



December 16, 1997

SOMA 96-2099

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

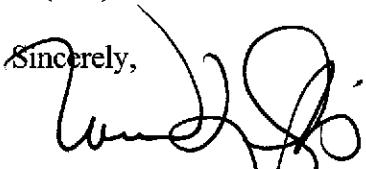
Regarding: 1421 Park Avenue, Emeryville, California  
Data Report - Soil and Groundwater Samples Collected on October 14,  
1997

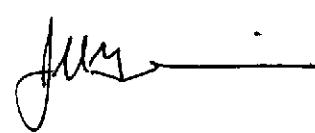
Dear Ms. Hugo:

Enclosed is a copy of the soil and groundwater data report that contains data generated from the laboratory analyses of soil and groundwater samples collected from soil borings installed on October 14, 1997 at 1421 Park Avenue, Emeryville, California. Figure 1 indicates the location of the soil borings BL-1 through BL-4. The reports also contains the boring logs and laboratory certificates.

Should any questions or comments arise regarding this addendum, please call Norm Ozaki at (510) 654-3900 or Jeff Hennier at (415) 485-9740.

Sincerely,

  
Norman T. Ozaki, PhD.  
President and Principal Toxicologist

  
Jeff H. Hennier, R.G.  
Hydrogeologist

cc: Ron Silberman, Fordham  
attachments

## **SOIL AND GROUNDWATER DATA REPORT**

**1421 Park Avenue Property  
Emeryville, California**

**December 17, 1997  
SOMA 96-2099**

Prepared for:

**Fordham Properties, Inc.  
5835 Doyle Street  
Emeryville, California 94608**

Prepared by

**SOMA Corporation  
1260B 45<sup>th</sup> Street  
Emeryville, California 94608  
(510) 654-3900  
(510) 654-1960 Facsimile**

64-0000-1111-1111  
64-0000-1111-1111  
64-0000-1111-1111

## **SOIL AND GROUNDWATER DATA REPORT**

**1421 Park Avenue  
Emeryville, California**

### **INTRODUCTION**

On October 14, 1997, additional soil and groundwater samples were collected pursuant to the SOMA Corporation (SOMA) work plan, dated September 29, 1997, to further characterize an area of the property at 1421 Park Avenue, Emeryville, California. The specified area formed the footprint of a building that Ron Silberman has proposed to relocate to the property. The data presented here is the result of the additional sampling work.

### **SITE DESCRIPTION**

The property at 1421 Park Avenue was part of a former metal plating facility owned by Electro-Coatings, Inc. that occupied the two adjacent properties at 1421 and 1401 Park Avenue, Emeryville, California (Figure 1). The existing buildings at the project site located at 1421 Park Avenue are presently being used for commercial purposes. The building located along the northeast side of the property is being used as an artist's studio and the warehouse building along the southeast side of the property is being used by Universal Neon, a business that makes neon light signage fixtures (Figure 1).

The Site was used for metal plating since 1952 when Industrial Hard Chrome Plating Corporation began a chrome plating business. In the late 1950s, Industrial Hard Chrome Plating Corporation began nickel plating. ECI began metal plating operations at the Site in 1963 after buying the assets of Industrial Hard Chrome Plating Corporation. ECI performed hard chrome plating prior to 1989 and nickel plating until 1994.

Industrial Hard Chrome Plating Corporation used trichloroethylene (TCE) prior to 1963 for degreasing metal parts prior to plating. ECI reportedly used TCE until 1973.

On October 14, 1997, SOMA Corporation (SOMA) collected soil and groundwater samples at 1421 Park Avenue, Emeryville, (the Site) in accordance with SOMA's Work Plan submitted to Ms. Madhulla Logan of the ACDEH dated September 29, 1997. Figure 1 indicates the soil and groundwater sampling locations BL-1 through BL-4. Soil boring BL-1 is located approximately 2 feet in the apparent down-gradient direction (west) from

the underground storage tank (UST) excavation. Soil boring location BL-2 is approximately 45 feet downgradient (west) and borings BL-3 and BL-4 were located approximately cross-gradient (northwest) from the UST excavation. All borings are located within the footprint of the building.

The four soil borings were installed using a hydraulic push/drive Geoprobe™ sampling system. The borings were installed under Permit Number 97WR157 from the Alameda County Public Works Agency, Water Resources Section. Soil samples were collected from each boring near the surface (between 1 to 2 feet below ground surface [bgs]) and at the soil interval above the depth at which groundwater was encountered. Depth to groundwater was measured between 8-14 feet bgs in the borings. Grab groundwater samples were also collected from each of the borings using a clean bailer lowered into the borehole.

Samples were submitted to American Environmental Network (AEN) Laboratory in Pleasant Hill, California. AEN is certified by the California Department of Health Services to perform environmental analyses under the California Environmental Laboratory Accreditation Program. All soil and groundwater samples were analyzed for halogenated volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (EPA) Method 8010. Additionally, soil and groundwater samples collected from BL-1 and BL-2 (located in the downgradient direction of the USTs excavation pit) were analyzed for total petroleum hydrocarbons as gasoline (TPH<sub>g</sub>) by EPA Method 5030/GC-FID, total petroleum hydrocarbons as diesel (TPH<sub>d</sub>) by EPA Method 3550/GC-FID, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8020.

## ANALYTICAL RESULTS

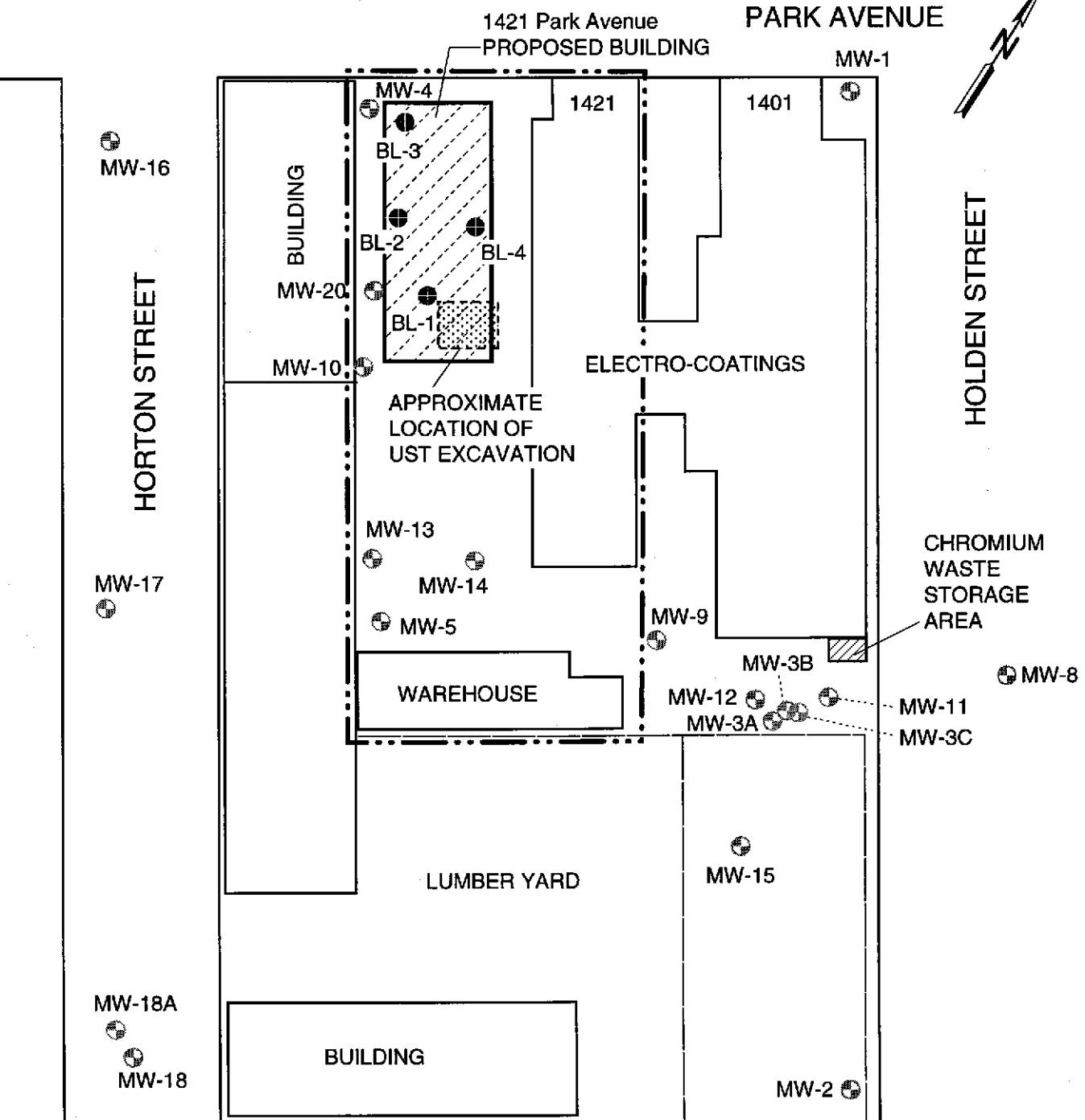
Analytical results for the soil and groundwater samples are summarized in Table 1 and Table 2, respectively. The laboratory certificates along with the chain of custody documentation are presented in Attachment A. For the TPH-associated chemicals, the soil results for BL-1 and BL-2 indicate that TPH<sub>g</sub>, TPH<sub>d</sub>, and BTEX were not detected above sample quantitation limits (SQLs). Groundwater samples collected from BL-1 and BL-2 indicate residual concentrations of TPH<sub>d</sub> (up to 0.42 mg/L), TPH<sub>g</sub> (up to 0.11 mg/L) and benzene (up to 23 ug/L), toluene (up to 7.7 ug/L), ethylbenzene (up to 2.1 ug/L), and total xylenes (up to 8 ug/L) in groundwater.

Of the non-TPH-associated chemicals, only **cis-1,2-dichloroethylene** (1,2-DCE) (up to 64 ug/kg) and **trichloroethylene** (TCE) (up to 76 ug/kg) were detected in soils. TCE was detected only in soil samples from borings BL-3 and BL-4 (Table 1). In groundwater, **carbon tetrachloride** (70 ug/L), **chlorobenzene** (40 ug/L), **chloroform** (70

ug/L), **1,1-dichloroethane** (1,1-DCA) (up to 50 ug/L), **1,1-dichloroethylene** (1,1-DCE) (70 ug/L), **cis-1,2-dichloroethylene** (cis-1,2-DCE) (up to 1,100 ug/L), **trans-1,2-dichloroethylene** (trans-1,2-DCE) (up to 120 ug/L), **tetrachloroethylene** (PCE) (100 ug/L), **1,1,1-trichloroethane** (1,1,1-TCA) (60 ug/L), **trichloroethylene** (up to 4,000 ug/L), and **vinyl chloride** (up to 900 ug/L) were detected. The highest VOC concentrations were detected in the sample from boring BL-4 (Table 2).

## BORING LOGS

Each of the four boring locations were logged by a geologist and the boring logs are presented in Attachment B. Sediments encountered in the soil borings consist of relatively fine-grained silty clay and sandy silty clay sediments.



#### EXPLANATION

B-4 ● Soil Boring Location

— Site Boundary

MW-4 ● Monitoring Well Location

0 50 FT.

Approx. Scale

**TABLE 1**  
**SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED IN OCTOBER 1997**

Sample Identification	Sampling Date	cis-1,2-DCE ( $\mu$ g/kg)	TCE ( $\mu$ g/kg)
BL-1-2'	10/14/97	6	5 U
BL-1-12'	10/14/97	19	5 U
BL-2-1.5'	10/14/97	13	5 U
BL-2-13'	10/14/97	5 U	5 U
BL-3-1'	10/14/97	37	5 U
BL-3-9'	10/14/97	50	76
BL-4-1.5'	10/14/97	64	33
BL-4-7'	10/14/97	10	29

Notes:

All samples were tested using EPE Method 8010, all analytes that tested as not detected were omitted from Table 1.

U Not detected at or above the associated sample quantitation limit (SQL).

$\mu$ g/kg Micrograms per kilogram.

**TABLE 2.**  
**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES COLLECTED IN OCTOBER 1997**

Sample Identification	Sampling Date	Carbon Tetra chloride ( $\mu\text{g/L}$ )	Chloro benzene ( $\mu\text{g/L}$ )	Chloroform ( $\mu\text{g/L}$ )	1,1-DCA ( $\mu\text{g/L}$ )	1,1-DCE ( $\mu\text{g/L}$ )	cis-1,2-DCE ( $\mu\text{g/L}$ )	trans-1,2-DCE ( $\mu\text{g/L}$ )	PCE ( $\mu\text{g/L}$ )
BL-1-W-13'	10/14/97	5 U	5 U	5 U	29	5 U	440	18	5 U
BL-2-W-14'	10/14/97	5 U	5 U	5 U	14	5 U	430	13	5 U
BL-3-W-11'	10/14/97	10 U	10 U	10 U	10 U	10 U	290	30	10 U
BL-3-W-11'D	10/14/97	10 U	10 U	10 U	10 U	10 U	250	20	10 U
BL-4-W-8'	10/14/97	70	40	70	50	70	1100	120	100

**TABLE 2.**  
**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES COLLECTED IN OCTOBER 1997**

Sample Identification	Sampling Date	1,1,1-TCA ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	VC ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl benzene ( $\mu\text{g/L}$ )	Xylenes, Total ( $\mu\text{g/L}$ )	Purgeable HCs as Gasoline ( $\text{mg/L}$ )	TPH as Diesel ( $\text{mg/L}$ )
BL-1-W-13'	10/14/97	5 U	12	340	23	7.7	2.1	8	0.11	0.37
BL-2-W-14'	10/14/97	5 U	74	150	1.4	0.7	0.5	3	0.05	0.42
BL-3-W-11'	10/14/97	10 U	10 U	900	NA	NA	NA	NA	NA	NA
BL-3-W-11'D	10/14/97	10 U	10 U	730	NA	NA	NA	NA	NA	NA
BL-4-W-8'	10/14/97	60	4000	200	NA	NA	NA	NA	NA	NA

NA      Not analyzed for that particular chemical.

U      Not detected at or above the associated sample quantitation limit (SQL).

mg/L    Milligrams per liter.

$\mu\text{g/L}$    Micrograms per liter.

D      Duplicate sample.

**ATTACHMENT A**

**Laboratory Data Certificates**

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: E1134

PAGE 1

SOMA CORPORATION  
1260B 45TH STREET  
EMERYVILLE, CA 94608

REPORT DATE: 10/30/97  
DATE(S) SAMPLED: 10/14/97  
DATE RECEIVED: 10/15/97  
AEN WORK ORDER: 9710197

ATTN: NORMAN OZAKI  
CLIENT PROJ. ID: 96-2099

### PROJECT SUMMARY:

On October 15, 1997, this laboratory received 14 (8 soil and 6 water) sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.



Larry Klein  
Laboratory Director

## SOMA CORPORATION

SAMPLE ID: BL-1-2  
 AEN LAB NO: 9710197-01  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5 ug/kg		10/21/97
Toluene	108-88-3	ND	5 ug/kg		10/21/97
Ethylbenzene	100-41-4	ND	5 ug/kg		10/21/97
Xylenes, Total	1330-20-7	ND	5 ug/kg		10/21/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2 mg/kg		10/21/97
#Extraction for TPH	EPA 3550	-		Extrn Date	10/15/97
TPH as Diesel	GC-FID	ND	20 mg/kg		10/22/97
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg		10/23/97
Bromoform	75-25-2	ND	5 ug/kg		10/23/97
Bromomethane	74-83-9	ND	20 ug/kg		10/23/97
Carbon Tetrachloride	56-23-5	ND	5 ug/kg		10/23/97
Chlorobenzene	108-90-7	ND	5 ug/kg		10/23/97
Chloroethane	75-00-3	ND	20 ug/kg		10/23/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg		10/23/97
Chloroform	67-66-3	ND	5 ug/kg		10/23/97
Chloromethane	74-87-3	ND	20 ug/kg		10/23/97
Dibromochloromethane	124-48-1	ND	5 ug/kg		10/23/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg		10/23/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg		10/23/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg		10/23/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg		10/23/97
1,1-Dichloroethane	75-34-3	ND	5 ug/kg		10/23/97
1,2-Dichloroethane	107-06-2	ND	5 ug/kg		10/23/97
1,1-Dichloroethene	75-35-4	ND	5 ug/kg		10/23/97
cis-1,2-Dichloroethene	156-59-2	6 *	5 ug/kg		10/23/97
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg		10/23/97
1,2-Dichloropropane	78-87-5	ND	5 ug/kg		10/23/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg		10/23/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg		10/23/97
Methylene Chloride	75-09-2	ND	20 ug/kg		10/23/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg		10/23/97
Tetrachloroethene	127-18-4	ND	5 ug/kg		10/23/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg		10/23/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg		10/23/97
Trichloroethene	79-01-6	ND	5 ug/kg		10/23/97
Trichlorofluoromethane	75-69-4	ND	20 ug/kg		10/23/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg		10/23/97

## SOMA CORPORATION

SAMPLE ID: BL-1-2  
AEN LAB NO: 9710197-01  
AEN WORK ORDER: 9710197  
CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
DATE RECEIVED: 10/15/97  
REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Vinyl Chloride	75-01-4	ND	20	ug/kg	10/23/97

RLs for diesel elevated due to high levels of non-target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-1-12  
 AEN LAB NO: 9710197-02  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5 ug/kg		10/21/97
Toluene	108-88-3	ND	5 ug/kg		10/21/97
Ethylbenzene	100-41-4	ND	5 ug/kg		10/21/97
Xylenes, Total	1330-20-7	ND	5 ug/kg		10/21/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2 mg/kg		10/21/97
#Extraction for TPH	EPA 3550	-		Extrn Date	10/15/97
TPH as Diesel	GC-FID	ND	1 mg/kg		10/22/97
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg		10/22/97
Bromoform	75-25-2	ND	5 ug/kg		10/22/97
Bromomethane	74-83-9	ND	20 ug/kg		10/22/97
Carbon Tetrachloride	56-23-5	ND	5 ug/kg		10/22/97
Chlorobenzene	108-90-7	ND	5 ug/kg		10/22/97
Chloroethane	75-00-3	ND	20 ug/kg		10/22/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg		10/22/97
Chloroform	67-66-3	ND	5 ug/kg		10/22/97
Chloromethane	74-87-3	ND	20 ug/kg		10/22/97
Dibromochloromethane	124-48-1	ND	5 ug/kg		10/22/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg		10/22/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg		10/22/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg		10/22/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg		10/22/97
1,1-Dichloroethane	75-34-3	ND	5 ug/kg		10/22/97
1,2-Dichloroethane	107-06-2	ND	5 ug/kg		10/22/97
1,1-Dichloroethene	75-35-4	ND	5 ug/kg		10/22/97
cis-1,2-Dichloroethene	156-59-2	19 *	5 ug/kg		10/22/97
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg		10/22/97
1,2-Dichloropropane	78-87-5	ND	5 ug/kg		10/22/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg		10/22/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg		10/22/97
Methylene Chloride	75-09-2	ND	20 ug/kg		10/22/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg		10/22/97
Tetrachloroethene	127-18-4	ND	5 ug/kg		10/22/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg		10/22/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg		10/22/97
Trichloroethene	79-01-6	ND	5 ug/kg		10/22/97
Trichlorofluoromethane	75-69-4	ND	20 ug/kg		10/22/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg		10/22/97

## SOMA CORPORATION

SAMPLE ID: BL-1-12  
AEN LAB NO: 9710197-02  
AEN WORK ORDER: 9710197  
CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
DATE RECEIVED: 10/15/97  
REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Vinyl Chloride	75-01-4	ND	20	ug/kg	10/22/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-2-1.5  
 AEN LAB NO: 9710197-03  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5 ug/kg		10/22/97
Toluene	108-88-3	ND	5 ug/kg		10/22/97
Ethylbenzene	100-41-4	ND	5 ug/kg		10/22/97
Xylenes, Total	1330-20-7	ND	5 ug/kg		10/22/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2 mg/kg		10/22/97
#Extraction for TPH	EPA 3550	-		Extrn Date	10/15/97
TPH as Diesel	GC-FID	ND	1 mg/kg		10/22/97
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg		10/23/97
Bromoform	75-25-2	ND	5 ug/kg		10/23/97
Bromomethane	74-83-9	ND	20 ug/kg		10/23/97
Carbon Tetrachloride	56-23-5	ND	5 ug/kg		10/23/97
Chlorobenzene	108-90-7	ND	5 ug/kg		10/23/97
Chloroethane	75-00-3	ND	20 ug/kg		10/23/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg		10/23/97
Chloroform	67-66-3	ND	5 ug/kg		10/23/97
Chloromethane	74-87-3	ND	20 ug/kg		10/23/97
Dibromochloromethane	124-48-1	ND	5 ug/kg		10/23/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg		10/23/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg		10/23/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg		10/23/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg		10/23/97
1,1-Dichloroethane	75-34-3	ND	5 ug/kg		10/23/97
1,2-Dichloroethane	107-06-2	ND	5 ug/kg		10/23/97
1,1-Dichloroethene	75-35-4	ND	5 ug/kg		10/23/97
cis-1,2-Dichloroethene	156-59-2	13 *	5 ug/kg		10/23/97
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg		10/23/97
1,2-Dichloropropane	78-87-5	ND	5 ug/kg		10/23/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg		10/23/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg		10/23/97
Methylene Chloride	75-09-2	ND	20 ug/kg		10/23/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg		10/23/97
Tetrachloroethene	127-18-4	ND	5 ug/kg		10/23/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg		10/23/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg		10/23/97
Trichloroethene	79-01-6	ND	5 ug/kg		10/23/97
Trichlorofluoromethane	75-69-4	ND	20 ug/kg		10/23/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg		10/23/97

## SOMA CORPORATION

SAMPLE ID: BL-2-1.5  
AEN LAB NO: 9710197-03  
AEN WORK ORDER: 9710197  
CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
DATE RECEIVED: 10/15/97  
REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Vinyl Chloride	75-01-4	ND	20	ug/kg	10/23/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-2-13  
 AEN LAB NO: 9710197-04  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5 ug/kg		10/22/97
Toluene	108-88-3	ND	5 ug/kg		10/22/97
Ethylbenzene	100-41-4	ND	5 ug/kg		10/22/97
Xylenes, Total	1330-20-7	ND	5 ug/kg		10/22/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2 mg/kg		10/22/97
#Extraction for TPH	EPA 3550	-		Extrn Date	10/15/97
TPH as Diesel	GC-FID	ND	1 mg/kg		10/22/97
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg		10/22/97
Bromoform	75-25-2	ND	5 ug/kg		10/22/97
Bromomethane	74-83-9	ND	20 ug/kg		10/22/97
Carbon Tetrachloride	56-23-5	ND	5 ug/kg		10/22/97
Chlorobenzene	108-90-7	ND	5 ug/kg		10/22/97
Chloroethane	75-00-3	ND	20 ug/kg		10/22/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg		10/22/97
Chloroform	67-66-3	ND	5 ug/kg		10/22/97
Chloromethane	74-87-3	ND	20 ug/kg		10/22/97
Dibromochloromethane	124-48-1	ND	5 ug/kg		10/22/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg		10/22/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg		10/22/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg		10/22/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg		10/22/97
1,1-Dichloroethane	75-34-3	ND	5 ug/kg		10/22/97
1,2-Dichloroethane	107-06-2	ND	5 ug/kg		10/22/97
1,1-Dichloroethene	75-35-4	ND	5 ug/kg		10/22/97
cis-1,2-Dichloroethene	156-59-2	ND	5 ug/kg		10/22/97
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg		10/22/97
1,2-Dichloropropane	78-87-5	ND	5 ug/kg		10/22/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg		10/22/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg		10/22/97
Methylene Chloride	75-09-2	ND	20 ug/kg		10/22/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg		10/22/97
Tetrachloroethene	127-18-4	ND	5 ug/kg		10/22/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg		10/22/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg		10/22/97
Trichloroethene	79-01-6	ND	5 ug/kg		10/22/97
Trichlorofluoromethane	75-69-4	ND	20 ug/kg		10/22/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg		10/22/97

## SOMA CORPORATION

SAMPLE ID: BL-2-13  
AEN LAB NO: 9710197-04  
AEN WORK ORDER: 9710197  
CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
DATE RECEIVED: 10/15/97  
REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Vinyl Chloride	75-01-4	ND	20	ug/kg	10/22/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-3-1  
 AEN LAB NO: 9710197-05  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg		10/22/97
Bromoform	75-25-2	ND	5 ug/kg		10/22/97
Bromomethane	74-83-9	ND	20 ug/kg		10/22/97
Carbon Tetrachloride	56-23-5	ND	5 ug/kg		10/22/97
Chlorobenzene	108-90-7	ND	5 ug/kg		10/22/97
Chloroethane	75-00-3	ND	20 ug/kg		10/22/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg		10/22/97
Chloroform	67-66-3	ND	5 ug/kg		10/22/97
Chloromethane	74-87-3	ND	20 ug/kg		10/22/97
Dibromochloromethane	124-48-1	ND	5 ug/kg		10/22/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg		10/22/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg		10/22/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg		10/22/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg		10/22/97
1,1-Dichloroethane	75-34-3	ND	5 ug/kg		10/22/97
1,2-Dichloroethane	107-06-2	ND	5 ug/kg		10/22/97
1,1-Dichloroethene	75-35-4	ND	5 ug/kg		10/22/97
cis-1,2-Dichloroethene	156-59-2	37 *	5 ug/kg		10/22/97
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg		10/22/97
1,2-Dichloropropane	78-87-5	ND	5 ug/kg		10/22/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg		10/22/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg		10/22/97
Methylene Chloride	75-09-2	ND	20 ug/kg		10/22/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg		10/22/97
Tetrachloroethene	127-18-4	ND	5 ug/kg		10/22/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg		10/22/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg		10/22/97
Trichloroethene	79-01-6	ND	5 ug/kg		10/22/97
Trichlorofluoromethane	75-69-4	ND	20 ug/kg		10/22/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg		10/22/97
Vinyl Chloride	75-01-4	ND	20 ug/kg		10/22/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-3-9  
 AEN LAB NO: 9710197-06  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg	10/23/97	
Bromoform	75-25-2	ND	5 ug/kg	10/23/97	
Bromomethane	74-83-9	ND	20 ug/kg	10/23/97	
Carbon Tetrachloride	56-23-5	ND	5 ug/kg	10/23/97	
Chlorobenzene	108-90-7	ND	5 ug/kg	10/23/97	
Chloroethane	75-00-3	ND	20 ug/kg	10/23/97	
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg	10/23/97	
Chloroform	67-66-3	ND	5 ug/kg	10/23/97	
Chloromethane	74-87-3	ND	20 ug/kg	10/23/97	
Dibromochloromethane	124-48-1	ND	5 ug/kg	10/23/97	
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg	10/23/97	
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg	10/23/97	
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg	10/23/97	
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg	10/23/97	
1,1-Dichloroethane	75-34-3	ND	5 ug/kg	10/23/97	
1,2-Dichloroethane	107-06-2	ND	5 ug/kg	10/23/97	
1,1-Dichloroethene	75-35-4	ND	5 ug/kg	10/23/97	
cis-1,2-Dichloroethene	156-59-2	50 *	5 ug/kg	10/23/97	
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg	10/23/97	
1,2-Dichloropropane	78-87-5	ND	5 ug/kg	10/23/97	
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg	10/23/97	
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg	10/23/97	
Methylene Chloride	75-09-2	ND	20 ug/kg	10/23/97	
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg	10/23/97	
Tetrachloroethene	127-18-4	ND	5 ug/kg	10/23/97	
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg	10/23/97	
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg	10/23/97	
Trichloroethene	79-01-6	76 *	5 ug/kg	10/23/97	
Trichlorofluoromethane	75-69-4	ND	20 ug/kg	10/23/97	
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg	10/23/97	
Vinyl Chloride	75-01-4	ND	20 ug/kg	10/23/97	

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-4-1.5  
 AEN LAB NO: 9710197-07  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg		10/23/97
Bromoform	75-25-2	ND	5 ug/kg		10/23/97
Bromomethane	74-83-9	ND	20 ug/kg		10/23/97
Carbon Tetrachloride	56-23-5	ND	5 ug/kg		10/23/97
Chlorobenzene	108-90-7	ND	5 ug/kg		10/23/97
Chloroethane	75-00-3	ND	20 ug/kg		10/23/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg		10/23/97
Chloroform	67-66-3	ND	5 ug/kg		10/23/97
Chloromethane	74-87-3	ND	20 ug/kg		10/23/97
Dibromochloromethane	124-48-1	ND	5 ug/kg		10/23/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg		10/23/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg		10/23/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg		10/23/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg		10/23/97
1,1-Dichloroethane	75-34-3	ND	5 ug/kg		10/23/97
1,2-Dichloroethane	107-06-2	ND	5 ug/kg		10/23/97
1,1-Dichloroethene	75-35-4	ND	5 ug/kg		10/23/97
cis-1,2-Dichloroethene	156-59-2	64 *	5 ug/kg		10/23/97
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg		10/23/97
1,2-Dichloropropane	78-87-5	ND	5 ug/kg		10/23/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg		10/23/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg		10/23/97
Methylene Chloride	75-09-2	ND	20 ug/kg		10/23/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg		10/23/97
Tetrachloroethene	127-18-4	ND	5 ug/kg		10/23/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg		10/23/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg		10/23/97
Trichloroethene	79-01-6	33 *	5 ug/kg		10/23/97
Trichlorofluoromethane	75-69-4	ND	20 ug/kg		10/23/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg		10/23/97
Vinyl Chloride	75-01-4	ND	20 ug/kg		10/23/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-4-7  
 AEN LAB NO: 9710197-08  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Soil matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/kg		10/23/97
Bromoform	75-25-2	ND	5 ug/kg		10/23/97
Bromomethane	74-83-9	ND	20 ug/kg		10/23/97
Carbon Tetrachloride	56-23-5	ND	5 ug/kg		10/23/97
Chlorobenzene	108-90-7	ND	5 ug/kg		10/23/97
Chloroethane	75-00-3	ND	20 ug/kg		10/23/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/kg		10/23/97
Chloroform	67-66-3	ND	5 ug/kg		10/23/97
Chloromethane	74-87-3	ND	20 ug/kg		10/23/97
Dibromochloromethane	124-48-1	ND	5 ug/kg		10/23/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/kg		10/23/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/kg		10/23/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/kg		10/23/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/kg		10/23/97
1,1-Dichloroethane	75-34-3	ND	5 ug/kg		10/23/97
1,2-Dichloroethane	107-06-2	ND	5 ug/kg		10/23/97
1,1-Dichloroethene	75-35-4	ND	5 ug/kg		10/23/97
cis-1,2-Dichloroethene	156-59-2	10 *	5 ug/kg		10/23/97
trans-1,2-Dichloroethene	156-60-5	ND	5 ug/kg		10/23/97
1,2-Dichloropropane	78-87-5	ND	5 ug/kg		10/23/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/kg		10/23/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/kg		10/23/97
Methylene Chloride	75-09-2	ND	20 ug/kg		10/23/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/kg		10/23/97
Tetrachloroethene	127-18-4	ND	5 ug/kg		10/23/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/kg		10/23/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/kg		10/23/97
Trichloroethene	79-01-6	29 *	5 ug/kg		10/23/97
Trichlorofluoromethane	75-69-4	ND	20 ug/kg		10/23/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/kg		10/23/97
Vinyl Chloride	75-01-4	ND	20 ug/kg		10/23/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-1-W-13  
 AEN LAB NO: 9710197-09  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	23 *	0.5	ug/L	10/24/97
Toluene	108-88-3	7.7 *	0.5	ug/L	10/24/97
Ethylbenzene	100-41-4	2.1 *	0.5	ug/L	10/24/97
Xylenes, Total	1330-20-7	8 *	2	ug/L	10/24/97
Purgeable HCs as Gasoline	5030/GCFID	0.11 *	0.05	mg/L	10/24/97
#Extraction for TPH	EPA 3510	-		Extrn Date	10/16/97
TPH as Diesel	GC-FID	0.37 *	0.05	mg/L	10/20/97
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5	ug/L	10/23/97
Bromoform	75-25-2	ND	5	ug/L	10/23/97
Bromomethane	74-83-9	ND	20	ug/L	10/23/97
Carbon Tetrachloride	56-23-5	ND	5	ug/L	10/23/97
Chlorobenzene	108-90-7	ND	5	ug/L	10/23/97
Chloroethane	75-00-3	ND	20	ug/L	10/23/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5	ug/L	10/23/97
Chloroform	67-66-3	ND	5	ug/L	10/23/97
Chloromethane	74-87-3	ND	20	ug/L	10/23/97
Dibromochloromethane	124-48-1	ND	5	ug/L	10/23/97
1,2-Dichlorobenzene	95-50-1	ND	5	ug/L	10/23/97
1,3-Dichlorobenzene	541-73-1	ND	5	ug/L	10/23/97
1,4-Dichlorobenzene	106-46-7	ND	5	ug/L	10/23/97
Dichlorodifluoromethane	75-71-8	ND	20	ug/L	10/23/97
1,1-Dichloroethane	75-34-3	29 *	5	ug/L	10/23/97
1,2-Dichloroethane	107-06-2	ND	5	ug/L	10/23/97
1,1-Dichloroethene	75-35-4	ND	5	ug/L	10/23/97
cis-1,2-Dichloroethene	156-59-2	440 *	5	ug/L	10/23/97
trans-1,2-Dichloroethene	156-60-5	18 *	5	ug/L	10/23/97
1,2-Dichloropropane	78-87-5	ND	5	ug/L	10/23/97
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	10/23/97
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	10/23/97
Methylene Chloride	75-09-2	ND	20	ug/L	10/23/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	10/23/97
Tetrachloroethene	127-18-4	ND	5	ug/L	10/23/97
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	10/23/97
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	10/23/97
Trichloroethene	79-01-6	12 *	5	ug/L	10/23/97
Trichlorofluoromethane	75-69-4	ND	20	ug/L	10/23/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5	ug/L	10/23/97

## SOMA CORPORATION

SAMPLE ID: BL-1-W-13  
AEN LAB NO: 9710197-09  
AEN WORK ORDER: 9710197  
CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
DATE RECEIVED: 10/15/97  
REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Vinyl Chloride	75-01-4	340 *	20	ug/L	10/23/97

Reporting limits for EPA 8010 elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-2-W-14  
 AEN LAB NO: 9710197-10  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	1.4 *	0.5 ug/L		10/24/97
Toluene	108-88-3	0.7 *	0.5 ug/L		10/24/97
Ethylbenzene	100-41-4	0.5 *	0.5 ug/L		10/24/97
Xylenes, Total	1330-20-7	3 *	2 ug/L		10/24/97
Purgeable HCs as Gasoline	5030/GCFID	0.05 *	0.05 mg/L		10/24/97
#Extraction for TPH	EPA 3510	-		Extrn Date	10/16/97
TPH as Diesel	GC-FID	0.42 *	0.05 mg/L		10/20/97
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	5 ug/L		10/22/97
Bromoform	75-25-2	ND	5 ug/L		10/22/97
Bromomethane	74-83-9	ND	20 ug/L		10/22/97
Carbon Tetrachloride	56-23-5	ND	5 ug/L		10/22/97
Chlorobenzene	108-90-7	ND	5 ug/L		10/22/97
Chloroethane	75-00-3	ND	20 ug/L		10/22/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	5 ug/L		10/22/97
Chloroform	67-66-3	ND	5 ug/L		10/22/97
Chloromethane	74-87-3	ND	20 ug/L		10/22/97
Dibromochloromethane	124-48-1	ND	5 ug/L		10/22/97
1,2-Dichlorobenzene	95-50-1	ND	5 ug/L		10/22/97
1,3-Dichlorobenzene	541-73-1	ND	5 ug/L		10/22/97
1,4-Dichlorobenzene	106-46-7	ND	5 ug/L		10/22/97
Dichlorodifluoromethane	75-71-8	ND	20 ug/L		10/22/97
1,1-Dichloroethane	75-34-3	14 *	5 ug/L		10/22/97
1,2-Dichloroethane	107-06-2	ND	5 ug/L		10/22/97
1,1-Dichloroethene	75-35-4	ND	5 ug/L		10/22/97
cis-1,2-Dichloroethene	156-59-2	430 *	5 ug/L		10/22/97
trans-1,2-Dichloroethene	156-60-5	13 *	5 ug/L		10/22/97
1,2-Dichloropropane	78-87-5	ND	5 ug/L		10/22/97
cis-1,3-Dichloropropene	10061-01-5	ND	5 ug/L		10/22/97
trans-1,3-Dichloropropene	10061-02-6	ND	5 ug/L		10/22/97
Methylene Chloride	75-09-2	ND	20 ug/L		10/22/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	5 ug/L		10/22/97
Tetrachloroethene	127-18-4	ND	5 ug/L		10/22/97
1,1,1-Trichloroethane	71-55-6	ND	5 ug/L		10/22/97
1,1,2-Trichloroethane	79-00-5	ND	5 ug/L		10/22/97
Trichloroethene	79-01-6	74 *	5 ug/L		10/22/97
Trichlorofluoromethane	75-69-4	ND	20 ug/L		10/22/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	5 ug/L		10/22/97

## SOMA CORPORATION

SAMPLE ID: BL-2-W-14  
AEN LAB NO: 9710197-10  
AEN WORK ORDER: 9710197  
CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
DATE RECEIVED: 10/15/97  
REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Vinyl Chloride	75-01-4	150 *	20	ug/L	10/22/97

Reporting limits for EPA 8010 elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-3-W-11  
 AEN LAB NO: 9710197-11  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	10 ug/L	10 ug/L	10/22/97
Bromoform	75-25-2	ND	10 ug/L	10 ug/L	10/22/97
Bromomethane	74-83-9	ND	40 ug/L	40 ug/L	10/22/97
Carbon Tetrachloride	56-23-5	ND	10 ug/L	10 ug/L	10/22/97
Chlorobenzene	108-90-7	ND	10 ug/L	10 ug/L	10/22/97
Chloroethane	75-00-3	ND	40 ug/L	40 ug/L	10/22/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	10 ug/L	10 ug/L	10/22/97
Chloroform	67-66-3	ND	10 ug/L	10 ug/L	10/22/97
Chloromethane	74-87-3	ND	40 ug/L	40 ug/L	10/22/97
Dibromochloromethane	124-48-1	ND	10 ug/L	10 ug/L	10/22/97
1,2-Dichlorobenzene	95-50-1	ND	10 ug/L	10 ug/L	10/22/97
1,3-Dichlorobenzene	541-73-1	ND	10 ug/L	10 ug/L	10/22/97
1,4-Dichlorobenzene	106-46-7	ND	10 ug/L	10 ug/L	10/22/97
Dichlorodifluoromethane	75-71-8	ND	40 ug/L	40 ug/L	10/22/97
1,1-Dichloroethane	75-34-3	ND	10 ug/L	10 ug/L	10/22/97
1,2-Dichloroethane	107-06-2	ND	10 ug/L	10 ug/L	10/22/97
1,1-Dichloroethene	75-35-4	ND	10 ug/L	10 ug/L	10/22/97
cis-1,2-Dichloroethene	156-59-2	290 *	10 ug/L	10 ug/L	10/22/97
trans-1,2-Dichloroethene	156-60-5	30 *	10 ug/L	10 ug/L	10/22/97
1,2-Dichloropropane	78-87-5	ND	10 ug/L	10 ug/L	10/22/97
cis-1,3-Dichloropropene	10061-01-5	ND	10 ug/L	10 ug/L	10/22/97
trans-1,3-Dichloropropene	10061-02-6	ND	10 ug/L	10 ug/L	10/22/97
Methylene Chloride	75-09-2	ND	40 ug/L	40 ug/L	10/22/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	10 ug/L	10 ug/L	10/22/97
Tetrachloroethene	127-18-4	ND	10 ug/L	10 ug/L	10/22/97
1,1,1-Trichloroethane	71-55-6	ND	10 ug/L	10 ug/L	10/22/97
1,1,2-Trichloroethane	79-00-5	ND	10 ug/L	10 ug/L	10/22/97
Trichloroethene	79-01-6	ND	10 ug/L	10 ug/L	10/22/97
Trichlorofluoromethane	75-69-4	ND	40 ug/L	40 ug/L	10/22/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	10 ug/L	10 ug/L	10/22/97
Vinyl Chloride	75-01-4	900 *	40 ug/L	40 ug/L	10/22/97

Reporting limits for EPA 8010 elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-3-W-11 D  
 AEN LAB NO: 9710197-12  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	10 ug/L	10 ug/L	10/22/97
Bromoform	75-25-2	ND	10 ug/L	10 ug/L	10/22/97
Bromomethane	74-83-9	ND	40 ug/L	40 ug/L	10/22/97
Carbon Tetrachloride	56-23-5	ND	10 ug/L	10 ug/L	10/22/97
Chlorobenzene	108-90-7	ND	10 ug/L	10 ug/L	10/22/97
Chloroethane	75-00-3	ND	40 ug/L	40 ug/L	10/22/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	10 ug/L	10 ug/L	10/22/97
Chloroform	67-66-3	ND	10 ug/L	10 ug/L	10/22/97
Chloromethane	74-87-3	ND	40 ug/L	40 ug/L	10/22/97
Dibromochloromethane	124-48-1	ND	10 ug/L	10 ug/L	10/22/97
1,2-Dichlorobenzene	95-50-1	ND	10 ug/L	10 ug/L	10/22/97
1,3-Dichlorobenzene	541-73-1	ND	10 ug/L	10 ug/L	10/22/97
1,4-Dichlorobenzene	106-46-7	ND	10 ug/L	10 ug/L	10/22/97
Dichlorodifluoromethane	75-71-8	ND	40 ug/L	40 ug/L	10/22/97
1,1-Dichloroethane	75-34-3	ND	10 ug/L	10 ug/L	10/22/97
1,2-Dichloroethane	107-06-2	ND	10 ug/L	10 ug/L	10/22/97
1,1-Dichloroethene	75-35-4	ND	10 ug/L	10 ug/L	10/22/97
cis-1,2-Dichloroethene	156-59-2	250 *	10 ug/L	10 ug/L	10/22/97
trans-1,2-Dichloroethene	156-60-5	20 *	10 ug/L	10 ug/L	10/22/97
1,2-Dichloropropane	78-87-5	ND	10 ug/L	10 ug/L	10/22/97
cis-1,3-Dichloropropene	10061-01-5	ND	10 ug/L	10 ug/L	10/22/97
trans-1,3-Dichloropropene	10061-02-6	ND	10 ug/L	10 ug/L	10/22/97
Methylene Chloride	75-09-2	ND	40 ug/L	40 ug/L	10/22/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	10 ug/L	10 ug/L	10/22/97
Tetrachloroethene	127-18-4	ND	10 ug/L	10 ug/L	10/22/97
1,1,1-Trichloroethane	71-55-6	ND	10 ug/L	10 ug/L	10/22/97
1,1,2-Trichloroethane	79-00-5	ND	10 ug/L	10 ug/L	10/22/97
Trichloroethene	79-01-6	ND	10 ug/L	10 ug/L	10/22/97
Trichlorofluoromethane	75-69-4	ND	40 ug/L	40 ug/L	10/22/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	10 ug/L	10 ug/L	10/22/97
Vinyl Chloride	75-01-4	730 *	40 ug/L	40 ug/L	10/22/97

Reporting limits for EPA 8010 elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: BL-4-W-8  
 AEN LAB NO: 9710197-13  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	30	ug/L	10/22/97
Bromoform	75-25-2	ND	30	ug/L	10/22/97
Bromomethane	74-83-9	ND	100	ug/L	10/22/97
Carbon Tetrachloride	56-23-5	70 *	30	ug/L	10/22/97
Chlorobenzene	108-90-7	40 *	30	ug/L	10/22/97
Chloroethane	75-00-3	ND	100	ug/L	10/22/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	30	ug/L	10/22/97
Chloroform	67-66-3	70 *	30	ug/L	10/22/97
Chloromethane	74-87-3	ND	100	ug/L	10/22/97
Dibromochloromethane	124-48-1	ND	30	ug/L	10/22/97
1,2-Dichlorobenzene	95-50-1	ND	30	ug/L	10/22/97
1,3-Dichlorobenzene	541-73-1	ND	30	ug/L	10/22/97
1,4-Dichlorobenzene	106-46-7	ND	30	ug/L	10/22/97
Dichlorodifluoromethane	75-71-8	ND	100	ug/L	10/22/97
1,1-Dichloroethane	75-34-3	50 *	30	ug/L	10/22/97
1,2-Dichloroethane	107-06-2	ND	30	ug/L	10/22/97
1,1-Dichloroethene	75-35-4	70 *	30	ug/L	10/22/97
cis-1,2-Dichloroethene	156-59-2	1100 *	30	ug/L	10/22/97
trans-1,2-Dichloroethene	156-60-5	120 *	30	ug/L	10/22/97
1,2-Dichloropropane	78-87-5	ND	30	ug/L	10/22/97
cis-1,3-Dichloropropene	10061-01-5	ND	30	ug/L	10/22/97
trans-1,3-Dichloropropene	10061-02-6	ND	30	ug/L	10/22/97
Methylene Chloride	75-09-2	ND	100	ug/L	10/22/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	30	ug/L	10/22/97
Tetrachloroethene	127-18-4	100 *	30	ug/L	10/22/97
1,1,1-Trichloroethane	71-55-6	60 *	30	ug/L	10/22/97
1,1,2-Trichloroethane	79-00-5	ND	30	ug/L	10/22/97
Trichloroethene	79-01-6	4000 *	30	ug/L	10/22/97
Trichlorofluoromethane	75-69-4	ND	100	ug/L	10/22/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	30	ug/L	10/22/97
Vinyl Chloride	75-01-4	200 *	100	ug/L	10/22/97

Reporting limits for EPA 8010 elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## SOMA CORPORATION

SAMPLE ID: TRAVEL BLANK  
 AEN LAB NO: 9710197-14  
 AEN WORK ORDER: 9710197  
 CLIENT PROJ. ID: 96-2099

DATE SAMPLED: 10/14/97  
 DATE RECEIVED: 10/15/97  
 REPORT DATE: 10/30/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	10/21/97
Bromoform	75-25-2	ND	0.5	ug/L	10/21/97
Bromomethane	74-83-9	ND	2	ug/L	10/21/97
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	10/21/97
Chlorobenzene	108-90-7	ND	0.5	ug/L	10/21/97
Chloroethane	75-00-3	ND	2	ug/L	10/21/97
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	10/21/97
Chloroform	67-66-3	ND	0.5	ug/L	10/21/97
Chloromethane	74-87-3	ND	2	ug/L	10/21/97
Dibromochloromethane	124-48-1	ND	0.5	ug/L	10/21/97
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	10/21/97
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	10/21/97
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	10/21/97
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	10/21/97
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	10/21/97
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	10/21/97
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	10/21/97
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	10/21/97
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	10/21/97
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	10/21/97
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	10/21/97
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	10/21/97
Methylene Chloride	75-09-2	ND	2	ug/L	10/21/97
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	10/21/97
Tetrachloroethene	127-18-4	ND	0.5	ug/L	10/21/97
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	10/21/97
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	10/21/97
Trichloroethene	79-01-6	ND	0.5	ug/L	10/21/97
Trichlorofluoromethane	75-69-4	ND	2	ug/L	10/21/97
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	10/21/97
Vinyl Chloride	75-01-4	ND	2	ug/L	10/21/97

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9710197  
CLIENT PROJECT ID: 96-2099

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

I: Interference.

!: Indicates result outside of established laboratory QC limits.

WORK ORDER: 9710197

## QUALITY CONTROL REPORT

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ANALYSIS: TPH as Diesel

MATRIX: Water

## METHOD BLANK SAMPLES

SAMPLE TYPE:	Blank-Method/Media blank	LAB ID:	BLNK-1016-1	INSTR RUN:	GC C:\971016000000\1\
INSTRUMENT:	HP 5890	PREPARED:	10/16/97	BATCH ID:	DSEW101697-1
UNITS:	mg/L	ANALYZED:	10/20/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
Diesel	ND		0.05		
Motor Oil	ND		0.2		
n-Pentacosane	(surr)	87.4		100	87.4
				65	125
				RPD (%)	RPO LIMIT (%)

## LABORATORY CONTROL SAMPLES

SAMPLE TYPE:	Laboratory Control Spike	LAB ID:	LCDW-1016-1	INSTR RUN:	GC C:\971016000000\3\1
INSTRUMENT:	HP 5890	PREPARED:	10/16/97	BATCH ID:	DSEW101697-1
UNITS:	mg/L	ANALYZED:	10/20/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
Diesel	1.79	ND	0.05	2.00	89.5
Motor Oil	ND	ND	0.2		
n-Pentacosane	(surr)	88.7	87.4	100	88.7
				65	125
				RPD (%)	RPO LIMIT (%)

SAMPLE TYPE:	Laboratory Control Spike	LAB ID:	LCSW-1016-1	INSTR RUN:	GC C:\971016000000\2\1
INSTRUMENT:	HP 5890	PREPARED:	10/16/97	BATCH ID:	DSEW101697-1
UNITS:	mg/L	ANALYZED:	10/20/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
Diesel	1.86	ND	0.05	2.00	93.0
n-Pentacosane	(surr)	93.8	87.4	100	93.8
				65	125
				RPD (%)	RPO LIMIT (%)

## LABORATORY CONTROL DUPLICATES

SAMPLE TYPE:	Laboratory Control Sample Duplicate	LAB ID:	LCRW-1016-1	INSTR RUN:	GC C:\971016000000\4\2
INSTRUMENT:	HP 5890	PREPARED:	10/16/97	BATCH ID:	DSEW101697-1
UNITS:	mg/L	ANALYZED:	10/20/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
Diesel	1.79	1.86	0.05	2030	3.84
Motor Oil	ND	ND	0.2	200	0
n-Pentacosane	(surr)	88.7	93.8		5.59
				65	125
				RPD (%)	RPO LIMIT (%)

## SAMPLE SURROGATES

SAMPLE TYPE:	Sample-Client	LAB ID:	9710197-09E	INSTR RUN:	GC C:\971016000000\5\
INSTRUMENT:	HP 5890	PREPARED:	10/16/97	BATCH ID:	DSEW101697-1
UNITS:	mg/L	ANALYZED:	10/20/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
n-Pentacosane	(surr)	93.5		100	93.5
				65	125
				RPD (%)	RPO LIMIT (%)

WORK ORDER: 9710197

## QUALITY CONTROL REPORT

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ANALYSIS: TPH as Diesel

MATRIX: Water

## SAMPLE SURROGATES

SAMPLE TYPE:	Sample-Client	LAB ID:	9710197-10E	INSTR RUN:	GC C:\971016000000/6/
INSTRUMENT:	HP 5890	PREPARED:	10/16/97	BATCH ID:	DSEW101697-1
UNITS:	mg/L	ANALYZED:	10/20/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE		REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
n-Pentacosane	(surr)	RESULT 91.8		100	91.8
					REC LIMITS (%)
				LOW 65	HIGH 125
				RPD (%)	LIMIT (%)

MATRIX: Soil/Bulk

## METHOD BLANK SAMPLES

SAMPLE TYPE:	Blank-Method/Media blank	LAB ID:	BLNK-1015-1	INSTR RUN:	GC CS\971015000000/1/
INSTRUMENT:	HP 5890	PREPARED:	10/15/97	BATCH ID:	DSES101597-1
UNITS:	mg/kg	ANALYZED:	10/21/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE		REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
Diesel		RESULT NO		1	
Motor Oil		ND		5	
n-Pentacosane	(surr)	RESULT 81.2		100	
				55	115
				RPD (%)	LIMIT (%)

## LABORATORY CONTROL SAMPLES

SAMPLE TYPE:	Laboratory Control Spike	LAB ID:	LCSS-1015-1	INSTR RUN:	GC CS\971015000000/2/1
INSTRUMENT:	HP 5890	PREPARED:	10/15/97	BATCH ID:	DSES101597-1
UNITS:	mg/kg	ANALYZED:	10/21/97	DILUTION:	1.000000
METHOD:	GC-FID				
ANALYTE		REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
Diesel		RESULT 33.9	ND	1	40.0
n-Pentacosane	(surr)	RESULT 87.2	81.2	100	84.8
				55	110
				55	115
				RPD (%)	LIMIT (%)

## SAMPLE SURROGATES

SAMPLE TYPE:	Sample-Client	LAB ID:	9710197-01A	INSTR RUN:	GC CS\971015000000/8/
INSTRUMENT:	HP 5890	PREPARED:	10/15/97	BATCH ID:	DSES101597-1
UNITS:	mg/kg	ANALYZED:	10/22/97	DILUTION:	25
METHOD:	GC-FID				
ANALYTE		REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
n-Pentacosane	(surr)	RESULT D		2500	0 !
				55	115
				RPD (%)	LIMIT (%)

SAMPLE TYPE:	Sample-Client	LAB ID:	9710197-02A	INSTR RUN:	GC CS\971015000000/9/
INSTRUMENT:	HP 5890	PREPARED:	10/15/97	BATCH ID:	DSES101597-1
UNITS:	mg/kg	ANALYZED:	10/22/97	DILUTION:	1.0
METHOD:	GC-FID				
ANALYTE		REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
n-Pentacosane	(surr)	RESULT 90.2		100	90.2
				55	115
				RPD (%)	LIMIT (%)

SAMPLE TYPE:	Sample-Client	LAB ID:	9710197-03A	INSTR RUN:	GC CS\971015000000/10/
INSTRUMENT:	HP 5890	PREPARED:	10/15/97	BATCH ID:	DSES101597-1
UNITS:	mg/kg	ANALYZED:	10/22/97	DILUTION:	1.0
METHOD:	GC-FID				
ANALYTE		REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
n-Pentacosane	(surr)	RESULT 91.4		100	91.4
				55	115
				RPD (%)	LIMIT (%)

*American Environmental Network*

WORK ORDER: 9710197

## QUALITY CONTROL REPORT

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ANALYSIS: TPH as Diesel

MATRIX: Soil/Bulk

## SAMPLE SURROGATES

SAMPLE TYPE: Sample-Client		LAB ID: 9710197-03A		INSTR RUN: GC CS\971015000000/10/	
INSTRUMENT: HP 5890		PREPARED: 10/15/97		BATCH ID: DSES101597-1	
UNITS: mg/kg		ANALYZED: 10/22/97		DILUTION: 1.0	
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
SAMPLE TYPE: Sample-Client			LAB ID: 9710197-04A		INSTR RUN: GC CS\971015000000/11/
INSTRUMENT: HP 5890			PREPARED: 10/15/97		BATCH ID: DSES101597-1
UNITS: mg/kg			ANALYZED: 10/22/97		DILUTION: 1.0
METHOD: GC-FID					
ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)
n-Pentacosane (surr)	95.2		100	95.2	95.2
				55	115

## QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9710197

INSTRUMENT: G

MATRIX: SOIL

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			Bromo-chloro-methane	1-Bromo-3-chloropropane
10/23/97	BL-1-2	01	96	97
10/22/97	BL-1-12	02	105	106
10/23/97	BL-2-1.5	03	100	99
10/22/97	BL-2-13	04	106	103
10/22/97	BL-3-1	05	120	100
10/23/97	BL-3-9	06	98	102
10/23/97	BL-4-1.5	07	101	99
10/23/97	BL-4-7	08	93	104
QC Limits:			70-130	70-130

DATE ANALYZED: 10/21/97

SAMPLE SPIKED: LCS

INSTRUMENT: G

## Laboratory Control Sample Recovery

Analyte	Spike Added (ug/kg)	Percent Recovery	QC Limits		
			RPD	Percent Recovery	RPD
1,1-Dichloroethene	50	101	2	78-122	20
Trichloroethene	50	106	4	80-128	20
Chlorobenzene	50	102	<1	66-120	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

## QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9710197

INSTRUMENT: I

MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			Bromo-chloro-methane	1-Bromo-3-chloro-propane
10/23/97	BL-1-W-13	09	101	107
10/22/97	BL-2-W-14	10	100	104
10/22/97	BL-3-W-11	11	95	102
10/22/97	BL-3-W-11 D	12	95	101
10/22/97	BL-4-W-8	13	95	96
10/21/97	TRAVEL BLANK	14	96	104
QC Limits:			70-130	70-130

DATE ANALYZED: 10/21/97

SAMPLE SPIKED: LCS

INSTRUMENT: I

## Laboratory Control Sample Recovery

Analyte	Spike Added (ug/L)	QC Limits			
		Percent Recovery	RPD	Percent Recovery	RPD
1,1-Dichloroethene	25	102	2	78-122	20
Trichloroethene	25	109	<1	80-128	20
Chlorobenzene	25	97	1	66-120	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

## QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9710197  
INSTRUMENT: H  
MATRIX: SOIL

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			Fluorobenzene
10/21/97	BL-1-2	01	110
10/21/97	BL-1-12	02	102
10/22/97	BL-2-1.5	03	114
10/22/97	BL-2-13	04	101
QC Limits:			70-130

DATE ANALYZED: 10/21/97  
SAMPLE SPIKED: LCS  
INSTRUMENT: H

## Laboratory Control Sample Recovery

Analyte	Spike Added (ug/kg)	Percent Recovery	RPD	Percent Recovery	RPD
Benzene	100	93	20	70-130	20
Toluene	100	98	11	70-130	20
Ethylbenzene	100	101	18	70-130	20
Total Xylenes	300	103	20	70-130	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

## QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9710197

INSTRUMENT: F

MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			Fluorobenzene
10/24/97	BL-1-W-13	09	98
10/24/97	BL-2-W-14	10	98
QC Limits:			70-130

DATE ANALYZED: 10/24/97

SAMPLE SPIKED: LCS

INSTRUMENT: F

## Laboratory Control Sample Recovery

Analyte	Spike Added (ug/L)	Percent Recovery	RPD	Percent Recovery	RPD
Benzene	100	91	1	70-130	20
Toluene	100	94	1	70-130	20
Ethylbenzene	100	96	1	70-130	20
Total Xylenes	300	99	1	70-130	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

\*\*\* END OF REPORT \*\*\*

1. Client: Soma Corp.  
 Address: 1260 B 45th St.  
Emeraldville, CA 94608  
 Contact: Norman Ozaki  
 Alt. Contact: \_\_\_\_\_

## American Environmental Network

AEN

Page 1 of 1

3440 Vincent Road, Pleasant Hill, CA 94523

Phone (510) 930-9090

FAX (510) 930-0256

## REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

47101977

Lab Job Number:

Lab Destination:

Date Samples Shipped:

Lab Contact:

Date Results Required:

Date Report Required:

Client Phone No.:

Client FAX No.:

Address Report To:

Send Invoice To:

2. Soma

3. \_\_\_\_\_

Send Report To: 1 or 2 (Circle one)Client P.O. No.: \_\_\_\_\_ Client Project I.D. No.: 96-7099Sample Team Member(s) Ben Wills

## ANALYSIS

Lab Number	Client Sample Identification	Air Volume	Date/Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	Comments / Hazards
01A	BL-1-2'		19/4/97 8:30	5 min	lu	1	PVC	
02A	BL-1-12'		9:30			1	PVC	X X X
03A	BL-2-1.5'		10:00			1	Plastic	X X X
04A	BL-2-13'		11:00			1		X X X
05A	BL-3-1'		1:45			1		X
06A	BL-3-9'		2:00			1		X
07A	BL-4-1.5'		11:45			1		
08A	BL-4-7'		12:00			1		X
09A-F	BL-1-W-13'		11:00 water	50 ml	lu	5	Volumetric	X X
10A-F	BL-2-W-14'		11:30 water	50 ml	lu	5	Volumetric	X X
11A-D	BL-3-W-11'		2:30		lu	1	Volumetric	X
12A-D	BL-3-W-11-D		2:35		lu	1	Volumetric	X
13A-D	BL-4-W-8'		1:00		lu	1	Volumetric	X
14AB	Travel Blank					1	Volumetric	X

Relinquished by:  
(Signature)Ben WillsDATE 10-15-97 TIME 11:20Received by:  
(Signature)Rick GilmoreDATE 10-15-97 TIME 11:20Relinquished by:  
(Signature)Rick GilmoreDATE 10-15-97 TIME 17:30Received by:  
(Signature)Chris GilliganDATE 10-15-97 TIME 13:30Relinquished by:  
(Signature)DATE  TIME Received by:  
(Signature)DATE  TIME 

Method of Shipment

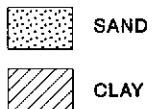
Lab Comments

\*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter  
 4) PVC filter, diam. \_\_\_\_\_ pore size \_\_\_\_\_ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample  
 10) Other \_\_\_\_\_ 11) Other \_\_\_\_\_

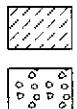
**ATTACHMENT B**

**Boring Logs**

LITHOLOGY			SAMPLE DATA			
Depth (feet)	Graphic Log	Description	Sample No. & Interval	P.I.D. (ppm)		
.....			.....			
.....			.....			
.....			.....			
.....			.....			
5			.....			
.....			.....			
10			.....			
Water level at 13 feet	Water level at 13 feet	3" ASPHALT SANDY SILTY CLAY (CL), dark grayish brown (2.5Y 4/2), dry, medium plasticity, trace amount of fine sand, no odor.	BL-1-2'	0.0		
.....		- Color change to light brown, increased plasticity.	.....			
15			5			
.....			.....			
20			10			
.....			.....			
25			.....			
.....			15			
30			.....			
.....			20			
35			.....			
.....			25			
.....			.....			
.....			30			
.....			.....			
.....			35			
BOTTOM OF BORING AT 16 FEET.						
Drilling date: 10-14-97 Type of rig: Geoprobe Logged by: Ben Wells						
P.I.D. Photoionization Detector ppm Parts per million						



## SAND



SILT



CLAY



## **GRAVEL**

Drilling date: 10-14-97  
Type of rig: Geoprobe  
Logged by: Ben Wells

P.I.D. Photoionization Detector  
ppm Parts per million



**Lithology for Soil Boring BL-1**  
1421 Park Avenue, Emeryville, California

December 1997

96-2099

LITHOLOGY			SAMPLE DATA	
Depth (feet)	Graphic Log	Description	Sample No. & Interval	P.I.D. (ppm)
.....		3" ASPHALT SANDY SILTY CLAY (CL), dark grayish brown (2.5Y 4/2), moist, medium plasticity, trace amount of coarse sand, no odor.	..... ..... BL-2-1.5'	0.0
5			..... 5	
.....			.....	
10			..... 10	
Water level at 14 feet	▽	SILTY CLAY (OH), black (5Y 2.5/1), soft, moist, high plasticity, high organic content, no odor.	..... BL-2-13'	0.0
15			..... 15	
.....		BOTTOM OF BORING AT 16 FEET.	.....	
20			..... 20	
.....			.....	
25			..... 25	
.....			.....	
30			..... 30	
.....			.....	
35			..... 35	



SAND



SILT



CLAY



GRAVEL

Drilling date: 10-14-97

Type of rig: Geoprobe

Logged by: Ben Wells

P.I.D. Photoionization Detector  
ppm Parts per million

Lithology for Soil Boring BL-2  
1421 Park Avenue, Emeryville, California

December 1997

96-2099

## LITHOLOGY

Depth (feet)	Graphic Log	Description	Sample No. & Interval	P.I.D. (ppm)
.....		3" ASPHALT SANDY SILTY CLAY (CL), black, moist, medium plasticity, no odor.	..... BL-3-1'	0.0
5			.....	.....
.....			.....	.....
Water level at 11 feet ▽		SILTY CLAY (OL), dark olive, moist, low plasticity, high organic content, no odor.	..... BL-3-9' 10	0.0
10			.....	.....
15			.....	.....
20		BOTTOM OF BORING AT 20 FEET.	..... 20	.....
.....			.....	.....
.....			.....	.....
25			..... 25	.....
.....			.....	.....
30			..... 30	.....
.....			.....	.....
35			..... 35	.....

 SAND

 SILT

Drilling date: 10-14-97

Type of rig: Geoprobe

Logged by: Ben Wells

 CLAY

 GRAVEL

P.I.D. Photoionization Detector  
ppm Parts per million



Lithology for Soil Boring BL-3  
1421 Park Avenue, Emeryville, California

December 1997

96-2099

## LITHOLOGY

Depth (feet)	Graphic Log	Description	Sample No. & Interval	P.I.D. (ppm)
.....		3" ASPHALT	.....	
.....		SANDY SILTY CLAY (CL), dark grayish black, moist, medium plasticity, minor amount of coarse sand, no odor.	..... ..... BL-4-1.5'	0.0
5		- Color change to light brown, dry.	5	
.....			.....	
10	▽ Water level at 8 feet		..... BL-4-7'	0.0
.....		- Color change to black, moist.	.....	
15			..... ..... 15	
.....		SILTY CLAY (OL), black (5Y2.5.1), moist, low plasticity, high organic content, no odor.	.....	
20		BOTTOM OF BORING AT 20 FEET.	20	
.....			.....	
.....			.....	
25			25	
.....			.....	
30			30	
.....			.....	
35			35	

 SAND

 SILT

Drilling date: 10-14-97

Type of rig: Geoprobe

Logged by: Ben Wells

 CLAY

 GRAVEL

P.I.D. Photoionization Detector

ppm Parts per million



Lithology for Soil Boring BL-4  
1421 Park Avenue, Emeryville, California

December 1997

96-2099