ERAS
Environmental, Inc.

3787 Brookdale Boulevard
Castro Valley, CA 94546

(510) 247-9885 Facsimile: 581-6118

SOIL REMEDIATION
4800 Coliseum Way
Oakland, California
Project Number 00047A

Prepared for:

Mr. John Miller
250 Cambridge Avenue
Palo Alto, California 94306

Prepared by:

ERAS Environmental
June 26, 2000

ERAS
Environmental, Inc.

3787 Brookdale Boulevard
Castro Valley, CA 94546

(510) 247-9885 Facsimile: 581-6118

June 26, 2000

Mr. John Miller
250 Cambridge Avenue
Palo Alto, California 94306

Re: **Report of Soil Remediation at**
4800 Coliseum Way
Oakland, California

Dear Mr. Miller:

ERAS Environmental, Inc. (ERAS) is pleased to present the results of the soil remediation project completed for the above referenced site (hereinafter the "Property"). The work performed included removal of approximately 25 cubic yards of soil in an area along the northeastern Property line. Confirmation samples were collected from the sidewall and bottom of the excavation along with samples of the stockpiled soil. The results of the project work performed is presented in the attached report.

Please call if you have any questions.

Respectfully,
ERAS Environmental, Inc.

REGISTERED GEOLOGIST
GAIL M. JONES
No. 5725
EXP. 9/01
STATE OF CALIFORNIA

David Siegel, R.E.A. 2046
Project Manager

Gail M. Jones
Registered Geologist

TABLE OF CONTENTS

INTRODUCTION

ERAS Environmental, Inc. (ERAS) is pleased to present the results of the soil remediation project conducted at 4800 Coliseum Way in Oakland California (hereinafter the "Property"). This investigation was approved by Mr. John Miller, the current owner of the Property on June 7, 2000 in response to ERAS proposal dated June 4, 2000.

The Property is located at 4800 Coliseum Way, on the northeast side of Coliseum Way between 47th Avenue to the northwest and 50th Avenue to the southeast (**Figure 1**). The Property consists of a rectangular shaped area of approximately 75,000 square feet (1.72 acres) that is developed with a single-story, concrete tilt-up building with an inside area of approximately 35,000 square feet. Most of the Property is paved with asphalt. Along the northeastern side of the Property was an unpaved area that contained an unused railroad spur.

PREVIOUS ENVIRONMENTAL INVESTIGATION

A Phase I Environmental Site Assessment (ESA) project was performed for the Property by ERAS in May, 2000. The results of the ESA were presented in a report dated May 31, 2000. Historical research conducted by ERAS indicated the operation on the Property has not been known to use chlorinated solvents or have caused other contamination to the subsurface. The ESA report also summarized the results of a number of environmental investigations of the Property from 1991 to 1998, involving soil and groundwater sampling and laboratory analysis. The environmental consultants included Simon, Earth Metrics, Woodward Clyde and ATC.

The soil and groundwater investigations focused on the sampling and analysis of soil and groundwater from the northeastern side of the Property in the area of an unused rail spur. The investigations indicated the presence of petroleum hydrocarbons in most of the soil borings drilled in the area of the rail spur. The analytical results reported generally indicated the chromatogram patterns of the samples analyzed did not match the laboratory standards used (standards for gasoline, diesel and motor oil). These results indicated the presence of hydrocarbons, without the volatile petroleum constituents usually found in fuels such as benzene, toluene, ethyl benzene and xylenes.

The chlorinated solvents chlorobenzene (CB), 1,2 dichlorobenzene (DCB), 1,3 DCB and 1,4 DCB, were detected in groundwater samples from all the borings drilled in the area of the former rail spur by ATC. These solvents were found in soil in boring ATC-3. Chlorobenzene was detected in a sample from a depth of 3 feet at a concentration of 3,800 micrograms per kilogram (μg/Kg). Concentrations of CB, 1,3 DCB and 1,4 DCB were detected at 3,800 μg/Kg, 19,000 μg/Kg and 33,000 μg/Kg, respectively. Lower concentrations of these solvents were detected in soil from boring ATC-2 (207 μg/Kg CB + DCB). These solvents were not detected in soil samples from borings ATC-7 and ATC-9.

Based on the lithologic descriptions of boring ATC-3, ERAS concluded that the hydrocarbons detected in the soil samples analyzed by Woodward Clyde and ATC were a result of the sampling of fill material that included tar associated with the construction of the rail spur.

A map presented as **Figure 3** indicates the location of the Property in relation to the PG & E site adjacent to the southeast and the AAA Equipment Company (formerly Independent Construction Company) yard adjacent to the northeast. The location of former oil tanks and the asphalt plant used by Independent Construction Company are shown as well as the locations of selected soil borings drilled on the Property.

The estimated groundwater flow direction shown on **Figure 3** is based on regional topography and groundwater monitoring at the adjacent PG & E site where the gradient has been reported by CET Environmental Services to be consistently toward the south. ERAS has constructed an estimated isoconcentration contour based on the total concentrations of CB and DCB in groundwater samples from wells near the Property on the PG&E site and the borings drilled on the Property.

The maximum concentrations of dissolved solvents in groundwater at location ATC-9 does not underlie the maximum concentration of solvents in the soil at location ATC-3. Thus the shallow soil of the Property does not appear to be the source of contamination of the groundwater. The estimated distribution of solvents in groundwater and the estimated groundwater flow direction indicate that the source of the groundwater contamination is more likely to be located off-site and up-gradient (to the north).

The most likely sources of the plume suggested by ERAS are from the up-gradient former Dutch Boy Paint manufacturing plant on San Leandro Street to the northeast or from previous manufacture of asphalt on the adjacent AAA Equipment site. Both of these processes are known to involve the solvents CB and DCB (oral communication, Allen Acks, Entech Analytical, May 23, 2000).

PURPOSE AND SCOPE OF WORK

The purpose of this project was to remove the solvent containing soil found in boring ATC-3 and assess whether these solvents could extend vertically or laterally from that location.

The following activities were conducted at the Property. Soil was excavated in and around the former location of boring ATC-3. Soil samples were collected in selected locations of the excavation bottom and sidewalls and submitted for laboratory analysis. Excavated soil was stockpiled and samples collected for analysis to determine proper disposal requirements

FIELD METHODS AND OBSERVATIONS

Excavation Activities

Excavation activities were conducted at the site on June 14, 2000. An area of soil approximately 23 feet long and from 3 to six feet wide was excavated to an approximate depth of 4.5 feet (**Figure 3**).

Based on the previous analytical results of soil samples the extent of excavation was limited by ATC-9 to the southeast where no concentrations of solvents were detected. The excavation was limited to the northeast by a fence bounding the adjacent AAA Equipment Company site and to the southwest by the rail spur line. A hand held photo-ionization detector (PID) was used to help guide the excavation activities. The excavation was extended to the northwest until only low readings, generally approximately 4 ppm or less,

were measured with the PID.

Excavation was first performed at the southeast side in the vicinity of ATC-9. The sediments encountered consisted of sandy coarse gravel (presumably rail spur fill material) to a depth of approximately 3 feet. A thin layer of tar was observed at about three feet. A 1 foot thick layer of black silt was present below the fill and then a stiff green silty clay. The clay became softer and wetter with depth, by approximately 6 feet free water was observed. PID readings were noted to be 91 parts per million (ppm) at 4 feet and 21 ppm at 5.5 feet in this area. At approximately 7 feet, a gravelly sand saturated with groundwater, was encountered.

Based on the depth to groundwater, it was determined the maximum excavation depth would be subsequently limited to approximately 4.5 feet, within the clay layer.

Soil excavation was continued to the northwest with the excavated soil stockpiled as shown on **Figure 2.** Soil conditions were generally consistent throughout the area of excavation. A tar layer, generally soft, was observed at a consistent depth of approximately 2 or 3 feet. Small areas of bluish green soil were observed in the sidewall areas, these appeared to be limited in extent both laterally and vertically and appeared to be associated with areas containing a greater thickness or amount of tarry material. PID readings taken at the sidewalls of the excavation were in the range of approximately 2 to 4 ppm.

Sampling Activities
Soil samples were collected from the sidewalls of the excavation at depths of approximately 4.5 feet. Samples at the bottom of the excavation collected from a depth of approximately 4.5 to 5 feet. To collect each sample, a clean 6-inch long brass liner was pounded into the soil using a hammer and a wooden block placed against sample liner to avoid damage. The liner was driven six inches into the soil and removed when full. Soil samples were collected from the stockpile by scraping 3 to 4 inches of soil away from the surface and then driving the sample liners into the soil until full. The ends of each sample liner were quickly covered with aluminum foil sheets and then plastic caps, promptly labeled and placed in a chilled, plastic cooler.

LABORATORY ANALYTICAL METHODS

The samples were delivered to Entech Analytical Labs, Inc. (Entech), a California state-certified analytical laboratory in Sunnyvale, California on June 15, 2000. The samples were analyzed on a rush 72 hour turnaround time.

The soil samples from the borings were analyzed for Halogenated Volatile Organic Compounds (HVOCs) by Environmental Protection Agency (EPA) Method 8010.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results were received by ERAS on June 20, 2000. A copy of the analytical results of the excavation soil samples, and related sample chain of custody documentation that accompanied the samples, is provided in **Appendix A**.

A summary of the analytical results are presented in the following table. Results are

reported in μg/Kg.

Sample Number	Location	Chloro-benzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
E-1	Sidewall	<5	<5	12	10
E-2	Bottom	<5	27	160	75
E-3	Sidewall	<5	<5	<5	<5
E-4	Sidewall	<5	<5	<5	8.6
E-5	Sidewall	<5	<5	80	78
E-6	Bottom	<5	14	130	230
E-7	Sidewall	<5	<5	<5	<5

Note:
<5 Not detected at or above laboratory detection limit indicated

The four soil samples collected from the stockpiles were analyzed and found to contain 19 μg/Kg chlorobenzene, 19 μg/Kg 1,2-DCB, 70 μg/Kg 1,3-DCB and 110 μg/Kg 1,4-DCB. Additional analyses were requested on June 23, 2000 to characterize the soil for proper disposal.

DISCUSSION OF RESULTS
The soil analytical results indicate the elevated concentrations of CB and DCB were removed from the area of soil boring ATC-3. Sample E-2 collected 1.5 feet beneath the sample collected by ATC contained 262 μg/Kg total solvents compared to a previous concentration of 55,800 μg/Kg total solvents. Only low concentrations of solvents (maximum of 374 μg/Kg total solvents) were detected in the other confirmation samples.

The maximum concentration of total solvent in an excavation soil sample (374 μg/Kg) is roughly 100 times less than the total solvent concentration detected in soil from location ATC-3 in 1998, although the difference in depth is only 1.5 feet. Thus it appears that the clay underlying the tar-bearing fill has retarded the downward migration of the solvents. Furthermore, the dissolved solvents in the groundwater beneath the Property appear to have migrated from an up-gradient source to the north.

CONCLUSIONS
Based on the work previously performed (Phase 1 ESA) and the results of the soil excavation and sampling, ERAS concludes the following regarding the Property.

- No activities conducted on the Property appear to have contributed to the underlying solvent contamination

- Soil sampling by ATC Associates indicated a limited amount of railroad spur fill containing solvents was present on the Property. The fill identified as containing solvents was successfully removed and analytical data indicated the solvents did not impact underlying groundwater

- Work performed by at the PG & E site, located adjacent to the Property to the southeast, indicated the groundwater gradient has been to the south consistently and wells on that site have been affected by solvent contamination from an up-gradient, off-site source

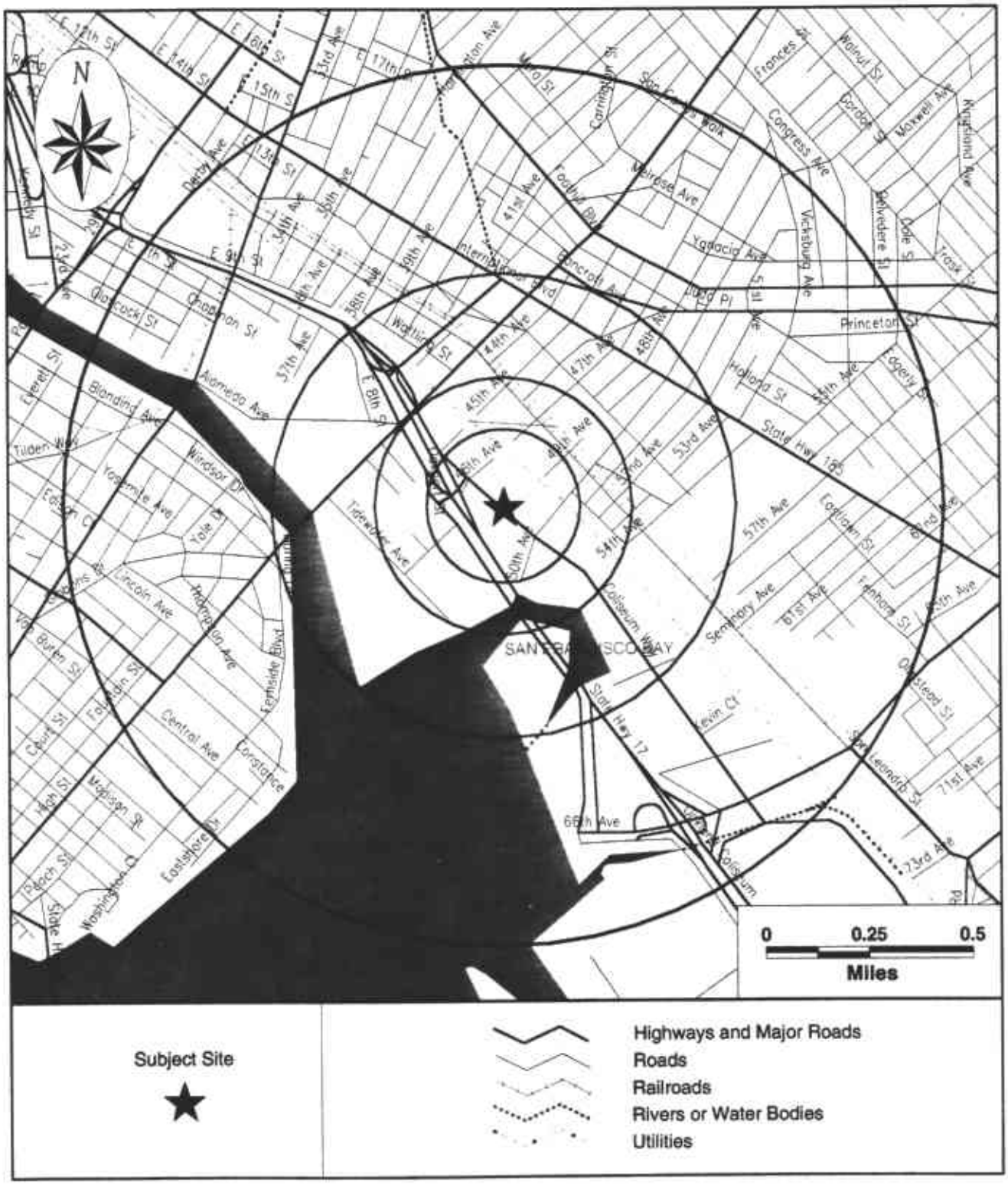
- The source of dissolved solvents in groundwater underlying the Property is from an up-gradient off-site source to the north.

LIMITATIONS

This report has been prepared according to the State and local agency suggested guidance documents for these investigations and in general accordance with the accepted standard of practice which exists in Northern California at the time the investigation was performed. The interpretations, conclusions and recommendations made herein are based upon the data and analysis for the soil and water samples collected on-site. ERAS Environmental is not responsible for errors in laboratory analysis and reporting, or for information withheld during the course of the study. It should be recognized that the conclusions are based on limited investigation and that additional data may modify the interpretations presented herein. Judgements leading to conclusions are generally made with an incomplete knowledge of the conditions present. Additional conditions and materials could exist at the site that were not encountered during this investigation. No warranty or guarantee is expressed or implied therein.

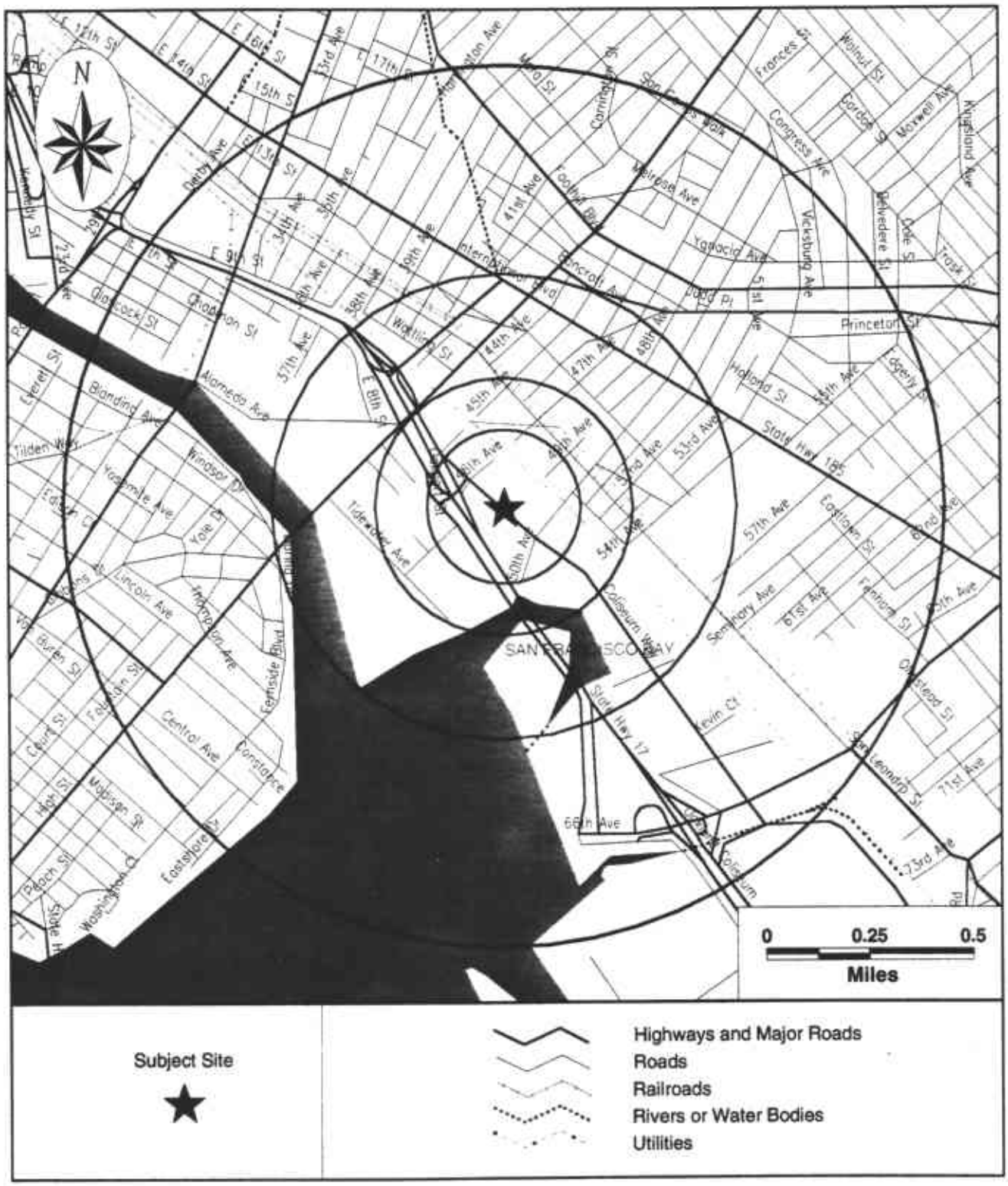
SITE ASSESSMENT PLUS REPORT

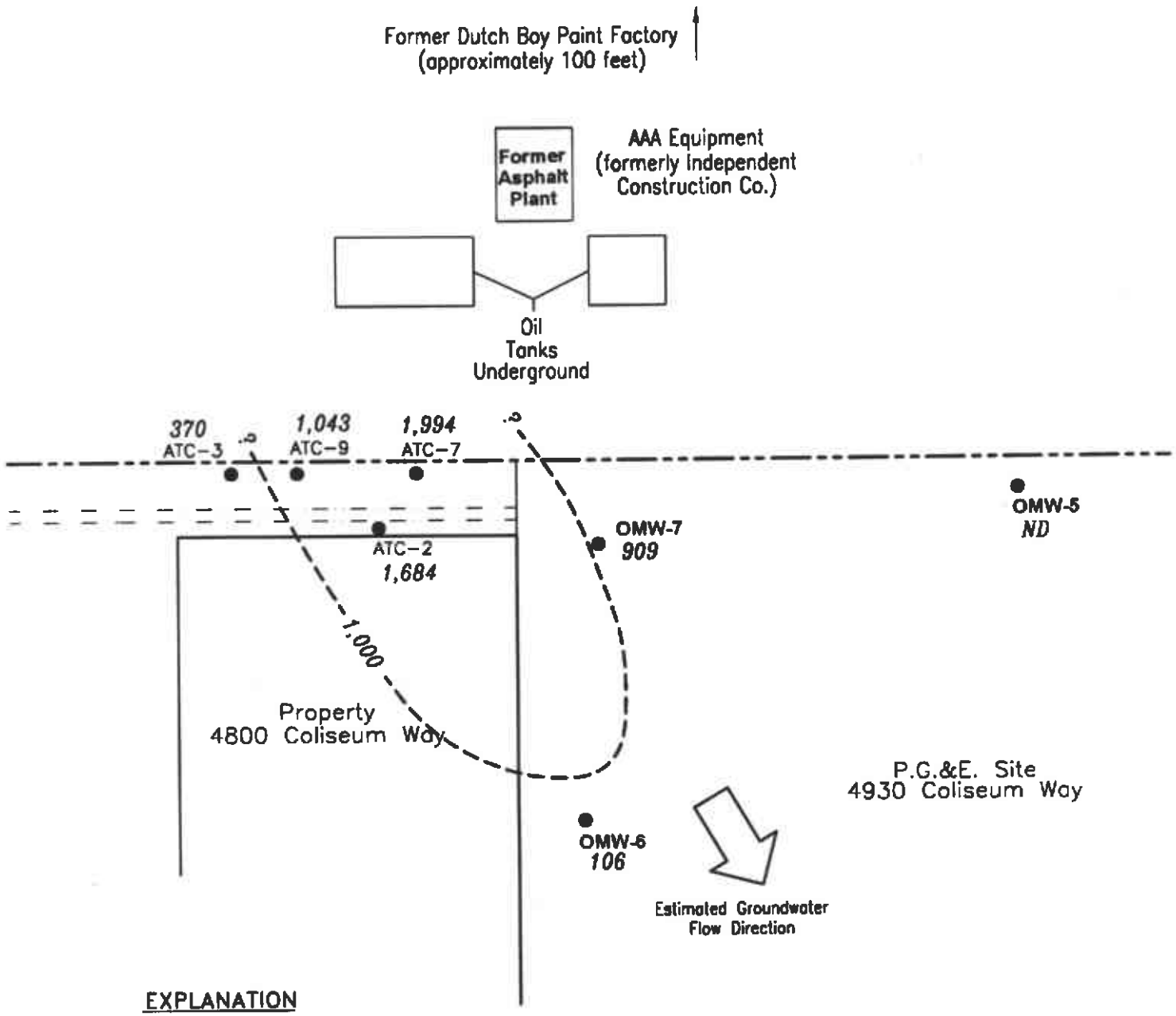
Street Map



SITE ASSESSMENT PLUS REPORT

Street Map





EXPLANATION

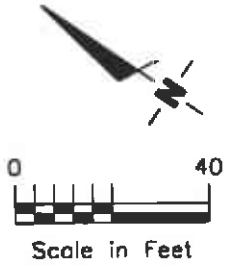
Base: Sanborn Fire Insurance Map, 1951

Total dissolved solvent concentrations from groundwater samples collected 10/08/98

Total dissolved solvent concentrations from groundwater samples collected 12/17/98

● Soil boring/monitoring well

106 Concentrations of total CB and DCB in groundwater samples (ugls)

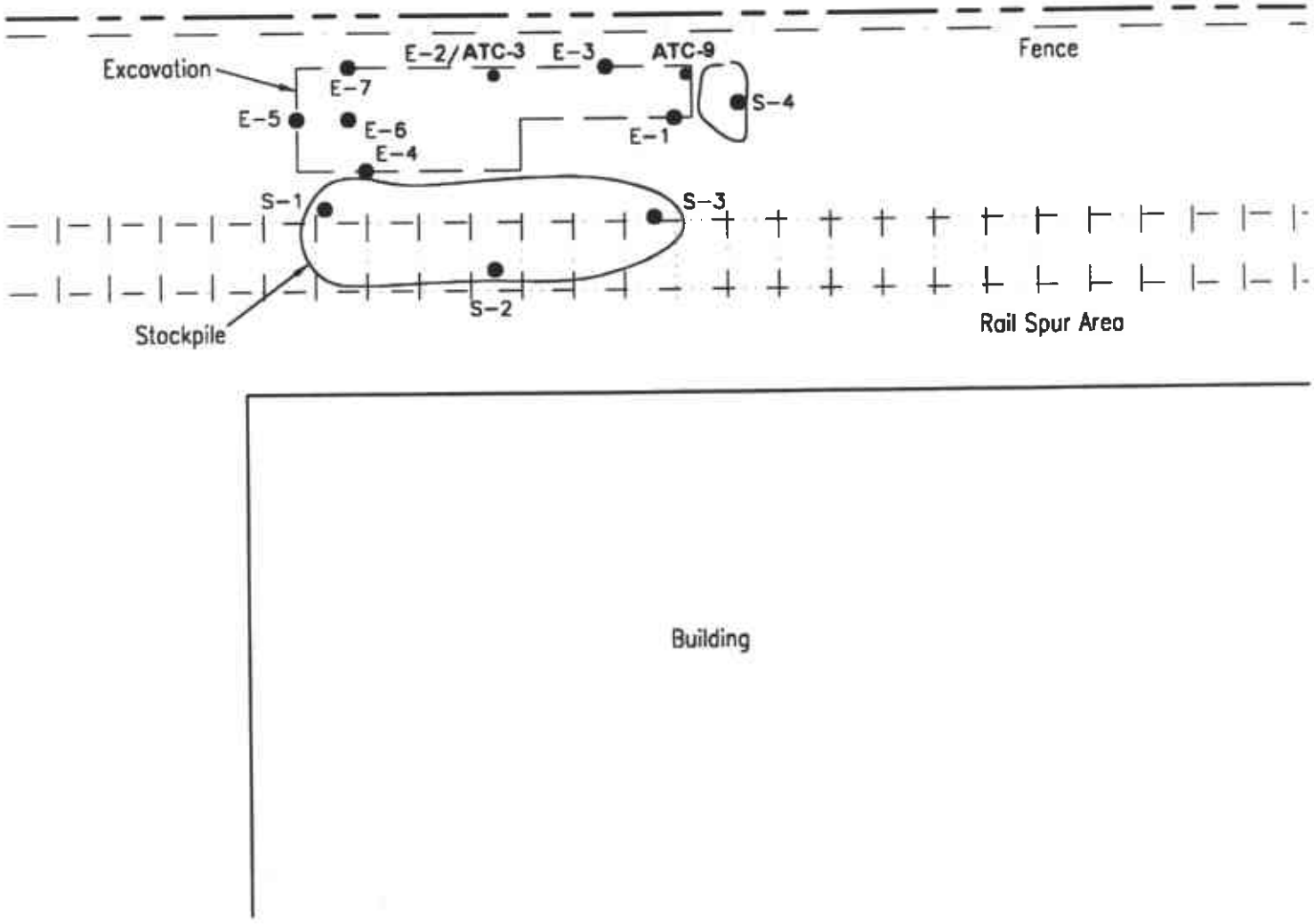


VICINITY MAP **FIGURE 2**

Project No. 00047A
4800 Coliseum Way
Oakland, California

June, 2000
Not to Scale

ERAS Environmental



EXPLANATION

E-1 ● **Soil sample** (ERAS Env.)

ATC-3 ● **Soil boring** (ATC)

E Excavation sample

S Stockpile sample

0 10

Scale in Feet

SAMPLE LOCATION MAP **FIGURE 3**

Project No. 00047A
4800 Coliseum Way
Oakland, California

June, 2000
Not to Scale

ERAS Environmental

Appendix A

Laboratory Report for Soil Samples

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

June 20, 2000

David Siegel
ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546

Order: 20962
Project Name: 4800 Coliseum Way
Project Number:
Project Notes:

Date Collected: 6/14/00
Date Received: 6/15/00
P.O. Number: 00047A

On June 15, 2000, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix	Test	Method
Solid	EPA 8010	EPA 8010

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,

Michelle L. Anderson
Lab Director

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546
Attn: David Siegel

Date: 6/20/00
Date Received: 6/15/00
Project Name: 4800 Coliseum Way
Project Number:
P.O. Number: 00047A
Sampled By: Client

Certified Analytical Report

Order ID: 20962 **Lab Sample ID:** 20962-001 **Client Sample ID:** E-1

Sample Time: 10:15 AM **Sample Date:** 6/14/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,3-Dichlorobenzene	12		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,4-Dichlorobenzene	10.0		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Tetrachloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010

Surrogate	Surrogate Recovery	Control Limits (%)
Bromochloromethane	131	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546
Attn: David Siegel

Date: 6/20/00
Date Received: 6/15/00
Project Name: 4800 Coliseum Way
Project Number:
P.O. Number: 00047A
Sampled By: Client

Certified Analytical Report

Order ID: 20962 **Lab Sample ID:** 20962-002 **Client Sample ID:** E-2

Sample Time: 10:50 AM **Sample Date:** 6/14/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,2-Dichlorobenzene	27		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,3-Dichlorobenzene	160		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
1,4-Dichlorobenzene	75		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Tetrachloroethene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	6/16/00	SVOC1000615	EPA 8010

Surrogate	Surrogate Recovery	Control Limits (%)
Bromochloromethane	119	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546
Attn: David Siegel

Date: 6/20/00
Date Received: 6/15/00
Project Name: 4800 Coliseum Way
Project Number:
P.O. Number: 00047A
Sampled By: Client

Certified Analytical Report

Order ID: 20962 **Lab Sample ID:** 20962-003 **Client Sample ID:** E-3

Sample Time: 11:00 AM **Sample Date:** 6/14/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,3-Dichlorobenzene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
1,4-Dichlorobenzene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Tetrachloroethene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	6/20/00	SVOC1000615	EPA 8010

Surrogate	Surrogate Recovery	Control Limits (%)
Bromochloromethane	124	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle D. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546
Attn: David Siegel

Date: 6/20/00
Date Received: 6/15/00
Project Name: 4800 Coliseum Way
Project Number:
P.O. Number: 00047A
Sampled By: Client

Certified Analytical Report

Order ID: 20962 **Lab Sample ID:** 20962-004 **Client Sample ID:** E-4

Sample Time: 12:28 PM **Sample Date:** 6/14/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,3-Dichlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,4-Dichlorobenzene	8.6		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Tetrachloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010

Surrogate	Surrogate Recovery	Control Limits (%)
Bromochloromethane	122	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546
Attn: David Siegel

Date: 6/20/00
Date Received: 6/15/00
Project Name: 4800 Coliseum Way
Project Number:
P.O. Number: 00047A
Sampled By: Client

Certified Analytical Report

Order ID: 20962 **Lab Sample ID:** 20962-005 **Client Sample ID:** E-5

Sample Time: 12:13 PM **Sample Date:** 6/14/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,3-Dichlorobenzene	80		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,4-Dichlorobenzene	78		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Tetrachloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010

Surrogate	Surrogate Recovery	Control Limits (%)
Bromochloromethane	111	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle D. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546
Attn: David Siegel

Date: 6/20/00
Date Received: 6/15/00
Project Name: 4800 Coliseum Way
Project Number:
P.O. Number: 00047A
Sampled By: Client

Certified Analytical Report

Order ID: 20962 **Lab Sample ID:** 20962-006 **Client Sample ID:** E-6

Sample Time: 12:15 PM **Sample Date:** 6/14/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,2-Dichlorobenzene	14		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,3-Dichlorobenzene	130		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
1,4-Dichlorobenzene	230		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Tetrachloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	6/19/00	SVOC1000615	EPA 8010

Surrogate	Surrogate Recovery	Control Limits (%)
Bromochloromethane	125	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

ERAs Environmental
3787 Brookdale Boulevard
Castro Valley, CA 94546
Attn: David Siegel

Date: 6/20/00
Date Received: 6/15/00
Project Name: 4800 Coliseum Way
Project Number:
P.O. Number: 00047A
Sampled By: Client

Certified Analytical Report

Order ID: 20962 **Lab Sample ID:** 20962-007 **Client Sample ID:** E-7

Sample Time: 12:25 PM **Sample Date:** 6/14/00 **Matrix:** Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
1,1,1-Trichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1,2,2-Tetrachloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1,2-Trichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1-Dichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,1-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,2-Dichloropropane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,3-Dichlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
1,4-Dichlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromodichloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromoform	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Bromomethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Carbon Tetrachloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chlorobenzene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloroethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloroform	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Chloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
cis-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
cis-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Dibromochloromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Dichlorodifluoromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Methylene Chloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Tetrachloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
trans-1,2-Dichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
trans-1,3-Dichloropropene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Trichloroethene	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Trichlorofluoromethane	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010
Vinyl Chloride	ND		1	5	5	µg/Kg	6/17/00	SVOC1000615	EPA 8010

Surrogate	Surrogate Recovery	Control Limits (%)
Bromochloromethane	131	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography - Volatile Organics
Laboratory Control Spikes

QC Batch #: SVOC1000615
Matrix: Solid
Units: µg/kg

Date Analyzed: 06/15/00
Quality Control Sample: Blank Spike

PARAMETER	Method #	SA µg/kg	SR µg/kg	SP µg/kg	**SP % R**	SPD µg/kg	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	25	ND	18	**70**	19	**77**	9.1	25	53-114
Chlorobenzene	8010	25	ND	23	**91**	22	**89**	3.1	25	48-99
1,1-Dichloroethane	8010	25	ND	19	**75**	19	**77**	2.1	25	39-112
Toluene	8020	25	ND	18	**71**	19	**77**	7.1	25	58-119
Trichloroethene	8010	25	ND	16	**66**	18	**72**	9.2	25	65-119
Bromochloromethane	8010			117%		101%				65-135
Fluorobenzene	8020			95%		93%				65-135

Definition of Terms:

na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike Duplicate % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Client: ERAS Environmental, Inc.
Address: 3781 Brookdale Blvd
Castro Valley CA 94546
Contact: David Siegel
Telephone #: 510 247-9885
Date Received: ~~6/16/00~~ 6/15/00
Turn Around: ~~normal~~ 72 hour

Project ID: 4800 Coliseum Way
Purchase Order #: 00047A

Sampler/Company: David Siegel/ERAS
Telephone #: 510 247 9885

Special Instructions/Comments

LAB USE ONLY

Samples arrived chilled and intact:
Yes No
Notes:

20962

Sample Information

Requested Analysis

00 JUN 15 12:47

Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	8260 Soil
001	E-1		Soil	6/14/00	1015		brass	X
002	E-2				1050			X
003	E-3				1100			X
004	E-4				1228			X
005	E-5				1213			X
006	E-6				1215			X
007	E-7		↓	↓	1225		↓	X

72 HR TURN AROUND

Relinq. By: David Siegel	Received By: Cerny Dombroski	Date 6/15/00	Time 1247
Relinq. By:	Received By:	Date	Time
Relinq/ By:	Received By:	Date	Time