susan L. Hugo
Hazardous Materials Specialist

Dear Ms. Hugo,

Powell Street Plaza
MTBE Sampling

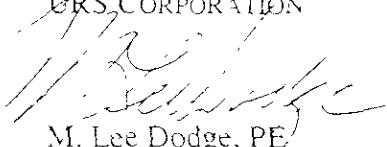
On May 29, 2001 URS mobilized for sampling several existing monitoring wells for the purpose of determining if there was any MTBE present in groundwater near the location of the single gasoline tank formerly used by PIE. The tank was removed along with the other USTs in 1986.

There were 3 wells selected for sampling; MW-14, closest to the original tank location, MW-13, somewhat East of the former tank location, and MW-3, a well downgradient from either MW 13 or MW-14. MW-13 was sampled first and floating Hydrocarbons were encountered and that renders an MTBE sample worthless. We were unable to remove the threaded cover to sample MW-3. We were able to get a sample from MW-14 and that sample was sent to Curtis and Tompkins lab in Berkeley. The analytical method employed was 8260B. MTBE was not detected.

The results were received in our offices on June 18, 2001 and are attached to this letter. The results add evidence to the initial assumption that gasoline with MTBE added was probably not available the area until after the tank was removed.

I assume that this letter and the data package included satisfy the requirements for the Closure Summary. Should you have any questions please contact me at 415.342.3752.

Very truly yours.

URS CORPORATION

M. Lee Dodge, PE
Senior Civil Engineer

June 20, 2001
Job No. 43-26640

Alameda County Healthcare Authority
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94205-6577

Attention: Susan L. Hugo
Hazardous Materials Specialist

Dear Ms. Hugo,

Powell Street Plaza
MTBE Sampling

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Very truly yours,

URS CORPORATION

M. Lee Dodge, PE
Senior Civil Engineer



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

A N A L Y T I C A L R E P O R T

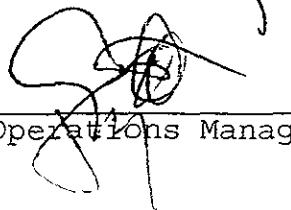
Prepared for:

URS Corporation
221 Main St.
Suite 600
San Francisco, CA 94105

Date: 12-JUN-01
Lab Job Number: 152221
Project ID: N/A
Location: Emeryville

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	152221	Location:	Emeryville
Client:	URS Corporation	Prep:	EPA 5030
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-14	Batch#:	63923
Lab ID:	152221-001	Sampled:	05/29/01
Matrix:	Water	Received:	05/29/01
Units:	ug/L	Analyzed:	05/30/01
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	CRRC	Limits
1,2-Dichloroethane-d4	115	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	101	80-115

ND= Not Detected

RL= Reporting Limit

Page 1 of 1



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	152221	Location:	Emeryville
Client:	URS Corporation	Prep:	EPA 5030
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC146518	Batch#:	63923
Matrix:	Water	Analyzed:	05/29/01
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	REC	Limits
1,2-Dichloroethane-d4	106	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	101	80-115

ND= Not Detected

RL= Reporting Limit

Page 1 of 1



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	152221	Location:	Emeryville
Client:	URS Corporation	Prep:	EPA 5030
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	63923
Units:	ug/L	Analyzed:	05/29/01
Diln Fac:	1.000		

Type: BS Lab ID: QC146516

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	48.82	98	50-150

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	96	80-115

Type: BSD Lab ID: QC146517

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	45.12	90	50-150	8	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	97	80-115

Gilliland
Ogallala

EXHIBIT #1

Signed Laboratory Reports

(Signed reports from Fireman's Fund and
Brown and Caldwell will be forwarded.)



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics

2855 Campus Drive

San Mateo, CA 94403

Attention: Gus Liljequist

Client Project ID: #7911WO, Paper Chase

Matrix Descript: Water

Analysis Method: EPA 5030/8015/8020

First Sample #: 904-2139

Sampled: Apr 19, 1989

Received: Apr 21, 1989

Analyzed: Apr 28, 1989

Reported: May 1, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons μg/L (ppb)	Benzene μg/L (ppb)	Toluene μg/L (ppb)	Ethyl Benzene μg/L (ppb)	Xylenes μg/L (ppb)
904-2139	1G	5,100	3.1	20	6.3	21
904-2140	2G	1,500	160	21	6.8	34
904-2141	3G	840	22	10	5.1	20

Detection Limits:	30.0	0.3	0.3	0.3	0.3
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Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard
Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director

9042139 EAR <1>



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
 (415) 364-9800 • FAX (415) 364-9233

Earth Metrics
 2855 Campus Drive
 San Mateo, CA 94403
 Attention: Gus Liljequist

Client Project ID: Paper Chase, #7911 WO
 Sample Descript: Water, 4G

Sampled: Apr 28, 1989
 Received: Apr 28, 1989

Lab Number: 904-3122 D

Reported: May 2, 1989

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	500.0	N.D.
Arsenic.....	1.0	23
Beryllium.....	10.0	N.D.
Cadmium.....	10.0	N.D.
Chromium.....	5.0	21
Copper.....	10.0	53
Lead.....	5.0	61
Mercury.....	1.0	N.D.
Nickel.....	50.0	N.D.
Selenium.....	10.0	N.D.
Silver.....	10.0	40
Rhodium.....	500.0	N.D.
Zinc.....	10.0	170

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
 Laboratory Director



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics
2855 Campus Drive
San Mateo, CA 94403
Attention: Gus Liljequist

Client Project ID: Paper Chase, #7911 WO
Sample Descript: Water,4G
Analysis Method: EPA 8080
Lab Number: 904-1322 C

Sampled: Apr 28, 1989
Received: Apr 28, 1989
Extracted: May 2, 1989
Analyzed: May 2, 1989
Reported: May 2, 1989

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
Aldrin.....	0.10	..... N.D.
alpha-BHC.....	0.05	..... N.D.
beta-BHC.....	0.05	..... N.D.
delta-BHC.....	0.05	..... N.D.
gamma-BHC (Lindane).....	0.40	..... N.D.
Chlordane.....	0.15	..... N.D.
4,4'-DDD.....	0.10	..... N.D.
4,4'-DDE.....	0.05	..... N.D.
4,4'-DDT.....	0.10	..... N.D.
Dieldrin.....	0.10	..... N.D.
Endosulfan I.....	0.15	..... N.D.
Endosulfan II.....	0.10	..... N.D.
Endosulfan sulfate.....	0.75	..... N.D.
Endrin.....	0.01	..... N.D.
Endrin aldehyde.....	0.25	..... N.D.
Heptachlor.....	0.10	..... N.D.
Heptachlor epoxide.....	0.10	..... N.D.
Methoxychlor.....	10.0	..... N.D.
Toxaphene.....	0.50	..... N.D.
PCB-1016.....	1.0	..... N.D.
PCB-1221.....	1.0	..... N.D.
PCB-1232.....	1.0	..... N.D.
PCB-1242.....	1.0	..... N.D.
PCB-1248.....	1.0	..... N.D.
PCB-1254.....	1.0	..... N.D.
PCB-1260.....	1.0	..... N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
 (415) 364-9600 • FAX (415) 364-9233

Earth Metrics
 2855 Campus Drive
 San Mateo, CA 94403
 Attention: Gus Lillequater

Client Project ID: Paper Chase, #7911 WO
 Matrix Descript: Water
 Analysis Method: EPA 3510/8015
 First Sample #: 904-3122 B

Sampled: Apr 28, 1989
 Received: Apr 28, 1989
 Analyzed: May 1, 1989
 Reported: May 2, 1989

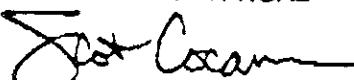
TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons µg/L (ppb)
904-3122	4G	250

Detection Limits: 50.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
 Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL



Arthur G. Burton
 Laboratory Director

9043122.EAR <1>

CHAIN OF CUSTODY RECORD

Relinquished by:Signature

Date/Time

Received by:Signature

Date/Time

REMARKS:

~~Relinquished by:~~ Signature

Date/Time

Received by:Signature

Date/Time

Analyses on Liquid oxygen

Relinquished by:Signature

Date/Time

Received by:Signature

Date/Time

Earth Metrics Incorporated
2855 Campus Drive, Suite 300
San Mateo, CA 94403
(415) 578-9900

CHAIN OF CUSTODY

✓ 6/14/89

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time	REMARKS:
G. J. Lijo-jo	4/28 14:20	Lawton Saunders	4/28 14:20	

Relinquished by:Signature Date/Time Received by:Signature Date/Time

Relinquished by:Signature Date/Time Received by:Signature Date/Time

Earth Metrics Incorporated
2855 Campus Drive, Suite 300
San Mateo, CA 94403
(415) 578-9900



ANATEC
LABORATORIES
INC.

435 Tesconi Circle

Santa Rosa, California 95401

707-526-7200

Mr. Paul Miller
Earth Metrics, Inc.
895 Cowan Road
Burlingame, CA 94010

September 22, 1987
ANATEC Log No: 1117 (1-7)
Series No: 366/007
Client Ref: P.O. #02738

Subject: Analysis of Seven Soil Samples Identified as "South of P.I.E.," Received on August 31, 1987.

Dear Mr. Miller:

Analysis of the samples referenced above has been completed. This report is written in confirmation of results transmitted verbally on September 21, 1987.

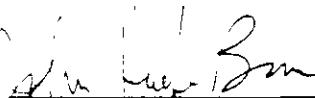
Samples were delivered to the laboratory under documented chain-of-custody. On receipt, sample custody was transferred to ANATEC sample control personnel who subsequently documented receipt and condition of the samples and placed them in secured storage at 4°C until analysis commenced.

The samples were analyzed to determine extractable organic halogen content. The method employed was "Determination of EOX Contents of Solids" (by) Riggan, R.M. et al., in "Development and Evaluation of Methods for Total Organic Halide and Purgeable Organic Halide in Wastewater," U.S. EPA 600/54-84-008, January 1984.

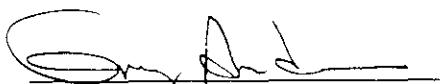
Briefly, the method involves the extraction of organic halogens from soil using ethyl acetate. An aliquot of the ethyl acetate is injected into a reaction chamber to convert organic halogens to halogen acids. The resulting acid is quantitated by micro-coulometric titration. Analysis of samples is accompanied by various quality control activities. These include method blanks, sample replicates and sample spikes.

Table 1 presents summarized analytical testing results. Attached is the sample custody document. Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:


John Henbrow-Beach
Project Chemist

Approved by:


Greg Anderson, Director
Analytical Laboratories

/mh

Enclosure: Sample custody document

Biological Studies • Laboratory Analysis • Research



TABLE 1. ANALYTICAL RESULTS OF SEVEN SOIL SAMPLES IDENTIFIED AS "SOUTH OF P.I.E.," RECEIVED ON AUGUST 31, 1987.

<u>Lab No.</u>	<u>Descriptor</u>			<u>EOX (ppm)^a</u>
1117-1	N2	08/18/87	1800, South of Convey at 8'	<25
1117-2	N4	08/18/87	1800, Tip yard	<25
1117-3	N5	08/28/87	0900, Allied 5'	<25
1117-4	N6	08/28/87	1000, N.E. Corner 5'	<25
1117-5	N7	08/28/87	1030, South R.R. 8'	34
1117-6	N9	08/28/87	1200, Pumps 10'	42
1117-7	N10	08/28/87	1200, Mid R.R. 9'	83

^aEOX--Extractable organic halogens (parts-per-million).



NET

366/007 LOG 1261

- 2 -

September 28, 1987

TABLE 1. SUMMARIZED ANALYTICAL RESULTS FOR ONE SOIL SAMPLE IDENTIFIED AS "#N-10 8/28/87 9' MID RR SOUTH PIE" RECEIVED ON AUGUST 31, 1987; INSTRUCTIONS RECEIVED SEPTEMBER 22, 1987

Parameter	MDL ^a (ug/Kg)	Results (ug/Kg) ^b (1261-1)
Aldrin	1,000	ND ^c
alpha-BHC	1,000	ND
beta-BHC	2,000	ND
gamma-BHC	1,000	ND
delta-BHC	2,000	ND
Chlordane	10,000	ND
4,4'-DDD	2,000	ND
4,4'-DDE	2,000	ND
4,4'-DDT	2,000	ND
Dieldrin	1,000	ND
Endosulfan I	1,000	ND
Endosulfan II	1,000	ND
Endosulfan Sulfate	2,000	ND
Endrin	1,000	ND
Endrin aldehyde	2,000	ND
Heptachlor	1,000	ND
Heptachlor epoxide	1,000	ND
Toxaphene	10,000	ND
PCB-1016	1,000	ND
PCB-1221	1,000	ND
PCB-1232	1,000	ND
PCB-1242	1,000	ND
PCB-1248	1,000	ND
PCB-1254	1,000	2,300
PCB-1260	1,000	ND

^aMDL--Method detection limit.

^bug/Kg--Data are expressed in units of micrograms analyte per kilogram sample, as-received basis.

^cND--Not detected at the listed method detection limit.



ANATEC
LABORATORIES
INC.

435 Tesconi Circle
Santa Rosa, CA 95401
707-526-7200
Fax 707-526-9623

Paul Miller
Earth Metrics, Inc.
859 Cowan Road
Burlingame, CA 94010

September 28, 1987
ANATEC Log No. 1261 (-1)
Series No: 366/007
Client Ref: (V) P. Miller

Subject: ASAP Priority Analysis of One Sample Identified as
"N-10 8/28/87 9' Mid RR South PIE" Received on
August 31, 1987.

Dear Mr. Miller:

Analysis of the sample referenced above has been completed. This report is written in confirmation of results transmitted verbally on September 24 and 25, 1987. The sample was one of a set of samples submitted August 31, 1987. Subsequent to the report for that set of samples, additional work was requested for the above sample on September 22, 1987.

The sample was re-logged in and prepared for organochlorine pesticides and polychlorinated biphenyls (PCBs) measurements. A portion of sample was extracted three successive times with methylene chloride in the presence of ultrasonic agitation. The extracts were combined, passed through a column of partially-deactivated Florisil PR to remove method interferences, and reduced in volume by evaporation of the solvent. The extract was then analyzed by gas chromatography with electron capture detection in accord with Method 8080, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, 3rd edition, revised 1986. Qualitative and quantitative interpretation of sample chromatograms was based on analyses of analytical-grade pesticide and PCB standards.

Attached as Table 1 are summarized results. Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

John Hembrow-Beach
John Hembrow-Beach
Project Chemist

Approved by:


Greg Anderson, Director
Analytical Laboratories

/hs



1117
earth metrics incorporated

CHAIN OF CUSTODY

Client Name: Martin Company

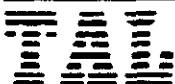
Project Name: South of PIE Job Number: 7023

Project Manager: Paul Miller Day Phone: 415-697-7103

Sample Collector: Paul Miller Day Phone: 415-697-7103

Sample #	Date	Time	Type of Sample	Description
N2	Aug 18, 87	6 PM	Soil	South Conveyor 8'
N4	Aug 18, 87	6 PM	?	TIP YARD 9'
N5	Aug 28, 87	9 AM	?	Allied 5'
N6	7 7 7	10 AM	?	NE CORNER 5'
N7	7 7 7	10:30 AM	?	South RR 8'
N9	7 7 7	12 PM	?	Pumps 10'
N10	7 7 7	12 PM	?	mid RR 9'

	Date	Time	Signature	Company
Relinquished by	8/31/87	3:34	Paul Miller	Earth Metrics
Received by	8/31/87	17:41	Eric Shaefer	Earth Metrics
Relinquished by	8/31/87	17:45	Gregory Antes	
Received by	8/31/87	17:50	Zoltan Lauer	ANATEC
Relinquished by				
Received by				
Relinquished by				
Received by				



DATE: 9/30/87

LOG NO.: 5237

DATE SAMPLED: 9/25/87

DATE RECEIVED: 9/25/87

CUSTOMER: Earth Metrics Incorporated

REQUESTER: Paul Miller

PROJECT: Emeryville

Sample Type: Soil

<u>Method and Constituent</u>	<u>Units</u>	P4.7 <u>Concen- tration</u>	Detection Limit	P10.8 <u>Concen- tration</u>	Detection Limit
EPA Method 8010:					
Benzyl chloride	mg/kg	< 0.1	0.1	< 0.1	0.1
Bis (2-chloroethoxy) methane	mg/kg	< 0.1	0.1	< 0.1	0.1
Bis (2-chloroisopropyl) ether	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromodichloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromoform	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromomethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Carbon tetrachloride	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloracetaldehyde	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloral	mg/kg	< 0.1	0.1	< 0.1	0.1
Chlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloroform	mg/kg	< 0.1	0.1	< 0.1	0.1
1-Chlorohexane	mg/kg	< 0.1	0.1	< 0.1	0.1
2-Chloroethyl vinyl ether	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1

DATE: 9/30/87
 LOG NO.: 5237
 DATE SAMPLED: 9/25/87
 DATE RECEIVED: 9/25/87
 PAGE: Two

Method and Constituent	Units	Sample Type: Soil			
		P4.7		P10.8	
		Concen-tration	Detection Limit	Concen-tration	Detection Limit
EPA Method 8010 (continued):					
Chloromethyl methyl ether	mg/kg	< 0.1	0.1	< 0.1	0.1
Chlorotoluene	mg/kg	< 0.1	0.1	< 0.1	0.1
Dibromochloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Dibromomethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,2-Dichlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,3-Dichlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,4-Dichlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
Dichlorodifluoromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1-Dichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,2-Dichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1-Dichloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
trans-1,2-Dichloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
Dichloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,2-Dichloropropane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,3-Dichloropropylene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,2,2-Tetrachloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,1,2-Tetrachloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Tetrachloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,1-Trichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,2-Trichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Trichloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
Trichlorofluoromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Trichloropropane	mg/kg	< 0.1	0.1	< 0.1	0.1
Vinyl chloride	mg/kg	< 0.1	0.1	< 0.1	0.1

DATE: 9/30/87
 LOG NO.: 5237
 DATE SAMPLED: 9/25/87
 DATE RECEIVED: 9/25/87
 PAGE: Three

<u>Method and Constituent</u>	<u>Units</u>	Sample Type: Soil			
		P11.6	Detection Limit	P13.8	Detection Limit
EPA Method 8010:					
Benzyl chloride	mg/kg	< 0.1	0.1	< 0.1	0.1
Bis (2-chloroethoxy) methane	mg/kg	< 0.1	0.1	< 0.1	0.1
Bis (2-chloroisopropyl) ether	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromodichloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromoform	mg/kg	< 0.1	0.1	< 0.1	0.1
Bromomethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Carbon tetrachloride	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloracetaldehyde	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloral	mg/kg	< 0.1	0.1	< 0.1	0.1
Chlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloroform	mg/kg	< 0.1	0.1	< 0.1	0.1
1-Chlorohexane	mg/kg	< 0.1	0.1	< 0.1	0.1
2-Chloroethyl vinyl ether	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Chloromethyl methyl ether	mg/kg	< 0.1	0.1	< 0.1	0.1
Chlorotoluene	mg/kg	< 0.1	0.1	< 0.1	0.1
Dibromochloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Dibromomethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,2-Dichlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,3-Dichlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,4-Dichlorobenzene	mg/kg	< 0.1	0.1	< 0.1	0.1
Dichlorodifluoromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1-Dichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,2-Dichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1

DATE: 9/30/87
 LOG NO.: 5237
 DATE SAMPLED: 9/25/87
 DATE RECEIVED: 9/25/87
 PAGE: Four

<u>Method and Constituent</u>	<u>Units</u>	Sample Type: Soil			
		P11.6 <u>Concen-</u> <u>tration</u>	P11.6 <u>Detection</u> <u>Limit</u>	P13.8 <u>Concen-</u> <u>tration</u>	P13.8 <u>Detection</u> <u>Limit</u>
EPA Method 8010 (continued):					
1,1-Dichloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
trans-1,2-Dichloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
Dichloromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,2-Dichloropropane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,3-Dichloropropylene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,2,2-Tetrachloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,1,2-Tetrachloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Tetrachloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,1-Trichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
1,1,2-Trichloroethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Trichloroethylene	mg/kg	< 0.1	0.1	< 0.1	0.1
Trichlorofluoromethane	mg/kg	< 0.1	0.1	< 0.1	0.1
Trichloropropane	mg/kg	< 0.1	0.1	< 0.1	0.1
Vinyl chloride	mg/kg	< 0.1	0.1	< 0.1	0.1

DATE: 9/30/87
 LOG NO.: 5237
 DATE SAMPLED: 9/25/87
 DATE RECEIVED: 9/25/87
 PAGE: Five

Sample Type: Soil			
<u>Method and Constituent</u>	<u>Units</u>	P16.9	
		<u>Concen-</u> <u>tration</u>	<u>Detection</u> <u>Limit</u>
EPA Method 8010:			
Benzyl chloride	mg/kg	< 0.1	0.1
Bis (2-chloroethoxy) methane	mg/kg	< 0.1	0.1
Bis (2-chloroisopropyl) ether	mg/kg	< 0.1	0.1
Bromobenzene	mg/kg	< 0.1	0.1
Bromodichloromethane	mg/kg	< 0.1	0.1
Bromoform	mg/kg	< 0.1	0.1
Bromomethane	mg/kg	< 0.1	0.1
Carbon tetrachloride	mg/kg	< 0.1	0.1
Chloracetaldehyde	mg/kg	< 0.1	0.1
Chloral	mg/kg	< 0.1	0.1
Chlorobenzene	mg/kg	< 0.1	0.1
Chloroethane	mg/kg	< 0.1	0.1
Chloroform	mg/kg	< 0.1	0.1
1-Chlorohexane	mg/kg	< 0.1	0.1
2-Chloroethyl vinyl ether	mg/kg	< 0.1	0.1
Chloromethane	mg/kg	< 0.1	0.1
Chloromethyl methyl ether	mg/kg	< 0.1	0.1
Chlorotoluene	mg/kg	< 0.1	0.1
Dibromochloromethane	mg/kg	< 0.1	0.1
Dibromomethane	mg/kg	< 0.1	0.1
1,2-Dichlorobenzene	mg/kg	< 0.1	0.1
1,3-Dichlorobenzene	mg/kg	< 0.1	0.1
1,4-Dichlorobenzene	mg/kg	< 0.1	0.1
Dichlorodifluoromethane	mg/kg	< 0.1	0.1
1,1-Dichloroethane	mg/kg	< 0.1	0.1
1,2-Dichloroethane	mg/kg	< 0.1	0.1

DATE: 9/30/87
 LOG NO.: 5237
 DATE SAMPLED: 9/25/87
 DATE RECEIVED: 9/25/87
 PAGE: Six

Sample Type: Soil

<u>Method and Constituent</u>	<u>Units</u>	<u>Concen-</u> <u>tration</u>	<u>P16.9</u> <u>Detection Limit</u>
EPA Method 8010 (continued):			
1,1-Dichloroethylene	mg/kg	< 0.1	0.1
trans-1,2-Dichloroethylene	mg/kg	< 0.1	0.1
Dichloromethane	mg/kg	< 0.1	0.1
1,2-Dichloropropane	mg/kg	< 0.1	0.1
1,3-Dichloropropylene	mg/kg	< 0.1	0.1
1,1,2,2-Tetrachloroethane	mg/kg	< 0.1	0.1
1,1,1,2-Tetrachloroethane	mg/kg	< 0.1	0.1
Tetrachloroethylene	mg/kg	< 0.1	0.1
1,1,1-Trichloroethane	mg/kg	< 0.1	0.1
1,1,2-Trichloroethane	mg/kg	< 0.1	0.1
Trichloroethylene	mg/kg	< 0.1	0.1
Trichlorofluoromethane	mg/kg	< 0.1	0.1
Trichloropropane	mg/kg	< 0.1	0.1
Vinyl chloride	mg/kg	< 0.1	0.1

DATE: 9/30/87
LOG NO.: 5237
DATE SAMPLED: 9/25/87
DATE RECEIVED: 9/25/87
PAGE: Seven

<u>Method and Constituent</u>	Sample Type: Soil			
	<u>Units</u>	<u>Detection Limit</u>	<u>P10.8 Concentration</u>	<u>P13.8 Concentration</u>
EPA Method 8080 for PCB:				
Aroclor 1016	mg/kg	0.02	< 0.02	< 0.02
Aroclor 1221	mg/kg	0.02	< 0.02	< 0.02
Aroclor 1232	mg/kg	0.02	< 0.02	< 0.02
Aroclor 1242	mg/kg	0.02	< 0.02	< 0.02
Aroclor 1248	mg/kg	0.02	< 0.02	< 0.02
Aroclor 1254	mg/kg	0.02	< 0.02	< 0.02
Aroclor 1260	mg/kg	0.02	< 0.02	< 0.02

Hugh R. McLean
Hugh R. McLean
Supervisory Chemist

HRM:mjn

CHAIN OF CUSTODY RECORD

Log 5237

PROJ NO.	PROJECT NAME					NO. OF CONTAINERS	REMARKS					
7023.WI	EMERYVILLE, CA											
SAMPLERS (Signature)							Wane R. Kapman					
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION							
P9.3	9/25/87	09:15	/			1						Soil
P9.6			/			1						
P9.9			/			1						
P10.4			/			1						
P10.8			/			1						
P11.6		10:45	/			1						
P14.4		11:25	/			1						
P14.7			/			1						
Q26.4		12:10	/			1						
P18.4			/			1						
P23.1		13:00	/			1						
P22.3			/			1						
P28.2			/			1						
P29.3			/			1						
P19.3	9/25/87		/			1						
Relinquished by: (Signature)		Date / Time	Received by: (Signature)		Relinquished by: (Signature)		Date / Time	Received by: (Signature)				
Wane R. Kapman		9/25/87 5:17 PM	Tomie Duran		TAL							
Relinquished by: (Signature)		Date / Time	Received by: (Signature)		Relinquished by: (Signature)		Date / Time	Received by: (Signature)				
Relinquished by: (Signature)		Date / Time	Received for Laboratory by: (Signature)		Date / Time	Remarks						

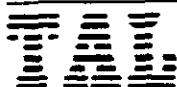
Distribution Original Accompanies Shipment; Copy to Coordinator Field Files

3 - 0605

CHAIN OF CUSTODY RECORD

Distribution: Original Accompanying Shipment; Copy to Coordinator Field Files

3-0605



DATE: 10/14/87

LOG NO.: 5286

DATE SAMPLED: 8/28/87

DATE RECEIVED: 10/9/87

CUSTOMER: Earth Metrics Incorporated

REQUESTER: Paul Miller

PROJECT: PCB

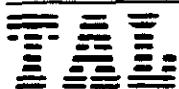
Sample Type: Soil

Method and Constituent	Units	N7, 8/28/87		N9, 8/28/87	
		Concen-tration	Detection Limit	Concen-tration	Detection Limit
EPA Method 8080 for PCB:					
Aroclor 1016	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1221	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1232	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1242	mg/kg	0.63	0.1	< 0.1	0.1
Aroclor 1248	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1254	mg/kg	3.8	0.1	< 0.1	0.1
Aroclor 1260	mg/kg	< 0.1	0.1	< 0.1	0.1

N10, 8/28/87

Aroclor 1016	mg/kg	< 0.1	0.1
Aroclor 1221	mg/kg	< 0.1	0.1
Aroclor 1232	mg/kg	< 0.1	0.1
Aroclor 1242	mg/kg	< 0.1	0.1
Aroclor 1248	mg/kg	< 0.1	0.1
Aroclor 1254	mg/kg	0.18	0.1
Aroclor 1260	mg/kg	< 0.1	0.1

Hugh R. McLean
Hugh R. McLean
Supervisory Chemist



DATE: 10/14/87

LOG NO.: 5237A

DATE SAMPLED: 9/25/87

DATE RECEIVED: 9/25/87

CUSTOMER: Earth Metrics Incorporated

REQUESTER: Paul Miller

PROJECT: Emeryville, CA

Sample Type: Soil

Method and Constituent	Units	P16.5		P22.3	
		Concen-tration	Detection Limit	Concen-tration	Detection Limit
EPA Method 8080 for PCB:					
Aroclor 1016	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1221	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1232	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1242	mg/kg	< 0.1	0.1	2.7	0.1
Aroclor 1248	mg/kg	< 0.1	0.1	< 0.1	0.1
Aroclor 1254	mg/kg	< 0.1	0.1	5.3	0.1
Aroclor 1260	mg/kg	< 0.1	0.1	< 0.1	0.1

P23.1

Aroclor 1016	mg/kg	< 0.1	0.1
Aroclor 1221	mg/kg	< 0.1	0.1
Aroclor 1232	mg/kg	< 0.1	0.1
Aroclor 1242	mg/kg	3.8	0.1
Aroclor 1248	mg/kg	< 0.1	0.1
Aroclor 1254	mg/kg	11	0.1
Aroclor 1260	mg/kg	< 0.1	0.1


Hugh R. McLean

Hugh R. McLean
Supervisory Chemist

SUPERIOR ANALYTICAL LABORATORY, INC.

1385 FAIRFAX St., STE D • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO. 50108

DATE RECEIVED: 3/18/88

CLIENT: Earth Metrics, Inc.

DATE REPORTED: 3/22/88

CLIENT ID: Marketplace

JOB NO. 7509.10

ANALYSIS FOR PCB
by, Modified Method 6080

Sample Identification:

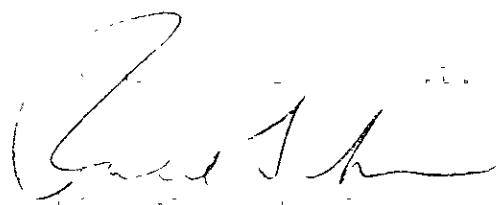
Concentration (ppm)

Monitoring Well #10 N.E. corner
of site Marketplace

ND -

Boring F-3 South of PIE
Leverville

ND -



OUTSTANDING QUALITY AND SERVICE



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Environmental Laboratory
3700 Lakeville Highway
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(707) 778-4160

AQUILA Environmental Services,
Formerly M.A.C. Inc.
Entitled to Current and Future
Environmental Assessment, Audit
and Risk Control Services
Insurance Services and
subsidiaries

ENVIRONMENTAL LABORATORY

Paul Miller
Earth Metrics
859 Cowan Road
Burlingame, CA 94010

Page 1

L A B O R A T O R Y R E S U L T S

Supply/Order No.:
Client's Survey No.:
Contract/PO No.: 02739
Release No.:

Laboratory Job No.: 872889
Date Received: 08/31/87
Date Reported: 09/17/87
Client Code: EART2

ASSAY:pH(ISE-EPA 150.1)

LABNO	SMPLNO	pH
18357	N-1	8.95
18358	N-2	10.00
18359	N-3	10.90
18360	N-4	10.35
18361	N-5	10.95
18362	N-6	11.65
18363	N-7	10.85
18364	N-8	7.95
18365	N-9	8.4
18366	N-10	10.70

ANALYST:DAVE BUSCH

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Page 2

LABORATORY RESULTS

Laboratory Job No.: 872889

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET.	LIM.
18357	N1 SOIL		CA TTLC	
	AG	<0.4 MG/KG	500.000	0.4
	AS	19.2 MG/KG	500.000	4.0
	BA	162.9 MG/KG	10000.000	2.0
	BE	0.8 MG/KG	75.000	0.2
	CD	4.32 MG/KG	100.000	0.10
	CO	6.0 MG/KG	8000.000	0.4
	CR	66.9 MG/KG	2500.000	0.4
	CU	59.3 MG/KG	2500.000	0.2
	HG	<7.3 MG/KG	20.000	7.3
	MN	547.0 MG/KG		0.2
	MO	DETECTED MG/KG	3500.000	1.0
	NI	33.5 MG/KG	2000.000	1.0
	PB	94.5 MG/KG	1000.000	1.0
	SB	<10.0 MG/KG	500.000	10.0
	SE	<4.0 MG/KG	100.000	4.0
	TL	<10.0 MG/KG	700.000	10.0
	V	31.7 MG/KG	2400.000	1.0
	ZN	2138.2 MG/KG	5000.000	1.0
18358	N2 SOIL		CA TTLC	
	AG	DETECTED MG/KG	500.000	0.4
	AS	19.3 MG/KG	500.000	4.0
	BA	176.2 MG/KG	10000.000	2.0
	BE	1.2 MG/KG	75.000	0.2
	CD	4.29 MG/KG	100.000	0.10
	CO	6.0 MG/KG	8000.000	0.4
	CR	124.1 MG/KG	2500.000	0.4
	CU	45.0 MG/KG	2500.000	0.2
	HG	<4.9 MG/KG	20.000	4.9
	MN	1796.4 MG/KG		0.2
	MO	<1.0 MG/KG	3500.000	1.0

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Page 3

LABORATORY RESULTS

Laboratory Job No.: 872889

LABNO	SMPLNO-ID	RESULTS	DET.	LIM.
NI	29.0	MG/KG	2000.000	1.0
PB	98.2	MG/KG	1000.000	1.0
SB	<10.0	MG/KG	500.000	10.0
SE	<4.0	MG/KG	100.000	4.0
TL	<10.0	MG/KG	700.000	10.0
V	46.3	MG/KG	2400.000	1.0
ZN	280.6	MG/KG	5000.000	1.0
18359 N3 SOIL				
AG	DETECTED	MG/KG	500.000	0.4
AS	20.0	MG/KG	500.000	4.0
BA	422.7	MG/KG	10000.000	2.0
BE	1.4	MG/KG	75.000	0.2
CD	18.30	MG/KG	100.000	0.10
CO	8.5	MG/KG	8000.000	0.4
CR	1119.6	MG/KG	2500.000	0.4
CU	844.2	MG/KG	2500.000	0.2
HG	<6.9	MG/KG	20.000	6.9
MN	9970.2	MG/KG		0.2
MO	8.9	MG/KG	3500.000	1.0
NI	83.7	MG/KG	2000.000	1.0
PB	212.2	MG/KG	1000.000	1.0
SB	<10.0	MG/KG	500.000	10.0
SE	<40.0	MG/KG	100.000	40.0
TL	42.8	MG/KG	700.000	10.0
V	60.8	MG/KG	2400.000	1.0
ZN	5320.4	MG/KG	5000.000*	1.0
18361 N5 SOIL				
AG	DETECTED	MG/KG	500.000	0.4
AS	DETECTED	MG/KG	500.000	4.0
BA	264.5	MG/KG	10000.000	2.0
BE	1.7	MG/KG	75.000	0.2
CD	14.50	MG/KG	100.000	0.10
CO	3.6	MG/KG	8000.000	0.4
CR	2228.1	MG/KG	2500.000	0.4
CU	166.4	MG/KG	2500.000	0.2
HG	<6.3	MG/KG	20.000	6.3
MN	13552.2	MG/KG		0.2
MO	6.0	MG/KG	3500.000	1.0

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LABORATORY RESULTS

Laboratory Job No.: 872889

LABNO	SMPLNO-ID	RESULTS	DET.	LIM.
	NI	29.3 MG/KG	2000.000	1.0
	PB	241.8 MG/KG	1000.000	1.0
	SB	<10.0 MG/KG	500.000	10.0
	SE	<19.1 MG/KG	100.000	19.1
	TL	DETECTED MG/KG	700.000	10.0
	V	81.3 MG/KG	2400.000	1.0
	ZN	2316.4 MG/KG	5000.000	1.0
18362 N6 SOIL		CA TTLC		
	AG	DETECTED MG/KG	500.000	0.4
	AS	DETECTED MG/KG	500.000	4.0
	BA	221.9 MG/KG	10000.000	2.0
	BE	2.3 MG/KG	75.000	0.2
	CD	6.82 MG/KG	100.000	0.10
	CO	5.3 MG/KG	8000.000	0.4
	CR	319.6 MG/KG	2500.000	0.4
	CU	137.4 MG/KG	2500.000	0.2
	HG	<7.4 MG/KG	20.000	7.4
	MN	9140.2 MG/KG		0.2
	MO	6.4 MG/KG	3500.000	1.0
	NI	44.2 MG/KG	2000.000	1.0
	PB	160.4 MG/KG	1000.000	1.0
	SB	<10.0 MG/KG	500.000	10.0
	SE	<4.0 MG/KG	100.000	4.0
	TL	<10.0 MG/KG	700.000	10.0
	V	61.9 MG/KG	2400.000	1.0
	ZN	998.8 MG/KG	5000.000	1.0
18364 N8 SOIL		CA TTLC		
	AG	<0.4 MG/KG	500.000	0.4
	AS	DETECTED MG/KG	500.000	4.0
	BA	219.9 MG/KG	10000.000	2.0
	BE	1.1 MG/KG	75.000	0.2
	CD	4.51 MG/KG	100.000	0.10
	CO	11.1 MG/KG	8000.000	0.4
	CR	57.7 MG/KG	2500.000	0.4
	CU	38.1 MG/KG	2500.000	0.2
	HG	<7.7 MG/KG	20.000	7.7
	MN	478.7 MG/KG		0.2
	MO	<1.0 MG/KG	3500.000	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 872889

LABNO	SMPLNO-ID	RESULTS	DET.	LIM.
	NI	45.5 MG/KG	2000.000	1.0
	PB	36.2 MG/KG	1000.000	1.0
	SB	<10.0 MG/KG	500.000	10.0
	SE	<4.0 MG/KG	100.000	4.0
	TL	<10.0 MG/KG	700.000	10.0
	V	44.1 MG/KG	2400.000	1.0
	ZN	96.4 MG/KG	5000.000	1.0
18365 N9 SOIL		CA TTLC		
	AG	<0.4 MG/KG	500.000	0.4
	AS	32.4 MG/KG	500.000	4.0
	BA	193.8 MG/KG	10000.000	2.0
	BE	1.5 MG/KG	75.000	0.2
	CD	4.29 MG/KG	100.000	0.10
	CO	9.4 MG/KG	8000.000	0.4
	CR	66.1 MG/KG	2500.000	0.4
	CU	28.6 MG/KG	2500.000	0.2
	HG	<7.6 MG/KG	20.000	7.6
	MN	296.1 MG/KG		0.2
	MO	<1.0 MG/KG	3500.000	1.0
	NI	47.3 MG/KG	2000.000	1.0
	PB	51.8 MG/KG	1000.000	1.0
	SB	<10.0 MG/KG	500.000	10.0
	SE	<4.0 MG/KG	100.000	4.0
	TL	<10.0 MG/KG	700.000	10.0
	V	50.2 MG/KG	2400.000	1.0
	ZN	162.1 MG/KG	5000.000	1.0

DETECTED=DETECTED BUT NOT QUANTITATED

QUANTITATION LIMIT=3.3- DETECTION LIMIT.

ANALYST:NANCY S.TESCHE

AUDIT COPY



FIREMAN'S FUND
INSURANCE COMPANIES
Environmental Laboratory
3700 Lakeville Highway
Petaluma, CA 94952
(707) 778-4160

ENVIRONMENTAL LABORATORY

LABORATORY RESULTS

Page 6

Laboratory Job No.: 872889

ASSAY:SOLVENTS IN SOIL/WASTE BY EXTRACTION(GC/FID)
MATRIX:SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
18357	N1	TOTAL PETROLEUM HYDR <14.600 UG/GM	0.015 MG/GM
18358	N2	TOTAL PETROLEUM HYDR <15.300 UG/GM	0.015 MG/GM
18360	N4	TOTAL PETROLEUM HYDR 764.400 UG/GM	0.015 MG/GM
18363	N7	TOTAL PETROLEUM HYDR 70.600 UG/GM	0.015 MG/GM
18364	N8	TOTAL PETROLEUM HYDR <15.700 UG/GM	0.016 MG/GM
18365	N9	TOTAL PETROLEUM HYDR <15.500 UG/GM	0.016 MG/GM
18366	N10	TOTAL PETROLEUM HYDR <15.200 UG/GM	0.015 MG/GM

ANALYST:JEAN M.BONITE

AUDIT COPY



FIREMAN'S FUND

INSURANCE COMPANIES

Environmental Laboratory
3700 Lakeville Highway
Petaluma, CA 94952
(707) 778-4160

ACQUA-AQUA ENVIRONMENTAL SERVICES
Dancer & Miller, Inc.
Environmental Services
Environmental Testing
Environmental Consulting
Environmental Engineering
Environmental Management
Environmental Auditing
Environmental Training

ENVIRONMENTAL LABORATORY

Paul Miller
Earth Metrics
859 Cowan Road
Burlingame, CA 94010

LABORATORY RESULTS

Page 1

Supply/Order No.:
Client's Survey No.:
Contract/PO No.: 7023
Release No.: REF. JOB #872889

Laboratory Job No.: 873263
Date Received: 09/23/87
Date Reported: 09/24/87
Client Code: EART2

CHROMIUM HEXAVALENT, (COLOR ASSAY SM 117A, EPA 7196)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND MG/LT	CA STLC MG/LT	DET.LIM. MG/LT
20239	N3	CR(6+)	0.16	MG/KG	0.010
20240	N5	CR(6+)	<0.1	MG/KG	0.010

ANALYST:DAVE BUSCH

AUDIT COPY



SAMPLING DATA - ANALYSIS REQUEST

ENVIRONMENTAL LAB
3700 Lakeville Highway
Petaluma, California 94952
IN CALIFORNIA NATIONWIDE
800/227-5889 800/227-0765

2889 -87

RECEIVER
AUG 31 1987

P.O. NUMBER:	7023
RELEASE NO.:	
SURVEY NO.:	

NAME OF COMPANY Earth Metrics Inc.	SAMPLE COLLECTED BY Paul Miller	DATE COLLECTED 8-28-87
MAILING ADDRESS Attn: Paul Miller 859 Cowan Rd. Burlingame, CA 94010 TELEPHONE NO: (415) 697-7103	SPECIAL INSTRUCTIONS if any questions, call Paul Miller See attached pages	

LAB USE ONLY	SAMPLE NUMBER	SAMPLE LOCATION OR DESCRIPTION	VOLUME OF AIR SAMPLED	ANALYZE FOR (GIVE SPECIFIC SUBSTANCES)	RECEIVED BY	RECEIVED DATE
018357	N-1	South Conveyor 3'	Soils	1, 2, 3		
018358	N-2	South Conveyor 8'	1	1, 2, 3		
018359	N-3	North Hz Bldg 3'	1	1, 2		
018360	N-4	TIP yard 9'	1	1, 2, 3		
018361	N-5	Allied 5'	1	1, 2		
018362	N-6	NE corner 5'	1	1, 2		
018363	N-7	South RR 8'	1	1, 2, 3	ENVIRONMENTAL LABORATORY	1987 AUG 31 AM 12:49
018364	N-8	Pumps 5'	1	1, 2, 3	ENVIRONMENTAL LABORATORY	1987 AUG 31 AM 12:49
018365	N-9	Pumps 10'	1	1, 2, 3	ENVIRONMENTAL LABORATORY	1987 AUG 31 AM 12:49
018366	N-10	Mid RR 9'	1	1, 2, 3	ENVIRONMENTAL LABORATORY	1987 AUG 31 AM 12:49
		(10 Soils)				
		Tests 1 = pH				
		2 = CAM Metals ICP (Toxic Scan)				
		3 = total Petroleum HC by extraction GC/FID				

AUTHORIZED SIGNATURE

RELINQUISHED BY (SIGNATURE) C.M.	DATE/TIME	RECEIVED BY LAB BY (SIGNATURE) Paul Miller
RELINQUISHED FROM LAB BY (SIGNATURE) Paul Miller	DATE/TIME 8-31-87 12:45 PM	RECEIVED BY (SIGNATURE)

520004-10-86

ORIGINAL - LABORATORY

8/31/87 AJ



**FIREMANS FUND
INSURANCE COMPANIES**

ENVIRONMENTAL LAB
3700 Lakeville Highway
Petaluma, California 94952
IN CALIFORNIA NATIONWIDE
800/227-5889 800/227-0765

SAMPLING DATA - ANALYSIS REQUEST

RUSH

3163-87

RECEIVED
SEP 23 1987
FIREMEN'S MUSEUM LIB.

P.O. NUMBER: 7073

RELEASE NO:
Ref. Job #872889
SURVEY NO:

SURVEY NO:

AUTHORIZED SIGNATURE

RELINQUISHED BY (SIGNATURE)	DATE/TIME 9-83-87 10:10am	RECEIVED BY LAB BY (SIGNATURE)
RELINQUISHED FROM LAB BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

ATTACHMENT C
LABORATORY ANALYTICAL DATA

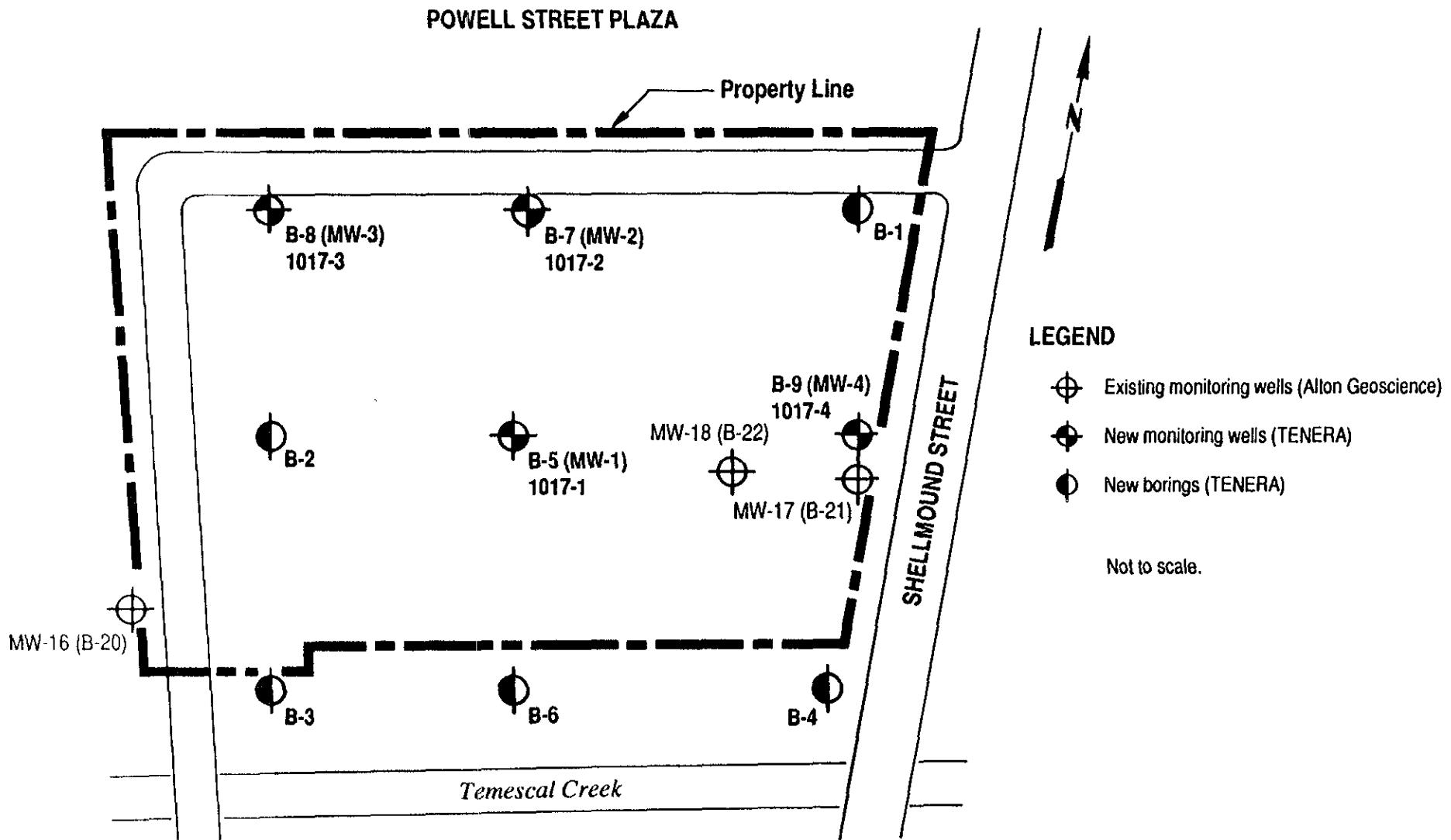


Figure 2-1

Plan of Borings



BROWN AND CALDWELL LABORATORIES

ANALYTICAL REPORT

1256 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

LOG NO: E89-04-469

Received: 18 APR 89

Reported: 10 MAY 89

Mr. Jim Saucerman
Tenera Environmental
1995 University
Berkeley, California 94704

Project: Emeryville 8089-01

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED		
PARAMETER		04-469-1	04-469-2	04-469-3
Fourteen CAM Metals by ICAP				
Silver, mg/L		<0.02	<0.02	<0.02
Barium, mg/L		0.48	0.33	0.12
Beryllium, mg/L		<0.01	<0.01	<0.01
Cadmium, mg/L		<0.04	<0.04	<0.04
Cobalt, mg/L		<0.03	<0.03	<0.03
Chromium, mg/L		<0.05	<0.05	<0.05
Copper, mg/L		<0.08	<0.08	<0.08
Molybdenum, mg/L		<0.08	0.12	0.11
Nickel, mg/L		<0.03	<0.03	<0.03
Lead, mg/L		<0.3	<0.3	<0.3
Antimony, mg/L		<0.06	<0.06	0.07
Thallium, mg/L		<0.2	<0.2	<0.2
Vanadium, mg/L		<0.03	<0.03	0.04
Zinc, mg/L		<0.01	<0.01	0.04
Arsenic, mg/L		1.7	0.003	0.005
Mercury, mg/L		<0.0001	<0.0001	<0.0001
Selenium, mg/L		0.001	<0.001	0.001
CAM Digestions, Date		04.25.89	04.25.89	04.25.89



BROWN AND CALDWELL LABORATORIES

ANALYTICAL REPORT

1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

LOG NO: E89-04-469

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REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED		
PARAMETER		04-469-1	04-469-2	04-469-3
04-469-1	B-1			17 APR 89
04-469-2	B-2			17 APR 89
04-469-3	B-3			17 APR 89
Aromatic Hydrocarbons		04.26.89	05.01.89	04.26.89
Date Analyzed		1	1	1
Dilution Factor, Times 1		0.5	2.6	0.8
Benzene, ug/L		<0.3	<0.3	<0.3
Ethylbenzene, ug/L		1.0	0.7	0.5
Toluene, ug/L		6.0	3.5	1.4
Total Xylene Isomers, ug/L		04.19.89	04.19.89	04.20.89
TPH - Semivolatile Hydrocarbons		<1.0	37	13
Date Analyzed		---	OIL	OIL
C12 to C25 Hydrocarbons, mg/L		---	---	---
Fuel Characterization, .		---	---	---
Other TPH - Semivolatile Hydrocarbons		---	---	---

-- This fuel characterization is a qualitative identification based upon a visual comparison of sample chromatograms with those from authentic standards.



BROWN AND CALDWELL LABORATORIES

ANALYTICAL REPORT

1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

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Berkeley, California 94704

Project: Emeryville 8089-01

REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED		
PARAMETER		04-469-4	04-469-5	04-469-6
04-469-4	B-1 @ 2.5		17 APR 89	
04-469-5	B-2 @ 1.0		17 APR 89	
04-469-6	B-3 @ 2.0		17 APR 89	
Fourteen CAM Metals by ICAP				
Silver, mg/kg		<0.4	0.9	1
Barium, mg/kg		950	350	230
Beryllium, mg/kg		<0.2	<0.2	<0.2
Cadmium, mg/kg		12	36	32
Cobalt, mg/kg		14	13	18
Chromium, mg/kg		92	1500	290
Copper, mg/kg		96	400	490
Molybdenum, mg/kg		3.7	14	11
Nickel, mg/kg		29	130	150
Lead, mg/kg		1000	400	690
Antimony, mg/kg		<2	8.1	1.3
Thallium, mg/kg		<4	<4	<4
Vanadium, mg/kg		24	100	54
Zinc, mg/kg		810	2300	1800
Arsenic, mg/kg		23	7.3	38
Mercury, mg/kg		0.58	<0.01	0.24
Selenium, mg/kg		0.2	0.4	0.2
CAM Digestions, Date		04.28.89	04.28.89	04.28.89



BROWN AND CALDWELL LABORATORIES

ANALYTICAL REPORT

1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

LOG NO: E89-04-633

Received: 21 APR 89

Reported: 09 MAY 89

Mr. Jim Saucerman
Tenera Environmental
1995 University
Berkeley, California 94704

Purchase Order: 8089-01

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED				
04-633-1	1017-16					21 APR 89
04-633-2	1017-17					21 APR 89
04-633-3	1017-4					21 APR 89
04-633-4	1017-3					21 APR 89
04-633-5	1017-2					21 APR 89
PARAMETER		04-633-1	04-633-2	04-633-3	04-633-4	04-633-5
Fourteen CAM Metals by ICAP						
Silver, mg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Barium, mg/L		0.16	0.58	0.10	1.0	1.4
Beryllium, mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Cadmium, mg/L		<0.04	<0.04	<0.04	<0.04	<0.04
Cobalt, mg/L		<0.03	<0.03	<0.03	<0.03	<0.03
Chromium, mg/L		<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L		<0.08	<0.08	<0.08	<0.08	<0.08
Molybdenum, mg/L		<0.08	<0.08	<0.08	<0.08	<0.08
Nickel, mg/L		<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L		<0.3	<0.3	<0.3	<0.3	<0.3
Antimony, mg/L		<0.03	<0.06	<0.06	<0.03	<0.06
Thallium, mg/L		<0.2	<0.2	<0.2	<0.2	<0.2
Vanadium, mg/L		<0.03	<0.03	<0.03	<0.03	<0.03
Zinc, mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic, mg/L		0.006	0.003	0.028	0.002	0.19
Mercury, mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Selenium, mg/L		0.002	<0.001	<0.001	<0.001	<0.001
CAM Digestions, Date		05.04.89	05.04.89	05.04.89	05.04.89	05.04.89



BROWN AND CALDWELL LABORATORIES

ANALYTICAL REPORT

1255 POWELL STREET EMERYVILLE CA 94608 • (415) 428-2300

LOG NO: E89-04-633

Received: 21 APR 89

Reported: 09 MAY 89

Mr. Jim Saucerman
Tenera Environmental
1995 University
Berkeley, California 94704

Purchase Order: 8089-01

REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED				
04-633-1	1017-16					21 APR 89
04-633-2	1017-17					21 APR 89
04-633-3	1017-4					21 APR 89
04-633-4	1017-3					21 APR 89
04-633-5	1017-2					21 APR 89
PARAMETER		04-633-1	04-633-2	04-633-3	04-633-4	04-633-5
Aromatic Hydrocarbons						
Date Analyzed		04.26.89	05.01.89	05.01.89	05.01.89	05.01.89
Dilution Factor, Times 1		1	1	1	1	1
Benzene, ug/L		0.9	<0.3	0.3	100	90
Ethylbenzene, ug/L		0.4	<0.3	<0.3	<0.3	<0.3
Toluene, ug/L		2.6	<0.3	<0.3	2.3	2.7
Total Xylene Isomers, ug/L		4.1	<0.3	1.3	8.9	1.7
TPH - Semivolatile Hydrocarbons						
Date Analyzed		04.24.89	04.24.89	04.24.89	04.24.89	04.24.89
C12 to C25 Hydrocarbons, mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Other TPH - Semivolatile Hydrocarbons		---	---	---	---	---